

FUJITSU Software
Infrastructure Manager V2.3
Infrastructure Manager for PRIMEFLEX V2.3



REST API Reference Manual

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Preface

Purpose

This manual describes the APIs of FUJITSU Software Infrastructure Manager (hereafter referred to as "ISM") and FUJITSU Software Infrastructure Manager for PRIMEFLEX (hereafter referred to as "ISM for PRIMEFLEX").

This product provides APIs that work in link with your own self-created applications. The APIs in this product are REST (Representational State Transfer) interfaces that communicate with a TLS (Transport Layer Security) protocol and are implemented by sending and receiving data in JSON (JavaScript Object Notation) format.



Note

"Infrastructure Manager for PRIMEFLEX" is available only in Japan, APAC, and North America.

Product Manuals

Manual Name	Description
FUJITSU Software Infrastructure Manager V2.3 Infrastructure Manager for PRIMEFLEX V2.3 User's Manual	This manual describes the functions of this product, the installation procedure, and procedures for operation. It allows you to quickly grasp all functions and all operations of this product. In the manual, it is written as "User's Manual."
FUJITSU Software Infrastructure Manager V2.3 Infrastructure Manager for PRIMEFLEX V2.3 Operating Procedures	This manual describes the installation procedure, and usages for the operations of this product. In the manual, it is written as "Operating Procedures."
FUJITSU Software Infrastructure Manager V2.3 Infrastructure Manager for PRIMEFLEX V2.3 REST API Reference Manual	This manual describes how to use required API, samples and parameter information when cooperating application created by customer with ISM. In the manual, it is written as "REST API Reference Manual."
FUJITSU Software Infrastructure Manager V2.3 Infrastructure Manager for PRIMEFLEX V2.3 Messages	This manual describes each type of message output when using ISM and ISM for PRIMEFLEX, and the actions to take for these messages. In the manual, it is written as "ISM Messages."
FUJITSU Software Infrastructure Manager for PRIMEFLEX V2.3 Messages	This manual describes each type of message output when using ISM for PRIMEFLEX and the actions to take for these messages. In the manual, it is written as "ISM for PRIMEFLEX Messages."
FUJITSU Software Infrastructure Manager V2.3 Infrastructure Manager for PRIMEFLEX V2.3 Items for Profile Settings (for Profile Management)	This manual describes detailed information for the items set when creating profiles for managed devices. In the manual it is written as "Items for Profile Settings (for Profile Management)."
FUJITSU Software Infrastructure Manager for PRIMEFLEX V2.3 Parameter List	This manual describes the automatic setting contents for Cluster Creation and Cluster Expansion, which are functions available for ISM for PRIMEFLEX, and Cluster Definition Parameters used for these functions. In the manual, it is written as "ISM for PRIMEFLEX Parameter List."
FUJITSU Software Infrastructure Manager V2.3 Infrastructure Manager for PRIMEFLEX V2.3 Glossary	The glossary describes definitions of the terminology that you require to understand for using this product. In the manual, it is written as "Glossary."

Manual Name	Description
FUJITSU Software Infrastructure Manager Plug-in for Microsoft System Center Operations Manager 1.2 Setup Guide (Windows Server 2012 R2 version)	This manual describes the precautions and reference information for ISM Plug-in for Microsoft System Center Operations Manager 1.2 (Windows Server 2012 R2 version), from installation to operation.
FUJITSU Software Infrastructure Manager Plug-in for Microsoft System Center Virtual Machine Manager 1.2 Setup Guide (Windows Server 2012 R2 version)	This manual describes the precautions and reference information for ISM Plug-in for Microsoft System Center Virtual Machine Manager 1.2 (Windows Server 2012 R2 version), from installation to operation.
FUJITSU Software Infrastructure Manager Plug-in for Microsoft System Center Operations Manager 1.2 Setup Guide (Windows Server 2016 / 2019 version)	This manual describes the precautions and reference information for ISM Plug-in for Microsoft System Center Operations Manager 1.2 (Windows Server 2016 / 2019 version), from installation to operation.
FUJITSU Software Infrastructure Manager Plug-in for Microsoft System Center Virtual Machine Manager 1.2 Setup Guide (Windows Server 2016 / 2019 version)	This manual describes the precautions and reference information for ISM Plug-in for Microsoft System Center Virtual Machine Manager 1.2 (Windows Server 2016 / 2019 version), from installation to operation.
FUJITSU Software Infrastructure Manager Plug-in for VMware vCenter Server 1.2 Setup Guide (vCenter Server 6.0 version)	This manual describes the precautions and reference information for ISM Plug-in for VMware vCenter Server 1.2 (vCenter Server 6.0 version), from installation to operation.
FUJITSU Software Infrastructure Manager Plug-in for VMware vCenter Server Appliance 1.2 Setup Guide (vCenter Server Appliance 6.0 version)	This manual describes the precautions and reference information for ISM Plug-in for VMware vCenter Server 1.2 (vCenter Server Appliance 6.0 version), from installation to operation.
FUJITSU Software Infrastructure Manager Plug-in for VMware vCenter Server 1.2 Setup Guide (vCenter Server 6.5/6.7 version)	This manual describes the precautions and reference information for ISM Plug-in for VMware vCenter Server 1.2 (vCenter Server 6.5/6.7 version), from installation to operation.
FUJITSU Software Infrastructure Manager Plug-in for VMware vCenter Server Appliance 1.2 Setup Guide (vCenter Server Appliance 6.5/6.7 version)	This manual describes the precautions and reference information for ISM Plug-in for VMware vCenter Server 1.2 (vCenter Server Appliance 6.5/6.7 version), from installation to operation.
FUJITSU Software Infrastructure Manager Management Pack for VMware vRealize Operations 1.0 Setup Guide	This manual describes the precautions and reference information for ISM Management Pack for VMware vRealize Operations 1.0, from installation to operation.

Together with the manuals mentioned above, you can also refer to the latest information about ISM by contacting your local Fujitsu customer service partner.

For the respective hardware products for management, refer to the manuals of the relevant hardware.

For PRIMERGY, refer to "ServerView Suite ServerBooks" or the manual pages for PRIMERGY.

<http://manuals.ts.fujitsu.com>

Intended Readers

This manual is intended for system administrators, network administrators, facility administrators, and service technicians who have sufficient knowledge of hardware and software.

Notation in this Manual

Notation

Keyboard

Keystrokes that represent nonprintable characters are displayed as key icons such as [Enter] or [F1]. For example, [Enter] means press key labeled "Enter"; [Ctrl]+[B] means hold down the key labeled "Ctrl" or "Control" and then press the B key.

Symbols

Items that require special caution are preceded by the following symbols.



Describes the content of an important subject.



Describes an item that requires your attention.

Variables: <xxx>

Represents variables that require replacement by numerical values or text strings in accordance with the environment you are using.

Example: <IP address>

Abbreviation

This document may use the following abbreviations.

Official name	Abbreviation	
Microsoft(R) Windows Server(R) 2019 Datacenter	Windows Server 2019 Datacenter	Windows Server 2019
Microsoft(R) Windows Server(R) 2019 Standard	Windows Server 2019 Standard	
Microsoft(R) Windows Server(R) 2019 Essentials	Windows Server 2019 Essentials	
Microsoft(R) Windows Server(R) 2016 Datacenter	Windows Server 2016 Datacenter	Windows Server 2016
Microsoft(R) Windows Server(R) 2016 Standard	Windows Server 2016 Standard	
Microsoft(R) Windows Server(R) 2016 Essentials	Windows Server 2016 Essentials	
Microsoft(R) Windows Server(R) 2012 R2 Datacenter	Windows Server 2012 R2 Datacenter	Windows Server 2012 R2
Microsoft(R) Windows Server(R) 2012 R2 Standard	Windows Server 2012 R2 Standard	
Microsoft(R) Windows Server(R) 2012 R2 Essentials	Windows Server 2012 R2 Essentials	
Microsoft(R) Windows Server(R) 2012 Datacenter	Windows Server 2012 Datacenter	Windows Server 2012
Microsoft(R) Windows Server(R) 2012 Standard	Windows Server 2012 Standard	
Microsoft(R) Windows Server(R) 2012 Essentials	Windows Server 2012 Essentials	
Microsoft(R) Windows Server(R) 2008 R2 Datacenter	Windows Server 2008 R2 Datacenter	Windows Server 2008 R2
Microsoft(R) Windows Server(R) 2008 R2 Enterprise	Windows Server 2008 R2 Enterprise	
Microsoft(R) Windows Server(R) 2008 R2 Standard	Windows Server 2008 R2 Standard	
Red Hat Enterprise Linux 7.5 (for Intel64)	RHEL 7.5	Red Hat Enterprise Linux

Official name	Abbreviation	
Red Hat Enterprise Linux 7.4 (for Intel64)	RHEL 7.4	or Linux
Red Hat Enterprise Linux 7.3 (for Intel64)	RHEL 7.3	
Red Hat Enterprise Linux 7.2 (for Intel64)	RHEL 7.2	
Red Hat Enterprise Linux 7.1 (for Intel64)	RHEL 7.1	
Red Hat Enterprise Linux 6.10 (for Intel64)	RHEL 6.10 (Intel64)	
Red Hat Enterprise Linux 6.10 (for x86)	RHEL 6.10 (x86)	
Red Hat Enterprise Linux 6.9 (for Intel64)	RHEL 6.9 (Intel64)	
Red Hat Enterprise Linux 6.9 (for x86)	RHEL 6.9 (x86)	
Red Hat Enterprise Linux 6.8 (for Intel64)	RHEL 6.8 (Intel64)	
Red Hat Enterprise Linux 6.8 (for x86)	RHEL 6.8 (x86)	
Red Hat Enterprise Linux 6.7 (for Intel64)	RHEL 6.7 (Intel64)	
Red Hat Enterprise Linux 6.7 (for x86)	RHEL 6.7 (x86)	
Red Hat Enterprise Linux 6.6 (for Intel64)	RHEL 6.6 (Intel64)	
Red Hat Enterprise Linux 6.6 (for x86)	RHEL 6.6 (x86)	
SUSE Linux Enterprise Server 15 (for AMD64 & Intel64)	SUSE 15 (AMD64) SUSE 15 (Intel64) or SLES 15 (AMD64) SLES 15 (Intel64)	SUSE Linux Enterprise Server or Linux
SUSE Linux Enterprise Server 12 SP3 (for AMD64 & Intel64)	SUSE 12 SP3 (AMD64) SUSE 12 SP3 (Intel64) or SLES 12 SP3 (AMD64) SLES 12 SP3 (Intel64)	
SUSE Linux Enterprise Server 12 SP2 (for AMD64 & Intel64)	SUSE 12 SP2 (AMD64) SUSE 12 SP2 (Intel64) or SLES 12 SP2 (AMD64) SLES 12 SP2 (Intel64)	
SUSE Linux Enterprise Server 12 SP1 (for AMD64 & Intel64)	SUSE 12 SP1 (AMD64) SUSE 12 SP1 (Intel64) or SLES 12 SP1 (AMD64) SLES 12 SP1 (Intel64)	
SUSE Linux Enterprise Server 12 (for AMD64 & Intel64)	SUSE 12 (AMD64) SUSE 12 (Intel64) or SLES 12 (AMD64) SLES 12 (Intel64)	
SUSE Linux Enterprise Server 11 SP4 (for AMD64 & Intel64)	SUSE 11 SP4 (AMD64) SUSE 11 SP4 (Intel64) or SLES 11 SP4 (AMD64) SLES 11 SP4(Intel64)	
SUSE Linux Enterprise Server 11 SP4 (for x86)	SUSE 11 SP4 (x86) or SLES 11 SP4 (x86)	

Official name	Abbreviation	
VMware(R) vSphere™ ESXi 6.7	VMware ESXi 6.7	VMware ESXi
VMware(R) vSphere™ ESXi 6.5	VMware ESXi 6.5	
VMware(R) vSphere™ ESXi 6.0	VMware ESXi 6.0	
VMware(R) vSphere™ ESXi 5.5	VMware ESXi 5.5	
VMware Virtual SAN	vSAN	

Terms

For the major terms and abbreviations used in this manual, refer to "Glossary."

High Risk Activity

The Customer acknowledges and agrees that the Product is designed, developed and manufactured as contemplated for general use, including without limitation, general office use, personal use, household use, and ordinary industrial use, but is not designed, developed and manufactured as contemplated for use accompanying fatal risks or dangers that, unless extremely high safety is secured, could lead directly to death, personal injury, severe physical damage or other loss (hereinafter "High Safety Required Use"), including without limitation, nuclear reaction control in nuclear facility, aircraft flight control, air traffic control, mass transport control, medical life support system, missile launch control in weapon system. The Customer, shall not use the Product without securing the sufficient safety required for the High Safety Required Use. In addition, Fujitsu (or other affiliate's name) shall not be liable against the Customer and/or any third party for any claims or damages arising in connection with the High Safety Required Use of the Product.

To Use This Product Safely

This document contains important information required for using this product safely and correctly. Read this manual carefully before using the product. In addition, to use the product safely, the customer is required to understand the related products (hardware and software) before using the product. Be sure to use the product by following the notes on the related products. Be sure to keep this manual in a safe and convenient location for quick reference during use of the product.

Modifications

The customer may not modify this software or perform reverse engineering involving decompiling or disassembly.

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Modification History

Edition	Publication Date	Section		Modification Overview
01	August 2018	-	-	First edition
02	October 2018	4.2.2 List Retrieval for License Information	[Response Parameter]	Added TrialI4P and TrialDC in the description for Grade (ISM 2.3.0.b or later)
		4.3.1 Node Registration	[Node Type]	Modified Node Type and Model for Brocade VCS Fabric and Brocade VDX Switch
		4.4.2 Retrieving Results of Manual Node Discovery	[Response Parameter]	Added the following parameter (ISM 2.3.0.b or later) - Registered - NodeId and NodeName under NodeSubStatus
		4.6.4 Registration of OS Information	[Request Parameter]	Added the following OS version number (ISM 2.3.0.b or later) - RedHat: 6.10 - SUSELinuxEnterprise: 15 - Windows: 2019
		4.6.7 Updating of OS Information	[Request Parameter]	Added the following OS version number (ISM 2.3.0.b or later) RedHat: 6.10 SUSELinuxEnterprise: 15 - Windows: 2019
		4.10 Profile Management	-	Modified the description of Switch-VDX
		4.10.4 List Retrieval for Profiles	[Format] [Query Parameter]	Added the following parameter (ISM 2.3.0.b or later) - assignednodeid
		4.10.29 DVD Import	[Request Parameter]	Modified the descriptions for MediaType and DeleteFtpResource Added the following parameter (ISM 2.3.0.b or later) - FilePath2
		4.10.31 List Retrieval for Registered Repositories	[Response Parameter]	Modified the descriptions for FileName, MediaType and FileSize

Edition	Publication Date	Section		Modification Overview
				Added the following parameters (ISM 2.3.0.b or later) - FileName2 and FileSize2
		4.10.44 List Retrieval of Profile Information for Nodes		New addition (ISM 2.3.0.b or later)
		Appendix A List of Privileges for Each API	-	Added the following URI (ISM 2.3.0.b or later) /profiles/profiles/nodes

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Chapter 1 Overview

This chapter provides an overview of the APIs in this product.

1.1 Outline

This product provides APIs that work in link with your own self-created applications.

The APIs in this product are REST (Representational State Transfer) interfaces that communicate with a TLS (Transport Layer Security) protocol and are implemented by sending and receiving data in JSON (JavaScript Object Notation) format.

In this product, the following REST API body style formats are available:

- Registration, Deletion, Retrieval, and Update
Denotes the API that controls resources (information) such as nodes, users, etc.
- Process execution
Denotes the API that executes a specific process, such as login or firmware update.

1.2 Handled Resources

This product has the following resources:

Category	Resource name	Description
User	/users	User and authentication information
	/usergroups	User group information
Node	/nodes	Node information
	/networks/nodes	
	/resources/nodes	
	/nodes/profiles	
	/nodegroups	Node group information
OS	/nodes/{nodeid}/os	Node OS information
Virtual node	/resources	Virtual resource information
	/resources/virtualmachines	Virtual machine information
	/resources/virtualswitches	Virtual switch information
	/resources/virtualrouters	Virtual router information
Installation location	/datacenters	Datacenter information
	/floors	Floor information
	/racks	Rack information
Event	/event	Event information (ISM Operation Log, Audit Log, and SNMP Trap)
Task	/tasks	Task information
Network Management	/networks	Network Management information
Profile	/profiles/profiles	Profile definition and profile definition group information
	/profiles/policies	Policy and policy groups information
	/profiles/categories	Device category information

Category	Resource name	Description
	/profiles/backups	Hardware settings backup information
System settings	/system	System settings information
	/system/licenses	License information
	/system/settings	ISM settings information
	/system/settings/repositories	ISM repository information
ISM VA	/ismva	ISM-VA information

1.3 Prerequisites

For using the APIs in this product, an environment that can use the following functions is required:

- Receiving responses and sending requests based on HTTP1.1 in the TLS protocol
- Using X.509 CA certificates in PEM format for TLS protocol transmissions
- Freely specifiable HTTP methods and HTTP headers
- JSON interpretation and creation
- URL encoding and decoding (percent encoding/decoding)
- AES-256-CBC encryption/decryption and BASE64 coding/decryption (example: OpenSSL)

Chapter 2 Common Specifications

This chapter describes the common specifications for using the REST API in this product.

- [2.1 Protocol](#)
- [2.2 HTTP Header](#)
- [2.3 Status Codes](#)
- [2.4 Encryption](#)
- [2.5 Authentication](#)
- [2.6 Resource ID](#)

2.1 Protocol

This section describes the REST API protocol.

2.1.1 Communication Method

Communicates in HTTPS.

2.1.2 Request Data

Request data have the following structure:

Method

The available method types are as follows:

- GET
- POST
- PATCH
- DELETE

URL

The URL specifications are as follows:

```
https://<IP address or server FQDN>:<port number>/ism/api/v2/<resource> [?<query parameter>]
```

- Port number

Specify 25566.

When you want to change the port number, refer to "User's Manual."

- Resource

Specify the resource that indicates the API type. For details, refer to "[Chapter 4 API Reference](#)."

- Query parameters

Only when using the GET method, specify query parameters in the following format:

```
Parameter name1 = parameter value1& parameter name2 = parameter value2&...
```

- Connect each API parameter name with a parameter value using an equal sign (=).
- Set the parameter values to URL-encoded values (percent encoding).
- When specifying multiple parameters, connect them with ampersand (&) signs.

HTTP header (request header)

Specify character code type, API version, and session ID, etc. in the request header.

For details, refer to "[2.2.1 Request Header](#)."

HTTP body (request body)

When using the REST API, specify values for the following key name in the HTTP body:

Key name	Format	Content
IsmBody	Object	Request parameter of each API

Example:

```
{
  "IsmBody": {
    <Request parameter of each API>
  }
}
```



Note

When there are no API parameters

Depending on the API, there are no parameters to be specified under IsmBody. In such cases, it is not required to specify the IsmBody key itself.

Depending on the tools you use for execution of REST, HTTP body (request body) in POST cannot be omitted. In that case, specify the HTTP body with empty.

2.1.3 Response Data

Response data have the following structure:

HTTP header (response header)

The processing result of a request (normal or error), API version, session ID and similar items are returned in the response header.

For details, refer to "[2.2.2 Response Header](#)."

HTTP body (response body)

As the result of REST API, the following key names and values are returned in the HTTP body:

Key name	Format	Content
IsmBody	Object	API processing results API processing results are returned. For details, refer to " Chapter 4 API Reference ."
MessageInfo	Array	Message information Errors, warnings, and notification messages regarding API processing are returned. If there is no information available, only the key names are returned.
SchemaType	Character string	The file name containing the JSON schema (JSON schema file name) that displays the entire HTTP body structure is returned.

Example:

```
{
  "IsmBody": {
    <output data of each API service>
  }
}
```

```

    },
    "MessageInfo": [],
    "SchemaType": " https://<IP address or server FQDN>:<port number>/ism/schema/v2/<resource>/<JSON
schema file name>"
}

```

SchemaType

The following is the structure returned in SchemaType:

```
https://<ID address or server FQDN>:<port number>/ism/schema/v2/<resource>/<JSON schema file name>
```

- JSON schema file name

The following shows how the JSON schema files are named:

<Resource name><Method name><-Out-(Version number)>.json

- Resource name

Unique name for each API resource

- Method name

Either GET, POST, PATCH, or DELETE

- Version number

Version number of the API

Example:

```
"SchemaType": "https://192.168.1.2:25566/ism/schema/v2/Nodes/Nodes-GET-Out.0.0.1.json"
```



The JSON schema clearly states the data input/output format of the API in use, and was made to be usable within user-created applications.

MessageInfo

The following is the structure of the elements in the array returned in MessageInfo:

Key name	Format	Content
MessageId	Character string	Message ID A unique ID is returned for each message.
API	Character string	API type The API type is returned in the format "Method name URI."
Message	Character string	API processing results API processing results are returned as response parameters.
Timestamp	Character string	Time stamp information Information on the time stamp of the message is returned.

2.2 HTTP Header

2.2.1 Request Header

When requesting the REST API, specify the HTTP header as follows.

Table 2.1 List of request headers

Header name	Content	Description
Content-Type	application/JSON;charset=UTF-8	These contents must always be specified.
X-FJ-Ism-Version	2.0.0	Specify the version to be used. If omitted, the latest version is used.
X-Ism-Authorization	Session ID	Specify an ID when using session authentication. For details on session authentication, refer to " 2.5.1 Session Authentication ."
Authorization	ISM authentication character string	When using one-time authentication, specify a character string. For details on one-time authentication, refer to " 2.5.2 One-Time Authentication ."
Cookie	X-Ism-Authorization = session ID	The session ID stored in the client's cookie is specified.
If-Match	ETag value that was returned in the response header the last time that the REST API was executed	Specify this when carrying out exclusive control by ETags. Using ETags is recommended for using REST APIs in a given sequence. If omitted, ETag exclusion is not executed. For details, refer to " 2.2.3 Exclusive Control by Using Headers ."

Example:

```
Content-Type: application/JSON; charset=UTF-8
X-FJ-Ism-Version: 2.0.0
X-Ism-Authorization: xxxxxxxxxxxxxxxx
Authorization: ISM xxxxxxxxxxxxxxxx
If-Match: "686897696a7c876b7e"
```

2.2.2 Response Header

The following HTTP headers are returned in the REST API response.

Table 2.2 List of response headers

Header name	Content	Description
HTTP/1.1	A status code is set. Status code examples: - Normal: 200 OK - When there is an error: 400 Bad Request, etc.	Status line This is always returned without fail. For details regarding the status codes, refer to " 2.3 Status Codes ."
Content-Type	application/JSON; charset=UTF-8	This is always returned without fail.
Allow	One of the following is set: GET, POST, PATCH, or DELETE	The method that is available in the specified URI is returned.
X-FJ-Ism-Version	2.0.0	The used version is returned.
X-Ism-Authorization	Session ID	The session ID for session authentication is returned. For details on session authentication, refer to " 2.5.1 Session Authentication ."

Header name	Content	Description
Set-Cookie	X-Ism-Authorization = session ID; Secure; Httponly	Returned when the session ID in session authentication is set in cookies.
ETag	ETag value	Specify this when carrying out exclusive control by ETags. Using ETags is recommended for using REST APIs in a given sequence. If omitted, ETag exclusion is not executed. For details, refer to " 2.2.3 Exclusive Control by Using Headers ."

Example:

```
HTTP/1.1 200 OK
Content-Type: application/JSON; charset=UTF-8
Allow: GET,DELETE
X-FJ-Ism-Version:2.0.0
X-Ism-Authorization: xxxxxxxxxxxxxxxx
```

2.2.3 Exclusive Control by Using Headers

For exclusive control of individual REST APIs, use ETags in the HTTP response header.

ETags are set to unique values to connect each resource with the corresponding resource version.

When you execute update processing for resources, you can control whether processing of the REST API is conducted by comparing the ETags stored within ISM with the ETag values received last time the resources were accessed by setting these last ETag values for If-Match in the request header.

Relation between ETag values set for If-Match and internally stored ETag values	Processing
Matching	Processing is executed.
Not matching	Processing is not executed, and a status code set to 412 is returned.

For details on usage, refer to "[Chapter 3 Usage](#)."

2.3 Status Codes

Whether REST API processing ended normally or in error is returned as the HTTP protocol status code in the response header status line.

Classification	Code	Code	Status	Description
Success	2xx	200	OK	OK Results of processing are returned in the HTTP response body.
		201	Created	Generated A new resource was generated.
Error	4xx	400	Bad Request	Invalid request Due to an invalid request, there was a processing error.
		401	Unauthorized	No permission Your request is not authenticated.

Classification	Code	Code	Status	Description
		404	Not Found	Not found There is no API that matches the URL.
		405	Method Not Allowed	Prohibited method The method is not supported by the resource shown in the URL.
		412	Precondition failed	Failure due to preconditions (Failure due to ETag exclusive control)
Connection not available	5xx	500	Internal Server Error	Internal error An internal ISM error occurred during processing.
		501	Not Implemented	Presently not supported Functions required for the request are not supported.
		503	Service Unavailable	Service unavailable The request could not be processed due to a temporary overload, or because maintenance is in progress.

2.4 Encryption

For specifying a password for a REST API query parameter or request parameter, set encrypted character strings as passwords for each API according to the following procedure.

With the following command examples for Linux for reference, execute password encryption.

```
$ echo -n <password> | openssl enc -aes-256-cbc -e -base64 -pass pass:<server IP address> -A
```

Server IP address

Use the IP address of the ISM-VA as the encryption key.

The following shows how to use IP addresses as keys.

- For IPv4

Omit the first 0 in the numerical value of the IP address.

Example:

OK: 10.26.144.10

Wrong: 010.026.144.010

- For IPv6

Do not omit any part of the IP address numerical value.

Use lowercase for letters.

Example:

OK: 2001:0db8:bd05:01d2:288a:1fc0:0001:10ee

Wrong - 2001:db8:bd05:1d2:288a:1fc0:1:10ee

Wrong: 2001:db8::1234:0:0:9abc

Wrong: 2001:db8::9abc



Note

Other methods of encryption

When encrypting by methods other than the openssl command, confirm if the resulting encrypted password remains the same password after decrypting it with the openssl command.

2.5 Authentication

For using the ISM APIs, an authentication operation is required.

There are two kinds of authentication as follows:

- [2.5.1 Session Authentication](#)
- [2.5.2 One-Time Authentication](#)

2.5.1 Session Authentication

This is used when issuing multiple APIs consecutively.

1. Encrypt the passwords following the procedure in "[2.4 Encryption](#)."
2. Retrieve a session ID as described in "[4.1.1 Login \(Session Authentication\)](#)."

The session ID is returned to the following location:

Return location	Return key
Response header	X-Ism-Authorization
Response body	Auth key within IsmBody

3. Specify the session ID returned in Step 2 in the request header (X-Ism-Authorization) to issue an API.
4. Log out.

When access has ended, specify the session ID in the request header (X-Ism-Authorization) and issue a logout API.



Note

- The following are precautions for when login fails:
 - The session termination time, locking threshold value and locking time are set in the security policy.
 - If the number of repeated failures exceeds the locking threshold value, the respective user cannot log in for the duration of the locking time.
 - After the set locking time has passed, the failure count returns to 0.
- After logging in, when the session termination time has elapsed without any operation after the last access, the user is logged out automatically.
- The same user can log in multiple times.

2.5.2 One-Time Authentication

The API can be issued easily by including both the login and logout operations in one API issuance.

1. Encrypt the character strings used for the user name/password according to "[2.4 Encryption](#)."

```
<User name>:<password>
```


2. Specify the character string encrypted in Step 1 in the request header (Authorization) to issue an API.

Example of HTTP header:

```
Authorization:ISM <Encrypted character string>
```

Note

- As login and logout processing is carried out internally, performance becomes slower when executing multiple APIs than with session authentication.
- The following are precautions for when authentication fails:
 - The session termination time, locking threshold value and locking time are set in the security policy.
 - If the number of repeated failures exceeds the locking threshold value, the respective user cannot log in for the duration of the locking time.
 - After the set locking time has passed, the failure count returns to 0.
- After logging in, when the session termination time has elapsed without any operation after the last access, the user is logged out automatically.

2.6 Resource ID

In this product, each resource is managed by ID. When executing API, there are situations when it is required to specify the resource ID.

2.6.1 Retrieving the Resource ID

The Resource ID used in the product and the REST API retrieving the resource ID are displayed below.

Resource ID	Parameter	REST API	Reference
User ID	UserId	GET /users	4.1.4 List Retrieval for Users
User Group ID	UserGroupId	GET /usergroups	4.1.9 List Retrieval for User Groups
Node ID	NodeId	GET /nodes	4.3.2 List Retrieval for Nodes
Rack ID	RackId	GET /racks	4.3.7 List Retrieval for Racks
Floor ID	FloorId	GET /floors	4.3.12 List Retrieval for Floors
Datacenter ID	DataCenterId	GET /datacenters	4.3.17 List Retrieval for Datacenters
Node Group ID	NodeGroupId	GET /nodegroups	4.3.22 List Retrieval for Node Groups
Account ID	AccountId	GET /nodes/{nodeid}/accounts	4.3.28 List Retrieval for Accounts
Action ID	ActionId	GET /event/actions	4.8.2 List Retrieval for Action Settings
Alarm Settings ID	AlarmId	GET /event/alarms	4.8.6 List Retrieval for Alarm Settings
Definition ID for Setting of Power Capping	CappingId	GET /nodes/powercapping	4.14.2 List Retrieval for Definitions in the Settings for Power Capping
Category ID	CategoryId	GET /profiles/categories	4.10.1 List Retrieval for Profile Categories

Resource ID	Parameter	REST API	Reference
Cloud Management Software ID	CmsId	GET /system/settings/cms	4.18.3 List Retrieval for Cloud Management Softwares
Firmware ID	FirmwareId	GET /system/settings/firmware/list	4.11.5 List Retrieval for Firmware
Policy Group ID	PolicyGroupId	GET /profiles/policies/groups	4.10.23 List Retrieval for Policy Groups
Profile Group ID	ProfileGroupId	GET /profiles/profiles/groups	4.10.13 List Retrieval for Profile Groups
Monitor Item ID	ItemId	GET /nodes/monitor/items	4.7.3 Retrieval of Monitoring Settings
Log ID	Id	GET /event/history/audit/show	4.9.3 List Retrieval for Audit Logs
Manual Discovery ID	ManualDiscoveryId	GET /nodes/discovery/manual	4.4.2 Retrieving Results of Manual Node Discovery
Manual Discovery Node ID	ManualNodeId	GET /nodes/discovery/manual	4.4.2 Retrieving Results of Manual Node Discovery
Auto Discovery Node ID	DiscoveredNodeId	GET /nodes/discovery/auto	4.4.4 Retrieving Results of Auto Discovery of Nodes
Policy ID	PolicyId	GET /profiles/policies	4.10.18 List Retrieval for Policies
Profile ID	ProfileId	GET /profiles/profiles	4.10.4 List Retrieval for Profiles
Backup ID	BackupId	GET /profiles/backups	4.10.36 List Retrieval for Registered Backups
Repository ID	RepositoryId	GET /system/settings/firmware/repositories GET /system/settings/repositories/profiles	4.11.4 List Retrieval for Registered Repositories 4.10.31 List Retrieval for Registered Repositories
Task ID	TaskId	GET /tasks	4.16.2 List Retrieval for Tasks
VFAB ID	VfabId	GET /networks/nodes/{nodeid}/vfabs	4.13.15 List Retrieval for VFAB Settings
Virtual Machine ID	VirtualMachineId	GET /resources/virtualmachines	4.6.10 List Retrieval for Virtual Machines
Virtual Switch ID	VirtualSwitchId	GET /resources/virtualswitches GET /networks/virtualswitches	4.6.12 List Retrieval for Virtual Switches 4.13.2 Retrieving Virtual Switch Connection Information from All Nodes
Virtual Router ID	VirtualRouterId	GET /resources/virtualrouters	4.6.14 List Retrieval for Virtual Routers
Storage Pool ID	PoolId	GET /resources/storagepools	4.15.1 List Retrieval for Storage Pools
Cluster ID	ClusterId	GET /resources/clusters	4.15.4 List Retrieval for Clusters

Resource ID	Parameter	REST API	Reference
SNMP Settings Management ID	SNMPServerId	GET /event/snmpmanagers	4.8.12 List Retrieval for SNMP Server Settings Information
Mount ID	MountId	GET /system/settings/shreddirectory	4.18.12 List Retrieval for Shared Directories
Job ID	JobId	GET /system/settings/job/firmwareupdate	4.11.13 List Output of Update Firmware Jobs
Virtual Switch Identification ID	VirtualSwitchInstanceId	GET /resources/virtualswitches	4.6.12 List Retrieval for Virtual Switches

The following displays an example of retrieving the node ID.

By specifying the query parameters in "[4.3.2 List Retrieval for Nodes](#)" you can narrow down the node you want to retrieve.

Retrieve node by specifying node name

If retrieving a node with the node name "Server-1", execute the following REST API.

```
GET /nodes?name=Server-1
```

Retrieve node by specifying node type

If retrieving a node whose node type is "server", execute the following REST API.

For information on node types, refer to [\[Node Type\]](#) in "[4.3.1 Node Registration](#)."

```
GET /nodes?type=server
```

Chapter 3 Usage

This chapter provides examples of how to use the curl command in a Linux environment to call REST APIs.

3.1 Authentication

3.1.1 Preparation

In order to execute https communication, there are the following three usage methods relating to certificate verification with the curl command:

- [When using with a CA certificate created and retrieved after having created a self-signed SSL server certificate with ISM](#)
- [When using with a certificate signed by a certificate authority and registered in ISM](#)
- [When using without regard to certificates, due to conditions such as the environment being under development](#)

When using with a CA certificate created and retrieved after having created a self-signed SSL server certificate with ISM

1. Create a self-signed SSL server certificate.

For information on how to create self-signed SSL certificates, refer to "4.7.4 Creation of Self-signed SSL Server Certificates" in "User's Manual."

2. Retrieve a CA certificate from ISM.

```
$ curl -o /tmp/certificate.crt "https://192.168.1.2:25566/ca.crt" --insecure
```

3. Apply the CA certificate to your environment, or specify and use the CA certificate you retrieved via the --cacert option of the curl command when issuing the REST API.

Example of execution with the --cacert option

```
$ curl "https://192.168.1.2:25566/ism/api/v2/nodes" -X GET --cacert /tmp/certificate.crt  
-H "X-Ism-Authorization: <session id>"
```



Note

Select the --insecure option only when acquiring the CA certificate with this method.

When using with a certificate signed by a certificate authority and registered in ISM

When the certificate is unsatisfactory in some way, such as an intermediate CA certificate or similar, either retrieve a CA certificate from a certificate authority and apply said CA certificate to your environment, in the same way as described in "[When using with a CA certificate created and retrieved after having created a self-signed SSL server certificate with ISM](#)," or alternatively specify and use a CA certificate retrieved with the --cacert option.

When using without regard to certificates, due to conditions such as the environment being under development

By specifying the --insecure option of the curl command when you issue a REST API, you can disable the verification of the certificate.

Example of execution with the --insecure option

```
$ curl "https://192.168.1.2:25566/ism/api/v2/nodes" -X GET --insecure -H "X-Ism-Authorization:  
<session id>"
```



This method is not recommended for environments that will be used long-term or permanently.

3.1.2 Session Authentication

This is used when issuing multiple APIs consecutively.

Issue a login API in advance, and then retrieve a session ID.

Specify the session ID and issue the subsequent API. After issuing the required API(s), issue a logout API.

For the procedure, refer to "[2.5.1 Session Authentication](#)."

3.1.2.1 Examples of execution

Password encryption

Encrypt the password with the method described in "[2.4 Encryption](#)."

```
$ enc_passwd=`echo -n "password123" | openssl enc -aes-256-cbc -e -base64 -pass pass:192.168.1.2`  
$ echo $enc_passwd  
U2FsdGVkX1/F1Rxcsia+3hh1bBhmRD+E8ApWf/fZHWLJz5ZQU6hbsRHN72GnMk8D
```

Login

Retrieve a session ID.

```
$ session_id=`curl "https://192.168.1.2:25566/ism/api/v2/users/login" -X POST -H "Content-Type: application/JSON; charset=UTF-8" --cacert /tmp/certificate.crt -d "{ \"IsmBody\": { \"UserName\" : \"administrator\", \"Password\": \"${enc_passwd}\" }}" -s --include | grep "X-Ism-Authorization" | sed -e 's/X-Ism-Authorization:[ \t]*//' -e 's/[\\r\\n]\\//g`  
$ echo $session_id  
f55f5bf5abd7db99db706fdd27c9d85f
```

API execution

Specify the session ID in the request header and execute the API.

```
$ curl "https://192.168.1.2:25566/ism/api/v2/nodes" -X GET --cacert /tmp/certificate.crt  
-H "X-Ism-Authorization: $session_id" -H "Content-Type: application/JSON; charset=UTF-8"
```

Logout

Specify the session ID in the request header and logout.

```
$ curl "https://192.168.1.2:25566/ism/api/v2/users/logout" -X POST --cacert /tmp/certificate.crt  
-H "X-Ism-Authorization: $session_id" -H "Content-Type: application/JSON; charset=UTF-8"
```

3.1.3 One-Time Authentication

You can include login and logout operations in a single API issuance.

For the procedure, refer to "[2.5.2 One-Time Authentication](#)."

3.1.3.1 Examples of execution

User name and password encryption

```
$ auth=`echo -n "user123:password123" | openssl enc -aes-256-cbc -e -base64 -pass pass:192.168.1.2`  
$ echo $auth  
U2FsdGVkX1/F1Rxcsia+3hh1bBhmRD+E8ApWf/fZHWLJz5ZQU6hbsRHN72GnMk8D
```

Execution of respective API

```
$ curl "https://192.168.1.2:25566/ism/api/v2/nodes?DcId=2&FloorId=3&RackId=4" -X GET --cacert /tmp/certificate.crt -H "Authorization: ISM $auth" -H "Content-Type: application/JSON; charset=UTF-8"
```

3.1.4 Precautions for Use of the curl Command

When you are going to use the curl command, note the following precautions:

- It is recommended to use the --cacert option.
Options such as -k and --insecure can also be used, but make sure before use that the certificate is properly set.
- When writing a URL, enclose it in quotation marks ("").

Because the "&" character is used when specifying the query parameter for the GET method, any URL not enclosed in quotation marks will be interpreted as a Linux command and operations will not work properly.

3.2 Exclusive Control of Individual REST APIs

This section provides examples of exclusive control by using ETags in the HTTP response header.

1. Issue a REST API, and retrieve the value for the ETag in the response header.

Response header example:

```
Content-Type: application/JSON,charset=UTF-8
Allow:GET,DELETE
x-FJ-ism-version:2.0.0
ETag: "686897696a7c876b7e"
```

2. Specify the retrieved ETag value in the request header.

Example of request header when carrying out resource update based on processing result of Step 1:

```
Content-Type: application/JSON,charset=UTF-8
Allow:GET,DELETE
x-FJ-ism-version:2.0.0
If-Match: "686897696a7c876b7e"
```

- When there is no resource update between Steps 1 and 2:

The request is processed.

- When there is a resource update:

The following is returned.

Response header

```
HTTP/1.1 412 Precondition Failed
Content-Type: application/JSON,charset=UTF-8
Allow:GET,DELETE
x-FJ-ism-version:2.0.0
ETag: "347923840f34db4234"
```

HTTP body

```
{
  "SchemaType": " https://{server URL}:{port number}/ism/schema/v2/...",
  "MessageInfo": [
    {
      "Timestamp": "2016-07-30T15:30:45.250Z ",
      "MessageId": "50200003",
      "API": "POST https:// XXX. XXX...",
      "Message": "Etag has updated."
    }
  ]
}
```

```
}
  1,
  "IsmBody": { }
}
```



When there is a resource update between steps 1 and 2 and you want to re-execute the request, execute the steps again from Step 1.

3.3 Registration

Register the resource information. Using the POST method, enter the required parameters into the message body in JSON format.

When registering rack information

```
# curl "https://192.168.1.2:25566/ism/api/v2/racks"
-X POST
--cacert /tmp/certificate.crt
-H "X-Ism-Authorization: $session_id"
-d '{"IsmBody": {"Rack": {"Name": "Rack-1", "Unit": 50, "Width": 700, "Depth": 1000, "Height": 2000, "FloorId": 1, "Angle": 0, "Xposition": 10, "Yposition": 10, "Description": "memo"}}}'
```

Response (JSON)

```
{
  "IsmBody": {
    "Rack": {
      "AlarmStatus": "Normal",
      "Angle": 0,
      "Depth": 1000,
      "Description": " memo",
      "FloorId": 1,
      "Height": 2000,
      "Name": " Rack-1",
      "RackId": 1,
      "Status": "Normal",
      "Unit": 50,
      "UpdateDate": "2016-01-10T14:30:36.222Z",
      "Width": 700,
      "Xposition": 10,
      "Yposition": 10
    }
  },
  "MessageInfo": [],
  "SchemaType": ""
}
```

3.4 Information Retrieval

Retrieve the resource information.

In principle, you should use the GET method to specify the query parameters in the URI.

In some cases, however, the POST method is used. In such cases, enter the parameters into the request body in JSON format.

When retrieving rack information

```
# curl "https://192.168.1.2:25566/ism/api/v2/racks?FloorId=1"
-X GET
--cacert /tmp/certificate.crt
-H "X-Ism-Authorization: $session_id"
```

Response (JSON)

```
{
  "IsmBody": {
    "Racks": [
      {
        "AlarmStatus": "Normal",
        "Angle": 0,
        "Depth": 1000,
        "Description": " memo",
        "FloorId": 1,
        "Height": 2000,
        "Name": "Rack-1",
        "RackId": 1,
        "Status": "Normal",
        "Unit": 50,
        "UpdateDate": "2016-01-10T14:30:36.222Z",
        "Width": 700,
        "Xposition": 10,
        "Yposition": 10
      }
    ]
  },
  "MessageInfo": [],
  "SchemaType": ""
}
```

3.5 Update

Update the resource information. Using the PATCH method, enter the required parameters into the message body in JSON format.

When updating rack information

```
# curl "https://192.168.1.2:25566/ism/api/v2/racks/1"
-X PATCH
--cacert /tmp/certificate.crt
-H "X-Ism-Authorization: $session_id"
-d '{"IsmBody" : {"Rack" : {"Name" : "Rack-1-1", "Unit" : 50, "Width" : 700, "Depth" : 1000, "Height" : 2000, "FloorId" : 1, "Angle" : 0, "Xposition" : 10, "Yposition" : 10, "Description" : "memomemo"}}}'
```

Response (JSON)

```
{
  "IsmBody": {
    "Rack": {
      "AlarmStatus": "Normal",
      "Angle": 0,
      "Depth": 1000,
      "Description": "memomemo",
      "FloorId": 1,
      "Height": 2000,
      "Name": "Rack-1-1",
      "RackId": 1,
      "Status": "Normal",
      "Unit": 50,
      "UpdateDate": "2016-01-10T15:02:59.093Z",
      "Width": 700,
      "Xposition": 10,
      "Yposition": 10
    }
  },
  "MessageInfo": [],
}
```



```
}
  "SchemaType": ""
}
```

3.6 Deletion

For deleting any resource information, use the DELETE method.

When deleting rack information

```
# curl "https://192.168.1.2:25566/ism/api/v2/racks/1"
-X DELETE
--cacert /tmp/certificate.crt
-H "X-Ism-Authorization: $session_id"
```

Response (JSON)

```
{
  "IsmBody": { },
  "MessageInfo": [ ],
  "SchemaType": ""
}
```

3.7 Operation

For executing a specific process for a resource, use the POST method. If parameters need to be specified, enter them in JSON format to the request body with the POST method.

When instructing to retrieve of detailed node information

```
curl "https://192.168.1.2:25566/ism/api/v2/nodes/1/inventory/refresh"
-X POST
--cacert /tmp/certificate.crt
-H "X-Ism-Authorization: $session_id"
```

Response (JSON)

```
{
  "IsmBody": { },
  "MessageInfo": [ ],
  "SchemaType": ""
}
```

3.8 Task

APIs that start processes asynchronously with the display, such as [4.11.1 Starting Update Firmware](#) or [4.10.8 Assigning Profiles to Nodes](#) might return the TaskID in the response body.

For these APIs, you can detect when the process has been completed by checking the API progress information (Status or Result) in [4.16.1 Individual Retrieval of Task](#)."

```
$ curl "https://192.168.1.2:25566/ism/api/v2/tasks/1" -X GET -H "Authorization: ISM \"xxxxxx xxxxx\""
-s -k
```

Chapter 4 API Reference

This chapter provides an overview of the ISM REST API.

The following is the API format as it will be from this point onward:

<Method><Resource>

In the case of constructing an actual URL, refer to "[2.1.2 Request Data](#)."

4.1 User Management

User management includes the following functions:

- User management
- ISM authentication
- User group management

4.1.1 Login (Session Authentication)

[Overview]

Logs in with user session authentication.

[Format]

POST /users/login

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
UserName	string	User Name
Password	string	Password Specify an encrypted password. Refer to " 2.4 Encryption " for encryption method.
SetCookie	string	Cookie Settings Specifies whether or not a Cookie setting response header is returned. <ul style="list-style-type: none">- Enable: Returns Cookie setting response header- Disable: Does not return Cookie setting response header When the key is omitted or when the setting value is empty (""), the Cookie settings will not be executed. With this configuration, when login succeeds, it outputs session ID in the response header for Cookie setting.

[Response Parameter]

Parameter	Type	Description
Auth	string	Session ID The session ID retrieved after login is output.
SetCookie	string	Cookie Settings The same content as that of the request parameter is output.
UserId	string	User ID The user ID of the user that logged in is output.
MessageId	string	Login Message ID The message ID corresponding to the notification message at the time of login.
Message	string	Login Message The notification message at the time of login.

[Precautions]

- The following are precautions for when login fails:
 - With consecutive failures, one cannot log in for a certain time. The threshold value and the time duration that the user cannot log in are specified by the security policy.
 - After the set amount of time has passed, the failure count will return to 0.
 - You cannot login when the password is no longer valid. Check the detailed user information.
- After log in, if a certain time has elapsed without any operation after the last access, it is automatically logged off. The set time is specified in the security policy.
- When SetCookie is specified, response header is described as follows:
Response Header: "Set-Cookie: X-Ism-Authorization = session ID; secure"
- The login message is output to the ISM log, however, the following message is notified as a reference in the results which call up API.

ID	Content
30061903	Password is no longer valid. Change the password immediately.
30061904	The password will soon be invalid. Change your password.
30061905	The default password has not been changed. Change your password.

4.1.2 Logout (Session Authentication)

[Overview]

Logs out the user.

[Format]

```
POST /users/logout
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

None

[Precautions]

- Specify session ID in http header as follows:

X-Ism-Authentication:Session ID

4.1.3 User Registration

[Overview]

Registers ISM user.

[Format]

POST /users

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
UserName	string	User Name Contains the following restrictions: <ul style="list-style-type: none">- Max length: 32- Half-width alphanumeric characters- Numbers, letters (Upper and lower cases), underscore, \$, period and hyphen can be used.- Cannot begin with "-", can only use "\$" at the end.
Password	string	Password Specify an encrypted password. Refer to " 2.4 Encryption " for encryption method. In addition, specify an encrypted character string whose decrypted result is 32 characters or less. Also, you can use Japanese language for a decrypted password.
UserRoles	array(string)	List of User Role Information Specify a role to be specified to a user from the following ID: <ul style="list-style-type: none">- Administrator- Operator- Monitor More than one can be specified but the highest role will be added.
UserGroupId	string	User Group ID Specify a user group ID to the group which the user belongs to.
Language	string	Classification of Language

Parameter	Type	Description
		Set the language of messages output after login in as one of the following: <ul style="list-style-type: none"> - English (default) - Japanese
Authentication	string	Authentication Method Specify an authentication method. <ul style="list-style-type: none"> - ISM : ISM authentication - null: Follows the authentication method of the user group If left blank, it assumes null was specified.
Description	string	Description Comment column where free information can be set. Will not be used in controls.
MomUser	string	Specify availability of link with ISM. <ul style="list-style-type: none"> - Enable: links - Disable: does not link (default)
InnerControl	string	Information for Internal Controls Do not configure because this information will be used in the internal controls of the ISM.

[Response Parameter]

Parameter	Type	Description
UserId	string	User ID IDs of users added are output.
UserName	string	User Name The same content as that of the request parameter is output.
Password	string	Password The same content as that of the request parameter is output.
UserRoles	array (string)	List of User Role Information A role specified to a user is output.
UserGroupId	string	User Group ID The same content as that of the request parameter is output.
NodeGroups	array	List of Information of Node Group Information of the node groups corresponding to the user group are output.
NodeGroupId	integer	Node Group ID
Description	string	Description The same content as that of the request parameter is output.
MomUser	string	Availability of link with ISM is output. The same content as that of the request parameter is output.
Language	string	Language

Parameter	Type	Description
		The same content as that of the request parameter is output.
Authentication	string	Authentication Method The same content as that of the request parameter is output.
InnerControl	string	Information for Internal Controls
Modified	string	Last Updated Time and date added in UTC hours is output.

[Precautions]

- As for roles to be added, a higher role will be added in the following order:

Administrator > Operator > Monitor

- Can only be executed by a user holding an Administrator role.
- The following names cannot be used as they are used with ISM:

- Names starting with __
- administrator
- Admin
- anonymous
- root
- bin
- daemon
- adm
- lp
- sync
- shutdown
- halt
- mail
- operator
- games
- ftp
- nobody
- avahi-autoipd
- systemd-bus-proxy
- systemd-network
- dbus
- polkitd
- abrt
- libstoragemgmt
- tss
- postfix

- chrony
 - sshd
 - ntp
 - tcpdump
 - vaadmin
 - apache
 - postgres
 - svtuser
 - elasticsearch
 - zabbix
- A user should be unique in the whole context of ISM.
 - Only a user holding an Administrator role in the Administrator group can set MomUser parameter to Enable.

4.1.4 List Retrieval for Users

[Overview]

Retrieves a complete list of ISM user information.

[Format]

```
GET /users
```

[Query Parameter]

Parameter	Type	Description
UserGroupId	string	User Group ID Specify the range of users to retrieve. If omitted, users of the user group to which the user who executed the retrieval belongs will be retrieved.

[Response Parameter]

Parameter	Type	Description
Users	array	List of User Information
	UserId	User ID
	UserName	User Name
	UserRoles	List of User Role Information
	UserGroups	List of User Group Information Enrolled user groups is output by array.
	UserGroupId	User Group ID
	UserGroupName	User Group Name
	Authentication	Authentication Method Authentication method is output. - ISM: ISM authentication

Parameter	Type	Description
		<ul style="list-style-type: none"> - LDAP: LDAP authentication - null: Unable to retrieve data <p>For this value, the following values will be output.</p> <ul style="list-style-type: none"> - User authentication method: ISM authentication ISM - User authentication method: Follow user group setting Authentication method for user group
Description	string	Description
MomUser	string	<p>Availability of link with ISM is output.</p> <ul style="list-style-type: none"> - Enable: links - Disable: does not link
LastAccessTime	string	<p>Time and Date of Last Access</p> <p>Time and date of last access by a user in UTC is output.</p>

[Precautions]

- When omitting request parameters, the users in the following range can be retrieved.
 - When the user who executes is a member of the Administrator group.
All users in all user groups registered in the ISM can be retrieved.
 - When the user who executes is not a member of the Administrator group.
All users in the same user group as the executing user can be retrieved.
- Depending on the role of the user who executes, summary of output range is as follows:
 - When holding an Administrator role
All users belonging to the output target user group are output.
 - When having no Administrator role
Outputs only the executing user.

4.1.5 Individual Retrieval of User

[Overview]

Retrieves detailed ISM user information.

[Format]

```
GET /users/{userid}
```

[Query Parameter]

None

[Response Parameter]

Parameter	Type	Description
UserId	string	User ID

Parameter		Type	Description
UserName		string	User Name
UserRoles		array(string)	List of User Role Information
UserGroupId		string	User Group ID specified at the time it was created
UserGroupName		string	User Group Name specified at the time it was created
Language		string	Language <ul style="list-style-type: none"> - English - Japanese
Authentication		string	Authentication Method Authentication method is output. <ul style="list-style-type: none"> - ISM: ISM authentication - null: Follows the authentication method of the user group
Description		string	Description
MomUser		string	Availability of link with ISM is output. <ul style="list-style-type: none"> - Enable: links. - Disable: does not link.
SessionCount		integer	Session Count
LastAccessTime		string	Time and Date of Last Access
Modified		string	Last Updated Outputs time and date added or changed in UTC hours.
InnerControl		string	Information for Internal Controls
Status		string	Status Login enabled status is output. <ul style="list-style-type: none"> - OK Login enabled - LoginLock Unable to log in due to consecutively failed login attempts. Login enabled after a certain time elapsed. - ExpirePassword Unable to login because the password is no longer valid. Can login after re-setting the password.
PasswordValidTime		integer	Validity Period of Password When the password validity period has been set, this period is output (in days). If less than a day, it is output in truncated form. When validity of a password is not set, null is output.
AccessibleUserGroups		array	List of Information of Accessible User Groups
	UserGroup	object	User Group Information
	UserGroupId	string	User Group ID
	UserGroupName	string	User Group Name

Parameter		Type	Description
	NodeGroups	array	List of Information of Node Group
	NodeRoleId	string	Node Role ID
	NodeGroupId	integer	Node Group ID

[Precautions]

- Only when the executing user holds a role of Administrator, details of other users can be retrieved.
- If the user does not hold an Administrator role, only the user's own detailed information can be retrieved.
- The following are the ranges in which this API can output detailed information:
 - When the user who executes is a member of the Administrator group.
Can retrieve details of any user.
 - When the user who executes is not a member of the Administrator group.
The user who executes can retrieve user details in the same user group.
- Internal Control Information is the information used in the internal controls of ISM.

4.1.6 Update of User Information

[Overview]

Updates ISM user information.

[Format]

```
PATCH /users/{userid}
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
UserName	string	User Name Contains the following restrictions: <ul style="list-style-type: none"> - Max length: 32 - Half-width alphanumeric characters - Numerical alphabets (Upper and lower cases), under bar, \$, period and hyphen can be used. - Cannot begin with "-", can only use "\$" at the end.
Password	string	Password Specify an encrypted password. Refer to " 2.4 Encryption " for encryption method. In addition, specify an encrypted character string whose decrypted result is 32 characters or less.
UserRoles	array(string)	List of User Role Information Specify a role to be specified to a user from the following ID:

Parameter	Type	Description
		<ul style="list-style-type: none"> - Administrator - Operator - Monitor
UserGroupId	string	User Group ID Specify a user group ID to the group which the user belongs to.
Authentication	string	Authentication Method Specify an authentication method. <ul style="list-style-type: none"> - ISM: ISM authentication - null: Follows the authentication method of a user group If left blank (""), it assumes null was specified. When the key is omitted, change of this parameter does not take place.
Description	string	Description Comment column where free information can be set. Will not be used in controls.
MomUser	string	Specify availability of link with ISM. <ul style="list-style-type: none"> - Enable: links. - Disable: does not link. (default)
InnerControl	string	Information for Internal Controls Do not configure because this information will be used in the internal controls of the ISM.

[Response Parameter]

Parameter	Type	Description
UserId	string	User ID
UserName	string	User Name The same content as that of the request parameter is output.
Password	string	Password The same content as that of the request parameter is output.
UserRoles	array(string)	List of User Role Information
UserGroupId	string	User Group ID The same content as that of the request parameter is output.
AccessibleUserGroups	array	List of Information of Accessible User Groups
	UserGroup	User Group Information
	UserGroupId	User Group ID
	NodeGroups	List of Information of Node Group
	NodeRoleId	Node Role ID Only "" is output.
	NodeGroupId	Node Group ID
Description	string	Description

Parameter	Type	Description
		The same content as that of the request parameter is output.
MomUser	string	Availability of link with ISM is output. The same content as that of the request parameter is output.
Authentication	string	Authentication Method The same content as that of the request parameter is output.
Modified	string	Last Updated Outputs update time and date in UTC hours.
InnerControl	string	Information for Internal Controls The same content as that of the request parameter is output.

[Precautions]

- The following are the ranges that this API can change the user information:
 - When the user who executes is a member of the Administrator group.
Can change the information on any user.
 - When the user who executes is not a member of the Administrator group.
The user who executes can change the information on the users in the same user group.
- Required conditions for each change item are as shown below.
 - When changing UserGroupId
Can be changed by executing user holding an Administrator role and belonging to the Administrator group.
 - When changing UserRoles
Can be changed by an executing user holding an Administrator role.
 - When changing UserName, Password, Language, Description, InnerControl
Only users executing with an Administrator role or user's own information can be changed.
 - Do not change InnerControl because this information will be used in the internal controls of the ISM.
 - Contents of Password and InnerControl are not changed unless specifying a key.
 - If "" is specified in the modified content, the content will be deleted.
- The following names cannot be used as they are used with ISM:
 - Names starting with __
 - administrator
 - Admin
 - anonymous
 - root
 - bin
 - daemon
 - adm
 - lp
 - sync
 - shutdown

- halt
 - mail
 - operator
 - games
 - ftp
 - nobody
 - avahi-autoipd
 - systemd-bus-proxy
 - systemd-network
 - dbus
 - polkitd
 - abrt
 - libstoragemgmt
 - tss
 - postfix
 - chrony
 - sshd
 - ntp
 - tcpdump
 - vaadmin
 - apache
 - postgres
 - svtuser
 - elasticsearch
 - zabbix
- A user should be unique in the whole context of ISM.
 - Only a user holding an Administrator role in the Administrator group can set MomUser parameter to Enable.

4.1.7 Deletion of Users

[Overview]

Deletes ISM users.

[Format]

DELETE /users/{userid}

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

None

[Precautions]

- Cannot delete so that there will be no users with an Administrator role in the Administrator group.
- The following are the ranges that this API can change the user information:
 - When the user who executes is a member of the Administrator group.
Can delete any user.
 - When the user who executes is not a member of the Administrator group.
The user who executes can delete users in the same user group.

4.1.8 Registration of User Groups

[Overview]

Registers ISM user groups.

[Format]

POST /usergroups

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
UserGroupName	string	User Group Name Contains the following restrictions: <ul style="list-style-type: none">- Max length: 64- All these can be used: Japanese, numbers, letters (Upper and lower cases), underscore, \$, period and hyphen. The following cannot be used. <ul style="list-style-type: none">- Single Quotation- Slash- Begins with a period
Authentication	string	Authentication Method Authentication method can be selected from the following. <ul style="list-style-type: none">- ISM ISM Authentication (default)- LDAP Authentication in link with OpenLDAP or Microsoft Active Directory
ParentsUserGroupId	string	Parent User Group ID Only specify "".

Parameter		Type	Description
AccessRange		string	<p>Access Range</p> <p>Specify if access range of a user group should be made identical with those of other groups.</p> <ul style="list-style-type: none"> - Administrator: An identical range of access with the Administrator group - null: No specification - "": No specification <p>Cannot specify other than those mentioned above.</p>
Description		string	<p>Description</p> <p>Comment column where free information can be set. Will not be used in controls.</p>
NodeGroupId		integer	<p>Node Group ID</p> <p>Specify a node group ID for linking.</p> <p>When the key is omitted and specified with null, it is not associated.</p>
DirSize		object	Information on the Size of the Directory
	All	object	<p>Information on Directory Size of user group</p> <p>Specify information on directory size for a user group (Unit: MB).</p> <p>When the key is omitted and specified with null, it is not set.</p>
	MaxSize	integer	<p>Maximum Size of directory used by a user group</p> <p>For null, it does not set the maximum value.</p> <p>If it is omitted it will be handled as if null was specified.</p>
	Threshold	integer	<p>Threshold value of directory size used by a user group</p> <p>If it is omitted it will be handled as if null was specified.</p>
	ArchiveLogDir	object	<p>Information of the directory size where Archive Node Log is saved</p> <p>Specify a directory size (MB) to be used in Archive.</p> <p>When the key is omitted and specified with null, it sets with the maximum value as 0 and threshold value of 0.</p>
	MaxSize	integer	<p>Maximum Size of the directory where Node Log is saved</p> <p>When the key is omitted and specified with null, it is set to 0GB.</p>
	Threshold	integer	<p>Threshold value of the directory where Node Logs are saved</p> <p>Assumes 0(%) was specified when null was specified.</p> <p>Assumes 0(%) was specified when key is omitted.</p>
	ArchiveMaterialDir	object	<p>Information of the directory size to store the Archived Log of Archive</p> <p>Specify a directory size (MB) to be used in Archive.</p> <p>When the key is omitted and specified with null, it sets the maximum value to 0 and threshold value to 0%.</p>
	MaxSize	integer	Maximum Size of the Archived Log saving directory

Parameter		Type	Description
			When the key is omitted and specified with null, it is set to 0GB.
	Threshold	integer	Threshold value of the directory where the Archived Log is saved Assumes 0(%) was specified when null was specified. Assumes 0(%) was specified when key is omitted.
	ArchiveLogDirForSearch	object	Information of Archive's Node Log Directory Size used for Search. Specify a directory size (MB) to be used in Archive. When the key is omitted and specified with null, it sets the maximum value to 0 and threshold value to 0%.
	MaxSize	integer	Maximum size of the Node Log directory used for search When the key is omitted and specified with null, it is set to 0GB.
	Threshold	integer	Threshold value of the Node Log directory used for search Assumes 0(%) was specified when null was specified. Assumes 0(%) was specified when key is omitted.
	RepositoryDirectory	object	Directory Size Information of the Repositories Specify a directory size of repositories. (Unit: MB) When the key is omitted and specified with null, it is not set.
	MaxSize	integer	Maximum Size of the Directory For null, it does not set the maximum value. If it is omitted it will be handled as if null was specified.

[Response Parameter]

Parameter	Type	Description
UserGroupId	string	User Group ID
UserGroupName	string	User Group Name The same content as that of the request parameter is output.
Authentication	string	Authentication Method The same content as that of the request parameter is output.
ParentsUserGroupId	string	Parent User Group ID Only "" is output.
AccessRange	string	Access Range The same content as that of the request parameter is output.
Description	string	Description The same content as that of the request parameter is output.
NodeGroupId	integer	Node Group ID Related node group ID
DiskSize	integer	Disk size allocated for user group

Parameter		Type	Description
			When the value is null, the disk has not been configured.
DirSize		object	Information on the size of the directory The same content as that of the request parameter is output.
	All	object	Information on directory size of user group The same content as that of the request parameter is output.
	MaxSize	integer	Maximum size of directory used by a user group
	Threshold	integer	Threshold value of directory size used by a user group
	ArchiveLogDir	object	Information of the directory size where Archive Node Log is saved The same content as that of the request parameter is output.
	MaxSize	integer	Maximum Size of the directory where Node Logs are saved
	Threshold	integer	Threshold value of the directory where Node Logs are saved
	ArchiveMaterialDir	object	Information of the Directory Size to store Archived Log of Archive The same content as that of the request parameter is output.
	MaxSize	integer	Maximum Size of the Archived Log saving directory
	Threshold	integer	Threshold value of the directory where Archived Log is saved
	ArchiveLogDirForSearch	object	Information of Archive's Node Log Directory Size used for Search The same content as that of the request parameter is output.
	MaxSize	integer	Maximum Size of the Node Log directory used for search
	Threshold	integer	Threshold value of the Node Log directory used for search
	RepositoryDirectory	object	Directory size Information of the Repositories The same content as that of the request parameter is output.
	MaxSize	integer	Maximum Size of the Directory
UserList		array(string)	List of related User IDs
Modified		string	Last Updated Time and date added in UTC hours is output.

[Precautions]

- Can only be executed by a user holding an Administrator role and belonging to the Administrator group.
- Precautions for Authentication are as shown below.
 - Only one authentication method can be specified for the entire ISM.
 - Only either OpenLDAP or Microsoft Active Directory can be specified as the authentication method in the LDAP.
 - Without any specified authentication method, it shall be assumed that ISM has been specified.
- A registered user cannot be specified when creating a user group.
If you want to register a user, execute user group change or user change after creating a user group.
- The following names cannot be used as they are used with ISM:
 - Names starting with __
 - Administrator

- AbstractionLayer
- anonymous
- A user group should be unique in the whole context of ISM.

4.1.9 List Retrieval for User Groups

[Overview]

Retrieves a complete list of ISM user group information.

[Format]

```
GET /usergroups
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
UserGroups		array	List of User Group Information
	UserGroupId	string	User Group ID
	UserGroupName	string	User Group Name
	NodeGroups	array	List of Information of Node Group
	NodeRoleId	string	Node Role ID
		integer	Node Group ID
	Authentication	string	Authentication Method
	UserCount	integer	Number of Users
	ParentsUserGroupId	string	Parent User Group ID Only "" is output.
	ChildUserGroupCount	integer	Subordinate User Group Number Only 0 is output.
	ChildUserGroups	array(string)	List of Subordinate User Group Information Only [] is output.
	UserGroupId	string	User Group ID
	AccessRange	string	Access Range Announces if access range of a user group should be made identical with those of other groups. <ul style="list-style-type: none">- Administrator: An identical range of access with the Administrator group- null: No specification- "": No specification
	Description	string	Description

4.1.10 Individual Retrieval of User Groups

[Overview]

Retrieves detailed ISM user group information.

[Format]

```
GET /usergroups/{usergroupid}
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
UserGroupId		string	User Group ID
UserGroupName		string	User Group Name
NodeGroups		array	List of Information of Node Group
	NodeRoleId	string	Node Role ID
	NodeGroupId	integer	Node Group ID
Authentication		string	Authentication Method
UserCount		integer	Number of Users
ParentsUserGroupId		string	Parent User Group ID
ChildUserGroupCount		integer	Subordinate User Group Number Only "" is output.
ChildUserGroups		array(string)	Subordinate User Group Information List
	UserGroupId	string	User Group ID
AccessRange		string	Access Range Announces if access range of a user group should be made identical with those of other groups. <ul style="list-style-type: none">- Administrator: An identical range of access with the Administrator group- null: No specification- "": No specification
Description		string	Description
SystemVolumeSize		object	Information on the ISM-VA System Volume Outputs information on the ISM-VA system volume (Unit: MB) "null" is output for other than the Administrator group.
	Size	integer	System Volume Size
	Threshold	integer	Threshold Value of the Used System Volume Size Range: 0.00-100.00 (%) Outputs percentage up to 2 digits after decimal point in the form without decimal point. Example: Output for 10.12%: 1012 When the value is null, the threshold value for the used system volume size is not set.

Parameter		Type	Description
	UsedSize	integer	System Volume Size being used
	UsedSizeRate	integer	Used Rate of the System Volume Size Range: 0.00-100.00(%) Outputs percentage up to 2 digits after decimal point in the form without decimal point. Example: Output for 10.12%: 1012
DiskSize		integer	Disk Size allocated for the User Group When the value is null, the disk has not been configured.
DirSize		object	Information on the Size of the Directory Outputs information on directory size for a user group.
	All	object	Information on Directory Size of User Group Outputs information on directory size for a user group. (Unit: MB)
	MaxSize	integer	Maximum Size of the directory used by a user group When a value is null, it is not configured.
		integer	Threshold value of the directory size used by a user group When a value is null, it is not configured.
		integer	Directory Size being used
	ArchiveLogDir		Information of the Directory Size where Archive Node Log is saved Outputs information on the directory size where Archive Node Log is stored. (Unit: MB)
	MaxSize	integer	Maximum Size of the Directory where Node Logs are saved
		integer	Threshold value of the directory where Node Logs are saved
		integer	Size of the Directory currently in use where Node Logs are saved
	ArchiveMaterialDir		Information of the Directory Size to store the Archived Log of Archive Outputs information on the directory size to store the Archived Log of Archive. (Unit: MB)
	MaxSize	integer	Maximum Size of the Archived Log saving directory
		integer	Threshold value of the directory where Archived Logs are saved
		integer	Size of the directory currently in use where node Archived Logs are saved
	ArchiveLogDirForSearch		Information of Archive's Node Log directory size used for search Outputs information on the directory size to store Node Logs of Archive. (Unit: MB)
	MaxSize	integer	Maximum Size of the Node Log directory used for search
		integer	Threshold value of the Node Log directory used for search
		integer	Size of the directory currently in use for Node Logs used in searches

Parameter		Type	Description
	RepositoryDirectory	object	Directory Size information of the Repositories Outputs information on the directory size of repositories. (Unit: MB)
	MaxSize	integer	Maximum Size of the directory When a value is null, it is not configured.
	UsedSize	integer	Directory Size being used
Users		array	List of User Information
	UserId	string	User ID
	UserName	string	User Name
Modified		string	Last Updated Outputs time and date added or changed in UTC hours.

[Precautions]

- Can only be executed by a user executing with an Administrator role.
- The following are the ranges in which this API can output detailed information:
 - When the user who executes is a member of the Administrator group.
Can retrieve details of any user group.
 - When the user who executes is not a member of the Administrator group.
Retrieves details of the user group that the executing user belongs to.

4.1.11 Update of User Group Information

[Overview]

Updates the ISM user group information.

[Format]

```
PATCH /usergroups/{usergroupid}
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
UserGroupName	string	User Group Name Contains the following restrictions: <ul style="list-style-type: none"> - Max length: 64 - All these can be used: Japanese, numbers, letters (Upper and lower cases), underscore, \$, period and hyphen. The following cannot be used. <ul style="list-style-type: none"> - Single Quotation - Slash

Parameter		Type	Description
			- Begins with a period
Authentication		string	<p>Authentication Method</p> <p>Authentication method can be selected from the following.</p> <ul style="list-style-type: none"> - ISM ISM Authentication (default) - LDAP Authentication in link with OpenLDAP or Microsoft Active Directory
ParentsUserGroupId		string	<p>Parent User Group ID</p> <p>Only ""</p>
AccessRange		string	<p>Access Range</p> <p>Specify if access range of a user group should be made identical with those of other groups.</p> <ul style="list-style-type: none"> - Administrator: An identical range of access with the Administrator group - null: No specification - "": No specification <p>Cannot specify other than those mentioned above.</p>
Description		string	<p>Description</p> <p>Comment column where free information can be set. Will not be used in controls.</p>
NodeGroupId		integer	<p>Node Group ID</p> <p>Specify a node group ID for linking.</p> <ul style="list-style-type: none"> - null: Does not associate with a node group. Deselects a link when it has been linked. - Node group ID: Connects with a node group. Changes a link when it has been linked.
SystemVolumeSize		object	<p>Information on ISM-VA System Volume</p> <p>The information on the ISM-VA system volume is ignored other than Administrator group.</p> <p>When the key is omitted, it does not change the settings.</p> <p>Delete settings when null is specified.</p>
	Threshold	integer	<p>Threshold Value of the Used System Volume Size</p> <p>Range: 0.00-100.00(%)</p> <p>Outputs percentage up to 2 digits after decimal point in the form without decimal point.</p> <p>Example: Output for 10.12%: 1012</p>
DirSize		object	<p>Information on the size of the directory</p> <p>Specify information on directory size for a user group.</p> <p>When the key is omitted, it does not change the settings.</p>

Parameter		Type	Description
			Settings should be deleted (all in default value) when null is specified.
	All	object	Information on directory size of user group Specify information on directory size for a user group. (Unit: MB) When the key is omitted, it does not change the settings. Delete settings when null is specified.
	MaxSize	integer	Maximum Size of directory used by a user group When the key is omitted, it does not change the settings. Delete settings when null is specified.
	Threshold	integer	Threshold value of directory size used by a user group When the key is omitted, it does not change the settings. Delete settings when null is specified.
	ArchiveLogDir	object	Information of the Directory Size where Archive Node Log is saved Specify information of the directory size to store Node Log of Archive. (Unit: MB) When the key is omitted, it does not change the settings. Settings should be 0 when null is specified.
	MaxSize	integer	Maximum Size of the Directory where Node Logs are saved When the key is omitted, it does not change the settings. Assumes 0(%) was specified when null was specified.
	Threshold	integer	Threshold value of the directory where Node Logs are saved When the key is omitted, it does not change the settings. Assumes 0(%) was specified when null was specified.
	ArchiveMaterialDir	object	Information of the Directory Size to store Archived Log of Archive Specify information of the directory size to store Node Log of Archive. (Unit: MB) When the key is omitted, it does not change the settings. Delete settings when null is specified.
	MaxSize	integer	Maximum Size of the Archived Log saving directory When the key is omitted, it does not change the settings. Assumes 0(%) was specified when null was specified.
	Threshold	integer	Threshold value of the directory where Archived Logs are saved When the key is omitted, it does not change the settings. Assumes 0(%) was specified when null was specified.
	ArchiveLogDirForSearch	object	Information of Archive's Node Log directory size used for search Specify information of the directory size to store Node Logs of Archive. (Unit: MB)

Parameter		Type	Description
			When the key is omitted, it does not change the settings. Delete settings when null is specified.
	MaxSize	integer	Maximum Size of the Node Log directory used for search When the key is omitted, it does not change the settings. Assumes 0(%) was specified when null was specified.
	Threshold	integer	Threshold value of the Node Log directory used for search When the key is omitted, it does not change the settings. Assumes 0(%) was specified when null was specified.
	RepositoryDirectory	object	Directory Size Information of the Repositories Specify information on the directory size of repositories. (Unit: MB) When the key is omitted, it does not change the settings. Delete settings when null is specified.
	MaxSize	integer	Maximum Size of the directory When the key is omitted, it does not change the settings. Settings of the largest value should be deleted when null is specified.

[Response Parameter]

Parameter		Type	Description
UserGroupId		string	User Group ID
UserGroupName		string	User Group Name
Authentication		string	Authentication Method
NodeGroupId		integer	Node Group ID ID of node group to link
AccessibleNodeGroups		array	List of Information of Node Group
	NodeRoleId	string	Node Role ID
	NodeGroupId	integer	Node Group ID
Users		array	User Information
	UserId	string	User ID
	UserName	string	User Name
ParentsUserGroupId		string	Parent User Group ID Only "" is output.
AccessRange		string	Access Range Announces if access range of a user group should be made identical with those of other groups. <ul style="list-style-type: none"> - Administrator: An identical range of access with the Administrator group - null: No specification - "": No specification

Parameter		Type	Description
Description		string	Description
SystemVolumeSize		object	Information on the ISM-VA System Volume Outputs information on the ISM-VA system volume (Unit: MB) "null" is output for other than the Administrator group.
	Size	integer	System Volume Size
	Threshold	integer	Threshold Value of the Used System Volume Size Range: 0.00-100.00(%) Outputs percentage up to 2 digits after decimal point in the form without decimal point. Example: Output for 10.12%: 1012 When the value is null, the threshold value for the used system volume size is not set.
	UsedSize	integer	System Volume Size being used.
	UsedSizeRate	integer	Used Rate of the System Volume Size Range: 0.00-100.00(%) Outputs percentage up to 2 digits after decimal point in the form without decimal point. Example: Output for 10.12%: 1012
DiskSize		integer	Disk Size allocated for User Group When the value is null, the disk has not been configured.
DirSize		object	Information on the Size of the Directory
	All	object	Information on the Directory Size of User Group
	MaxSize	integer	Maximum Size of the Directory used by a User Group
		integer	Threshold value of the directory size used by a user group
		integer	Directory Size being used
	ArchiveLogDir		Information of the Directory Size where Archive Node Log is saved
	MaxSize	integer	Maximum Size of the directory where Node Log is saved
		integer	Threshold value of the directory where Node Logs are saved
		integer	Size of the Directory currently in use where Node Logs are saved
	ArchiveMaterialDir		Information of the Directory Size to store Archived Log of Archive
	MaxSize	integer	Maximum Size of the Archived Log saving directory
		integer	Threshold value of the directory where Archived Logs are saved
		integer	Size of Directory currently in use where node Archived Logs are saved
	ArchiveLogDirForSearch		Information of Archive's Node Log Directory Size used for Search
	MaxSize		Maximum Size of the Node Log directory used for search

Parameter			Type	Description
		Threshold	integer	Threshold value of the Node Log directory used for search
		UsedSize	integer	Size of Directory currently in use for Node Logs used in searches
	RepositoryDirectory		object	Directory size information of the repositories
		MaxSize	integer	Maximum Size of the Directory
		UsedDirSize	integer	Directory Size being used
		Modified		string

[Precautions]

- Can be executed with a user holding an Administrator role and belonging to the Administrator group.
- Precautions for Authentication are as shown below.
 - Only one authentication method can be specified for the entire ISM.
 - Only either OpenLDAP or Microsoft Active Directory can be specified as the authentication method in the LDAP.
 - Without any specified authentication method, it shall be assumed that ISM has been specified.
 - When specifying LDAP as authentication method, an error occurs unless the LDAP information has been configured in advance.
- If "" is specified in the modified content, the content will be deleted.
- The following names cannot be used as they are used with ISM:
 - Names starting with __
 - Administrator
 - AbstractionLayer
 - anonymous
- A user group should be unique in the whole context of ISM.
- The number of node group to be connected with a user group is 1.
- When a user group connected with a node group is connected again with other node group, the node group previously connected is to be deleted.
- Conditions for node groups to be connected are as follows:
 - Cannot associate with ISMDefaultGroup.
 - Cannot associate with ISMSharedGroup.
 - Any node group that does not exist cannot be associated.

4.1.12 Deletion of User Groups

[Overview]

Deletes ISM user groups.

[Format]

```
DELETE /usergroups/{usergroupid}
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

None

[Precautions]

- Can only be executed by a user holding an Administrator role and belonging to the Administrator group.
- A user group containing any users cannot be deleted.
Before deleting a user group, delete the users or move them to a different group.
- Any user group connected with a node group can be deleted.
In this case, a node group is not deleted.
- Note that a user group cannot be restored after deletion.
- Any data connected with a user group is deleted.
- Administrator group cannot be deleted.

4.1.13 Retrieval of LDAP Information

[Overview]

Retrieves the LDAP information set with ISM.

[Format]

```
GET /system/settings/ldaps
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
Ldaps		array	LDAP Information Outputs LDAP information in the order of primary and secondary.
	LdapHost	string	LDAP Server Name
	Port	integer	Port Number
	BaseDn	string	Basic Path
	SearchAttribute	string	Search Attribute
	BindDn	string	Account for Binding
	SSLcertificate	string	SSL Certificate Outputs availability/unavailability of a SSL certificate. - "On": Assigned SSL certificate

Parameter	Type	Description
		- "Off": No specified SSL certificate
Status	string	Status of LDAP Outputs a status of LDAP. - "Used": This information is currently being used. - "Reserved": This information is currently being reserved.
Modified	string	Last Updated Outputs update date in UTC hours.

[Precautions]

- Can only be executed by a user holding an Administrator role and belonging to the Administrator group.
- If the LDAP information has never been set, empty character is retrieved for all parameters other than Port parameter.

4.1.14 Update of LDAP Information

[Overview]

Sets the LDAP information in ISM.

[Format]

```
PATCH /system/settings/ldaps
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
Ldaps	array	LDAP Information Specify LDAP information in the order of primary and secondary.
LdapHost	string	LDAP Server Name
Port	integer	Port Number
BaseDn	string	Basic Path
SearchAttribute	string	Search Attribute
BindDn	string	Account for Binding
BindPassword	string	Bind Password Specify an encrypted password. Refer to " 2.4 Encryption " for encryption method. In addition, specify an encrypted character string whose decrypted result is 128 characters or less.
SSLCertificate	string	SSL Certificate Specify when connecting to directory server via SSL. Specify a file name of SSL certificate that has been registered in the "Administrator" directory by ftp.

[Response Parameter]

Parameter		Type	Description
Ldaps		array	LDAP Information Outputs LDAP information in the order of primary and secondary.
	LdapHost	string	LDAP Server Name
	Port	integer	Port Number
	BaseDn	string	Basic Path
	SearchAttribute	string	Search Attribute
	BindDn	string	Account for Binding
	BindPassword	string	Bind Password Outputs a parameter as specified.
	SSLCertificate	string	SSL Certificate Outputs an SSL certificate as specified.
	Status	string	Status of LDAP Outputs a status of LDAP. - "Used": This information is currently being used. - "Reserved": This information is currently being reserved.
	Modified	string	Last Updated Outputs update date in UTC hours.

[Precautions]

- Can only be executed by a user holding an Administrator role and belonging to the Administrator group.
- Precautions for LDAP information are as shown below.
 - Only one Authentication method can be specified as a primary and a secondary choice respectively for ISM overall.
 - Only either OpenLDAP or Microsoft Active Directory can be specified as authentication method in the LDAP.
- SSL certificate should be specified in the following steps.

Case of AD server

1. Select [Control Panel] - [Management Tools] - [Certification Authority].
2. Right-click the target server and select [Property] - [General] - [CA Certificate]
3. Confirm a certificate and select [Display of Certificate].
4. Select detailed dialog shown, and choose copy to a file.
5. Select [Next] in the export wizard of the certificate, then choose [Base64 encoded X509(CER)(S)] for specifying a saving path and choose [Finish].
6. Upload the saved file to the directory under the "Administrator/ftp/" by ftp.
7. Specify the name of the above (Specification of Administrator/ftp is not required.)

4.1.15 Switch of LDAP Information

[Overview]

Switches the LDAP information.

[Format]

```
POST /system/settings/ldaps/switch
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

Parameter		Type	Description
Ldaps		array	LDAP Information Outputs LDAP information in the order of primary and secondary.
	LdapHost	string	LDAP Server Name
	Port	integer	Port Number
	BaseDn	string	Basic Path
	SearchAttribute	string	Search Attribute
	BindDn	string	Account for Binding
	SSLCertificate	string	SSL Certificate Outputs availability/unavailability of a SSL certificate. - "On": Assigned SSL certificate - "Off": No specified SSL certificate
	Status	string	Status of LDAP Outputs a status of switched LDAP. - "Used": This information is currently being used. - "Reserved": This information is currently being reserved.
	Modified	string	Last Updated Outputs update date in UTC hours.

[Precautions]

- Can only be executed by a user holding an Administrator role and belonging to the Administrator group.

4.1.16 Retrieval of Policy Information

[Overview]

Retrieves the security policy information set in user management.

[Format]

```
GET /users/policy
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
PasswordPolicy		object	Password policy
	UnavailablePastData	integer	Past Passwords Unusable Setting Range: 0-24 Default value: 0 (Does not restrict passwords in the past)
	MinimumLength	integer	Minimum Password Length Setting Range: 1-32 Default value: 1 Not word count but byte number
	UseCharacterType	integer	Characters may be used in password Outputs how many types should be used from the following. <ul style="list-style-type: none"> - Number - Lowercase - Uppercase - Special characters Setting Range: 0-4 Default value: 0 (unspecified)
	ValidPeriod	integer	Password Expiration Date Setting Range: 0-365 (days) Default value: 0 (Indefinite)
	InValidUserAction	string	User operation after duration exceeded <ul style="list-style-type: none"> - "Warning": Only warning message - "Lock": Login locked (indefinitely)
	UseUserName	boolean	Outputs whether it is possible to specify a password that is identical with the user name. <ul style="list-style-type: none"> - true: Can be specified - false: Cannot be specified
	UnavailableString	array(string)	Outputs a character string that cannot be specified as a password in an array. Only 0-256 are output. Outputs an encrypted character string that cannot be specified as a password as a string. Refer to " 2.4 Encryption " for encryption method.
LoginLockPolicy		object	Policy for Login Lock
	Threshold	integer	Threshold of a Lock Log in will be locked with consecutive fails in row for more than this value.

Parameter		Type	Description
			Setting Range: 6-256 Default value: 6
	LockTime	integer	Lock Time Setting Range: 1-1440 (minutes) Default value: 30
SessionTime		integer	Session Termination Time Setting Range: 2-60 minutes Default value: 30 minutes
Modified		string	Last Updated Outputs the Last Updated date in UTC hours.

[Precautions]

- Any user can retrieve PasswordPolicy. In this case, null is retrieved except for PasswordPolicy parameter.
- A user holding an Administrator role can retrieve all information.

4.1.17 Update of Policy Information

[Overview]

Updates security policy information configured by user management.

Operations by each item are shown as follows:

- "Past passwords unusable"

Becomes valid immediately after changing. The user update checks this configuration when a password is set. When it is violated, the user update will end with an error.

- "Minimum password length", "Characters usable for password", "Specifying a password as same as a user name" and "String that cannot be specified as a password"

Becomes valid immediately after changing. The user addition and user update check this configuration when a password is set. When it is violated, the user addition and user update will end with an error.

- "Password expiration date"

Becomes valid immediately after changing. It will operate as follows when specifying a period of validity other than 0:

- User operation after duration exceeded: When "Warning"

When logging in, if the validity has already expired, the "The validity of your password has expired. Change the password immediately." message is output.

When logging in, if the validity will expire within two weeks, the "The validity of your password is coming to an end. Change the password immediately." message is output.

- User operation after duration exceeded: When "Lock"

When logging in, if the validity has already expired, after the "The validity of your password has been exceeded. Change the password immediately." message is output and it is no longer possible to log in. By changing the password after the message is output, you can continue to log in.

- "Lock threshold value", "Lock time" and "Session termination time"

Becomes valid immediately after changing.

[Format]

PATCH /users/policy

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
PasswordPolicy		object	Password Policy
	UnavailablePastData	integer	Past Passwords Unusable Setting Range: 0-24 Default value: 0 (Does not restrict passwords in the past)
	MinimumLength	integer	Minimum Password Length Setting Range: 1-32 Default value: 1 Not word count but byte number
	UseCharacterType	integer	Characters that can be used in your password Specify how many types should be used from the following. <ul style="list-style-type: none"> - Number - Lowercase - Uppercase - Special characters Setting Range: 0-4 Default value: 0 (unspecified)
	ValidPeriod	integer	Password Expiration Date Setting Range: 0-365 (days) Default value: 0 (Indefinite)
	InValidUserAction	string	User operation after duration exceeded <ul style="list-style-type: none"> - "Warning": Only warning message - "Lock": Login locked (indefinitely)
	UseUserName	boolean	Specifies whether it is possible to specify a password that is identical with the user name. <ul style="list-style-type: none"> - true: Can be specified - false: Cannot be specified Default value: false
	UnavailableString	array(string)	Specify a character string that cannot be specified as a password in an array. Can specify 0-256 pieces. Default value: 0

Parameter		Type	Description
			Specify an encrypted character string that cannot be specified as a password as a string. Refer to " 2.4 Encryption " for encryption method. In addition, specify an encrypted character string whose decrypted result is 32 characters or less.
LoginLockPolicy		object	Policy for Login Lock
	Threshold	integer	Threshold of a Lock Log in will be locked after consecutive fails exceeding this value. Setting Range: 6-256 Default value: 6
	LockTime	integer	Lock Time Setting Range: 1-1440 (minutes) Default value: 30
SessionTime		integer	Session Termination Time Setting Range: 2-60 minutes Default value: 30 minutes

[Response Parameter]

Parameter		Type	Description
PasswordPolicy		object	Password Policy
	UnavailablePastData	integer	Past Passwords Unusable Setting Range: 0-24 Default value: 0 (Does not restrict passwords in the past)
	MinimumLength	integer	Minimum Password Length Setting Range: 1-32 Default value: 1 Not word count but byte number
	UseCharacterType	integer	Characters that can be used in your password Outputs how many types should be used from the following. <ul style="list-style-type: none"> - Number - Lowercase - Uppercase - Special characters Setting Range: 0-4 Default value: 0 (unspecified)
	ValidPeriod	integer	Password Expiration Date Setting Range: 0-365 (days) Default value: 0 (Indefinite)
	InValidUserAction	string	User operation after duration exceeded

Parameter		Type	Description
			<ul style="list-style-type: none"> - "Warning": Only warning message - "Lock": Login locked (indefinitely)
	UseUserName	boolean	Outputs whether it is possible to specify a password that is identical with the user name. <ul style="list-style-type: none"> - true: Can be specified - false: Cannot be specified
	UnavailableString	array(string)	Outputs a character string that cannot be specified as a password in an array. Only 0-256 are output. Outputs an encrypted character string that cannot be specified as a password as a string. Refer to "2.4 Encryption" for encryption method.
LoginLockPolicy		object	Policy for Login Lock
	Threshold	integer	Threshold of a Lock Log in will be locked with consecutive fails in row for more than this value. Setting Range: 6-256 Default value: 6
	LockTime	integer	Lock Time Setting Range: 1-1440 (minutes) Default value: 30
SessionTime		integer	Validity of Session ID Setting Range: 2-60 minutes Default value: 30 minutes
Modified		string	Last Updated Outputs update date in UTC hours.

[Precautions]

- Can only be executed by a user holding an Administrator role and belonging to the Administrator group.
- The user holding the Administrator role and belonging to the Administrator group is not locked out to login regardless of this setting. Outputs a message at all time.

4.2 License Management

4.2.1 Setting Licenses

[Overview]

Registers the information of a license.

[Format]

```
POST /system/licenses
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
LicenseId	string	License Key

[Response Parameter]

Parameter	Type	Description
License	object	License information
LicenseId	string	License Key
Type	string	License Type Outputs types of licenses added.
Grade	string	License Grade Outputs grade of licenses added.
ManagementNodeNumber	integer	Number of Licenses Outputs the number of licenses added. It become meaningful only when a license type is Node, but otherwise it becomes null.
ExpirationDate	integer	License Validity Outputs expiration date of licenses added. When it has no license expiration, it becomes null.
Restart	string	Restart Outputs if a restart is required as the result of this API. ISM-VA: Restart is required for the ISM-VA It shows that the result of this API will be enabled after restarting.

[Precautions]

- Can only be executed by a user holding an Administrator role and belonging to the Administrator group.
- This API executes the ismadm command below.
 - Registration of license: ismadm license set
- To execute this API, it is required to retrieve VA operation privilege in advance.

4.2.2 List Retrieval for License Information

[Overview]

Retrieves the information of a license.

[Format]

```
GET /system/licenses
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
Licenses		array	Information of License
	LicenseId	string	License Key
	Type	string	License Type <ul style="list-style-type: none"> - Server - Node - Option
	Grade	string	License Grade <ul style="list-style-type: none"> - DC - Essential - I4P - Trial - NFLEX - Standard - TrialNFLEX - Advanced - TrialI4P (ISM 2.3.0.b or later) - TrialDC (ISM 2.3.0.b or later)
	InvalidFlag	boolean	Invalid Flag <ul style="list-style-type: none"> - true: invalid - false: valid
	ExpirationDate	integer	When a type of license is Server and license grade is Trial, it is the number of days until its expiration. For all cases other than that, fix to 0.
	ManagementNodeNumber	integer	When a type of license is Node, it is the number of management nodes. For all cases other than that, fix to 0.
	RegistrationTimestampInformation	string	Date of Registration
	UpdateTimestampInformation	string	Update Day
ManagementNodeTotalNumber		integer	Total Number of Management Nodes
ManagementNodeLeftNumber		integer	Total Number of Management Nodes Remaining Number subtracted the number of nodes registered with ISM from the number of management nodes.

4.2.3 Deleting Licenses

[Overview]

Deletes a license.

[Format]

```
POST /system/licenses/delete
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
LicenseId	string	License Key

[Response Parameter]

Parameter		Type	Description
License		object	Information of the Deleted License
	LicenseId	string	License Key
	Type	string	License Type Outputs types of licenses added.
	Grade	string	License Grade Outputs grade of licenses added.
	ManagementNodeNumber	integer	Number of Licenses Outputs the number of licenses added. It become meaningful only when a license type is Node, but otherwise it becomes null.
	ExpirationDate	integer	License Validity Outputs expiration date of licenses added. When it has no license expiration, it becomes null.
Restart		string	Restart Outputs if a restart is required as the result of this API. ISM-VA: Restart is required for the ISM-VA It shows that the result of this API will be enabled after restarting.

[Precautions]

- Can only be executed by a user holding an Administrator role and belonging to the Administrator group.
- This API executes the ismadm command below.
 - Deletion of license: ismadm license delete
- To execute this API, it is required to retrieve VA operation privilege in advance.

4.2.4 Replacing Licenses

[Overview]

Replaces the information of a license.

[Format]

PATCH /system/licenses

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
LicenseList		array	Information of License
	LicenseId	string	License Key

[Response Parameter]

Parameter		Type	Description
LicenseList		array	Information of License Replaced
	LicenseId	string	License Key
	Type	string	License Type Outputs types of licenses added.
	Grade	string	License Grade Outputs grade of licenses added.
	ManagementNodeNumber	integer	Number of Licenses Outputs the number of licenses added. It become meaningful only when a license type is Node, but otherwise it becomes null.
	ExpirationDate	integer	License Validity Outputs expiration date of licenses added. When it has no license expiration, it becomes null.
ReplacedLicenseList		array	Information of License Replaced
	LicenseId	string	License Key
	Type	string	License Type Outputs a type of the deleted license.
	Grade	string	License Grade Outputs a grade of the deleted license.
	ManagementNodeNumber	integer	License Number Outputs the number of deleted licenses. It become meaningful only when a license type is Node, but otherwise it becomes null.
	ExpirationDate	integer	License Validity Outputs expiration date of the deleted license. When it has no license expiration, it becomes null.

Parameter	Type	Description
Restart	string	Restart Outputs if a restart is required as the result of this API. ISM-VA: Restart is required for the ISM-VA It shows that the result of this API will be enabled after restarting.

[Precautions]

- Can only be executed by a user holding an Administrator role and belonging to the Administrator group.
- This API executes the ismadm commands below.
 - Deletion of license: ismadm license delete
 - Registration of license: ismadm license set
- To execute this API, it is required to retrieve VA operation privilege in advance.

4.3 Node Management

4.3.1 Node Registration

[Overview]

Registers a node.

[Format]

POST /nodes

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
Node		object	Node Information
	Name	string	Node Name Designate a unique name in the ISM.
	Type	string	Node Type Specify a node type to correspond with a device. Refer to [Node Type] for the node type that can be specified.
	Model	string	Model Name Specify a model name of a device. For machines supported, it may not work normally unless specifying a correct model name.
	IpAddress	string	IP Address Designate a unique IP address in the ISM.
	IpVersion	string	IP Version of IP Address - V4: IPv4

Parameter		Type	Description
			- V6: IPv6
	WebUrl	string	WebURL (such as WebUI of device) to use in main Key can be omitted.
	Urls	array	Miscellaneous WebURL Information Key can be omitted.
	Url	string	WebURL
	UrlName	string	WebURL Name
	Description	string	Description Key can be omitted.
	NodeTagList	array	Node Tag Information Key can be omitted.
	NodeTag	string	Node Tag Name
	ManagementLanOption	object	Information of Management LAN Key can be omitted. Sets management LAN to be used when executing PXE boot in the server.
	ManagementLanMode	string	Specifying Mode for Management LAN - null: No specification For PXE boot, a port with a smaller slot 0 order is used. - MAC Address: Specify MAC address - Adapter: Specify an adapter
	AdapterInfo	object	Information of an adapter to be used as Management LAN When a specified mode is "Adapter", specifying is compulsory.
	SlotIndex	integer	Slot Number Specifies 0 for on board.
	PortIndex	integer	Port Number
	MACAddress	string	MAC Address to be used as the Management LAN When a specified mode is "MACAddress", specifying is compulsory. Checks the input format only when it is enabled.
	RackInfo	object	Information on mounting position in a rack
	RackId	integer	Rack ID Mounted Specify a mounted Rack ID or null. Specify null for the following cases. - When not mounted in a rack - When the rack in which the node is mounted is not registered in the ISM.
	Position	integer	Mounting Position (Unit Number) Specify the unit number at the bottom that a node possesses or null.

Parameter		Type	Description
			Specify null for the following cases. <ul style="list-style-type: none"> - When not mounted in a rack - When the rack in which the node is mounted is not registered in the ISM. When displaying on the GUI, refer to [Precautions].
	OccupySize	integer	Number of Units Occupying Racks Specify the number of units occupying racks or null. Specify null for the following cases. <ul style="list-style-type: none"> - When not mounted in a rack - When the rack in which the node is mounted is not registered in ISM.
	MountType	string	PDU Mount Type Key can be omitted. <ul style="list-style-type: none"> - Rack: Type to mount as same as normal nodes - 0U: Type to be mounted beside the rack
	PduPosition	string	Do not use it. Key can be omitted.
	Outlet	array	Summary of PDU Connection Information Key can be omitted. Presently it is not supported.
	PowerSocket	integer	Socket Number Presently it is not supported.
	NodeId	integer	Node ID at the destination of connection Presently it is not supported.
	Accounts	array	Account Information Key can be omitted. Set up information for access to the node. As for account information required, refer to the manual.
	AccountType	string	Account Type Only relevant information for account type specified is used. <ul style="list-style-type: none"> - Ipmi: Used when iRMC/BMC/MMB etc. is transmitted with IPMI. - Ssh: Used for communication via Ssh. - Ssh-Privileged: Used in platform requiring elevated privileges after Ssh login. - SnmpV1: Used for communication with SNMP v1 - SnmpV2: Used for communication with SNMP v2c - SnmpV3: Used for communication with SNMP v3 - Https: Used for communication with HTTPS(REST)
	PortNum	integer	Port Number Used

Parameter		Type	Description
			<p>Specify the port number or null.</p> <p>When null specified, sets the standard port number for the protocol.</p> <ul style="list-style-type: none"> - IPMI (No. 623) - SSH (No. 22) - SNMP (No. 161) - HTTPS (No. 443)
		AccountName	<p>string</p> <p>User Account Name</p> <p>It is used when an account type is as follows.</p> <p>Ipmi, Ssh, Ssh-Privileged, SnmpV3, Https</p>
		Password	<p>string</p> <p>Account Password</p> <p>Encrypt the password with a method described in "2.4 Encryption." It is used when an account type is as follows.</p> <p>Ipmi, Ssh, Ssh-Privileged, SnmpV3, Https</p>
		Property	<p>object</p> <p>Additional Information according to the Account Type</p>
		Ipmi	<p>string</p> <p>Ipmi Information</p> <p>Key can be omitted.</p> <p>Presently it is not supported.</p>
		Ssh	<p>string</p> <p>Ssh Information</p> <p>Key can be omitted.</p> <p>Presently it is not supported.</p>
		SnmpV1	<p>object</p> <p>SnmpV1 Information</p> <p>Key can be omitted.</p> <p>It is used when an account type is SnmpV1.</p>
		CommunityName	<p>string</p> <p>Community Name</p>
		SnmpV2	<p>object</p> <p>SnmpV2 Information</p> <p>Key can be omitted.</p> <p>It is used when an account type is SnmpV2.</p>
		CommunityName	<p>string</p> <p>Community Name</p>
		SnmpV3	<p>object</p> <p>SnmpV3 Information</p> <p>Key can be omitted.</p> <p>It is used when an account type is SnmpV3.</p>
		SecurityLevel	<p>string</p> <p>Security Level</p> <ul style="list-style-type: none"> - authPriv: Authentication and encryption enabled - authNoPriv: Authentication enabled, No encryption - noAuthNoPriv: No authentication nor encryption
		AuthProtocol	<p>string</p> <p>Authentication Protocol</p> <p>Used when security level is "authPriv" or "authNoPriv."</p> <p>Specify AccountName for account information and Password for your password.</p>

Parameter					Type	Description
						<ul style="list-style-type: none"> - MD5: Authentication by MD5 - SHA: Authentication by SHA
				PrivProtocol	string	Privacy Protocol Used when security level is "authPriv." <ul style="list-style-type: none"> - DES: Encryption by DES - AES: Encryption by AES
				PrivPassword	string	Privacy Password Encrypt the password with a method described in " 2.4 Encryption ." Used when security level is "authPriv."
				ContextName	string	Context Name
				EngineId	string	Engine ID

[Response Parameter]

Parameter					Type	Description
Node					object	Node Information
				NodeId	integer	Node ID
				Name	string	Node Name
				Type	string	Node Type
				Model	string	Model Name
				IpAddress	string	IP Address
				IpVersion	string	IP Version of IP Address <ul style="list-style-type: none"> - V4: IPv4 - V6: IPv6
				WebUrl	string	WebURL (such as WebUI of device) to use in main
				Urls	array	Miscellaneous WebURL Information
				Url	string	WebURL
					string	WebURL Name
				Description	string	Description
				NodeTagList	array	Node Tag Information
				NodeTag	string	Node Tag Name
				ManagementLanOption	object	Information of Management LAN Sets management LAN to be used when executing PXE boot in the server.
				ManagementLanMode	string	Specifying Mode for Management LAN <ul style="list-style-type: none"> - null: No specification For PXE boot, a port with a smaller slot 0 order is used. - MACAddress: MAC address - Adapter: Adapter
				AdapterInfo	object	Information of an Adapter to be used as Management LAN

Parameter			Type	Description
		SlotIndex	integer	Slot Number
		PortIndex	integer	Port Number
		MACAddress	string	MAC Address to be used as Management LAN
	RackInfo		object	Information of mounting position in the rack
		RackId	integer	Rack ID Mounted
		Position	integer	Mounting Position (Unit Number) Outputs unit number at the bottom that a node possesses.
		OccupySize	integer	Number of Units Occupying Racks
	MountType		string	PDU Mount Type - Rack: Type to mount as same as normal nodes - 0U: Type to be mounted beside the rack
	PduPosition		string	Do not use it.
	Outlet		array	Summary of PDU Connection Information Presently it is not supported.
		PowerSocket	integer	Socket Number Presently it is not supported.
		NodeId	integer	Node ID at the destination of connection Presently it is not supported.
	SlotNum		integer	Slot Number of Chassis For CX server, BX server blade and connection blade, it is automatically set at the time of retrieving node information.
	ParentNodeId		integer	Node ID of Parent Node When retrieving node information, it is automatically created. For BX server blade and connection blade, it is set at the time of retrieving node information of BX chassis.
	ParentFabricId		integer	Node ID of Fabric Node it belongs to For fabric switch, it is automatically configured at the time of retrieving node information of the fabric.
	ChildNodeList		array	Child Node Information A node as a child node is stored.
		NodeId	integer	Node ID of Child Node
		Type	string	Node Type of Child Node
		SlotNum	integer	Slot Number in Chassis
	Fabric		array	Information of Switch Nodes Composing Fabric
		NodeId	integer	Node ID of Switch Node
	Status		string	Status of a Node - Error: Error - Warning: Warning - Unknown: Communication impossible - Normal: Normal

Parameter	Type	Description
		- Updating: During communication
AlarmStatus	string	Alarm Status of a Node For a node with subordinate node such as ChildNodeList or Fabric, it shows the highest severity alarm status including such subordinate nodes. - Error: Error - Warning: Warning - Info: Information - Normal: No notification Priority of Status: Normal < Info < Warning < Error
MaintenanceMode	string	Maintenance Mode - Normal: Regular Mode - Maintenance: Maintenance Mode
NodeGroupId	integer	Node Group ID
UniqInfo	string	Specific Information for Internal Control
AdditionalData	object	Internal Control Information
UpdateDate	string	Last Updated Time

[Precautions]

- Can only be executed by ISM administrators.
- Node name with its head starting with under bar "_" cannot be used as it is used with ISM.
- You cannot use the following characters in a node name.
Slash (/), back slash (\), colon (:), asterisk (*), question mark (?), double-quotation ("), brackets (<>) and pipeline (|)
- When displaying on the GUI, the controls below are executed.
 - Information on the mounting position in a rack
When a node type is facility, specify 101. Displayed as Rack CDU at upper position of the rack.
When node type is pdu or intelligent-pdu and PDU mount type is 0U, specify 201-204. Displayed as 0U PDU beside the rack.
 - Number of units occupying the rack in the information on the mounting position in a rack.
Displayed as nodes of height of 44.5mm multiplied by the number of units occupying the rack.

[Node Type]

Meanings of symbols in table

Y: Can execute

-: Cannot execute

Node Type	Model	Node Registration	Acquisition of Node Information	Deletion of Node	Setting of Maintenance Mode
server	PRIMERGY RX server and others	Y	Y	Y	Y
server-primequest3000b	PRIMEQUEST 3000B	Y	Y	Y	Y

Node Type	Model	Node Registration	Acquisition of Node Information	Deletion of Node	Setting of Maintenance Mode
server-ipcomvx	IPCOM VX2	Y	Y	Y	Y
server-generic	Platform made by other companies	Y	Y	Y	Y
server-primergycx	PRIMERGY CX server	Y	Y	Y	Y
server-primergybx	PRIMERGY BX server	Y	Y	Y	Y
server-snmp	Server (SNMP monitoring)	Y	Y	Y	Y
server-ping	Server (Ping monitoring)	Y	Y	Y	Y
primequest	PRIMEQUEST 2000series	Y	Y	Y [Note13]	Y
primequest-3000e	PRIMEQUEST 3000Eseries	Y	Y	Y [Note13]	Y
partition	PRIMEQUEST partition	- [Note1]	- [Note7]	- [Note14]	- [Note21]
extended-partition	PRIMEQUEST expansion partition	- [Note1]	- [Note7]	- [Note14]	- [Note21]
chassis	PRIMERGY CX chassis	- [Note2]	- [Note8]	Y [Note15]	Y
chassis-primergybx	PRIMERGY BX chassis (MMB)	Y	Y	Y [Note15]	Y
fabric-vcs	VCS Fabric (Brocade VCS Fabric) (hereinafter refer to as VCS Fabric)	Y	Y	Y [Note16]	Y
fabric-cfx	FUJITSU C fabric	Y	Y	Y [Note16]	Y
fabricswitch-vdx	VDX Switch	- [Note3]	- [Note9]	Y	- [Note22]
fabricswitch-cfx	CFX Switch	- [Note4]	- [Note10]	Y	- [Note23]
fabricswitch-bxsbox3	PY CB Eth Switch 10/40Gb 18/8+2 (Fabric mode)	- [Note4]	- [Note10]	Y	- [Note23]
switch	Switch	Y	Y	Y	Y
switch-fos	PSWITCH	Y	Y	Y	Y
switch-nexus	Cisco Nexus switch	Y	Y	Y	Y
switch-bxpass thru	PY CB Eth Pass Thru 10Gb 18/18	- [Note26]	Y	Y	Y
switch-bxsb11	PY CB Eth Switch/IBP 1Gb connection blade	Y	Y	Y	Y
switch-bxsbox2	PY CB Eth Switch/IBP 10Gb 18/8	Y	Y	Y	Y

Node Type	Model	Node Registration	Acquisition of Node Information	Deletion of Node	Setting of Maintenance Mode
switch-bxsbox3	PY CB Eth Switch 10/40Gb 18/8+2	Y	Y	Y	Y
switch-snmp	Switch (SNMP monitoring)	Y	Y	Y	Y
switch-ping	Switch (Ping monitoring)	Y	Y	Y	Y
sanswitch-brocade	FC Switch	Y	Y	Y	Y
sanswitch-brocadebxfc	FC Switch Blade	Y	Y	Y	Y
storage	ETERNUS DX	Y	Y	Y [Note17]	Y
storage-nr	NetApp (ETERNUS NR)	- [Note5]	- [Note11]	- [Note18]	- [Note24]
storage-snmp	Storage (SNMP monitoring)	Y	Y	Y	Y
storage-ping	Storage (Ping monitoring)	Y	Y	Y	Y
cluster-nr	NetApp (ETERNUS NR) cluster	Y	Y	Y [Note19]	Y
pdu	PDU	Y	Y	Y	Y
intelligent-pdu	Intelligent PDU	Y	Y	Y	Y
ups	UPS	Y	Y	Y	Y
facility	Rack CDU	Y	Y	Y	Y
facility-snmp	Facility machine (SNMP monitoring)	Y	Y	Y	Y
facility-ping	Facility machine (Ping monitoring)	Y	Y	Y	Y
drive-enclosure	ETERNUS DX drive enclosure.	- [Note6]	- [Note12]	- [Note20]	- [Note25]
driveenclosure-nr	NetApp (ETERNUS NR) external attachment disk shelf	- [Note5]	- [Note11]	- [Note18]	- [Note24]
other	Others	Y	Y	Y	Y

[Note1]: When retrieving node information of PRIMEQUEST 2000/3000E series, nodes are automatically created.

[Note2]: When retrieving node information of PRIMERGY CX servers, nodes are automatically created.

[Note3]: When retrieving node information of VCS Fabric(Brocade VCS Fabric) (hereinafter refer to as VCS Fabric), nodes are automatically created.

[Note4]: When retrieving node information of the FUJITSU C fabric, nodes are automatically created.

[Note5]: When retrieving NetApp (ETERNUS NR) cluster node information, nodes are automatically created.

[Note6]: Execute retrieving of node information for the ETERNUS DX.

[Note7]: Execute retrieving of node information for the PRIMEQUEST 2000/3000E series.

[Note8]: Execute retrieving of node information for the PRIMERGY CX servers.

[Note9]: Execute retrieving of node information for the VCS Fabric.

- [Note10]: Execute retrieving of node information of the FUJITSU C fabric.
- [Note11]: Execute retrieving of node information of the NetApp (ETERNUS NR) cluster.
- [Note12]: Execute retrieving of node information for the ETERNUS DX.
- [Note13]: Both subordinate partitions and expansion partitions will be deleted altogether.
- [Note14]: When nodes do not exist, nodes will be deleted automatically at retrieving of node information for the PRIMEQUEST 2000/3000E series.
- [Note15]: Server nodes and switch blades mounted in the chassis are to be deleted altogether.
- [Note16]: Switches composing the fabric are to be deleted altogether.
- [Note17]: Deletes storage in clusters as well as external disk shelf altogether.
- [Note18]: When nodes do not exist, nodes will be deleted automatically at retrieving of node information for the NetApp (ETERNUS NR) cluster.
- [Note19]: A drive enclosure that is connected will be deleted collectively.
- [Note20]: When nodes do not exist, nodes will be deleted automatically at retrieving of node information for ETERNUS DX.
- [Note21]: Set PRIMEQUEST 2000/3000E series to the maintenance mode.
- [Note22]: Set VCS Fabric to the maintenance mode.
- [Note23]: Set FUJITSU C fabric to the maintenance mode.
- [Note24]: Set NetApp (ETERNUS NR) cluster to the maintenance mode.
- [Note25]: Set ETERNUS DX to the maintenance mode.
- [Note26]: When retrieving node information of PRIMERGY BX Chassis (MMB), nodes are automatically created.

4.3.2 List Retrieval for Nodes

[Overview]

Retrieves information of all nodes under the management of the user group that the user belongs to.

Query parameters can be used to narrow down the nodes to be retrieved.

[Format]

```
GET /nodes
```

[Query Parameter]

Parameter	Type	Description
name	string	Narrowing down by Node Name
type	string	Narrowing down by Node Type For the information on node type that can be specified, refer to [Node Type] in "4.3.1 Node Registration."
model	string	Narrowing down by Model Name
ipaddress	string	Narrowing down by IP Address
rackid	integer	Narrowing down by Rack ID
floorid	integer	Narrowing down by Floor ID
dcid	integer	Narrowing down by Datacenter ID
status	string	Narrowing down by Status - Error: Error

Parameter	Type	Description
		<ul style="list-style-type: none"> - Warning: Warning - Unknown: Communication impossible - Normal: Normal - Updating: During communication
alarmstatus	string	Narrowing down by Alarm Status <ul style="list-style-type: none"> - Error: Error - Warning: Warning - Info: Information - Normal: No notification
nodetag	string	Narrowing down by Node Tag Name
uniqinfo	string	For Internal Control

[Response Parameter]

Parameter		Type	Description	
Nodes		array	Node Information	
	NodeId	integer	Node ID	
	Name	string	Node Name	
	Type	string	Node Type	
	Model	string	Model Name	
	IpAddress	string	IP Address	
	IpVersion	string	IP Version of IP Address - V4: IPv4 - V6: IPv6	
	WebUrl	string	WebURL (such as WebUI of device) to use in main	
	Urls	array	Miscellaneous WebURL Information	
	Url	Url	string	WebURL
		UrlName	string	WebURL Name
	Description	string	Description	
	NodeTagList	array	Node Tag Information	
	NodeTag	NodeTag	string	Node Tag Name
		RackInfo	object	Information of Mounting Position in the Rack
	RackId	RackId	integer	Rack ID Mounted
		Position	integer	Mounting Position (Unit Number) Outputs unit number at the bottom that a node possesses.
		OccupySize	integer	Number of Units Occupying Racks
	MountType	string	PDU Mount Type - Rack: Type to mount as same as normal nodes - 0U: Type to be mounted beside the rack	
	PduPosition	string	Do not use it.	

Parameter		Type	Description
	Outlet	array	Summary of PDU Connection Information Presently it is not supported.
	PowerSocket	integer	Socket Number Presently it is not supported.
	NodeId	integer	Node ID at the Destination of Connection Presently it is not supported.
	SlotNum	integer	Slot Number in Chassis For CX server, BX server blade and connection blade, it is automatically set at the time of retrieving node information.
	ParentNodeId	integer	Node ID of Parent Node When retrieving node information, it is automatically created. For BX server blade and connection blade, it is set at the time of retrieving node information of BX chassis.
	ParentFabricId	integer	Node ID of Fabric Node it belongs to For fabric switch, it is automatically configured at the time of retrieving node information by the fabric.
	ChildNodeList	array	Child Node Information A node as a child node is stored.
	NodeId	integer	Node ID of Child Node
	Type	string	Node Type of Child Node
	SlotNum	integer	Slot Number in Chassis
	Fabric	array	Information of Switch Nodes Composing the Fabric
	NodeId	integer	Node ID of Switch Node
	Status	string	Status of a Node <ul style="list-style-type: none"> - Error: Error - Warning: Warning - Unknown: Communication impossible - Normal: Normal - Updating: During communication
	AlarmStatus	string	Alarm Status of a Node For a node with subordinate node such as ChildNodeList or Fabric, it shows the highest severity alarm status including such subordinate nodes. <ul style="list-style-type: none"> - Error: Error - Warning: Warning - Info: Information - Normal: No notification Priority of Status: Normal < Info < Warning < Error
	MaintenanceMode	string	Maintenance Mode <ul style="list-style-type: none"> - Normal: Regular Mode

Parameter		Type	Description
			- Maintenance: Maintenance Mode
	NodeGroupId	integer	Node Group ID
	UniqInfo	string	Specific Information for Internal Control
	UpdateDate	string	Last Updated Time

4.3.3 Individual Retrieval of Node

[Overview]

Retrieves the information of the specified nodes.

[Format]

```
GET /nodes/{nodeid}
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
Node		object	Node Information
	NodeId	integer	Node ID
	Name	string	Node Name
	Type	string	Node Type
	Model	string	Model Name
	IpAddress	string	IP Address
	IpVersion	string	IP Version of IP Address - V4: IPv4 - V6: IPv6
	WebUrl	string	WebURL (such as WebUI of device) to use in main
	Urls	array	Miscellaneous WebURL Information
	Url	string	WebURL
		string	WebURL nName
	Description	string	Description
	NodeTagList	array	Node Tag Information
	NodeTag	string	Node Tag Name
	ManagementLanOption	object	Information of the Management LAN Sets management LAN to be used when executing PXE boot in the server.
	ManagementLanMode	string	Specifying Mode for the Management LAN - null: No specification For PXE boot, a port with a smaller slot 0 order is used. - MACAddress: MAC address

Parameter		Type	Description
			- Adapter: Adapter
	AdapterInfo	object	Information of an Adapter to be used as the Management LAN
	SlotIndex	integer	Slot Number
	PortIndex	integer	Port Number
	MACAddress	string	MAC Address to be used as the Management LAN
	RackInfo	object	Information of Mounting Position in the Rack
	RackId	integer	Rack ID Mounted
	Position	integer	Mounting Position (Unit Number) Outputs unit number at the bottom that a node possesses.
	OccupySize	integer	Number of Units Occupying Racks
	MountType	string	PDU Mount Type - Rack: Type to mount as same as normal nodes - 0U: Type to be mounted beside the rack
	PduPosition	string	Do not use it.
	Outlet	array	Summary of PDU Connection Information Presently it is not supported.
	PowerSocket	integer	Socket Number Presently it is not supported.
	NodeId	integer	Node ID at the Destination of Connection Presently it is not supported.
	SlotNum	integer	Slot Number in Chassis For CX server, BX server blade and connection blade, it is automatically set at the time of retrieving node information.
	ParentNodeId	integer	Node ID of Parent Node When retrieving node information, it is automatically set. For BX server blade and connection blade, it is set at the time of retrieving node information of BX chassis.
	ParentFabricId	integer	Node ID of the Fabric Node it belongs to For the fabric switch, it is automatically configured at the time of retrieving node information by the fabric.
	ChildNodeList	array	Child Node Information A node as a child node is stored.
	NodeId	integer	Node ID of Child Node
	Type	string	Node Type of Child Node
	SlotNum	integer	Slot Number in Chassis
	Fabric	array	Information of Switch Nodes Composing the Fabric
	NodeId	integer	Node ID of Switch Node
	Status	string	Status of a Node - Error: Error - Warning: Warning

Parameter	Type	Description
		<ul style="list-style-type: none"> - Unknown: Communication impossible - Normal: Normal - Updating: During communication
AlarmStatus	string	Alarm Status of a Node For a node with subordinate node such as ChildNodeList or Fabric, it shows the highest severity alarm status including such subordinate nodes. <ul style="list-style-type: none"> - Error: Error - Warning: Warning - Info: Information - Normal: No notification Priority of Status: Normal < Info < Warning < Error
MaintenanceMode	string	Maintenance Mode <ul style="list-style-type: none"> - Normal: Normal mode - Maintenance: Maintenance mode
NodeGroupId	integer	Node Group ID
UniqInfo	string	Specific Information for Internal Control
AdditionalData	object	Internal Control Information
UpdateDate	string	Last Updated Time

4.3.4 Update of Nodes

[Overview]

Updates the registration information of the specified nodes.

[Format]

```
PATCH /nodes/{nodeid}
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
Node	object	Node Information
Name	string	Node Name Designate a unique name in the ISM.
Model	string	Model Name Specify a model name of a device. For machines supported, it may not work normally unless specifying a correct model name.
IpAddress	string	IP Address Designate a unique IP address in the ISM.

Parameter		Type	Description
	IpVersion	string	IP Version of IP Address - V4: IPv4 - V6: IPv6
	WebUrl	string	WebURL (such as WebUI of device) to use in main Key can be omitted.
	Urls	array	Miscellaneous WebURL Information Key can be omitted.
	Url	string	WebURL
	UrlName	string	WebURL Name
	Description	string	Description Key can be omitted.
	NodeTagList	array	Node Tag Information Key can be omitted.
	NodeTag	string	Node Tag Name
	ManagementLanOption	object	Information of Management LAN Key can be omitted. Sets management LAN to be used when executing PXE boot in the server.
	ManagementLanMode	string	Specifying Mode for the Management LAN - null: No specification For PXE boot, a port with a smaller slot 0 order is used. - MACAddress: Specify MAC address - Adapter: Specify an adapter.
	AdapterInfo	object	Information of an Adapter to be used as the Management LAN When a specified mode is "Adapter", specifying is compulsory.
	SlotIndex	integer	Slot Number Specifies 0 for on board.
	PortIndex	integer	Port Number
	MACAddress	string	MAC address to be used as the Management LAN When a specified mode is "MACAddress", specifying is compulsory. Check the input format only when it is enabled.
	RackInfo	object	Information of Mounting Position in the Rack
	RackId	integer	Rack ID Mounted Specify a mounted Rack ID or null. Specify null for the following cases. - When not mounted in a rack - When the rack in which the node is mounted is not registered in the ISM.

Parameter		Type	Description
	Position	integer	<p>Mounting Position (Unit Number)</p> <p>Specify the unit number at the bottom that a node possesses or null.</p> <p>Specify null for the following cases.</p> <ul style="list-style-type: none"> - When not mounted in a rack - When the rack in which the node is mounted is not registered in the ISM. <p>When displaying on the GUI, refer to [Precautions].</p>
	OccupySize	integer	<p>Number of Units Occupying Racks</p> <p>Specify the number of units occupying racks or null.</p> <p>Specify null for the following cases.</p> <ul style="list-style-type: none"> - When not mounted in a rack - When the rack in which the node is mounted is not registered in ISM.
	MountType	string	<p>PDU Mount Type</p> <p>Key can be omitted.</p> <ul style="list-style-type: none"> - Rack: Type to mount as same as normal nodes - 0U: Type to be mounted beside the rack
	PduPosition	string	<p>Do not use it.</p> <p>Key can be omitted.</p>
	Outlet	array	<p>Summary of PDU Connection Information</p> <p>Key can be omitted.</p> <p>Presently it is not supported.</p>
	PowerSocket	integer	<p>Socket Number</p> <p>Presently it is not supported.</p>
	NodeId	integer	<p>Node ID at the Destination of Connection</p> <p>Presently it is not supported.</p>

[Response Parameter]

Parameter		Type	Description
Node		object	Node Information
	NodeId	integer	Node ID
	Name	string	Node Name
	Type	string	Node Type
	Model	string	Model Name
	IpAddress	string	IP Address
	IpVersion	string	<p>IP Version of IP Address</p> <ul style="list-style-type: none"> - V4: IPv4 - V6: IPv6

Parameter		Type	Description
	WebUrl	string	WebURL (such as WebUI of device) to use in main
	Urls	array	Miscellaneous WebURL Information
	Url	string	WebURL
		string	WebURL Name
	Description	string	Description
	NodeTagList	array	Node Tag Information
	NodeTag	string	Node Tag Name
	ManagementLanOption	object	Information of the Management LAN Sets the management LAN to be used when executing PXE boot in the server.
	ManagementLanMode	string	Specifying Mode for the Management LAN - null: No specification For PXE boot, a port with a smaller slot 0 order is used. - MACAddress: MAC address - Adapter: Adapter
	AdapterInfo	object	Information of an Adapter to be used as the Management LAN
	SlotIndex	integer	Slot Number
		integer	Port Number
	MACAddress	string	MAC Address to be used as Management LAN
	RackInfo	object	Information of Mounting Position in the Rack
	RackId	integer	Rack ID Mounted
	Position	integer	Mounting Position (Unit Number) Outputs unit number at the bottom that a node possesses.
	OccupySize	integer	Number of Units Occupying Racks
	MountType	string	PDU Mount Type - Rack: Type to mount as same as normal nodes - 0U: Type to be mounted beside the rack
	PduPosition	string	Do not use it.
	Outlet	array	Summary of PDU connection information Presently it is not supported.
	PowerSocket	integer	Socket Number Presently it is not supported.
	NodeId	integer	Node ID at the Destination of Connection Presently it is not supported.
	SlotNum	integer	Slot Number of Chassis For CX server, BX server blade and connection blade, it is automatically set at the time of retrieving node information.
	ParentNodeId	integer	Node ID of Parent Node

Parameter		Type	Description
			When retrieving node information, it is automatically set. For BX server blade and connection blade, it is set at the time of retrieving node information of BX chassis.
	ParentFabricId	integer	Node ID of Fabric Node it belongs to For fabric switch, it is automatically configured at the time of retrieving node information by the fabric.
	ChildNodeList	array	Child Node Information A node as a child node is stored.
	NodeId	integer	Node ID of Child Node
	Type	string	Node Type of Child Node
	SlotNum	integer	Slot Number in Chassis
	Fabric	array	Information of Switch Nodes Composing the Fabric
	NodeId	integer	Node ID of Switch Node
	Status	string	Status of a Node <ul style="list-style-type: none"> - Error: Error - Warning: Warning - Unknown: Communication impossible - Normal: Normal - Updating: During communication
	AlarmStatus	string	Alarm Status of a Node For a node with subordinate node such as ChildNodeList or Fabric, it shows the highest severity alarm status including such subordinate nodes. <ul style="list-style-type: none"> - Error: Error - Warning: Warning - Info: Information - Normal: No notification Priority of Status: Normal < Info < Warning < Error
	MaintenanceMode	string	Maintenance Mode <ul style="list-style-type: none"> - Normal: Regular Mode - Maintenance: Maintenance Mode
	NodeGroupId	integer	Node Group ID
	UniqInfo	string	Specific Information for Internal Control
	AdditionalData	object	Internal Control Information
	UpdateDate	string	Last Updated Time

[Precautions]

- Changing the following values can only be executed by ISM administrators.
RackId, Position, OccupySize, MountType, PduPosition
- Node Name with its head starting with under bar "_" cannot be used as it is used with ISM.

- You cannot use the following characters in a node name.
Slash (/), back slash (\), colon (:), asterisk (*), question mark (?), double-quotation ("), brackets (<>) and pipeline (|)
- When displaying on the GUI, the controls below are executed.
 - Information on the mounting position in a rack
When a node type is facility, specify 101. Displayed as Rack CDU at upper position of the rack.
When node type is pdu or intelligent-pdu and PDU mount type is 0U, specify 201-204. Displayed as 0U PDU beside the rack.
 - Number of units occupying the rack in the information on the mounting position in a rack
Displayed as nodes of height of 44.5mm multiplied by the number of units occupying the rack.

4.3.5 Deletion of Nodes

[Overview]

Deletes the specified nodes.

[Format]

```
DELETE /nodes/{nodeid}
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

None

[Precautions]

- Can only be executed by ISM administrators.

4.3.6 Registration of Racks

[Overview]

Registers a rack.

[Format]

```
POST /racks
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
Rack		object	Rack Information
	Name	string	Rack Name Designate a unique name in the ISM.

Parameter		Type	Description
	Unit	integer	Unit Size When displaying on the GUI, refer to [Precautions].
	Width	integer	Width of the Rack Unit: millimeter When displaying on the GUI, refer to [Precautions].
	Depth	integer	Depth of the Rack Unit: millimeter When displaying on the GUI, refer to [Precautions].
	Height	integer	Height of the Rack Unit: millimeter When displaying on the GUI, refer to [Precautions].
	FloorId	integer	Floor ID where the Rack is located Can be omitted
	Angle	integer	Placement Angle of the Rack Can be omitted When displaying on the GUI, refer to [Precautions].
	Xposition	integer	X coordinate position where the rack is located Unit: millimeter Can be omitted Increasing to the right in plan view. When displaying on the GUI, refer to [Precautions].
	Yposition	integer	Y coordinate position where the rack is located Unit: millimeter Can be omitted Increasing downward in plan view. When displaying on the GUI, refer to [Precautions].
	Description	string	Description Can be omitted

[Response Parameter]

Parameter		Type	Description
Rack		object	Rack Information
	RackId	integer	Rack ID
	Name	string	Rack Name
	Unit	integer	Unit Size
	Width	integer	Width of the Rack Unit: millimeter
	Depth	integer	Depth of the Rack Unit: millimeter

Parameter		Type	Description
	Height	integer	Height of the Rack Unit: millimeter
	FloorId	integer	Floor ID where the Rack is located
	Angle	integer	Placement Angle of the Rack
	Xposition	integer	X coordinate position where the rack is located Unit: millimeter
	Yposition	integer	Y coordinate position where the rack is located Unit: millimeter
	Description	string	Description
	Status	string	Status of a Rack A status mounted node with highest severity will be shown. Priority of Status: Updating < Normal < Unknown < Warning < Error
	AlarmStatus	string	Alarm Status of a Rack A status mounted node with highest severity will be shown. Priority of Status: Normal < Info < Warning < Error
	UpdateDate	string	Last Updated Time

[Precautions]

- Can only be executed by ISM administrators.
- When displaying on the GUI, set as shown below.
 - Set a unit size within a range of 10-50.
 - For the width of the rack, set it within a range of 1-3000. When it is 500 or less, GUI displays with 500mm.
 - For the depth of the rack, set it within a range of 1-3000. When it is 700 or less, GUI displays with 700mm.
 - For the height of the rack, set it within a range of 1-3000. When it is smaller than a value automatically computed based on a unit size, the value of automatic computing is displayed.
Automatic Calculation: Thickness of the bottom plate and top board of a rack (110 mm) + Height of 1 Unit (44.5 mm) x Unit size
 - As for placement angle of the rack, set from 0, 90, 180 and 270. In other cases, it is displayed by either 0,90, 180, or 270.
 - For both X and Y coordinate positions of the rack installation, set any values that can be accommodated within the relevant floor. When specifying out of this range, it will not be shown by GUI.

4.3.7 List Retrieval for Racks

[Overview]

Retrieves information of all racks.

Query parameters can be used to narrow down the racks to be retrieved.

[Format]

```
GET /racks
```

[Query Parameter]

Parameter	Type	Description
floorid	integer	Narrowing down by Floor ID
dcid	integer	Narrowing down by Datacenter ID

[Response Parameter]

Parameter	Type	Description
Racks	array	Rack Information
<div></div>	RackId	Rack ID
	Name	Rack Name
	Unit	Unit Size
	Width	Width of the Rack Unit: millimeter
	Depth	Depth of the Rack Unit: millimeter
	Height	Height of the Rack Unit: millimeter
	FloorId	Floor ID where the Rack is located
	Angle	Placement Angle of the Rack
	Xposition	X coordinate position where the rack is located Unit: millimeter
	Yposition	Y coordinate position where the rack is located Unit: millimeter
	Description	Description
	Status	Status of a Rack A status mounted node with highest severity will be shown. Priority of Status: Updating < Normal < Unknown < Warning < Error
	AlarmStatus	Alarm Status of a Rack A status mounted node with highest severity will be shown. Priority of Status: Normal < Info < Warning < Error
	UpdateDate	Last Updated Time

4.3.8 Individual Retrieval of Rack

[Overview]

Retrieves the information of the specified racks.

[Format]

```
GET /racks/{rackid}
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
Rack		object	Rack Information
	RackId	integer	Rack ID
	Name	string	Rack Name
	Unit	integer	Unit Size
	Width	integer	Width of the Rack Unit: millimeter
	Depth	integer	Depth of the Rack Unit: millimeter
	Height	integer	Height of the Rack Unit: millimeter
	FloorId	integer	Floor ID where the Rack is located
	Angle	integer	Placement Angle of the Rack
	Xposition	integer	X coordinate position where the rack is located Unit: millimeter
	Yposition	integer	Y coordinate position where the rack is located Unit: millimeter
	Description	string	Description
	Status	string	Status of a Rack A status mounted node with highest severity will be shown. Priority of Status: Updating < Normal < Unknown < Warning < Error
	AlarmStatus	string	Alarm Status of a Rack A status mounted node with highest severity will be shown. Priority of Status: Normal < Info < Warning < Error
	UpdateDate	string	Last Updated Time
	Nodes	array	Information of the node mounted in the rack
	NodeId	integer	Node ID
	Name	string	Node Name
	Type	string	Node Type
	RackInfo	object	Information of Mounting Position in the Rack
	RackId	integer	Rack ID Mounted
		integer	Mounting Position (Unit Number) Outputs unit number at the bottom that a node possesses.
		integer	Occupying Volume of Rack by Node
	MountType	string	PDU Mount Type - Rack: Type to mount as same as normal nodes - 0U: Type to be mounted beside the rack
	PduPosition	string	Do not use it.

Parameter		Type	Description
	Outlet	array	Summary of PDU Connection Information Presently it is not supported.
	PowerSocket	integer	Socket Number Presently it is not supported.
	NodeId	integer	Node ID of Connection Destination Presently it is not supported.
	SlotNum	integer	Slot Number in Chassis For CX server, BX server blade and connection blade, it is automatically set at the time of retrieving node information.
	ParentNodeId	integer	Node ID of Parent Node When retrieving node information, it is automatically created. For BX server blade and connection blade, it is set at the time of retrieving node information of BX chassis.
	ChildNodeList	array	Child Node Information A node as a child node is stored.
	NodeId	integer	Node ID of Child Node
	Type	string	Node Type of Child Node
	SlotNum	integer	Slot Number of Chassis
	Status	string	Status of a Node <ul style="list-style-type: none"> - Error: Error - Warning: Warning - Unknown: Communication impossible - Normal: Normal - Updating: During communication
	AlarmStatus	string	Alarm Status of a Node <ul style="list-style-type: none"> - Error: Error - Warning: Warning - Info: Information - Normal: No notification
	UpdateDate	string	Last Updated Time

4.3.9 Updating of Racks

[Overview]

Updates the information of the specified racks.

[Format]

```
PATCH /racks/{rackid}
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
Rack		object	Rack Information
	Name	string	Rack Name Designate a unique name in the ISM.
	Unit	integer	Unit Size When displaying on the GUI, refer to [Precautions].
	Width	integer	Width of the Rack Unit: millimeter When displaying on the GUI, refer to [Precautions].
	Depth	integer	Depth of Rack Unit: millimeter When displaying on the GUI, refer to [Precautions].
	Height	integer	Height of Rack Unit: millimeter When displaying on the GUI, refer to [Precautions].
	FloorId	integer	Floor ID where the Rack is located Can be omitted
	Angle	integer	Placement Angle of the Rack Can be omitted When displaying on the GUI, refer to [Precautions].
	Xposition	integer	X coordinate position where the rack is located Unit: millimeter Can be omitted Increasing to the right in plan view. When displaying on the GUI, refer to [Precautions].
	Yposition	integer	Y coordinate position where the rack is located Unit: millimeter Can be omitted Increasing downward in plan view. When displaying on the GUI, refer to [Precautions].
	Description	string	Description Can be omitted

[Response Parameter]

Parameter		Type	Description
Rack		object	Rack Information
	RackId	integer	Rack ID
	Name	string	Rack Name
	Unit	integer	Unit Size

Parameter		Type	Description
	Width	integer	Width of the Rack Unit: millimeter
	Depth	integer	Depth of Rack Unit: millimeter
	Height	integer	Height of Rack Unit: millimeter
	FloorId	integer	Floor ID where the Rack is located
	Angle	integer	Placement Angle of the Rack
	Xposition	integer	X coordinate position where the rack is located Unit: millimeter
	Yposition	integer	Y coordinate position where the rack is located Unit: millimeter
	Description	string	Description
	Status	string	Status of a Rack A status mounted node with highest severity will be shown. Priority of Status: Updating < Normal < Unknown < Warning < Error
	AlarmStatus	string	Alarm Status of a Rack A status mounted node with highest severity will be shown. Priority of Status: Normal < Info < Warning < Error
	UpdateDate	string	Last Updated Time

[Precautions]

- Can only be executed by ISM administrators.
- When displaying on the GUI, set as shown below.
 - Set a unit size within a range of 10-50.
 - For the width of the rack, set it within a range of 1-3000. When it is 500 or less, GUI displays with 500mm.
 - For the depth of the rack, set it within a range of 1-3000. When it is 700 or less, GUI displays with 700mm.
 - For the height of the rack, set it within a range of 1-3000. When it is smaller than a value automatically computed based on a unit size, the value of automatic computing is displayed.
Automatic Calculation: Thickness of the bottom plate and top board of a rack (110 mm) + Height of 1 Unit (44.5 mm) x Unit size
 - As for placement angle of the rack, set from 0, 90, 180 and 270. In other cases, it is displayed by either 0, 90, 180, or 270.
 - For both X and Y coordinate positions of the rack installation, set any values that can be accommodated within the relevant floor.
When specifying out of this range, it will not be shown by GUI.

4.3.10 Deletion of Racks

[Overview]

Deletes the specified racks.

[Format]

```
DELETE /racks/{rackid}
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

None

[Precautions]

- Can only be executed by ISM administrators

4.3.11 Registration of Floors

[Overview]

Registers a floor.

[Format]

```
POST /floors
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
Floor		object	Floor Information
	Name	string	Floor Name Designate a unique name in the ISM.
	DcId	integer	Datacenter ID where the Floor is located Can be omitted
	Xsize	integer	X Width of a Floor Unit: meter When displaying on the GUI, refer to [Precautions].
	Ysize	integer	Y Width of a Floor Unit: meter When displaying on the GUI, refer to [Precautions].
	Description	string	Description Can be omitted

[Response Parameter]

Parameter		Type	Description
Floor		object	Floor Information
	FloorId	integer	Floor ID
	Name	string	Floor Name
	DcId	integer	Datacenter ID where the Floor is located
	Xsize	integer	X Width of a Floor Unit: meter
	Ysize	integer	Y Width of a Floor Unit: meter
	Description	string	Description
	Status	string	Status of a Floor A status of the node with the highest severity in a floor will be shown. Priority of Status: Updating < Normal < Unknown < Warning < Error
	AlarmStatus	string	Alarm Status of a Floor A status of the node with the highest severity in a floor will be shown. Priority of Status: Normal < Info < Warning < Error
	UpdateDate	string	Last Updated Time

[Precautions]

- Can only be executed by ISM administrators.
- When displaying on the GUI, set as shown below.

Set X- and Y-coordinate widths of the floor within a range of 2-20. When specifying beyond this range, both floor view of GUI and 3D view will not be shown.

4.3.12 List Retrieval for Floors

[Overview]

Retrieves the information of all floors.

Query parameters can be used to narrow down the floors to be retrieved.

[Format]

```
GET /floors
```

[Query Parameter]

Parameter	Type	Description
dcid	integer	Narrowing down by Datacenter ID

[Response Parameter]

Parameter	Type	Description
Floors	array	Floor Information

Parameter		Type	Description
	FloorId	integer	Floor ID
	Name	string	Floor Name
	DcId	integer	Datacenter ID where the Floor is located
	Xsize	integer	X Width of a Floor Unit: meter
	Ysize	integer	Y Width of a Floor Unit: meter
	Description	string	Description
	Status	string	Status of a Floor A status of the node with the highest severity in a floor will be shown. Priority of Status: Updating < Normal < Unknown < Warning < Error
	AlarmStatus	string	Alarm Status of a Floor A status of the node with the highest severity in a floor will be shown. Priority of Status: Normal < Info < Warning < Error
	UpdateDate	string	Last Updated Time

4.3.13 Individual Retrieval of Floor

[Overview]

Retrieves the information of the specified floor.

[Format]

```
GET /floors/{floorid}
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
Floor		object	Floor Information
	FloorId	integer	Floor ID
	Name	string	Floor name
	DcId	integer	Datacenter ID where the Floor is located
	Xsize	integer	X Width of a Floor Unit: meter
	Ysize	integer	Y Width of a Floor Unit: meter
	Description	string	Description
	Status	string	Status of a Floor

Parameter		Type	Description
			<p>A status of the node with the highest severity in a floor will be shown.</p> <p>Priority of Status: Updating < Normal < Unknown < Warning < Error</p>
	AlarmStatus	string	<p>Alarm Status of a Floor</p> <p>A status of the node with the highest severity in a floor will be shown.</p> <p>Priority of Status: Normal < Info < Warning < Error</p>
	UpdateDate	string	Last Updated Time
	Racks	array	Rack Information in a Floor
	RackId	integer	Rack ID
	Name	string	Rack Name
	Unit	integer	Unit Size
	Width	integer	<p>Width of the Rack</p> <p>Unit: millimeter</p>
	Depth	integer	<p>Depth of Rack</p> <p>Unit: millimeter</p>
	Height	integer	<p>Height of Rack</p> <p>Unit: millimeter</p>
	FloorId	integer	Floor ID where the Rack is located
	Angle	integer	Placement Angle of the Rack
	Xposition	integer	<p>X coordinate position where the rack is located</p> <p>Unit: millimeter</p>
	Yposition	integer	<p>Y coordinate position where the rack is located</p> <p>Unit: millimeter</p>
	Description	string	Description
	Status	string	<p>Status of a Rack</p> <p>A status of the mounted node with highest severity will be shown.</p> <p>Priority of Status: Updating < Normal < Unknown < Warning < Error</p>
	AlarmStatus	string	<p>Alarm Status of a Rack</p> <p>A status of the mounted node with highest severity will be shown.</p> <p>Priority of Status: Normal < Info < Warning < Error</p>
	UpdateDate	string	Last Updated Time

4.3.14 Update of Floors

[Overview]

Updates the information of the specified floor.

[Format]

```
PATCH /floors/{floorid}
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
Floor		object	Floor Information
	Name	string	Floor Name Designate a unique name in the ISM.
	DcId	integer	Datacenter ID where the Floor is located Can be omitted
	Xsize	integer	X Width of a Floor Unit: meter When displaying on the GUI, refer to [Precautions].
	Ysize	integer	Y Width of a Floor Unit: meter When displaying on the GUI, refer to [Precautions].
	Description	string	Description Can be omitted

[Response Parameter]

Parameter		Type	Description
Floor		object	Floor Information
	FloorId	integer	Floor ID
	Name	string	Floor Name
	DcId	integer	Datacenter ID where the Floor is located
	Xsize	integer	X Width of a Floor Unit: meter
	Ysize	integer	Y Width of a Floor Unit: meter
	Description	string	Description
	Status	string	Status of a Floor A status of the node with the highest severity in a floor will be shown. Priority of Status: Updating < Normal < Unknown < Warning < Error
	AlarmStatus	string	Alarm Status of a Floor A status of the node with the highest severity in a floor will be shown.

Parameter		Type	Description
			Priority of Status: Normal < Info < Warning < Error
	UpdateDate	string	Last Updated Time

[Precautions]

- Can only be executed by ISM administrators.
- When displaying on the GUI, set as shown below.

Set X- and Y-coordinate widths of the floor within a range of 2-20. When specifying beyond this range, both floor view of GUI and 3D view will not be shown.

4.3.15 Deletion of Floors

[Overview]

Deletes the information of the specified floor.

[Format]

```
DELETE /floors/{floorid}
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

None

[Precautions]

- Can only be executed by ISM administrators.

4.3.16 Registration of Datacenters

[Overview]

Registers a datacenter.

[Format]

```
POST /datacenters
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
DataCenter		object	Datacenter Information
	Name	string	Datacenter Name

Parameter		Type	Description
			Designate a unique name in the ISM.
	Description	string	Description Can be omitted

[Response Parameter]

Parameter		Type	Description
DataCenter		object	Datacenter Information
	DcId	integer	Datacenter ID
	Name	string	Datacenter Name
	Description	string	Description
	Status	string	Status of Datacenter A status of the node with the highest severity in a datacenter will be shown. Priority of Status: Updating < Normal < Unknown < Warning < Error
	AlarmStatus	string	Alarm Status of Datacenter A status of the node with the highest severity in a datacenter will be shown. Priority of Status: Normal < Info < Warning < Error
	UpdateDate	string	Last Updated Time

[Precautions]

- Can only be executed by ISM administrators.

4.3.17 List Retrieval for Datacenters

[Overview]

Retrieves the information of all datacenters.

[Format]

```
GET /datacenters
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
DataCenters		array	Datacenter Information
	DcId	integer	Datacenter ID
	Name	string	Datacenter Name
	Description	string	Description
	Status	string	Status of Datacenter

Parameter		Type	Description
			A status of the node with the highest severity in a datacenter will be shown. Priority of Status: Updating < Normal < Unknown < Warning < Error
	AlarmStatus	string	Alarm Status of Datacenter A status of the node with the highest severity in a datacenter will be shown. Priority of Status: Normal < Info < Warning < Error
	UpdateDate	string	Last Updated Time

4.3.18 Individual Retrieval of Datacenter

[Overview]

Retrieves the set datacenter information.

[Format]

```
GET /datacenters/{datacenterid}
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
DataCenter		object	Datacenter Information
	DcId	integer	Datacenter ID
	Name	string	Datacenter Name
	Description	string	Description
	Status	string	Status of Datacenter A status of the node with the highest severity in a datacenter will be shown. Priority of Status: Updating < Normal < Unknown < Warning < Error
	AlarmStatus	string	Alarm Status of Datacenter A status of the node with the highest severity in a datacenter will be shown. Priority of Status: Normal < Info < Warning < Error
	UpdateDate	string	Last Updated Time
	Floors	array	Information on Floors within Datacenter
	<div></div>	FloorId	Floor ID
		Name	Floor name
		DcId	Datacenter ID where the Floor is located
		Xsize	X Width of a Floor Unit: meter

Parameter		Type	Description
	Ysize	integer	Y Width of a Floor Unit: meter
	Description	string	Description
	Status	string	Status of a Floor A status of the node with the highest severity in a floor will be shown. Priority of Status: Updating < Normal < Unknown < Warning < Error
	AlarmStatus	string	Alarm Status of a Floor A status of the node with the highest severity in a floor will be shown. Priority of Status: Normal < Info < Warning < Error
	UpdateDate	string	Last Updated Time

4.3.19 Update of Datacenters

[Overview]

Updates the information of the specified datacenter.

[Format]

```
PATCH /datacenters/{datacenterid}
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
DataCenter		object	Datacenter Information
	Name	string	Datacenter Name Designate a unique name in the ISM.
	Description	string	Description Can be omitted

[Response Parameter]

Parameter		Type	Description
DataCenter		object	Datacenter Information
	DcId	integer	Datacenter ID
	Name	string	Datacenter Name
	Description	string	Description
	Status	string	Status of Datacenter A status of node with the highest severity in a datacenter will be shown.

Parameter		Type	Description
			Priority of Status: Updating < Normal < Unknown < Warning < Error
	AlarmStatus	string	Alarm Status of Datacenter A status of node with the highest severity in a datacenter will be shown. Priority of Status: Normal < Info < Warning < Error
	UpdateDate	string	Last Updated Time

[Precautions]

- Can only be executed by ISM administrators.

4.3.20 Deletion of Datacenters

[Overview]

Deletes the set datacenter information.

[Format]

```
DELETE /datacenters/{datacenterid}
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

None

[Precautions]

- Can only be executed by ISM administrators.

4.3.21 Registration of Node Groups

[Overview]

Registers a node group.

[Format]

```
POST /nodegroups
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
NodeGroup	object	Information of Node Group

Parameter		Type	Description
	Name	string	Node Group Name Designate a unique name in the ISM.
	ParentGroupId	integer	Parent Node Group Can be omitted Presently it is not supported.
	Type	integer	Node Group Type Can be omitted Presently it supports 0 only.

[Response Parameter]

Parameter		Type	Description
NodeGroup		object	Information of Node Group
	NodeGroupId	integer	Node Group ID
	Name	string	Node Group Name
	ParentGroupId	integer	Parent Node Group Presently it is not supported.
	Type	integer	Node Group Type - 0: Node Group Created by User - 1: ISMDefaultGroup - 2: ISMSharedGroup
	UpdateDate	string	Last Updated Time

[Precautions]

- Can only be executed by ISM administrators.
- A node cannot be specified at creating a node group. When setting a node group, execute node allocation after creating a node group.
- The following node names cannot be used as they are used with ISM.
 - A name starting with under bar "_"
 - ISMDefaultGroup
 - ISMSharedGroup

4.3.22 List Retrieval for Node Groups

[Overview]

Retrieves the information of all the nodes managed by the user group that the user belongs to.

Query parameters can be used to narrow down the node groups to be retrieved.

[Format]

```
GET /nodegroups
```

[Query Parameter]

Parameter	Type	Description
type	integer	Narrowing down by Node Group Type

[Response Parameter]

Parameter		Type	Description
NodeGroups		array	Information of Node Group
	NodeGroupId	integer	Node Group ID
	Name	string	Node Group Name
	ParentGroupId	integer	Parent Node Group Presently it is not supported.
	Type	integer	Node Group Type - 0: Node Group Created by User - 1: ISMDefaultGroup - 2: ISMSharedGroup
	Nodes		array
	NodeID		integer
	NodeGroups		array
	NodeGroupId		integer
	UpdateDate		string
			Last Updated Time

4.3.23 Individual Retrieval of Node Group

[Overview]

Retrieves the information of the specified node groups.

[Format]

```
GET /nodegroups/{nodegroupid}
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
NodeGroup		object	Information of Node Group
	NodeGroupId	integer	Node Group ID
	Name	string	Node Group Name
	ParentGroupId	integer	Parent Node Group Presently it is not supported.
	Type	integer	Node Group Type - 0: Node Group Created by User - 1: ISMDefaultGroup

Parameter		Type	Description
			- 2: ISMSharedGroup
	Nodes	array	Node Information within a Node Group
	NodeId	integer	Node ID
	NodeGroups	array	Information of Node Group within a Node Group Only ISMDefaultGroup information is stored.
	NodeGroupId	integer	Node Group ID
	UpdateDate	string	Last Updated Time

4.3.24 Updating of Node Groups

[Overview]

Updates the information of the specified node groups.

[Format]

```
PATCH /nodegroups/{nodegroupid}
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
NodeGroup		object	Information of Node Group
	Name	string	Node Group Name Designate a unique name in the ISM.
	ParentGroupId	integer	Parent Node Group Can be omitted Presently it is not supported.

[Response Parameter]

Parameter		Type	Description
NodeGroup		object	Information of Node Group
	NodeGroupId	integer	Node Group ID
	Name	string	Node Group Name
	ParentGroupId	integer	Parent Node Group Presently it is not supported.
	Type	integer	Node Group Type - 0: Node Group Created by User - 1: ISMDefaultGroup - 2: ISMSharedGroup
	UpdateDate	string	Last Updated Time

[Precautions]

- Can only be executed by ISM administrators.
- Cannot specify the ISMDefaultGroup as well as the ISMSharedGroup.
- The following node names cannot be used as they are used with ISM.
 - A name starting with under bar "_".
 - ISMDefaultGroup
 - ISMSharedGroup

4.3.25 Deletion of Node Groups

[Overview]

Deletes a node group.

[Format]

```
DELETE /nodegroups/{nodegroupid}
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

None

[Precautions]

- Can only be executed by ISM administrators.
- Cannot specify the ISMDefaultGroup as well as the ISMSharedGroup.

4.3.26 Allocation of Nodes to Node Groups

[Overview]

Allocates the specified nodes to the specified node groups.

[Format]

```
POST /nodes/nodegroups/assign
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
Nodes		array	Information on Allocation of Node Group for Nodes
	NodeId	integer	Node ID
	NodeGroupId	integer	Node Group ID

Parameter	Type	Description
		Cannot specify ISMSharedGroup.

[Response Parameter]

Parameter	Type	Description
Nodes	array	Information on Allocation of Node Group for Nodes
NodeId	integer	Node ID
NodeGroupId	integer	Node Group ID

[Precautions]

- Can only be executed by ISM administrators.
- Nodes in parent-child relation including ParentNodeId, ParentFabricId, ChildNodeList or linked nodes with Fabric should be configured to become the same node group.

4.3.27 Account Registration

[Overview]

Registers account information to a node.

Set up information for access to the node. For the required account information, refer to the manual.

[Format]

```
POST /nodes/{nodeid}/accounts
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
Account	object	Account Information
AccountType	string	Account Type Only relevant information for account type specified is used. <ul style="list-style-type: none"> - Ipmi: Used when iRMC/BMC/MMB etc. is transmitted with IPMI. - Ssh: Used for communication via Ssh. - Ssh-Privileged: Used in platform requiring elevated privileges after Ssh login. - SnmpV1: Used for communication with SNMP v1. - SnmpV2: Used for communication with SNMP v2c. - SnmpV3: Used for communication with SNMP v3. - Https: Used for communication with HTTPS (REST)
PortNum	integer	Port Number used Specify the Port number or null.

Parameter		Type	Description
			<p>When null specified, sets the standard port number for the protocol.</p> <ul style="list-style-type: none"> - IPMI (No. 623) - SSH (No. 22) - SNMP (No. 161) - HTTPS (No. 443)
	AccountName	string	<p>User Account Name</p> <p>It is used when an account type is as follows.</p> <p>Ipmi, Ssh, Ssh-Privileged, SnmpV3, Https</p>
	Password	string	<p>Account Password</p> <p>Encrypt the password with a method described in "2.4 Encryption." It is used when an account type is as follows.</p> <p>Ipmi, Ssh, Ssh-Privileged, SnmpV3, Https</p>
	Property	object	Additional Information according to the Account Type
	Ipmi	string	<p>Ipmi Information</p> <p>Key can be omitted.</p> <p>Presently it is not supported.</p>
	Ssh	string	<p>Ssh Information</p> <p>Key can be omitted.</p> <p>Presently it is not supported.</p>
	SnmpV1	object	<p>SnmpV1 Information</p> <p>Key can be omitted.</p> <p>It is used when an account type is SnmpV1.</p>
	CommunityName	string	Community Name
	SnmpV2	object	<p>SnmpV2 Information</p> <p>Key can be omitted.</p> <p>It is used when an account type is SnmpV2.</p>
	CommunityName	string	Community Name
	SnmpV3	object	<p>SnmpV3 Information</p> <p>Key can be omitted.</p> <p>It is used when an account type is SnmpV3.</p>
	SecurityLevel	string	<p>Security Level</p> <ul style="list-style-type: none"> - authPriv: Authentication and encryption enabled - authNoPriv: Authentication enabled, No encryption - noAuthNoPriv: No authentication nor encryption
	AuthProtocol	string	<p>Authentication Protocol</p> <p>Used when security level is "authPriv" or "authNoPriv."</p> <p>Specify AccountName for account information and Password for your password.</p> <ul style="list-style-type: none"> - MD5: Authentication by MD5

Parameter			Type	Description
				- SHA: Authentication by SHA
		PrivProtocol	string	Privacy Protocol Used when security level is "authPriv." - DES: Encryption by DES - AES: Encryption by AES
		PrivPassword	string	Privacy Password Encrypt the password with a method described in " 2.4 Encryption ." Used when security level is "authPriv."
		ContextName	string	Context Name
		EngineId	string	Engine ID

[Response Parameter]

Parameter			Type	Description
Account			object	Account Information
	AccountId		integer	Account ID
	NodeId		integer	Node ID
	AccountType		string	Account Type - Ipmi: Used when iRMC/BMC/MMB etc. is transmitted with IPMI. - Ssh: Used for communication via Ssh. - Ssh-Privileged: Used in platform requiring elevated privileges after Ssh login. - SnmpV1: Used for communication via SNMP v1. - SnmpV2: Used for communication via SNMP v2c. - SnmpV3: Used for communication via SNMP v3. - Htps: Used for communication via HTTPS (REST)
	PortNum		integer	Port Number used
	AccountName		string	User Account Name It is used when an account type is as follows. Ipmi, Ssh, Ssh-Privileged, SnmpV3, Htps
	Property		object	Additional Information according to the Account Type
		Ipmi	string	Ipmi Information Presently it is not supported.
		Ssh	string	Ssh Information Presently it is not supported.
		SnmpV1	object	SnmpV1 Information It is used when an account type is SnmpV1.
		CommunityName	string	Community Name
		SnmpV2	object	SnmpV2 Information

Parameter		Type	Description
			It is used when an account type is SnmpV2.
	CommunityName	string	Community Name
	SnmpV3	object	SnmpV3 Information It is used when an account type is SnmpV3.
	SecurityLevel	string	Security Level <ul style="list-style-type: none"> - authPriv: Authentication and encryption enabled - authNoPriv: Authentication enabled, No encryption - noAuthNoPriv: No authentication nor encryption
	AuthProtocol	string	Authentication Protocol Used when security level is "authPriv" or "authNoPriv." <ul style="list-style-type: none"> - MD5: Authentication by MD5 - SHA: Authentication by SHA
	PrivProtocol	string	Privacy Protocol Used when security level is "authPriv." <ul style="list-style-type: none"> - DES: Encryption by DES - AES: Encryption by AES
	ContextName	string	Context Name
	EngineId	string	Engine ID
	UpdateDate	string	Last Updated Time

4.3.28 List Retrieval for Accounts

[Overview]

Retrieves all the account information of the specified nodes.

[Format]

```
GET /nodes/{nodeid}/accounts
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
Accounts		array	Account Information
	AccountId	integer	Account ID
	NodeId	integer	Node ID
	AccountType	string	Account Type <ul style="list-style-type: none"> - Ipmi: Used when iRMC/BMC/MMB etc. is transmitted with IPMI. - Ssh: Used for communication via Ssh.

Parameter	Type	Description
		<ul style="list-style-type: none"> - Ssh-Privileged: Used in platform requiring elevated privileges after Ssh login. - SnmpV1: Used for communication with SNMP v1. - SnmpV2: Used for communication with SNMP v2c. - SnmpV3: Used for communication with SNMP v3. - Https: Used for communication with HTTPS (REST).
AccountName	string	User Account Name It is used when an account type is as follows. Ipmi, Ssh, Ssh-Privileged, SnmpV3, Https
UpdateDate	string	Last Updated Time

4.3.29 Individual Retrieval of Account Information

[Overview]

Retrieves the account information of the specified nodes.

[Format]

```
GET /nodes/{nodeid}/accounts/{accountid}
```

[Query Parameter]

None

[Response Parameter]

Parameter	Type	Description
Account	object	Account Information
AccountId	integer	Account ID
NodeId	integer	Node ID
AccountType	string	Account Type <ul style="list-style-type: none"> - Ipmi: Used when iRMC/BMC/MMB etc. is transmitted with IPMI. - Ssh: Used for communication via Ssh. - Ssh-Privileged: Used in platform requiring elevated privileges after Ssh login. - SnmpV1: Used for communication with SNMP v1. - SnmpV2: Used for communication with SNMP v2c. - SnmpV3: Used for communication with SNMP v3. - Https: Used for communication with HTTPS (REST).
PortNum	integer	Port Number used
AccountName	string	User Account Name It is used when an account type is as follows. Ipmi, Ssh, Ssh-Privileged, SnmpV3, Https

Parameter		Type	Description
	Property	object	Additional Information according to the Account Type
	Ipmi	string	Ipmi Information Presently it is not supported.
	Ssh	string	Ssh Information Presently it is not supported.
	SnmpV1	object	SnmpV1 Information It is used when an account type is SnmpV1.
	CommunityName	string	Community Name
	SnmpV2	object	SnmpV2 Information It is used when an account type is SnmpV2.
	CommunityName	string	Community Name
	SnmpV3	object	SnmpV3 Information It is used when an account type is SnmpV3.
	SecurityLevel	string	Security Level <ul style="list-style-type: none"> - authPriv: Authentication and encryption enabled - authNoPriv: Authentication enabled, No encryption - noAuthNoPriv: No authentication nor encryption
	AuthProtocol	string	Authentication Protocol Used when security level is "authPriv" or "authNoPriv." <ul style="list-style-type: none"> - MD5: Authentication by MD5 - SHA: Authentication by SHA
	PrivProtocol	string	Privacy Protocol Used when security level is "authPriv." <ul style="list-style-type: none"> - DES: Encryption by DES - AES: Encryption by AES
	ContextName	string	Context Name
	EngineId	string	Engine ID
UpdateDate		string	Last Updated Time

4.3.30 Updating of Account Information

[Overview]

Updates the account information of the specified nodes.

[Format]

```
PATCH /nodes/{nodeid}/accounts/{accountid}
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
Account		object	Account Information
	AccountType	string	<p>Account Type</p> <p>Only relevant information for account type specified is used.</p> <ul style="list-style-type: none"> - Ipmi: Used when iRMC/BMC/MMB etc. is transmitted with IPMI. - Ssh: Used for communication via Ssh. - Ssh-Privileged: Used in platform requiring elevated privileges after Ssh login. - SnmpV1: Used for communication via SNMP v1. - SnmpV2: Used for communication via SNMP v2c. - SnmpV3: Used for communication via SNMP v3. - Https: Used for communication via HTTPS (REST).
	PortNum	integer	<p>Port Number used</p> <p>Specify the Port number or null.</p> <p>When null specified, sets the standard port number for the protocol.</p> <ul style="list-style-type: none"> - IPMI (No. 623) - SSH (No. 22) - SNMP (No. 161) - HTTPS (No. 443)
	AccountName	string	<p>User Account Name</p> <p>It is used when an account type is as follows.</p> <p>Ipmi, Ssh, Ssh-Privileged, SnmpV3, Https</p>
	Password	string	<p>Account Password</p> <p>When not updating, the key can be omitted.</p> <p>Encrypt the password with a method described in "2.4 Encryption." It is used when an account type is as follows.</p> <p>Ipmi, Ssh, Ssh-Privileged, SnmpV3, Https</p>
	Property	object	<p>Additional Information according to the Account Type</p> <p>When not updating, the key can be omitted.</p>
	Ipmi	string	<p>Ipmi Information</p> <p>Key can be omitted.</p> <p>Presently it is not supported.</p>
	Ssh	string	<p>Ssh Information</p> <p>Key can be omitted.</p> <p>Presently it is not supported.</p>
	SnmpV1	object	<p>SnmpV1 Information</p> <p>Key can be omitted.</p>

Parameter		Type	Description
			It is used when an account type is SnmpV1.
	CommunityName	string	Community Name
	SnmpV2	object	SnmpV2 Information Key can be omitted. It is used when an account type is SnmpV2.
	CommunityName	string	Community Name
	SnmpV3	object	SnmpV3 Information Key can be omitted. It is used when an account type is SnmpV3.
	SecurityLevel	string	Security Level - authPriv: Authentication and encryption enabled - authNoPriv: Authentication enabled, No encryption - noAuthNoPriv: No authentication nor encryption
	AuthProtocol	string	Authentication Protocol Used when security level is "authPriv" or "authNoPriv." Specify AccountName for account information and Password for your password. - MD5: Authentication by MD5 - SHA: Authentication by SHA
	PrivProtocol	string	Privacy Protocol Used when security level is "authPriv." - DES: Encryption by DES - AES: Encryption by AES
	PrivPassword	string	Privacy Password When not updating, the key can be omitted. Encrypt the password with a method described in " 2.4 Encryption ." Used when security level is "authPriv."
	ContextName	string	Context Name
	EngineId	string	Engine ID

[Response Parameter]

Parameter		Type	Description
Account		object	Account Information
	AccountId	integer	Account ID
	NodeId	integer	Node ID
	AccountType	string	Account type - Ipmi: Used when iRMC/BMC/MMB etc. is transmitted with IPMI. - Ssh: Used for communication via Ssh.

Parameter		Type	Description
			<ul style="list-style-type: none"> - Ssh-Privileged: Used in platform requiring elevated privileges after Ssh login. - SnmpV1: Used for communication via SNMP v1. - SnmpV2: Used for communication via SNMP v2c. - SnmpV3: Used for communication via SNMP v3. - Https: Used for communication via HTTPS (REST)
	PortNum	integer	Port Number used
	AccountName	string	User Account Name It is used when an account type is as follows. Ipmi, Ssh, Ssh-Privileged, SnmpV3, Https
	Property	object	Additional Information according to the Account Type
		Ipmi	Ipmi Information Presently it is not supported.
		Ssh	Ssh Information Presently it is not supported.
		SnmpV1	SnmpV1 Information It is used when an account type is SnmpV1.
		CommunityName	Community Name
		SnmpV2	SnmpV2 Information It is used when an account type is SnmpV2.
		CommunityName	Community Name
		SnmpV3	SnmpV3 Information It is used when an account type is SnmpV3.
		SecurityLevel	Security Level <ul style="list-style-type: none"> - authPriv: Authentication and encryption enabled - authNoPriv: Authentication enabled, No encryption - noAuthNoPriv: No authentication nor encryption
		AuthProtocol	Authentication Protocol Used when security level is "authPriv" or "authNoPriv." <ul style="list-style-type: none"> - MD5: Authentication by MD5 - SHA: Authentication by SHA
		PrivProtocol	Privacy Protocol Used when security level is "authPriv." <ul style="list-style-type: none"> - DES: Encryption by DES - AES: Encryption by AES
		ContextName	Context Name
		EngineId	Engine ID
	UpdateDate	string	Last Updated Time

4.3.31 Deletion of Accounts

[Overview]

Deletes the account information of the specified nodes.

[Format]

```
DELETE /nodes/{nodeid}/accounts/{accountid}
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

None

4.3.32 Clearing Node Alarms

[Overview]

Clears the alarm of the specified node.

With the alarm cleared, the alarm status of the node returns to Normal.

[Format]

```
POST /nodes/{nodeid}/alarmstatus/deactivate
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

None

[Precautions]

- When a node has a subordinate node such as ChildNodeList or Fabric, it shows higher severity alarm status including such subordinate nodes. When the alarm status of a subordinate node is not Normal, its alarm status will not become Normal even after clearing the alarm. Execute alarm clearing of the subordinate nodes.

4.3.33 Changing from/to Maintenance Mode

[Overview]

Changes maintenance mode of a node.

A node with its maintenance mode in "Maintenance" cannot monitor, retrieve regular node information, and event notifications are not sent.

[Format]

```
PATCH /nodes/{nodeid}/maintenancemode
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
Node		object	Node Information
	MaintenanceMode	string	Maintenance Mode <ul style="list-style-type: none"> - Normal: Maintenance Mode Disabled - Maintenance: Maintenance Mode Enabled

[Response Parameter]

Parameter		Type	Description
Node		object	Node Information
	MaintenanceMode	string	Maintenance Mode <ul style="list-style-type: none"> - Normal: Maintenance Mode Disabled - Maintenance: Maintenance Mode Enabled

[Precautions]

- For the node type that can change the maintenance mode, refer to [\[Node Type\]](#) in "4.3.1 Node Registration."

4.3.34 List Retrieval for Node Tags

[Overview]

Retrieves the information of all node tags managed by the user group the user belongs to.

[Format]

```
GET /nodes/nodetags
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
NodeTagList		array	Node Tag Information
	NodeTag	string	Node Tag Name

4.4 Node Discovery

4.4.1 Execution of Manual Node Discovery

[Overview]

Executes manual node discovery according to the set requirements.

[Format]

POST /nodes/discovery/manual

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
ManualDiscoverySetting		object	Information on Setting of Manual Discovery
	Ranges	array	Range of IP addresses of Targets for Discovering
	IpAddressRange	string	IP Address Range Refer to [Precautions].
	IpVersion	string	IP Version of IP Address - V4: IPv4 - V6: IPv6
	Accounts	array	Account Information Set up information for access to the node.
	AccountType	string	Account Type Only relevant information for account type specified is used. - Ipmi: Used when iRMC/BMC/MMB etc. is transmitted with IPMI. - Ssh: Used for communication via Ssh. - SnmpV1: Used for communication via SNMP v1. - SnmpV2: Used for communication via SNMP v2c. - SnmpV3: Used for communication via SNMP v3. - Https: Used for communication via HTTPS (REST).
	PortNum	integer	Port Number used Specify the Port number or null. When null specified, sets the standard port number for the protocol. - IPMI (No. 623) - SSH (No. 22) - SNMP (No. 161) - HTTPS (No. 443)
	AccountName	string	User Account Name It is used when an account type is as follows. Ipmi, Ssh, Ssh-Privileged, SnmpV3, Https
	Password	string	Account Password

Parameter		Type	Description
			Encrypt the password with a method described in " 2.4 Encryption ." It is used when an account type is as follows. Ipmi, Ssh, Ssh-Privileged, SnmpV3, Https
		Property	Additional Information according to the Account Type
		Ipmi	IPMI Information Presently it is not supported.
		Ssh	Ssh Information Presently it is not supported.
		SnmpV1	SnmpV1 Information It is used when an account type is SnmpV1.
		CommunityName	Community Name
		SnmpV2	SnmpV2 Information It is used when an account type is SnmpV2.
		CommunityName	Community Name
		SnmpV3	SnmpV3 Information It is used when an account type is SnmpV3.
		SecurityLevel	Security Level <ul style="list-style-type: none"> - authPriv: Authentication and encryption enabled - authNoPriv: Authentication enabled, No encryption - noAuthNoPriv: No authentication nor encryption
		AuthProtocol	Authentication Protocol Used when security level is "authPriv" or "authNoPriv." Specify AccountName for account information and Password for your password. <ul style="list-style-type: none"> - MD5: Authentication by MD5 - SHA: Authentication by SHA
		PrivProtocol	Privacy Protocol Used when security level is "authPriv." <ul style="list-style-type: none"> - DES: Encryption by DES - AES: Encryption by AES
		PrivPassword	Privacy Password Encrypt the password with a method described in " 2.4 Encryption ." Used when security level is "authPriv."
		ContextName	Context Name
		EngineId	Engine ID

[Response Parameter]

Parameter	Type	Description
ManualDiscoveryId	integer	ID for Manual Node Discovery

[Precautions]

- Manual discovery of nodes is controlled by each session ID of the user. Discovery results can be retrieved only for requests with the same session IDs.

How to specify a range of IP Address (examples)

- "192.168.1.10": For specifying a specific IP address
- "192.168.2.10-90": For specifying a range, it should be specified by linking only the last digit with "-."

As for account information required for node discovery, refer to the manual.

4.4.2 Retrieving Results of Manual Node Discovery

[Overview]

Retrieves the manual discovery results of all nodes managed by the user group that the user belongs to.

[Format]

```
GET /nodes/discovery/manual
```

[Query Parameter]

Parameter	Type	Description
manualsecoveryid	integer	Narrowing down by Node ID Manually Discovered

[Response Parameter]

Parameter		Type	Description
ManualDiscoveryList		array	Result of Manual Node Discovery
	ManualDiscoveryId	integer	ID for Manual Node Discovery
	Status	string	Status of Discovery Process <ul style="list-style-type: none">- Running: Execution in progress- Complete: Finished
	TotalIpAddressCount	integer	Number of IP Addresses of Targets for Discovering
	CompletedIpAddressCount	integer	Number of IP Addresses of the Completed Discovery
	ManualDiscoveredNodes	array	Manually Discovered Node
	ManualNodeId	integer	ID of Manually Discovered Node
	IpAddress	string	IP Address of Manually Discovered Node
	IpVersion	string	IP Version of IP Address <ul style="list-style-type: none">- V4: IPv4- V6: IPv6
	NodeStatus	string	Status of Manually Discovered Node <ul style="list-style-type: none">- Success: Success (supported)- Not supported: Not supported- Error: Failed to discover (Ping communication is successful. Failed to retrieve information.)- Only automatic registration: Not handled by node registration (if fabric switch)

Parameter		Type	Description
			- Registered: Node is already registered in ISM (ISM 2.3.0.b or later)
	NodeSubStatus	object	Details of the discovered status (ISM 2.3.0.b or later)
	Node	integer	Registered Node ID (ISM 2.3.0.b or later)
		string	Registered Node Name (ISM 2.3.0.b or later)
	NodeType	string	Node Type For the information on node type, refer to [Node Type] in "4.3.1 Node Registration." For not supported or failed to discover, "other" is set.
	Model	string	Model Name of a Device
	SerialNumber	string	Serial Number of a Device
	DomainName	string	Domain Name of a Device The reversed domain name of the IP address discovered from DNS. If it could not be retrieved, null is set.
	Chassis	object	Chassis Information PRIMERGY CX server only. For other models, null is set.
	Chassis	string	Model Name of a Chassis
		string	Serial Number of a Chassis
		integer	Slot Number in Chassis of a Discovered Device
	Accounts	array	Information of Account that succeeded in connection Only account information displayed is registered as account information of a node at the time registration of manually discovered node.
	Account	string	Account Type - Ipmi: Used when iRMC/BMC/MMB etc. is transmitted with IPMI. - Ssh: Used for communication via Ssh. - SnmpV1: Used for communication via SNMP v1. - SnmpV2: Used for communication via SNMP v2c. - SnmpV3: Used for communication via SNMP v3. - Https: Used for communication via HTTPS (REST).
	DiscoveredDate	string	Discovered Time
	ManualDiscoveryType	string	Manual Discovery Type - Ranges: Discovery with the specified IP address ranges - Csv: Discovery with the specified CSV files
	CsvFile	string	CSV File Name Output when ManualDiscoveryType is "Csv."
	ManualDiscoverySetting	object	Information on Setting of Manual Discovery Output when ManualDiscoveryType is "Ranges."
	Ranges	array	Range of IP Addresses of Targets for Discovering

Parameter			Type	Description	
		IpAddressRange	string	IP Address Range	
		IpVersion	string	IP Version of IP Address - V4: IPv4 - V6: IPv6	
	Accounts		array	Account Information	
		AccountType	string	Account Type - Ipmi: Used when iRMC/BMC/MMB etc. is transmitted with IPMI. - Ssh: Used for communication via Ssh. - SnmpV1: Used for communication via SNMP v1. - SnmpV2: Used for communication via SNMP v2c. - SnmpV3: Used for communication via SNMP v3. - Https: Used for communication via HTTPS (REST).	
		PortNum	integer	Port Number used	
		AccountName	string	User Account Name	
		Property	object	Additional Information according to the Account Type	
			Ipmi	string	Ipmi Information Presently it is not supported.
			Ssh	string	Ssh Information Presently it is not supported.
			SnmpV1	object	SnmpV1 Information It is used when an account type is SnmpV1.
			CommunityName	string	Community Name
		SnmpV2	object	SnmpV2 Information It is used when an account type is SnmpV2.	
			CommunityName	string	Community Nam
		SnmpV3	object	SnmpV3 Information It is used when an account type is SnmpV3.	
			SecurityLevel	string	Security Level - authPriv: Authentication and encryption enabled - authNoPriv: Authentication enabled, No encryption - noAuthNoPriv: No authentication nor encryption
			AuthProtocol	string	Authentication Protocol Used when security level is "authPriv" or "authNoPriv." - MD5: Authentication by MD5 - SHA: Authentication by SHA
			PrivProtocol	string	Privacy Protocol Used when security level is "authPriv." - DES: Encryption by DES

Parameter					Type	Description
						- AES: Encryption by AES
				ContextName	string	Context Name
				EngineId	string	Engine ID

[Precautions]

- Manual node discovery is controlled by each session ID of the user. Discovery results can be retrieved only for requests with the same session ID.
- Nodes whose IP addresses are already registered will not be discovered.

4.4.3 Registration of Manually Discovered Nodes

[Overview]

Registers a node for manually discovered nodes.

[Format]

```
POST /nodes/discovery/manual/{manualdiscoveryid}/{manualnodeid}
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
Node		object	Node Information
	Name	string	Node Name
	Type	string	Node Type For the information on node types that can be specified, refer to [Node Type] in "4.3.1 Node Registration." Specify the node type retrieved in the manual discovery result retrieval of nodes. When you want to change it, specify a node type to configure. It may not work normally unless specifying correctly.
	Model	string	Model Name Specify the model name retrieved in the manual discovery result retrieval of nodes. When you want to change it, specify the name of model to configure. It may not work normally unless specifying a correct model name.
	ModifyIpAddress	object	Device IP Address setting (change) Information Key can be omitted. When the key is omitted, the setting of device is not executed. Refer to [Precautions] .
	IpModifyMode	string	IP Address Change Mode It works with NotModifyDevice when not specified. - ModifyDevice: Set (change) IP address of the device.

Parameter		Type	Description
			- NotModifyDevice: Do not set the device.
	IpAddress	string	IP Address to set for the Device Specify when IpModifyMode is ModifyDevice.
	IpVersion	string	IP Version of IP Address to set for the Device Specify when IpModifyMode is ModifyDevice. Specify the same IP version as the discovered IP address. - V4: IPv4 - V6: IPv6
	Subnet	string	Subnet of IP Address to set for the Device Specify when IpModifyMode is ModifyDevice. Specify IP address format when IP version is IPv4 and prefix format for IPv6. E.g.) For IPv4: "255.255.255.0" For IPv6: "64"
	Gateway	string	Gateway to set for Device Specify when IpModifyMode is ModifyDevice.
	WebUrl	string	WebURL (such as WebUI of device) to use in main
	Description	string	Description
	NodeTagList	array	Node Tag Information Key can be omitted.
	NodeTag	string	Node Tag Name
	RackInfo	object	Information of Mounting Position in the Rack For PRIMERGY CX servers, it is registered as information on rack installation position of a chassis.
	RackId	integer	Rack ID Mounted Specify a mounted Rack ID or null. Specify null for the following cases. - When not mounted in a rack - When the rack in which the node is mounted is not registered in the ISM.
	Position	integer	Mounting Position (Unit Number) Specify the unit number at the bottom that a node possesses or null. - When not mounted in a rack - When the rack in which the node is mounted is not registered in the ISM. When displaying on the GUI, refer to [Precautions].
	OccupySize	integer	Number of Units Occupying Racks Specify the number of units occupying racks or null.

Parameter		Type	Description
			Specify null for the following cases. <ul style="list-style-type: none"> - When not mounted in a rack - When the rack in which the node is mounted is not registered in ISM.
	MountType	string	PDU Mount Type <ul style="list-style-type: none"> - Rack: Type to mount as same as normal nodes - 0U: Type to be mounted beside the rack
	PduPosition	string	Do not use it.
	Outlet	array	Summary of PDU Connection Information Presently it is not supported.
	PowerSocket	integer	Socket Number Presently it is not supported.
	NodeId	integer	Node ID at the Destination of Connection Presently it is not supported.
	Chassis	object	Chassis Information For PRIMERGY CX servers, nodes are registered if the chassis has not been registered. In case that the chassis has been registered, the chassis information is not updated.
	Name	string	Node Name of a Chassis
	WebUrl	string	Web URL to be used in main Chassis
	Description	string	Description of a Chassis

[Response Parameter]

Parameter		Type	Description
Node		object	Node Information
	NodeId	integer	Node ID
	Name	string	Node Name
	Type	string	Node Type For the information on node type, refer to [Node Type] in "4.3.1 Node Registration."
	Model	string	Model Name
	IpAddress	string	IP Address
	IpVersion	string	IP Version of IP Address <ul style="list-style-type: none"> - V4: IPv4 - V6: IPv6
	WebUrl	string	WebURL (such as WebUI of device) to use in main
	Description	string	Description
	NodeTagList	array	Node Tag Information
	NodeTag	string	Node Tag Name
	RackInfo	object	Information of Mounting Position in the Rack

Parameter		Type	Description
	RackId	integer	Rack ID Mounted
	Position	integer	Mounting Position (Unit Number) Outputs unit number at the bottom that a node possesses.
	OccupySize	integer	Number of Units Occupying Racks
	MountType	string	PDU Mount Type - Rack: Type to mount as same as normal nodes - 0U: Type to be mounted beside the rack
	PduPosition	string	Do not use it.
	Outlet	array	Summary of PDU Connection Information Presently it is not supported.
	PowerSocket	integer	Socket Number Presently it is not supported.
	NodeId	integer	Node ID at the Destination of Connection Presently it is not supported.
	SlotNum	integer	Slot Number in Chassis For CX server, BX server blade and connection blade, it is automatically set at the time of retrieving node information.
	ParentNodeId	integer	Node ID of Parent Node When retrieving node information, it is automatically created. For BX server blade and connection blade, it is set at the time of retrieving node information of BX chassis.
	ParentFabricId	integer	Node ID of the Fabric Node it belongs to For the fabric switch, it is automatically configured at the time of retrieving node information by the fabric.
	ChildNodeList	array	Child Node Information A node as a child node is stored.
	NodeId	integer	Node ID of Child Node
	Type	string	Node Type of Child Node
	SlotNum	integer	Slot Number in Chassis
	Fabric	array	Information of Switch Nodes Composing the Fabric
	NodeId	integer	Node ID of Switch Node
	Status	string	Status of a Node - Error: Error - Warning: Warning - Unknown: Communication impossible - Normal: Normal - Updating: During communication
	AlarmStatus	string	Alarm Status of a Node For a node with subordinate node such as ChildNodeList or Fabric, it shows the highest severity alarm status including such subordinate nodes.

Parameter	Type	Description
		<ul style="list-style-type: none"> - Error: Error - Warning: Warning - Info: Information - Normal: No notification Severity of Status: Normal < Info < Warning < Error
MaintenanceMode	string	Maintenance Mode <ul style="list-style-type: none"> - Normal: Regular Mode - Maintenance: Maintenance Mode
NodeGroupId	integer	Node Group ID
UniqInfo	string	Specific Information for Internal Control
UpdateDate	string	Last Updated Time

[Precautions]

- Manual node discovery is controlled by each session ID of the user. Manually discovered node can be registered only by the requests with the same session ID.
- IP address of a node is set up with detected values.
- Sets account information used in the discovery as account information of the node.
- When displaying on the GUI, the controls below are executed.
 - Information on the mounting position in a rack

When the node type is facility, specify 101. Displayed as Rack CDU at the upper position of the rack.

When the node type is pdu or intelligent-pdu and PDU mount type is 0U, specify 201-204. Displayed as 0U PDU beside the rack.
 - Number of units occupying racks in the information on the mounting position in a rack

Displayed as nodes of height of 44.5mm multiplied by the number of units occupying the rack.
- For IP address setting (change) of the device, refer to the following.
 - When the network setting of the device is DHCP setting, the fixed IP address specified is set. When the fixed IP address is already set, IP address cannot be changed.
 - Specify the same IP version as the discovered IP address.
 - The target models are as follows.
 - PRIMERGY server
 - PRIMEQUEST 3000B series

4.4.4 Retrieving Results of Auto Discovery of Nodes

[Overview]

Retrieves all automatically discovered nodes.

[Format]

```
GET /nodes/discovery/auto
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
DiscoveredNodeList		array	Auto Discovery Result of Nodes
	DiscoveredNodeId	integer	Automatically Discovered Node ID
	DiscoveryType	string	Auto Discovery Type - Upnp: Auto Discovery by Upnp - Redfish: Auto Discovery by Redfish
	Ipv4Address	string	Discovered IPv4 Address
	Ipv6Address	string	Discovered IPv6 Address When DiscoveryType is Upnp/Redfish, IPv6 link local address is discovered. Node registration cannot be executed for IPv6 link local address.
	NodeStatus	string	Auto Discovery Node Status - Success: Success (supported) - Not supported: Not supported - Error: Discovery failure
	NodeType	string	Node Type For the information on node type, refer to [Node Type] in "4.3.1 Node Registration." For not supported or failed to discover, "other" is set.
	Model	string	Model Name of a Device
	SerialNumber	string	Serial Number of a Device
	DomainName	string	Domain Name of a Device The reversed domain name of the IP address discovered from DNS. If it could not be recovered, null is set.
	Chassis	object	Chassis Information PRIMERGY CX server only. For other models, null is set.
	Model	string	Model Name of a Chassis
		string	Serial Number of a Chassis
		integer	Slot Number in Chassis of a Discovered Device
	DiscoveredDate	string	Discovered Time

[Precautions]

- Corresponding models of Auto Discovery are as follows.
 - Upnp: PSWITCH
 - Redfish: PRIMERGY server, PRIMEQUEST3000B
- Devices already registered in ISM are not discovered.
- When notification is not received from the device for more than 30 minutes after the device is discovered, it will be deleted from the discovery results. Devices removed from the network will be deleted from the discovery results after 30 minutes.
- After connecting the device to the network, it takes time to display the Auto Discovery results for the time of periodic notification interval at a maximum.

4.4.5 Registration of Automatically Discovered Nodes

[Overview]

Registers a node for automatically discovered node.

[Format]

```
POST /nodes/discovery/auto/{discoverednodeid}
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
Node		object	Node Information
	Name	string	Node Name
	Type	string	Node Type For the information on node types that can be specified, refer to [Node Type] in "4.3.1 Node Registration." Specify the node type retrieved in the Auto Discovery result retrieval of nodes. When you want to change it, specify a node type to configure. It may not work normally unless specifying correctly.
	Model	string	Model Name Specify the model name retrieved in the Auto Discovery result retrieval of nodes. When you want to change it, specify the name of model to configure. It may not work normally unless specifying a correct model name.
	IpVersion	string	IP Version Specify the IP version to be registered in ISM.
	ModifyIpAddress	object	Device IP Address setting (change) Information Key can be omitted. When the key is omitted, the setting of device is not executed. Refer to [Precautions].
	IpModifyMode	string	IP Address change Mode It works with NotModifyDevice when not specified. <ul style="list-style-type: none">- ModifyDevice: Set (change) IP address of the device- NotModifyDevice: Do not set the device
	IpAddress	string	IP Address to set for the Device Specify when IpModifyMode is ModifyDevice.
	IpVersion	string	IP Version of IP Address to set for the Device Specify when IpModifyMode is ModifyDevice. <ul style="list-style-type: none">- V4: IPv4- V6: IPv6

Parameter		Type	Description
	Subnet	string	Subnet of IP address to set for the Device Specify when IpModifyMode is ModifyDevice. Specify IP address format when IP version is IPv4 and prefix format for IPv6. E.g.) For IPv4: "255.255.255.0" For IPv6: "64"
	Gateway	string	Gateway to set for Device Specify when IpModifyMode is ModifyDevice.
	WebUrl	string	WebURL (such as WebUI of device) to use in main
	Description	string	Description
	NodeTagList	array	Node Tag Information Key can be omitted.
	NodeTag	string	Node Tag Name
	RackInfo	object	Information of Mounting Position in the Rack For PRIMERGY CX servers, it is registered as information on rack installation position of a chassis.
	RackId	integer	Rack ID Mounted Specify a mounted Rack ID or null. Specify null for the following cases. <ul style="list-style-type: none">- When not mounted in a rack- When the rack in which the node is mounted is not registered in the ISM.
	Position	integer	Mounting Position (Unit Number) Specify the unit number at the bottom that a node possesses or null. Specify null for the following cases. <ul style="list-style-type: none">- When not mounted in a rack- When the rack in which the node is mounted is not registered in the ISM. When displaying on the GUI, refer to [Precautions].
	OccupySize	integer	Number of Units Occupying Racks Specify the number of units occupying racks or null. Specify null for the following cases. <ul style="list-style-type: none">- When not mounted in a rack- When the rack in which the node is mounted is not registered in ISM.
	MountType	string	PDU Mount Type <ul style="list-style-type: none">- Rack: Type to mount as same as normal nodes- 0U: Type to be mounted beside the rack

Parameter		Type	Description
	PduPosition	string	Do not use it.
	Outlet	array	Summary of PDU Connection Information Presently it is not supported.
	PowerSocket	integer	Socket Number Presently it is not supported.
	NodeId	integer	Node ID at the Destination of Connection Presently it is not supported.
	Chassis	object	Chassis Information For PRIMERGY CX servers, nodes are registered if the chassis has not been registered. In case that the chassis has been registered, the chassis information is not updated.
	Name	string	Node Name of a Chassis
	WebUrl	string	Web URL to be used in main Chassis
	Description	string	Description of a Chassis
	Accounts	array	Account Information Set up information for access to the node.
	AccountType	string	Account Type Only relevant information for account type specified is used. <ul style="list-style-type: none"> - Ipmi: Used when iRMC/BMC/MMB etc. is transmitted with IPMI. - Ssh: Used for communication via Ssh. - SnmpV1: Used for communication via SNMP v1. - SnmpV2: Used for communication via SNMP v2c. - SnmpV3: Used for communication via SNMP v3. - Https: Used for communication via HTTPS (REST).
	PortNum	integer	Port Number used Specify the Port number or null. When null specified, sets the standard port number for the protocol. <ul style="list-style-type: none"> - IPMI (No. 623) - SSH (No. 22) - SNMP (No. 161) - HTTPS (No. 443)
	AccountName	string	User Account Name It is used when an account type is as follows. Ipmi, Ssh, Ssh-Privileged, SnmpV3, Https
	Password	string	Account Password Encrypt the password with a method described in " 2.4 Encryption ." It is used when an account type is as follows. Ipmi, Ssh, Ssh-Privileged, SnmpV3, Https

Parameter			Type	Description		
		Property		object	Additional Information according to the Account Type	
		Ipmi	string	Ipmi Information	Presently it is not supported.	
		Ssh	string	Ssh Information	Presently it is not supported.	
		SnmpV1		object	SnmpV1 Information	It is used when an account type is SnmpV1.
			CommunityName	string	Community Name	
		SnmpV2		object	SnmpV2 Information	It is used when an account type is SnmpV2.
			CommunityName	string	Community Name	
		SnmpV3		object	SnmpV3 Information	It is used when an account type is SnmpV3.
			SecurityLevel	string	Security Level	<ul style="list-style-type: none">- authPriv: Authentication and encryption enabled- authNoPriv: Authentication enabled, No encryption- noAuthNoPriv: No authentication nor encryption
			AuthProtocol	string	Authentication Protocol	Used when security level is "authPriv" or "authNoPriv." Specify AccountName for account information and Password for your password. <ul style="list-style-type: none">- MD5: Authentication by MD5- SHA: Authentication by SHA
			PrivProtocol	string	Privacy Protocol	Used when security level is "authPriv." <ul style="list-style-type: none">- DES: Encryption by DES- AES: Encryption by AES
			PrivPassword	string	Privacy Password	Encrypt the password with a method described in " 2.4 Encryption ." Used when security level is "authPriv."
			ContextName	string	Context Name	
EngineId	string		Engine ID			

[Response Parameter]

Parameter			Type	Description
Node			object	Node Information
	NodeId		integer	Node ID
	Name		string	Node Name
	Type		string	Node Type

Parameter		Type	Description
			For the information on node types, refer to [Node Type] in "4.3.1 Node Registration."
	Model	string	Model Name
	IpAddress	string	IP Address
	IpVersion	string	IP Version of IP Address - V4: IPv4 - V6: IPv6
	WebUrl	string	WebURL (such as WebUI of device) to use in main
	Description	string	Description
	NodeTagList	array	Node Tag Information
	NodeTag	string	Node Tag Name
	RackInfo	object	Information of Mounting Position in the Rack
	RackId	integer	Rack ID Mounted
	Position	integer	Mounting Position (Unit Number) Specify unit number at the bottom that a node possesses.
	OccupySize	integer	Number of Units Occupying Racks
	MountType	string	PDU Mount Type - Rack: Type to mount as same as normal nodes - 0U: Type to be mounted beside the rack
	PduPosition	string	Do not use it.
	Outlet	array	Summary of PDU Connection Information Presently it is not supported.
	PowerSocket	integer	Socket Number Presently it is not supported.
	NodeId	integer	Node ID at the Destination of Connection Presently it is not supported.
	SlotNum	integer	Slot Number in Chassis For CX server, BX server blade and connection blade, it is automatically set at the time of retrieving node information.
	ParentNodeId	integer	Node ID of Parent Node When retrieving node information, it is automatically created. For BX server blade and connection blade, it is set at the time of retrieving node information of BX chassis.
	ParentFabricId	integer	Node ID of the Fabric Node it belongs to For the fabric switch, it is automatically configured at the time of retrieving node information by the fabric.
	ChildNodeList	array	Child Node Information A node as a child node is stored.
	NodeId	integer	Node ID of Child Node
	Type	string	Node Type of Child Node

Parameter		Type	Description
	SlotNum	integer	Slot Number in Chassis
	Fabric	array	Information of Switch Nodes Composing the Fabric
	NodeId	integer	Node ID of Switch Node
	Status	string	Status of a Node <ul style="list-style-type: none"> - Error: Error - Warning: Warning - Unknown: Communication impossible - Normal: Normal - Updating: During communication
	AlarmStatus	string	Alarm Status of a Node For a node with subordinate node such as ChildNodeList or Fabric, it shows the highest severity alarm status including such subordinate nodes. <ul style="list-style-type: none"> - Error: Error - Warning: Warning - Info: Information - Normal: No notification Severity of Status: Normal < Info < Warning < Error
	MaintenanceMode	string	Maintenance Mode <ul style="list-style-type: none"> - Normal: Regular Mode - Maintenance: Maintenance Mode
	NodeGroupId	integer	Node Group ID
	UniqInfo	string	Specific Information for Internal Control
	UpdateDate	string	Last Updated Time

[Precautions]

- When displaying on the GUI, the controls below are executed.
 - Information on the mounting position in a rack
 - When the node type is facility

Only specify 101. Displayed as Rack CDU at the upper position of the rack.
 - When the node type is pdu or intelligent-pdu and PDU mount type is 0U

Only specify 201-204. Displayed as 0U PDU beside the rack.
 - Number of units occupying racks in the information on the mounting position in a rack

Displayed as nodes of height of 44.5mm multiplied by the number of units occupying the rack.
- For IP address setting (change) of the device, refer to the following.
 - The devices cannot be managed by IPv6 link local address. If the discovered IP address is only IPv6 link local address, IP address setting (change) is required.

- PRIMERGY server/ PRIMEQUEST 3000B

When the network setting of the device is DHCP setting, the fixed IP address specified is set. When the fixed IP address is already set, IP address cannot be changed. Set the correct IP address on the device and detect it.

- PSWITCH

When the network setting of the device is fixed, the specified fixed IP address is set. For DHCP setting, IP address cannot be changed. Set the correct IP address on the device and detect it.

4.4.6 Execution of Manual Node Discovery by Specifying CSV

[Overview]

Executes manual node discovery with the information in the CSV file.

[Format]

```
POST /nodes/discovery/manual/csv
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
FilePath	string	File names including a folder path name in which the CSV file is stored.
PasswordMode	string	Encryption mode for the password Operates in encryption mode unless specified. <ul style="list-style-type: none"> - Encrypted: Encryption enabled - Unencrypted: No encryption
FileOption	string	File Options Files are not deleted unless specified. <ul style="list-style-type: none"> - Delete: Deletes files - NotDelete: Does not delete files

[Response Parameter]

Parameter	Type	Description
ManualDiscoveryId	integer	ID for Manual Node Discovery

[Precautions]

- Manual discovery of nodes by specifying CSV is controlled by each session ID of the user. Discovery results can be retrieved only for requests with the same session IDs.
- Specifying FilePath:

When saving CSV files in the ISM via FTP forwarding, store the file in the file transfer area and specify the file name including the folder path name under the file transfer area.

Example for specifying FilePath:

File transfer area: ftp login route/<User Group Name>/ftp/

- When storing "manualCsv.csv" in the file transfer area: manualCsv.csv
- When creating a folder, (xxx) in the file transfer area and storing "manualCsv.csv" there: xxx/manualCsv.csv
- For the information entered in the CSV file, refer to "2.2.1.6 Node discovery" of "User's Manual."

4.4.7 Retrieving Key Names and Alternatives for the Value of the Keys to be Entered in the CSV File

[Overview]

Outputs a list of key names and alternatives for the keys with alternatives to be entered in the CSV file.

[Format]

```
GET /nodes/discovery/manual/csvitems
```

[Query Parameter]

Parameter	Type	Description
AccountType	string	<p>Account Type</p> <p>Specify when retrieving a key name for the specified account type.</p> <p>Retrieves a key name for all AccountType unless specified.</p> <ul style="list-style-type: none"> - Ipmi: Specify when retrieving a key name required for IPMI communication. - Ssh: Specify when retrieving a key name required for SSH communication. - SnmpV1: Specify when retrieving a key name required for SNMP v1 communication. - SnmpV2: Specify when retrieving a key name required for SNMP v2c communication. - SnmpV3: Specify when retrieving a key name required for SNMP v3 communication. - Htps: Specify when retrieving a key name required for HTTPS communication.

[Response Parameter]

Parameter	Type	Description
CsvItems	object	Information for the CSV file for Manual Discovery
KeyList	array(string)	Key List for the CSV file for Manual Discovery
ValueProperty	object	Information on the value of the keys
SnmpType	object	SnmpType Information
SelectionList	array(string)	Alternatives for the value of the keys (SnmpType) for the CSV file for Manual Discovery
V3SecLevel	object	Information of V3SecLevel
SelectionList	array(string)	Alternatives for the value of the keys (V3SecLevel) for the CSV file for Manual Discovery
V3AuthProtocol	object	Information of V3AuthProtocol

Parameter				Type	Description
			SelectionList	array(string)	Alternatives for the value of the keys (V3AuthProtocol) for the CSV file for Manual Discovery
			V3PrivProtocol	object	Information of V3PrivProtocol
			SelectionList	array(string)	Alternatives for the value of the keys (V3PrivProtocol) for the CSV file for Manual Discovery

[Precautions]

- For the information entered in the CSV file, refer to "2.2.1.6 Node discovery" of "User's Manual."

4.5 Node Operation

4.5.1 Instruction to Change Power Status

[Overview]

Instructs a change of the power status.

[Format]

```
PATCH /nodes/{nodeid}/power
```

[Query Parameter]

None

[Request Parameter]

Parameter				Type	Description
Parts				array	List of Power Sources
	Name			string	Name of Power Source Sets PowerManagement.
	PowerStatus			string	Status of Power Sources Configures operation to change a status. Sets a value for any of PowerOn, Reset or Shutdown.

[Response Parameter]

Parameter				Type	Description
Parts				array	List of Power Sources
	Name			string	Name of Power Source Sets PowerManagement.
	PowerStatus			string	Status of Power Sources The value of either On, Off, Standby or Unknown is set.

4.5.2 Retrieval of Node LED Information

[Overview]

Retrieves the LED information of the specified nodes.

[Format]

```
GET /nodes/{nodeid}/led
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
Parts		array	List of LEDs
	Name	string	LED Name The LED Name is set. For the LED name, there are Power LED Status, Global Error LED Status, CSS LED Status, and Identify LED Status.
	LedStatus	string	Status of LEDs The value of either On, Off, or Blinking is set.
	LedChoices	array(string)	Options for LED All choices that are operational are set. The choices are On, Off, and Blinking. It becomes an empty list ([]) when it is unable to operate.

4.5.3 Instruction to Change Node LED Status

[Overview]

Instructs a change of the status of the identification LED of the specified nodes.

[Format]

```
PATCH /nodes/{nodeid}/led
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
Parts		array	List of LEDs
	Name	string	LED Name Sets up Identify LED Status.
	LedStatus	string	Status of LEDs Sets a status you want to change. Sets a value for any of On, Off or Blinking.

[Response Parameter]

Parameter		Type	Description
Parts		array	List of LEDs
	Name	string	LED Name Identify LED Status is set up.
	LedStatus	string	Status of LEDs Sets a status of LED. The value of either On, Off, or Blinking is set.

4.5.4 Output of Power Statuses

[Overview]

Retrieves power status information.

[Format]

```
GET /nodes/{nodeid}/power
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
Parts		array	List of Power Sources
	Name	string	Name of Power Source Sets PowerManagement.
	PowerStatus	string	Status of Power Sources The value of either On, Off, Standby or Unknown is set.
	PowerChoices	array (string)	Choices of Power Sources All choices that are operational are set. The choices are PowerOn, Reset, and Shutdown. Operational choices other than PowerOn, Reset, and Shutdown are different according to the node. It becomes an empty list ([]) when it is unable to operate.

4.6 Detailed Node Information Management

4.6.1 Instruction to Execute Retrieval of Node Information

[Overview]

Retrieves information from machines for the specified nodes.

When OS information is registered, it executes to retrieve information from the OS as well.

[Format]

```
POST /nodes/{nodeid}/inventory/refresh
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

Parameter	Type	Description
RefreshDate	string	Execution time of instruction for retrieving node information

[Precautions]

- It takes time to retrieve node information. Outputs a message (10020303) in the Operation Log at completion. Check the Operation Log.
- If retrieving the node information failed, the error is output on the Operation Log.
- Progress of retrieval of information of the node can be confirmed by retrieving detailed node information.
- When giving execution instruction to retrieve node information during execution of retrieving node information, it will execute information retrieval after the previous node information retrieval is completed.
- When OS information is registered, retrieves information from the OS also. However, even if retrieving the OS information failed, the node information retrieval continues and it completes normally.
- If retrieving the OS information failed, the error is output on the Operation Log. Check the Operation Log.

4.6.2 List Retrieval for Detailed Node Information

[Overview]

Retrieves detailed information from the nodes managed by the user group that the user belongs to. Query parameters can be used to narrow down the contents to display.

[Format]

```
GET /nodes/inventory
```

[Query Parameter]

Parameter	Type	Description
level	string	Retrieving Process Level Specify if VariableData should be retrieved. Unless specified, it operates with Top. <ul style="list-style-type: none">- Top: No information on VariableData- All: VariableData available It is recommended to use it in combination with a query parameter "target."
target	string	Specifying Detailed Node Information Specify parameters in VariableData. Displays only specified information. Specify All for the retrieving process level. Example of specification) /nodes/inventory?level=All&target=Firmware -> Only Firmware will be displayed in VariableData.

[Response Parameter]

Parameter		Type	Description
Node		array	Detailed Node Information
	NodeId	integer	Node ID
	ProductName	string	Product Name
	Manufacture	string	Vendor Name
	SerialNumber	string	Serial Number
	Name	string	System Name
	MacAddress	string	MAC Address of a Node
	Wwnn	string	WWNN
	HardwareLogTarget	integer	Node Log Collection Availability Information Used in Log Management. - 0: Disable - 1: Enable
	SoftwareLogTarget	integer	OS Log Collection Availability Information Used in Log Management. - 0: Disable - 1: Enable
	ServerViewLogTarget	integer	ServerView Log Collection Availability Information Used in Log Management. - 0: Disable - 1: Enable
	RaidLogTarget	integer	RAID Log Collection Availability Information Used in Log Management. - 0: Disable - 1: Enable
	Progress	string	Progress of Node Information Retrieval - Updating: During retrieval. Displays the information retrieved last time. - Complete: Retrieval finished. Displays the most up-to-dated information. - Error: Failed to retrieve information. Information will not be renewed.
	VariableData	object	Detailed Information
	Slot	string	Slot Number Displayed for PRIMERGY CX servers.
	PartitionId	string	Number of Partitions Displayed for PRIMEQUEST partition/expansion partition.
	ParentId	string	Number of Parent Partitions Displayed for PRIMEQUEST expansion partition.

Parameter		Type	Description
		PartitioningMode	string Status of Partitions Displayed for PRIMEQUEST partition/expansion partition. - Enable: Partition is enabled. It is in a status of being able to use with startup of OS. - Disable: Partition is invalid. OS cannot be started.
		Fans	array FAN Information
		Name	string Name
		Status	string Status
		Model	string Model Name
		PartNumber	string Parts Number
		SerialNumber	string Serial Number
		ParentName	string Installation Source Information
		Psus	array PSU Information
		Name	string Name
		Status	string Status
		Model	string Model Name
		PartNumber	string Parts Number
		SerialNumber	string Serial Number
		ParentName	string Installation Source Information
		Ports	array Port Information
		Name	string Port Name
		Number	string Port Number
		PortMacAddress	string Port MAC Address When a virtual address is specified, the virtual address is displayed.
		PortWWNN	string WWNN When a virtual address is specified, the virtual address is displayed.
		PortWWPN	string WWPN When a virtual address is specified, the virtual address is displayed.
		ManufactureMacAddress	string Physical Port MAC Address
		ManufactureWWNN	string Physical WWNN
		ManufactureWWPN	string Physical WWPN
		Category	string Port Category LAN/ FC/ FCoE/ iSCSI/ IB/ CNA/ Unknown
		SubCategory	string Port Sub-category
		TechnologyType	string Type of Port
		InterfaceType	string Type of Interface
		LinkStatus	string Status of Link

Parameter			Type	Description	
		Speed		object	Communication Speed
			Value	string	Value
			Unit	string	Unit
		Duplex		string	Duplex Unknown/ Half/ Full
		VLans		array	VLAN Information
			VlanId	integer	VLAN ID
			Tag	string	tag: available/unavailable
			Ctag	integer	Ctag Information
		Lldp		string	LLDP Settings Enable/ Disable
		NeighborDevices		array	Information of the Destination of Connection
			ChassisMacAddress	string	Chassis MAC Address at the Destination of Connection
			PortName	string	Name of Port at the Destination of Connection
			PortMacAddress	string	Port MAC Address at the Destination of Connection
			PortWwpn	string	Port WWPN at the Destination of Connection
			Wwnn	string	Port WWNN / Node WWNN at the Destination of Connection
		IpAddress		object	IP Address Information
			V4	string	IPv4 Address
			V6	string	IPv6 Address
		Location		object	Location Information
			PciSlotId	string	Slot ID
			PciVenderId	string	Vendor ID
			PciDeviceId	string	Device ID
		Component		object	Information of Configuration Unit Displays which component it exists on.
			Type	string	Type of Configuration Unit E.g.) "PCIe"
			Name	string	Name of Configuration Unit E.g.) PCIe Name of PCIe
		ParentName		string	Installation Source Information
		DetectedOrder		integer	Detection Number Displayed for PRIMERGY servers.
		PCies		array	PCIe Information
			Name	string	PCIe Name
			Model	string	Model Name
			Type	string	PCIe Type
			SlotId	string	Slot Number of Card
			BusNumber	integer	Bus Number of Card

Parameter				Type	Description	
			DeviceNumber	integer	Device Number of Card	
			FunctionNumber	integer	Function Number of Card	
			Component	object	Information of Configuration Unit Displays which component it exists on.	
			Type	string	Type of Configuration Unit E.g.) MMB	
			Name	string	Name of Configuration Unit E.g.) MMB Name of MMB	
	Firmware			array	Firmware Information	
			Name	string	Firmware Name	
			SlotId	string	Slot ID	
			Model	string	Model Name	
			Type	string	Firmware Type	
			FirmwareVersion	string	Firmware Version Number	
			Slot	string	Slot Number	
			Segment	string	Segment	
			Bus	string	Bus Number	
			Device	string	Device Number	
			Function	string	Function Number	
			Version	string	Version of iRMC Displayed for PRIMERGY servers.	
			ParentName	string	Installation Source Information	
			Unified	string	Unified Model	
	SwitchConfigurations			array	Switch	
				Name	string	Name of Setting
				Lag	array	Information of Link Aggregation (LAG)
				LagName	string	LAG Name
				LinkStatus	string	Status of LAG
				LagMode	string	Operation Mode for LAG
				LagType	string	LAG Classification
				MlagId	string	MLAG ID
				CFabricType	string	Type Information of C-Fabric
				PortNames	array(string)	Port Number
			Mlag	string	MLAG Settings Enable/ Disable	
			Mlags	array	MLAG Information	
				Domain	string	MLAG Domain
				MlagId	string	MLAG ID

Parameter				Type	Description	
			MlagStatus	string	MLAG Status	
			PeerLinks	array(string)	MLAG Peer Link Port	
			NeighborDevice	object	Device Information of Other Party	
			MlagId	MlagId	string	MLAG ID of Other Party
				MlagStatus	string	MLAG Status of Other Party
				MacAddress	string	MAC Address of Other Party
				PeerLinks	array(string)	MLAG Peer Link Port of Other Party
			FcoeMode	string	FCoE Usage Possibility Information	
			Fcoes	array	FCoE Information	
			FcoeName	FcoeName	string	FCoE Name
				Mode	string	FCoE Mode
				LinkStatus	string	FCoE Status
			VtepMode	string	Information to determine if Vtep should be used	
			Vteps	array	Vtep Information	
			VxlanId	VxlanId	string	VXLAN Interface Name
				IpAddress	string	IP Address
				UdpPort	string	UDP Port Number
				BumTraffic	string	Method of BUM Traffic Transfer
				MalticastGroup	string	Multi-cast Group
			MemoryModules	array	Memory Information	
			Name	Name	string	Name
				Status	string	Status
				Model	string	Model Name
				Manufacture	string	Vendor Name
				PartNumber	string	Parts Number
				SerialNumber	string	Serial Number
				Frequency	string	Frequency
				MemorySize	string	Size
				Slot	string	Slot ID
				ParentName	string	Installation Source Information
			Cpus	array	CPU Information	
			Name	Name	string	Name
				Status	string	Status
				Model	string	Model Name
				CpuId	string	ID of CPU
				Slot	string	Slot ID
				Power	string	Power Supply
				Core	string	Cores

Parameter		Type	Description
		CoreSpeed	Speed of CPU
		ConnectSpeed	Bus Connection Speed
		CacheL1	Cache Size 1
		CacheL2	Cache Size 2
		CacheL3	Cache Size 3
		ParentName	Installation Source Information
	Disks		Disk Information
		Status	Status
		Position	Location of Disk
		Type	Disk Type
		Manufacture	Vendor Name
		Model	Model
		Health	Life Information
		Drive	Drive Name
		OwnerNodeName	Controller Name
	Volume		Information of Volume
		Number	Volume Number
		Status	Status
		Type	Type of Volume
		Capacity	Volume
		SizeUsed	Capacity Used
		Name	Volume Name
		Aggregate	Aggregate Name
	Aggregate		Aggregate Information
		Name	Aggregate Name
		RaidLevel	Raid Level
		Status	Status
		PowerStatus	Power Status
		SizeUsed	Capacity Used
		SizeAvail	Empty Capacity
		Size	Volume
		OwnerNodeName	Controller Name
	Raid		RAID Information
		Number	RAID Number
		Name	RAID Name
		Status	Status
		Level	RAID Level
		Capacity	RAID Capacity
		TotalCapacity	RAID Capacity

Parameter			Type	Description	
		FreeCapacity	integer	RAID Empty Capacity	
		Disks	integer	RAID Disk Number	
	MMBs		array	MMB Information	
		Name	string	MMB Name	
		Role	string	Status Active/ Standby	
		PartNumber	string	Parts Number	
		SerialNumber	string	Serial Number	
		FirmwareVersion	string	Integrated Firmware Version Number	
		MmbFirmwareVersion	string	MMB Firmware Version Number	
		ProductName	string	MMB Product Name	
		ParentName	string	Installation Source Information	
	SBs		array	SB Information	
		Name	string	SB Name	
		Home	string	Home Settings	
		PartNumber	string	Parts Number	
		SerialNumber	string	Serial Number	
		FirmwareVersion	string	Firmware Version Number of SB	
		BmcFirmwareVersion	string	Firmware Version Number of BMC	
		BiosFirmwareVersion	string	Firmware Version Number of BIOS	
	IOUs		array	IOU Information	
		Name	string	IOU Name	
		Type	string	IOU Type	
		PartNumber	string	Parts Number	
		SerialNumber	string	Serial Number	
	PCI_Boxes		array	PCI_Box Information	
		Name	string	PCI_Box Name	
		PartNumber	string	Parts Number	
		SerialNumber	string	Serial Number	
		Components	array	Information of Configuration Unit Displays which component it exists on.	
			LogicalComponent	string	Logical Number
			Type	string	Type of Configuration Unit E.g.) IOU
			Name	string	Name of Configuration Unit E.g.) IOU Name of IOU
		DUs		array	DU Information
		Name	string	DU Name	
		PartNumber	string	Parts Number	

Parameter			Type	Description
			SerialNumber	Serial Number
			Component	Component
			Type	Type of Configuration Unit
			Name	Name of Configuration Unit
		FabricInformation		Fabric Information Displayed for fabric node
		FabricId		Fabric ID
		VcsConfigMode		VCS Settings Mode
		VcsMode		VCS Mode
		VcsGuid		VCS GUID
		CfabDomainList		Domain Information of C-Fabric
			DomainType	Domain Type
			DomainId	Domain ID
			Ipv4Address	IPv4 Address
			Ipv6Address	IPv6 Address
		FabricSwitchInformation		Fabric Switch Information
			NodeId	Node ID
			Model	Model Name
			UniqInfo	Specific Internal Information
			DomainId	Domain ID
			SwitchId	Switch ID
			SwitchPriority	VCS Principal Switch null/ Principal
			FirmwareVersion	Firmware Version Number
			SwitchRole	C-Fabric Switch Role master/ slave/ unknown
			MacAddress	MAC Address
			FirmwareUpdateMode	Update Firmware Mode
			PortInformation	Port Information
			PortName	Port Name
			PortNumber	Port Number
			Catergory	Port Category
			SubCategory	Port Subcategory
			InterfaceType	Type of Interface
			LinkStatus	Status of Link
			Speed	Communication Speed
			Value	Value
			Unit	Unit
		NeighborDevices		Information of the Destination of Connection

Parameter							Type	Description	
					ChassisMacAd dress	string	Chassis MAC Address at the Destination of Connection		
					PortName	string	Name of Port at the Destination of Connection		
					PortMacAd dress	string	Port MAC Address at the Destination of Connection		
		FabricInternalInformation					object	Inner-fabric Information Displayed for fabric switch	
			FabricId				integer	Fabric ID	
			DomainId				integer	Domain ID	
			SwitchId				integer	Switch ID	
			SwitchPriority				string	VCS Principal Switch null/ Principal	
			SwitchRole				string	C-Fabric Switch Role master/ slave/ unknown	
			PortInformation				array	Port Information	
				PortName				string	Port Name
				NeighborDevices				array	Information of the Destination of Connection
					ChassisMacAddress			string	Chassis MAC Address at the Destination of Connection
					PortName			string	Name of Port at the Destination of Connection
					PortMacAddress			string	Port MAC Address at the Destination of Connection
			ControllerList					array	Controller Information Displayed for NetApp storage.
			Name				string	Controller Name	
			Ipv4Address				string	IPv4 Address	
			Ipv6Address				string	IPv6 Address	
			Model				string	Model Name	
			Manufacture				string	Vendor Name	
			SerialNumber				string	Serial Number	
			NodeVersion				string	Version Number of OS for a Controller	
			Partner				string	Information of Partners	
			Uuid				string	UUID	
			PortList				array	Port Information of Controller	
				PortName			string	Port Name	
		DiskShelfList					array	Information of Internal Disk Shelves Displayed for NetApp storage.	
			Name				string	Disk Shelf Name	
			ProductName				string	Model Name	
			Manufacture				string	Vendor Name	
			SerialNumber				string	Serial Number	
			ModuleType				string	Module Type	

Parameter				Type	Description
			ShelfId	string	Shelf ID
			StackId	string	Stack ID
			NodeName	string	Connection Controller Name
		ConnectionBladeList		array	Connection Blade Information
			Name	string	Connection Blade Name
			ProductName	string	Product Name
			Manufacture	string	Vendor Name
			SerialNumber	string	Serial Number
			SlotNumber	string	Slot Number
			EkeyStatusPortOverview	string	EkeyStatusPort Information
		NodeConfiguration		object	Node Settings
			SnmpV3EngineID	string	SnmpV3 Engine ID Information
	UpdateDate			string	Last Updated Time

4.6.3 Individual Retrieval of Detailed Node Information

[Overview]

Retrieves detailed information of the specified nodes.

[Format]

```
GET /nodes/{nodeid}/inventory
```

[Query Parameter]

Parameter	Type	Description
level	string	Retrieving Process Level Specify if VariableData should be retrieved. Unless specified, it operates by All. - Top: No information on VariableData - All: VariableData available
target	string	Specifying Detailed Node Information Specify parameters in VariableData. Displays only specified information. Specify All for the retrieving process level. Example of specification) /nodes/{nodeid}/inventory?level=All&target=Firmware -> Only Firmware will be displayed in VariableData.

[Response Parameter]

Refer to response parameters of "[4.6.2 List Retrieval for Detailed Node Information](#)."

4.6.4 Registration of OS Information

[Overview]

Registers the OS information on the specified nodes.

[Format]

```
POST /nodes/{nodeid}/os
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
Host		object	OS Information
	OsType	string	OS Type <ul style="list-style-type: none">- RedHat: Red Hat Enterprise Linux- SUSELinuxEnterprise: SUSE Linux Enterprise Server- Windows: Microsoft Windows- VMware: VMware ESXi- IPCOM OS: IPCOM OS
	OsVersion	string	OS Version Number <ul style="list-style-type: none">- RedHat: 6.0/ 6.1/ 6.2/ 6.3/ 6.4/ 6.5/ 6.6/ 6.7/ 6.8/ 6.9/ 6.10 (ISM 2.3.0.b or later)/ 7.0/ 7.1/ 7.2/ 7.3/ 7.4/ 7.5- SUSELinuxEnterprise: 11/ 11SP1/ 11SP2/ 11SP3/ 11SP4/ 12/ 12SP1/ 12SP2/ 12SP3/ 15 (ISM 2.3.0.b or later)- Windows: 2008R2/ 2012/ 2012R2/ 2016/ 2019 (ISM 2.3.0.b or later)- VMware: 5.5/ 6.0/ 6.5/ 6.7- IPCOM OS: 1.x
	OsIpAddress	string	OS IP Address
	OsIpVersion	string	IP Version of IP Address <ul style="list-style-type: none">- V4: IPv4- V6: IPv6
	OsDomain	string	Domain Name Specify a name of FQDN for a realm. E.g.) ISMDOMAIN.LOCAL
	OsAccount	string	Account Name Specify a account name excluding a realm. E.g.) ismadmin
	OsPassword	string	Password Encrypt the password with a method described in " 2.4 Encryption ."
	OsPortNum	integer	Port Number used Specify the Port number or null.

Parameter		Type	Description
			<p>When null specified, sets the standard port number for the protocol.</p> <p>Connecting protocols for respective OS are as follows:</p> <ul style="list-style-type: none"> - RedHat, SUSELinuxEnterprise, IPCOM OS: SSH (No. 22) - Windows: WinRM (No. 5986) - VMware: CIM (No. 443)

[Response Parameter]

Parameter		Type	Description
Host		object	OS Information
	NodeId	integer	Node ID
	OsType	string	<p>OS Type</p> <ul style="list-style-type: none"> - RedHat: Red Hat Enterprise Linux - SUSELinuxEnterprise: SUSE Linux Enterprise Server - Windows: Microsoft Windows - VMware: VMware ESXi - IPCOM OS: IPCOM OS
	OsVersion	string	OS Version Number
	OsIpAddress	string	OS IP Address
	OsIpVersion	string	<p>IP Version of IP Address</p> <ul style="list-style-type: none"> - V4: IPv4 - V6: IPv6
	OsDomain	string	Domain Name
	OsAccount	string	Account Name
	OsPortNum	integer	Port Number used
	HostName	string	<p>Host Name</p> <p>Automatically set after retrieving the node information.</p>
	MemorySize	string	<p>Memory Capacity as recognized by OS</p> <p>Automatically set after retrieving the node information.</p>
	MemorySizeUnit	string	<p>Unit of Memory Capacity as recognized by OS</p> <p>B/ KB/ MB/ GB/ TB</p> <p>Automatically set after retrieving the node information.</p>
	IpAddress	array	<p>IP Address Information</p> <p>Automatically set after retrieving the node information.</p>
	DeviceName	string	<p>Port Device Name</p> <p>Automatically set after retrieving the node information.</p>
	MacAddress	string	<p>Port MAC Address</p> <p>Automatically set after retrieving the node information.</p>

Parameter		Type	Description
	V4	string	IP Address for IPv4 Automatically set after retrieving the node information.
	V4SubMask	string	Subnet Mask for IPv4 Automatically set after retrieving the node information.
	V6	string	IP Address for IPv6 Automatically set after retrieving the node information.
	V6SubMask	string	Subnet Mask for IPv6 Automatically set after retrieving the node information.
	DiskUnits	array	Disk Information Automatically set after retrieving the node information.
	MountPosition	string	Volume Name Automatically set after retrieving the node information.
	UseSize	string	Volume in Use Automatically set after retrieving the node information.
	UseSizeUnit	string	Unit of Volume in Use B/ KB/ MB/ GB/ TB Automatically set after retrieving the node information.
	VolumeSize	string	Capacity of Volume Automatically set after retrieving the node information.
	VolumeSizeUnit	string	Capacity unit of volume created in OS B/ KB/ MB/ GB/ TB Automatically set after retrieving the node information.
	CmsId	integer	Cloud Management Software ID managed by the OS
	UpdateDate	string	Last Updated Time

[Precautions]

- After registration of the OS information, execute instruction for node information retrieval.

4.6.5 List Retrieval for OSes

[Overview]

Retrieves the OS information of all nodes managed by the user group that the user belongs to.

[Format]

```
GET /nodes/os
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
Hosts		array	OS Information
	NodeId	integer	Node ID
	OsType	string	OS Type <ul style="list-style-type: none"> - RedHat: Red Hat Enterprise Linux - SUSELinuxEnterprise: SUSE Linux Enterprise Server - Windows: Microsoft Windows - VMware: VMware ESXi - IPCOM OS: IPCOM OS
	OsVersion	string	OS Version Number
	OsIpAddress	string	OS IP Address
	OsIpVersion	string	IP Version of IP Address <ul style="list-style-type: none"> - V4: IPv4 - V6: IPv6
	OsDomain	string	Domain Name
	OsAccount	string	Account Name
	OsPortNum	integer	Port Number used
	HostName	string	Host Name Automatically set after retrieving the node information.
	CmsId	integer	Cloud Management Software ID managed by the OS
	UpdateDate	string	Last Updated Time

4.6.6 Individual Retrieval of OS

[Overview]

Retrieves the OS information of the specified nodes.

[Format]

```
GET /nodes/{nodeid}/os
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
Host		object	OS Information
	NodeId	integer	Node ID
	OsType	string	OS Type <ul style="list-style-type: none"> - RedHat: Red Hat Enterprise Linux - SUSELinuxEnterprise: SUSE Linux Enterprise Server - Windows: Microsoft Windows

Parameter		Type	Description
			<ul style="list-style-type: none"> - VMware: VMware ESXi - IPCOM OS: IPCOM OS
	OsVersion	string	OS Version Number
	OsIpAddress	string	OS IP Address
	OsIpVersion	string	IP Version of IP Address <ul style="list-style-type: none"> - V4: IPv4 - V6: IPv6
	OsDomain	string	Domain Name
	OsAccount	string	Account Name
	OsPortNum	integer	Port Number used
	HostName	string	Host Name Automatically set after retrieving the node information.
	MemorySize	string	Memory Capacity as recognized by OS Automatically set after retrieving the node information.
	MemorySizeUnit	string	Unit of Memory Capacity as recognized by OS B/ KB/ MB/ GB/ TB Automatically set after retrieving the node information.
	IpAddress	array	IP Address Information Automatically set after retrieving the node information.
	DeviceName	string	Port Device Name Automatically set after retrieving the node information.
	MacAddress	string	Port MAC Address Automatically set after retrieving the node information.
	V4	string	IP Address for IPv4 Automatically set after retrieving the node information.
	V4SubMask	string	Subnet Mask for IPv4 Automatically set after retrieving the node information.
	V6	string	IP Address for IPv6 Automatically set after retrieving the node information.
	V6SubMask	string	Subnet Mask for IPv6 Automatically set after retrieving the node information.
	DiskUnits	array	Information of Disk Automatically set after retrieving the node information.
	MountPosition	string	Volume Name Automatically set after retrieving the node information.
	UseSize	string	Volume in Use Automatically set after retrieving the node information.
	UseSizeUnit	string	Unit of Volume in Use B/ KB/ MB/ GB/ TB

Parameter			Type	Description
				Automatically set after retrieving the node information.
		VolumeSize	string	Capacity of Volume Automatically set after retrieving the node information.
		VolumeSizeUnit	string	Capacity Unit of Volume created in OS B/ KB/ MB/ GB/ TB Automatically set after retrieving the node information.
	CmsId		integer	Cloud management software ID managed by the OS
	UpdateDate		string	Last Updated Time

4.6.7 Updating of OS Information

[Overview]

Updates the OS information of the specified nodes.

[Format]

```
PATCH /nodes/{nodeid}/os
```

[Query Parameter]

None

[Request Parameter]

Parameter			Type	Description
Host			object	OS Information
	OsType		string	OS Type <ul style="list-style-type: none"> - RedHat: Red Hat Enterprise Linux - SUSELinuxEnterprise: SUSE Linux Enterprise Server - Windows: Microsoft Windows - VMware: VMware ESXi - IPCOM OS: IPCOM OS
	OsVersion		string	OS Version Number <ul style="list-style-type: none"> - RedHat: 6.0/ 6.1/ 6.2/ 6.3/ 6.4/ 6.5/ 6.6/ 6.7/ 6.8/ 6.9/ 6.10 (ISM 2.3.0.b or later)/ 7.0/ 7.1/ 7.2/ 7.3/ 7.4/ 7.5 - SUSELinuxEnterprise: 11/ 11SP1/ 11SP2/ 11SP3/ 11SP4/ 12/ 12SP1/ 12SP2/ 12SP3/ 15 (ISM 2.3.0.b or later) - Windows: 2008R2/ 2012/ 2012R2/ 2016/ 2019 (ISM 2.3.0.b or later) - VMware: 5.5/ 6.0/ 6.5/ 6.7 - IPCOM OS: 1.x
	OsIpAddress		string	OS IP Address
	OsIpVersion		string	IP Version of IP Address <ul style="list-style-type: none"> - V4: IPv4

Parameter	Type	Description
		- V6: IPv6
OsDomain	string	Domain Name Specify a name of FQDN for a realm. E.g.) ISMDOMAIN.LOCAL
OsAccount	string	Account Name Specify a account name excluding a realm. E.g.) ismadmin
OsPassword	string	Password Encrypt the password with a method described in " 2.4 Encryption ." Omit the key unless updating.
OsPortNum	integer	Port Number used Specify the port number or null. When null specified, sets the standard port number for the protocol. Connecting protocols for respective OS are as follows: <ul style="list-style-type: none"> - RedHat, SUSELinuxEnterprise, IPCOM OS: SSH (No. 22) - Windows: WinRM (No. 5986) - VMware: CIM (No. 443)

[Response Parameter]

Parameter	Type	Description
Host	object	OS Information
NodeId	integer	Node ID
OsType	string	OS Type <ul style="list-style-type: none"> - RedHat: Red Hat Enterprise Linux - SUSELinuxEnterprise: SUSE Linux Enterprise Server - Windows: Microsoft Windows - VMware: VMware ESXi - IPCOM OS: IPCOM OS
OsVersion	string	OS Version Number
OsIpAddress	string	OS IP Address
OsIpVersion	string	IP Version of IP Address <ul style="list-style-type: none"> - V4: IPv4 - V6: IPv6
OsDomain	string	Domain Name
OsAccount	string	Account Name
OsPortNum	integer	Port Number used

Parameter		Type	Description
	HostName	string	Host Name Automatically set after retrieving the node information.
	MemorySize	string	Memory Capacity as recognized by OS Automatically set after retrieving the node information.
	MemorySizeUnit	string	Unit of Memory Capacity as recognized by OS B/ KB/ MB/ GB/ TB Automatically set after retrieving the node information.
	IpAddress	array	IP Address Information Automatically set after retrieving the node information.
	DeviceName	string	Port Device Name Automatically set after retrieving the node information.
	MacAddress	string	Port MAC Address Automatically set after retrieving the node information.
	V4	string	IP Address for IPv4 Automatically set after retrieving the node information.
	V4SubMask	string	Subnet Mask for IPv4 Automatically set after retrieving the node information.
	V6	string	IP Address for IPv6 Automatically set after retrieving the node information.
	V6SubMask	string	Subnet Mask for IPv6 Automatically set after retrieving the node information.
	DiskUnits	array	Disk Information Automatically set after retrieving the node information.
	MountPosition	string	Volume Name Automatically set after retrieving the node information.
	UseSize	string	Volume in Use Automatically set after retrieving the node information.
	UseSizeUnit	string	Unit of Volume in Use B/ KB/ MB/ GB/ TB Automatically set after retrieving the node information.
	VolumeSize	string	Capacity of Volume Automatically set after retrieving the node information.
	VolumeSizeUnit	string	Capacity Unit of Volume created in OS B/ KB/ MB/ GB/ TB Automatically set after retrieving the node information.
	CmsId	integer	Cloud management software ID managed by the OS
	UpdateDate	string	Last Updated Time

[Precautions]

- After updating of the OS information, execute instruction for node information retrieval.

4.6.8 Deletion of OS Information

[Overview]

Deletes the OS information of the specified nodes.

[Format]

```
DELETE /nodes/{nodeid}/os
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

None

4.6.9 Instruction to Execute Retrieval of Virtualization Information

[Overview]

Retrieves information from the cloud management software managed by the user group that the user belongs to.

[Format]

```
POST /resources/inventory/refresh
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
CmsIds	array (integer)	ID of cloud management software Specify this when limiting cloud management software at a destination of retrieval. Retrieves information from all of Cloud Management Software managed by a user group to which users belong to, unless specified.

[Response Parameter]

Parameter	Type	Description
RefreshDate	string	Execution time of instruction to retrieve virtual information

[Precautions]

- It takes time to retrieve the virtual information. It outputs a message (10021503) in the Operation Log at completion. Check the Operation Log.

- If there is any cloud management software that failed in retrieving virtual information, an error message will be displayed on the Operation Log.

4.6.10 List Retrieval for Virtual Machines

[Overview]

Retrieves all the virtual machines on the OS of the nodes managed by the user group that the users belongs to.

Query parameters can be used to narrow down the contents to display.

[Format]

```
GET /resources/virtualmachines
```

[Query Parameter]

Parameter	Type	Description
nodeid	integer	Narrowing down by Node ID

[Response Parameter]

Parameter	Type	Description
VirtualMachines	array	Virtual Machine Information
VirtualMachineId	integer	Virtual Machine ID
NodeId	integer	Node ID
CmsId	integer	ID of cloud management software
CmsType	string	Type of cloud management software <ul style="list-style-type: none"> - vCenter: VMware vCenter Server - MicrosoftFailoverCluster: Microsoft Failover Cluster - SystemCenter: Microsoft System Center Virtual Machine Manager - KVM RedHat: KVM running on Red Hat Enterprise Linux - KVM SUSELinuxEnterprise: KVM running on SUSE Linux Enterprise Server - OpenStack: OpenStack
CmsVersion	string	Version Number of cloud management software
OperatingSystem	string	OS Information of Virtual Machine
VirtualMachineInstanceId	string	Identification ID of Virtual Machine Displays IDs numbered by cloud management software
VirtualMachineName	string	Virtual Machine Name
VirtualMachinePowerStatus	string	Startup Status of Virtual Machine <ul style="list-style-type: none"> - ON: Startup status - OFF: Other than startup status
VirtualCpuCoreNum	integer	The number of virtual CPU cores
VirtualMachineMemoryMax	integer	Setting of Maximum Value of Memory Capacity

Parameter		Type	Description
			With no setting of maximum and minimum values, the same value fills in for both.
	VirtualMachineMemoryMaxUnit	string	Unit of Maximum Value of Memory Capacity B/ KB/ MB/ GB/ TB
	VirtualMachineMemoryMin	integer	Setting of Minimum Value of Memory Capacity With no setting of maximum and minimum values, the same value fills in for both.
	VirtualMachineMemoryMinUnit	string	Unit of Minimum Value of Memory Capacity B/ KB/ MB/ GB/ TB
	VirtualDiskTotal	integer	Disk Storage Capacity Displays a total value when allocating several disks
	VirtualDiskTotalUnit	string	Unit of Disk Storage Capacity B/ KB/ MB/ GB/ TB
	VirtualMachineOptionVCenter	object	Additional Information for vCenter
	ManagementObjectId	string	ID specified to each ManagementObjectReference
	VirtualAdapterInformation	array	Virtual Adapter Information
	VirtualAdapterName	string	Virtual Adapter Name
	VirtualAdapterNumber	string	Virtual Adapter Number
	MacAddress	string	MAC Address
	VlanInformation	array	VLAN Information
	VlanId	string	VLAN ID For values, it should be displayed by linking with comma (.). Continuous values of three or more should be displayed by linking with hyphen (-). E.g.) "1-10,21,22,30-45"
	VlanType	string	VLAN Type VLAN/ Trunk/ Private-Primary
	RemoteVirtualSwitchInformation	object	Information of Virtual Switch at the Destination of Connection Displayed when a virtual adapter is connected with a virtual switch.
	SwitchType	string	Virtual Switch Type at the Destination of Connection Standard/ Distributed
	RemoteVirtualSwitchId	integer	Virtual Switch ID at the Destination of Connection
	RemoteVirtualSwitchPortName	string	Virtual Switch Port Name at the Destination of Connection
	RemoteVirtualRouterInformation	object	Information of Virtual Router at the Destination of Connection Displayed when a virtual adapter is connected with a virtual router.
	RemoteVirtualRouterId	integer	Virtual Router ID at the Destination of Connection
	RemoteVirtualRouterPortName	string	Virtual Router Port Name at the Destination of Connection
	PhysicalAdapterInformation	object	Physical Adapter Information

Parameter			Type	Description
				Displayed when a virtual adapter is connected with a physical adapter.
		NodeId	integer	Node ID
		PhysicalAdapterName	string	Physical Adapter Name
	UpdateDate		string	Last Updated Time

[Precautions]

- For displaying the information on a virtual machine, it is required to register a cloud management software and to instruct an execution to retrieve virtual information.

4.6.11 Individual Retrieval of Virtual Machine

[Overview]

Retrieves information of the specified virtual machine.

[Format]

```
GET /resources/virtualmachines/{virtualmachineid}
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
VirtualMachine		object	Virtual Machine Information
	VirtualMachineId	integer	Virtual Machine ID
	NodeId	integer	Node ID
	CmsId	integer	ID of cloud management software
	CmsType	string	Type of cloud management software <ul style="list-style-type: none"> - vCenter: VMware vCenter Server - MicrosoftFailoverCluster: Microsoft Failover Cluster - SystemCenter: Microsoft System Center Virtual Machine Manager - KVM RedHat: KVM running on Red Hat Enterprise Linux - KVM SUSELinuxEnterprise: KVM running on SUSE Linux Enterprise Server - OpenStack: OpenStack
	CmsVersion	string	Version Number of Cloud Management Software
	OperatingSystem	string	OS Information of Virtual Machine
	VirtualMachineInstanceId	string	Identification ID of Virtual Machine Displays IDs numbered by Cloud Management Software
	VirtualMachineName	string	Virtual Machine Name

Parameter		Type	Description
	VirtualMachinePowerStatus	string	Startup Status of Virtual Machine - ON: Startup status - OFF: Other than startup status
	VirtualCpuCoreNum	integer	Number of Virtual CPU Cores
	VirtualMachineMemoryMax	integer	Setting of Maximum Value of Memory Capacity With no setting of maximum and minimum values, the same value fills in for both.
	VirtualMachineMemoryMaxUnit	string	Unit of Maximum Value of Memory Capacity B/ KB/ MB/ GB/ TB
	VirtualMachineMemoryMin	integer	Setting of Minimum Value of Memory Capacity With no setting of maximum and minimum values, the same value fills in for both.
	VirtualMachineMemoryMinUnit	string	Unit of Minimum Value of Memory Capacity B/ KB/ MB/ GB/ TB
	VirtualDiskTotal	integer	Disk Storage Capacity Displays a total value when allocating several disks
	VirtualDiskTotalUnit	string	Unit of Disk Storage Capacity B/ KB/ MB/ GB/ TB
	VirtualMachineOptionVCenter	object	Additional Information for vCenter
	ManagementObjectId	string	ID specified to each ManagementObjectReference
	VirtualAdapterInformation	array	Virtual Adapter Information
	VirtualAdapterName	string	Virtual Adapter Name
	VirtualAdapterNumber	string	Virtual Adapter Number
	MacAddress	string	MAC Address
	VlanInformation	array	VLAN Information
	VlanId	string	VLAN ID For values, it should be displayed by linking with comma (.). Continuous values of three or more should be displayed by linking with hyphen (-). E.g.) "1-10,21,22,30-45"
	VlanType	string	VLAN Type VLAN/ Trunk/ Private-Primary
	RemoteVirtualSwitchInformation	object	Information of Virtual Switch at the Destination of Connection Displayed when a virtual adapter is connected with a virtual switch.
	SwitchType	string	Virtual Switch Type at the Destination of Connection Standard/ Distributed
	RemoteVirtualSwitchId	integer	Virtual Switch ID at the Destination of Connection
	RemoteVirtualSwitchPortName	string	Virtual Switch Port Name at the Destination of Connection

Parameter			Type	Description
		RemoteVirtualRouterInformation	object	Information of Virtual Router at the Destination of Connection Displayed when a virtual adapter is connected with a virtual router.
		RemoteVirtualRouterId	integer	Virtual Router ID at the Destination of Connection
		RemoteVirtualRouterPortName	string	Virtual Router Port Name at the Destination of Connection
	PhysicalAdapterInformation		object	Physical Adapter Information Displayed when a virtual adapter is connected with a physical adapter.
		NodeId	integer	Node ID
		PhysicalAdapterName	string	Physical Adapter Name
	UpdateDate		string	Last Updated Time

[Precautions]

- For displaying the information on a virtual machine, it is required to register a cloud management software and to instruct an execution to retrieve virtual information.

4.6.12 List Retrieval for Virtual Switches

[Overview]

Retrieves all virtual switches on the OS of the nodes managed by the user group that the users belong to.

[Format]

```
GET /resources/virtualswitches
```

[Query Parameter]

None

[Response Parameter]

Parameter			Type	Description
VirtualSwitches			array	Virtual Switch Information
	VirtualSwitchId		integer	Virtual Switch ID
	VirtualSwitchType		string	Virtual Switch Type Standard/ Distributed
	VirtualSwitchInstanceId		string	Virtual Switch Identification ID Displays IDs numbered by cloud management software.
	VirtualSwitchName		string	Virtual Switch Name
	Nodes		array	Node Information Displays a node in which a virtual switch has been created.
		NodeId	integer	Node ID
		CmsId	integer	ID of cloud management software
	VirtualSwitchPortInformation		array	Virtual Switch Port Information

Parameter			Type	Description		
	VirtualSwitchPortName		string	Virtual Switch Port Name		
	VirtualSwitchPortNumber		string	Virtual Switch Port Number		
	TunnelingInformation		object	Information for when Tunneling between Nodes		
		TunnelingType		string	Tunneling Type gre/ vxlan	
		SourceIpAddress		string	Tunneling Connection Source IP Address	
		TargetIpAddress		string	Tunneling Connection Target IP Address	
		TunnelingOptions		array	Information of Other Options	
			TunnelingOptionKey		string	Option Key
			TunnelingOptionValue		string	Option Value
	VirtualMachineInformation		object	Virtual Machine Information Displayed when a virtual switch port is connected with a virtual machine.		
		VirtualMachineId		integer	Virtual Machine ID	
		VirtualAdapterName		string	Virtual Adapter Name	
	RemoteVirtualSwitchInformation		object	Information of Virtual Switch at the Destination of Connection Displayed when a virtual switch port is connected with a virtual switch.		
		RemoteVirtualSwitchId		integer	Virtual Switch ID at the Destination of Connection	
		RemoteVirtualSwitchPortName		string	Virtual Switch Port Name at the Destination of Connection	
	RemoteVirtualRouterInformation		object	Virtual Router Information at the Destination of Connection Displayed when a virtual switch port is connected with a virtual router.		
		RemoteVirtualRouterId		integer	Virtual Router ID at the Destination of Connection	
		RemoteVirtualRouterPortName		string	Virtual Router Port Name at the Destination of Connection	
	PhysicalAdapterInformation		object	Physical Adapter Information Displayed when a virtual switch port is connected with a physical adapter.		
		NodeId		integer	Node ID	
		PhysicalAdapterName		string	Physical Adapter Name	
	VlanInformation		array	VLAN Information		
		VlanId		string	VLAN ID For values, it should be displayed by linking with comma (.). Continuous values of three or more should be displayed by linking with hyphen (-). E.g.) "1-10,21,22,30-45"	
		VlanType		string	VLAN Type VLAN/ Trunk/ Private-Primary	
	UpdateDate			string	Last Updated Time	

[Precautions]

- For displaying the information on a virtual switch, it is required to register a cloud management software and to instruct an execution to retrieve virtual information.

4.6.13 Individual Retrieval of Virtual Switch

[Overview]

Retrieves the specified virtual switch information.

[Format]

```
GET /resources/virtualswitches/{virtualswitchid}
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
VirtualSwitch		object	Virtual Switch Information
	VirtualSwitchId	integer	Virtual Switch ID
	VirtualSwitchType	string	Virtual Switch Type Standard/ Distributed
	VirtualSwitchInstanceId	string	Virtual Switch Identification ID Displays IDs numbered by cloud management software
	VirtualSwitchName	string	Virtual Switch Name
	Nodes	array	Node Information Displays a node in which a virtual switch has been created
	NodeId	integer	Node ID
	CmsId	integer	ID of cloud management software
	VirtualSwitchPortInformation	array	Virtual Switch Port Information
	VirtualSwitchPortName	string	Virtual Switch Port Name
	VirtualSwitchPortNumber	string	Virtual Switch Port Number
	TunnelingInformation	object	Information for when Tunneling between Nodes
	TunnelingType	string	Tunneling Type gre/ vxlan
	SourceIpAddress	string	Tunneling Connection Source IP Address
	TargetIpAddress	string	Tunneling Connection Target IP Address
	TunnelingOptions	array	Information of Other Options
	TunnelingOptionKey	string	Option Key
	TunnelingOptionValue	string	Option Value
	VirtualMachineInformation	object	Virtual Machine Information Displayed when a virtual switch port is connected with a virtual machine.
	VirtualMachineId	integer	Virtual Machine ID

Parameter		Type	Description
	VirtualAdapterName	string	Virtual Adapter Name
	RemoteVirtualSwitchInformation	object	Information of Virtual Switch at the Destination of Connection Displayed when a virtual switch port is connected with a virtual switch.
	RemoteVirtualSwitchId	integer	Virtual Switch ID at the Destination of Connection
	RemoteVirtualSwitchPortName	string	Virtual Switch Port Name at the Destination of Connection
	RemoteVirtualRouterInformation	object	Virtual Router Information at the Destination of Connection Displayed when a virtual switch port is connected with a virtual router.
	RemoteVirtualRouterId	integer	Virtual Router ID at the Destination of Connection
	RemoteVirtualRouterPortName	string	Virtual Router Port Name at the Destination of Connection
	PhysicalAdapterInformation	object	Physical Adapter Information Displayed when a virtual switch port is connected with a physical adapter.
	NodeId	integer	Node ID
	PhysicalAdapterName	string	Physical Adapter Name
	VlanInformation	array	VLAN Information
	VlanId	string	VLAN ID For values, it should be displayed by linking with comma (.). Continuous values of three or more should be displayed by linking with hyphen (-). E.g.) "1-10,21,22,30-45"
	VlanType	string	VLAN Type VLAN/ Trunk/ Private-Primary
	UpdateDate	string	Last Updated Time

[Precautions]

- For displaying the information on a virtual switch, it is required to register a cloud management software and to instruct an execution to retrieve virtual information.

4.6.14 List Retrieval for Virtual Routers

[Overview]

Retrieves all virtual routers on the OS of the nodes managed by the user group that the users belong to.

[Format]

```
GET /resources/virtualrouters
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
VirtualRouters		array	Virtual Router Information
	VirtualRouterId	integer	Virtual Router ID
	VirtualRouterName	string	Virtual Router Name
	Nodes	array	List of Node ID
	NodeId	integer	Node ID
	CmsId	integer	ID of cloud management software
	VirtualRouterPortInformation	array	Virtual Router Port Information
	VirtualRouterPortName	string	Virtual Router Port Name
	VirtualRouterPortNumber	string	Virtual Router Port Number
	IpAddress	string	Virtual Router Port IP Address
	VirtualMachineInformation	object	Virtual Machine Information Displayed when a virtual router port is connected with a virtual machine.
	VirtualMachineId	integer	Virtual Machine ID
	VirtualAdapterName	string	Virtual Adapter Name
	RemoteVirtualSwitchInformation	object	Information of Virtual Switch at the Destination of Connection Displayed when a virtual router port is connected with a virtual switch.
	RemoteVirtualSwitchId	integer	Virtual Switch ID at the Destination of Connection
	RemoteVirtualSwitchPortName	string	Virtual Switch Port Name at the Destination of Connection
	RemoteVirtualRouterInformation	object	Virtual Router Information at the Destination of Connection Displayed when a virtual router port is connected with a virtual router.
	RemoteVirtualRouterId	integer	Virtual Router ID at the Destination of Connection
	RemoteVirtualRouterPortName	string	Virtual Router Port Name at the Destination of Connection
	PhysicalAdapterInformation	object	Physical Adapter Information Displayed when a virtual router port is connected with a physical adapter.
	NodeId	integer	Node ID
	PhysicalAdapterName	string	Physical Adapter Name
UpdateDate		string	Last Updated Time

[Precautions]

- For displaying the information on a virtual router, it is required to register a cloud management software and to instruct an execution to retrieve virtual information.

4.6.15 Individual Retrieval of Virtual Router

[Overview]

Retrieves the specified virtual router information.

[Format]

```
GET /resources/virtualrouters/{virtualrouterid}
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
VirtualRouter		object	Virtual Router Information
	VirtualRouterId	integer	Virtual Router ID
	VirtualRouterName	string	Virtual Router Name
	Nodes	array	List of Node ID
	NodeId	integer	Node ID
	CmsId	integer	ID of cloud management software
	VirtualRouterPortInformation	array	Virtual Router Port Information
	VirtualRouterPortName	string	Virtual Router Port Name
	VirtualRouterPortNumber	string	Virtual Router Port Number
	IpAddress	string	Virtual Router Port IP Address
	VirtualMachineInformation	object	Virtual Machine Information Displayed when a virtual router port is connected with a virtual machine.
	VirtualMachineId	integer	Virtual Machine ID
	VirtualAdapterName	string	Virtual Adapter Name
	RemoteVirtualSwitchInformation	object	Information of Virtual Switch at the Destination of Connection Displayed when a virtual router port is connected with a virtual switch.
	RemoteVirtualSwitchId	integer	Virtual Switch ID at the Destination of Connection
	RemoteVirtualSwitchPortName	string	Virtual Switch Port Name at the Destination of Connection
	RemoteVirtualRouterInformation	object	Virtual Router Information at the Destination of Connection Displayed when a virtual router port is connected with a virtual router.
	RemoteVirtualRouterId	integer	Virtual Router ID at the Destination of Connection
	RemoteVirtualRouterPortName	string	Virtual Router Port Name at the Destination of Connection
	PhysicalAdapterInformation	object	Physical Adapter Information Displayed when a virtual router port is connected with a physical adapter.
	NodeId	integer	Node ID
	PhysicalAdapterName	string	Physical Adapter Name

Parameter		Type	Description
	UpdateDate	string	Last Updated Time

[Precautions]

- For displaying the information on a virtual router, it is required to register a cloud management software and to instruct an execution to retrieve virtual information.

4.7 Monitoring

4.7.1 List Retrieval for Information on Monitoring Items

[Overview]

Retrieves all the information for the items that can be monitored for the specified nodes.

[Format]

```
GET /nodes/{nodeid}/monitor/itemlist
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
Items		array	Monitoring Item List
	ItemName	string	Monitoring Item Name E.g.) Ambient Temperature
	Type	string	Monitoring Item Type E.g.) Temperature
	ValueType	string	Shows a type of values. It must be any of the following. <ul style="list-style-type: none"> - integer - real (decimal) - string
	Unit	string	Unit E.g.) Degree Celsius

4.7.2 Registration of Monitoring Settings

[Overview]

Registers Monitoring settings.

[Format]

```
POST /nodes/monitor/items
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
NodeId		integer	Specify Node ID as target.
ItemName		string	Specify Names of Monitoring items.
IsActive		string	Specify a status of performance monitoring. - Enabled: Enabled - Disabled: Disabled
IsThresholdMonitoringActive		string	Specify a Status of Threshold value monitoring. - Enabled: Enabled - Disabled: Disabled In order to enable Threshold value monitoring, performance monitoring (IsActive) should be enabled. For a monitoring item with its value type is string, Enabled cannot be specified.
UpperCritical		object	Designates a Threshold (Upper critical).
	Value	string	Specify the Threshold value for the upper critical in either an integer or a decimal.
	Severity	string	Specify Severity of an event as it exceeds a Threshold value. When specifying null, default value (Error) is assigned. Select one of the following. - Error - Warning - Info - Normal
UpperWarning		object	Designates Information on a Threshold (Upper warning).
	Value	string	Specify the Threshold value for the upper warning in either an integer or a decimal.
	Severity	string	Specify Severity of an event as it exceeds a Threshold value. When specifying null, default value (Warning) is assigned. Select one of the following. - Error - Warning - Info - Normal
LowerCritical		object	Specify a Threshold (Lower critical).
	Value	string	Specify the Threshold value for the lower critical in either an integer or a decimal.
	Severity	string	Specify Severity of an event as it exceeds a Threshold value. When specifying null, default value (Error) is assigned. Select one of the following.

Parameter		Type	Description
			<ul style="list-style-type: none"> - Error - Warning - Info - Normal
LowerWarning		object	Specify Information on a Threshold (Lower warning).
	Value	string	Specify the Threshold value for the lower warning in either an integer or a decimal.
	Severity	string	Specify Severity of an event as it exceeds a Threshold value. When specifying null, default value (Warning) is assigned. Select one of the following. <ul style="list-style-type: none"> - Error - Warning - Info - Normal

[Response Parameter]

Parameter		Type	Description
ItemId		string	Monitoring Item ID
NodeId		integer	Node ID of the Object
ItemName		string	Monitoring Item Name
IsActive		string	Status of Performance Monitoring <ul style="list-style-type: none"> - Enabled: Enabled - Disabled: Disabled
IsThresholdMonitoringActive		string	Status of Threshold Value Monitoring <ul style="list-style-type: none"> - Enabled: Enabled - Disabled: Disabled
UpperCritical		object	Information on Threshold (Upper critical)
	Value	string	Threshold value for the upper critical
	Severity	string	Severity of an Event as it exceeds a Threshold Value <ul style="list-style-type: none"> - Error - Warning - Info - Normal
UpperWarning		object	Information on Threshold (Upper waring)
	Value	string	Threshold value for the upper warning
	Severity	string	Severity of an Event as it exceeds a Threshold Value <ul style="list-style-type: none"> - Error - Warning - Info

Parameter		Type	Description
			- Normal
LowerCritical		object	Information on Threshold (Lower critical)
	Value	string	Threshold value for the lower critical
	Severity	string	Severity of an Event as it exceeds a Threshold Value <ul style="list-style-type: none"> - Error - Warning - Info - Normal
LowerWarning		object	Information on Threshold (Lower warning)
	Value	string	Threshold value for the lower warning
	Severity	string	Severity of an Event as it exceeds a Threshold Value <ul style="list-style-type: none"> - Error - Warning - Info - Normal

4.7.3 Retrieval of Monitoring Settings

[Overview]

Retrieves Monitoring settings.

[Format]

```
GET /nodes/monitor/items
```

[Query Parameter]

Parameter	Description
NodeId	Specify a Node ID. Retrieves all Monitoring settings as set in specified node IDs. Cannot be used with the ItemId parameter.
ItemId	Specify the Monitoring settings ID. Retrieves Monitoring settings ID specified. Cannot be used with the NodeId parameter.

[Response Parameter]

Parameter	Type	Description
Items	array	Monitoring Item Information (List)
	ItemId	Monitoring Item ID
	NodeId	Node ID of the Object
	ItemName	Monitoring Item Name
	ValueType	Shows a Type of Values. It must be any of the following. <ul style="list-style-type: none"> - integer

Parameter		Type	Description
			<ul style="list-style-type: none"> - real (decimal) - string
	Unit	string	Unit
	IsActive	string	Status of Performance Monitoring <ul style="list-style-type: none"> - Enabled: Enabled - Disabled: Disabled
	IsThresholdMonitoringActive	string	Status of Threshold Value Monitoring <ul style="list-style-type: none"> - Enabled: Enabled - Disabled: Disabled
UpperCritical		object	Information on Threshold (Upper critical)
	Value	string	Threshold value for the upper critical
	Severity	string	Severity of an Event as it exceeds a Threshold Value <ul style="list-style-type: none"> - Error - Warning - Info - Normal
UpperWarning		object	Information on Threshold (Upper warning)
	Value	string	Threshold value for the upper warning
	Severity	string	Severity of an Event as it exceeds a Threshold Value <ul style="list-style-type: none"> - Error - Warning - Info - Normal
LowerCritical		object	Information on Threshold (Lower critical)
	Value	string	Threshold value for the lower critical
	Severity	string	Severity of an Event as it exceeds a Threshold Value <ul style="list-style-type: none"> - Error - Warning - Info - Normal
LowerWarning		object	Information on Threshold (Lower warning)
	Value	string	Threshold value for the lower warning
	Severity	string	Severity of an Event as it exceeds a Threshold Value <ul style="list-style-type: none"> - Error - Warning - Info - Normal

4.7.4 Updating of Monitoring Settings

[Overview]

Updates the specified Monitoring settings.

[Format]

```
PATCH /nodes/monitor/items/{itemid}
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
IsActive		string	Specify a Status of Performance Monitoring. <ul style="list-style-type: none">- Enable: Enabled- Disable: Disabled
IsThresholdMonitoringActive		string	Specify a Status of Threshold value Monitoring. <ul style="list-style-type: none">- Enable: Enabled- Disable: Disabled In order to enable Threshold value monitoring, performance monitoring (IsActive) should be enabled. When a monitoring item with its value type is string, Enabled cannot be specified.
UpperCritical		object	Specify a Threshold (Upper critical).
	Value	string	Specify the Threshold value for the upper critical in either an integer or a decimal.
	Severity	string	Specify Severity of an event as it exceeds a Threshold value. When specifying null, default value (Error) is assigned. <ul style="list-style-type: none">- Error- Warning- Info- Normal
UpperWarning		object	Designates information on a Threshold (Upper warning).
	Value	string	Specify the Threshold value for the upper warning in either an integer or a decimal.
	Severity	string	Specify Severity of an event as it exceeds a Threshold value. When specifying null, default value (Warning) is assigned. <ul style="list-style-type: none">- Error- Warning- Info- Normal
LowerCritical		object	Designates a Threshold (Lower critical).

Parameter		Type	Description
	Value	string	Specify the Threshold value for the lower critical in either an integer or a decimal.
	Severity	string	Specify Severity of an event as it exceeds a Threshold value. When specifying null, default value (Error) is assigned. <ul style="list-style-type: none"> - Error - Warning - Info - Normal
LowerWarning		object	Designates information on a Threshold (Lower warning).
	Value	string	Specify the Threshold value for the lower warning in either an integer or a decimal.
	Severity	string	Specify Severity of an event as it exceeds a Threshold value. When specifying null, default value (Warning) is assigned. <ul style="list-style-type: none"> - Error - Warning - Info - Normal

[Response Parameter]

Parameter		Type	Description
ItemId		string	Monitoring Item ID
NodeId		integer	Node ID of the Object
ItemName		string	Monitoring Item Name
IsActive		string	Status of Performance Monitoring <ul style="list-style-type: none"> - Enabled: Enabled - Disabled: Disabled
IsThresholdMonitoringActive		string	Status of Threshold Value Monitoring <ul style="list-style-type: none"> - Enabled: Enabled - Disabled: Disabled
UpperCritical		object	Information on Threshold (Upper critical)
	Value	string	Threshold value for the upper critical
	Severity	string	Severity of an Event as it exceeds a Threshold Value <ul style="list-style-type: none"> - Error - Warning - Info - Normal
UpperWarning		object	Information on Threshold (Upper warning).
	Value	string	Threshold value for the upper warning
	Severity	string	Severity of an Event as it exceeds a Threshold Value

Parameter		Type	Description
			<ul style="list-style-type: none"> - Error - Warning - Info - Normal
LowerCritical		object	Information on Threshold (Lower critical)
	Value	string	Threshold value for the lower critical
	Severity	string	Severity of an Event as it exceeds a Threshold Value <ul style="list-style-type: none"> - Error - Warning - Info - Normal
LowerWarning		object	Information on Threshold (Lower warning)
	Value	string	Threshold value for the lower warning
	Severity	string	Severity of an Event as it exceeds a Threshold Value <ul style="list-style-type: none"> - Error - Warning - Info - Normal

4.7.5 Deletion of Monitoring Settings

[Overview]

Deletes the specified Monitoring settings.

[Format]

```
DELETE /nodes/monitor/items/{itemid}
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

None

4.7.6 Retrieval of Monitoring History

[Overview]

Retrieves Monitoring history.

[Format]

```
GET /nodes/monitor/items/{itemid}/history
```

[Query Parameter]

Parameter	Description
TimeFrom	Used when specifying a duration to output. Returns records after the specified time and date. Specify its format as RFC3339. E.g.) 2016-04-01T12:34:45Z000 Cannot be used with the "Count" parameter.
TimeTill	Used when specifying a duration to output. Returns records until the specified time and date. Specify its format as RFC3339. E.g.) 2016-04-02T12:34:45Z000 Cannot be used with the "Count" parameter.
Count	Returns records from the ones of the latest to the nth. Cannot be used with "TimeFrom" and "TimeTill" parameters.

[Response Parameter]

Parameter	Type	Description
Records	array	List of Record Information
Timestamp	string	Timestamp The format is RFC3339. E.g.) 2016-04-01T12:34:45Z000
Value	string	Value

4.7.7 Updating of Common Monitoring Settings of Nodes

[Overview]

Updates the information of the Monitoring settings of the specified nodes.

[Format]

```
PATCH /nodes/{nodeid}/monitor/settings
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
Interval	integer	Specify an Interval of Monitoring. The unit is seconds and the lower limit is 60 [seconds].

[Response Parameter]

Parameter	Type	Description
Interval	integer	Interval of Monitoring

4.7.8 Retrieval of Common Monitoring Settings of Nodes

[Overview]

Retrieves the Monitoring settings of the specified nodes.

[Format]

```
GET /nodes/{nodeid}/monitor/settings
```

[Query Parameter]

None

[Response Parameter]

Parameter	Type	Description
Interval	integer	Interval of Monitoring

4.7.9 Retrieval of Network Monitoring Settings

[Overview]

Retrieves the Network Performance Monitoring settings of the specified nodes.

[Format]

```
GET /nodes/monitor/network
```

[Query Parameter]

Parameter	Description
NodeId	Specify when specifying a node to retrieve. Multiple NodeID can be specified, in which case the information of all corresponding nodes are retrieved.

[Response Parameter]

Parameter	Type	Description						
NetworkMonitoringSettingsList	array	Network Performance Monitoring Information (List)						
<table> <tr> <td>NodeId</td><td>string</td><td>Node ID</td></tr> <tr> <td>OperationStatus</td><td>string</td><td> <p>Displays a status of network monitoring. Default status is set to Disabled. For a node unsupported of its network performance monitoring, Unavailable is displayed. Both Off and Disabled means that the periodical retrieval of the network performance information is stopped, while Off holds a log history, Disabled does not.</p> <ul style="list-style-type: none"> - Enable: On - Temporarily disabled: Off - Disable: Disabled </td></tr> </table>	NodeId	string	Node ID	OperationStatus	string	<p>Displays a status of network monitoring. Default status is set to Disabled. For a node unsupported of its network performance monitoring, Unavailable is displayed. Both Off and Disabled means that the periodical retrieval of the network performance information is stopped, while Off holds a log history, Disabled does not.</p> <ul style="list-style-type: none"> - Enable: On - Temporarily disabled: Off - Disable: Disabled 		
NodeId	string	Node ID						
OperationStatus	string	<p>Displays a status of network monitoring. Default status is set to Disabled. For a node unsupported of its network performance monitoring, Unavailable is displayed. Both Off and Disabled means that the periodical retrieval of the network performance information is stopped, while Off holds a log history, Disabled does not.</p> <ul style="list-style-type: none"> - Enable: On - Temporarily disabled: Off - Disable: Disabled 						

Parameter		Type	Description
			- Unavailable: Unavailable
	Items	array	Monitoring Item Information (List)
	ItemName	string	Monitoring Item Name
	ValueType	string	Type of Value <ul style="list-style-type: none"> - integer - real (decimal) - string
	Unit	string	Unit
	IsThresholdMonitoringActive	string	Status of Threshold Value Monitoring <ul style="list-style-type: none"> - Enable: Enabled - Disable: Disabled
	UpperCritical	object	Information on Threshold (Upper critical)
	Value	string	Threshold value for the upper critical
	Severity	string	Severity of an Event as it exceeds a Threshold Value <ul style="list-style-type: none"> - Error - Warning - Info - Normal
	UpperWarning	object	Information on Threshold (Upper warning)
	Value	string	Threshold value for the upper warning
	Severity	string	Severity of an Event as it exceeds a Threshold Value <ul style="list-style-type: none"> - Error - Warning - Info - Normal
	LowerCritical	object	Information on Threshold (Lower critical)
	Value	string	Threshold value for the lower critical
	Severity	string	Severity of an Event as it exceeds a Threshold Value <ul style="list-style-type: none"> - Error - Warning - Info - Normal
	LowerWarning	object	Information on Threshold (Lower warning)
	Value	string	Threshold value for the lower warning
	Severity	string	Severity of an Event as it exceeds a Threshold Value <ul style="list-style-type: none"> - Error - Warning - Info

Parameter				Type	Description
					- Normal

4.7.10 Updating of Network Monitoring Settings

[Overview]

Updates (enable/disable) the Network Performance Monitoring settings of the specified nodes.

[Format]

```
PATCH /nodes/{nodeid}/monitor/network
```

[Query Parameter]

None

[Request Parameter]

Parameter			Type	Description	
NetworkMonitoringSettingsList			array	Specify a Network Performance Monitoring information.	
	OperationStatus		string	Specify a status of Network Monitoring. To halt Network Performance Monitoring, specify Off or Disabled. Further, while Off halts by preserving the history of monitoring, Disabled deletes the monitoring history as well. - Enable: On - Temporarily disabled: Off - Disable: Disabled	
	Items		array	Specify the Information of Monitoring Items.	
		ItemName		string	Specify the Name of Monitoring Items.
		IsThresholdMonitoringActive		string	Specify a status of Threshold value monitoring. - Enable: Enabled - Disable: Disabled
		UpperCritical		object	Specify information on a Threshold (Upper critical).
			Value	string	Specify the Threshold value for the upper critical in either an integer or a decimal.
			Severity	string	Specify Severity of an event as it exceeds a Threshold value. When specifying null, default value (Error) is assigned. - Error - Warning - Info - Normal
		UpperWarning		object	Specify information on a Threshold (Upper warning).
			Value	string	Specify the Threshold value for the upper warning in either an integer or a decimal.
			Severity	string	Specify Severity of an event as it exceeds a Threshold value. When specifying null, default value (Warning) is assigned.

Parameter				Type	Description
					<ul style="list-style-type: none"> - Error - Warning - Info - Normal
			LowerCritical	object	Specify information on a Threshold (Lower critical) in either an integer or a decimal.
			Value	string	Specify the Threshold value for the lower critical in either an integer or a decimal.
			Severity	string	Specify Severity of an event as it exceeds a Threshold value. When specifying null, default value (Error) is assigned. <ul style="list-style-type: none"> - Error - Warning - Info - Normal
			LowerWarning	object	Specify information on a Threshold (Lower warning).
			Value	string	Specify the Threshold value for the lower warning in either an integer or a decimal.
			Severity	string	Specify Severity of an event as it exceeds a Threshold value. When specifying null, default value (Warning) is assigned. <ul style="list-style-type: none"> - Error - Warning - Info - Normal

[Response Parameter]

Parameter		Type	Description	
NetworkMonitoringSettingsList		array	Network Performance Monitoring Information (List)	
	OperationStatus	string	Displays a Status of Network Monitoring. - On (available) - Off (Temporarily disabled) - Disabled: (invalid)	
	Items		array	Monitoring Item Information (List)
		ItemName	string	Monitoring Item Name
		ValueType	string	Type of Value - integer - real (decimal) - string
		Unit	string	Unit
		IsThresholdMonitoringActive	string	Status of Threshold Value Monitoring

Parameter			Type	Description	
				<div>- Enable: Enabled</div> <div>- Disable: Disabled</div>	
		UpperCritical		object	Information on Threshold (Upper critical)
			Value	string	Threshold value for the upper critical
			Severity	string	Severity of an Event as it exceeds a Threshold Value <div>- Error</div> <div>- Warning</div> <div>- Info</div> <div>- Normal</div>
		UpperWarning		object	Information on Threshold (Upper warning)
			Value	string	Threshold value for the upper warning
			Severity	string	Severity of an Event as it exceeds a Threshold Value <div>- Error</div> <div>- Warning</div> <div>- Info</div> <div>- Normal</div>
		LowerCritical		object	Information on Threshold (Lower critical)
			Value	string	Threshold value for the lower critical
			Severity	string	Severity of an Event as it exceeds a Threshold Value <div>- Error</div> <div>- Warning</div> <div>- Info</div> <div>- Normal</div>
		LowerWarning		object	Information on a Threshold (Lower warning)
			Value	string	Threshold value for the lower warning
			Severity	string	Severity of an Event as it exceeds a Threshold Value <div>- Error</div> <div>- Warning</div> <div>- Info</div> <div>- Normal</div>

4.7.11 Retrieval of Network Monitoring History

[Overview]

Retrieves the Network Performance Monitoring history of the specified nodes.

[Format]

```
GET /nodes/{nodeid}/monitor/network/history
```

[Query Parameter]

Parameter	Description
ItemName	Specify the name of a Monitoring items. More than one name can be specified for an monitoring item.
PortName	Specify the name of a port. Several choices for a port name can be specified.
StartTime	Specify when specifying output time. Returns records after the specified time and date. Specify its format as RFC3339. E.g.) 2016-04-02T12:34:45Z000
EndTime	Specify when specifying output time. Returns records until the specified time and date. Specify its format as RFC3339. E.g.) 2016-04-02T12:34:45Z000
Count	Returns records from the ones of the latest to the nth.

[Response Parameter]

Parameter		Type	Description
Items		array	Network Performance Monitoring Information (List)
	NodeId	string	Node ID
	PortName	string	Port Name
	ItemName	string	Monitoring Item Name
	Records	array	List of Record Information
	Timestamp	string	Time Stamp The format is RFC3339. E.g.) 2016-04-01T12:34:45Z000
	Value	string	Value

4.8 Event /Alarm

4.8.1 Registration of Action Settings

[Overview]

Registers action settings (settings to define the action to execute when detecting an event to be notified).

[Format]

```
POST /event/actions
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
ActionName	string	Specify an Action Name.

Parameter		Type	Description
ActionType		string	Specify a type of action. Select from the following. <ul style="list-style-type: none"> - ExecuteCommand: Script Execution - SendMail: Sending Mail - TrapForwarding: Forwarding Trap - SyslogForwarding: Forwarding Syslog - ExecuteRemoteCommand: Remote Script Execution
Command		object	Specify the settings of script execution. It is required to be filled in when selecting ExecuteCommand as a type of action.
	FileName	string	Specify a file name of the execution target.
	ArgumentList	array(string)	Specify arguments at execution. Up to 25 arguments can be specified and each argument can be specified with 1024 characters at a maximum.
RemoteCommand		object	Specify the settings of remote script execution. It is required to be filled in when selecting ExecuteRemoteCommand as a type of action.
	FileName	string	Specify a file name (full path) of the execution target.
	ArgumentList	array(string)	Specify arguments at execution. Up to 25 arguments can be specified and each argument can be specified with 1024 characters at a maximum.
	MaxTimeOut	integer	Specify the upper limit for the execution time of the script files in units of seconds. When null specified, the default value (300 seconds) will be set.
	Host	object	Specify a host inventory information.
	OsType	string	Specify a type of OS. Select from the following. <ul style="list-style-type: none"> - RedHat - SUSELinuxEnterprise - Windows
	OsIpAddress	string	Specify an IP address.
	OsIpVersion	string	Specify an IP address version. Select from the following. <ul style="list-style-type: none"> - V4 - V6
	OsDomain	string	Specify the domain name. Specify null if there is no need.
	OsAccount	string	Specify an account name.
	OsPassword	string	Specify the password.

Parameter			Type	Description
				Encrypt the password with a method described in " 2.4 Encryption ."
		OsPortNum	integer	Specify the port number. When null specified, the default value will be set. When OsType is a Linux type (RedHat, SUSELinuxEnterprise): 22 When OsType is Windows: 5986
TrapForwarding			object	Specify the settings of trap forwarding. It is required to be filled in when selecting TrapForwarding as a type of action.
	SNMPServerId		string	Specify SNMP Server ID at the destination of forwarding.
	ForwardingType		string	Specify a Forwarding Type. Select from the following. - PassThrough: Forwards a trap assuming ISM as transmission source. - Transparent: Forward a received trap as it is.
Mail			object	Specify the information of a mail. It is required to be filled when selecting SendMail as a type of action.
	Destination		string	Specify a destination address.
	Sender		string	Specify a mail address at transmission source.
	Subject		string	Specify the name of a mail.
	Message		string	Specify the text of a mail.
	EncryptionFlag		integer	Specify if encryption is to be executed by S/MIME. Select from the following. - To encrypt: 1 - Not to encrypt: 0
SyslogForwarding			object	Information of the forwarding Syslog destination Specify the information of the forwarding Syslog destination. It is required to be filled when selecting SyslogForwarding as a type of action.
	ServerNameType		string	Type of Server Name Specify the type of server name. Select from the following. - IPv4 - IPv6 - FQDN
	ServerName		string	Server Name Specify the server name.
	PortNumber		integer	Port Number Specify the port number or null.

Parameter		Type	Description
			When keys omitted or null specified, the port number of 514 (TCP) will be set.
	Protocol	string	Protocol Select from the following. <ul style="list-style-type: none"> - TCP - UDP When keys omitted, the default value (TCP) is set.

[Response Parameter]

Parameter		Type	Description
ActionId		string	Action ID
ActionName		string	Action Name
ActionType		string	Action Type Selected from the following. <ul style="list-style-type: none"> - ExecuteCommand - SendMail - TrapForwarding - SyslogForwarding - ExecuteRemoteCommand
Command		object	Settings of Script Execution
	FileName	string	File Name of the Execution Target
	ArgumentList	array(string)	Arguments at Execution
RemoteCommand		object	Settings of Remote Script Execution
	FileName	string	File Name of the Execution
	ArgumentList	array(string)	Arguments at Execution
	MaxTimeOut	integer	Maximum Execution Time (seconds)
	Host	object	Host Inventory Information
	OsType	string	OS Type Selected from the following. <ul style="list-style-type: none"> - RedHat - SUSELinuxEnterprise - Windows
	OsIpAddress	string	IP Address
	OsIpVersion	string	IP Version Selected from the following. <ul style="list-style-type: none"> - V4 - V6
	OsDomain	string	Domain Name
	OsAccount	string	Account Name

Parameter			Type	Description
		OsPortNum	integer	Connection Port Number
TrapForwarding			object	Settings of Trap forwarding
	SNMPServerId		string	SNMP Server ID at the destination of forwarding
	ForwardingType		string	Forwarding Type Selected from the following. <div>- PassThrough - Transparent</div>
Mail			object	Mail Information
	Destination		string	Destination Address
	Sender		string	Address of the Origin of Transmission
	Subject		string	Mail Subject
	Message		string	Mail Text
	EncryptionFlag		integer	Mail Encryption Flag
SyslogForwarding			object	Information of the forwarding Syslog Destination
	ServerNameType		string	Type of Server Name Selected from the following. <div>- IPv4 - IPv6 - FQDN</div>
	ServerName		string	Server Name
	PortNumber		integer	Port Number
	Protocol		string	Protocol Selected from the following. <div>- TCP - UDP</div>

4.8.2 List Retrieval for Action Settings

[Overview]

Retrieves a list of action settings.

[Format]

```
GET /event/actions
```

[Query Parameter]

None

[Response Parameter]

Parameter	Type	Description
Actions	array	List of Action Settings

Parameter		Type	Description
	ActionId	string	Action ID
	ActionName	string	Action Name
	ActionType	string	Action Type Selected from the following. <ul style="list-style-type: none"> - ExecuteCommand - SendMail - TrapForwarding - SyslogForwarding - ExecuteRemoteCommand
	Command	object	Settings of Script Execution
	FileName	string	Execution Target File Name
	ArgumentList	array(string)	Arguments at Execution
	RemoteCommand	object	Settings of Remote Script Execution
	FileName	string	File Name of the Execution
	ArgumentList	array(string)	Arguments at Execution
	MaxTimeOut	integer	Maximum Execution Time (seconds)
	Host	object	Host Inventory Information
	OsType	string	OS Type Selected from the following. <ul style="list-style-type: none"> - RedHat - SUSELinuxEnterprise - Windows
	OsIpAddress	string	IP Address
	OsIpVersion	string	IP Version Selected from the following. <ul style="list-style-type: none"> - V4 - V6
	OsDomain	string	Domain Name
	OsAccount	string	Account Name
	OsPortNum	integer	Connection Port Number
	TrapForwarding	object	Settings of Trap Forwarding
	SNMPServerId	string	SNMP Server ID at the Destination of Forwarding
	ForwardingType	string	Forwarding Type Selected from the following. <ul style="list-style-type: none"> - PassThrough - Transparent
	Mail	object	Mail Information
	Destination	string	Destination Address

Parameter			Type	Description
		Sender	string	Address of the Origin of Transmission
		Subject	string	Mail Subject
		Message	string	Mail Text
		EncryptionFlag	integer	Mail Encryption Flag
	SyslogForwarding		object	Information of the forwarding Syslog Destination
		ServerNameType	string	Type of Server Name Selected from the following. - IPv4 - IPv6 - FQDN
		ServerName	string	Server Name
		PortNumber	integer	Port Number
		Protocol	string	Protocol Selected from the following. - TCP - UDP

4.8.3 Updating of Action Settings

[Overview]

Updates the settings of the specified action.

[Format]

```
PATCH /event/actions/{actionid}
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
ActionName		string	Specify an Action Name.
Command		object	Specify the settings of script execution. It is required to be filled in when selecting ExecuteCommand as a type of action.
	FileName	string	Specify an execution target file name.
	ArgumentList	array(string)	Specify arguments at execution. Up to 25 arguments can be specified and each argument can be specified with 1024 characters at a maximum.
RemoteCommand		object	Specify the settings of remote script execution. It is required to be filled in when selecting ExecuteRemoteCommand as a type of action.

Parameter		Type	Description
	FileName	string	Specify a file name (full path) of the execution target.
	ArgumentList	array(string)	Specify arguments at execution. Up to 25 arguments can be specified and each argument can be specified with 1024 characters at a maximum.
	MaxTimeOut	integer	Specify the upper limit for the execution time of the script files in units of seconds. When null specified, the default value (300 seconds) will be set.
	Host	object	Specify a host inventory information.
	OsType	string	Specify a type of OS. Select from the following. <ul style="list-style-type: none"> - RedHat - SUSELinuxEnterprise - Windows
	OsIpAddress	string	Specify an IP address.
	OsIpVersion	string	Specify an IP address version. Select from the following. <ul style="list-style-type: none"> - V4 - V6
	OsDomain	string	Specify the domain name. Specify null if there is no need.
	OsAccount	string	Specify an account name.
	OsPassword	string	Specify the password. Encrypt the password with a method described in " 2.4 Encryption ."
	OsPortNum	integer	Specify the port number. When null specified, the default value will be set. When OsType is a Linux type (RedHat, SUSELinuxEnterprise): 22 When OsType is Windows: 5986
TrapForwarding		object	Specify the settings of trap forwarding. It is required to be filled in when selecting TrapForwarding as a type of action.
	SNMPServerId	string	Specify SNMP Server ID at the destination of forwarding.
	ForwardingType	string	Specify a Forwarding Type. Select from the following. <ul style="list-style-type: none"> - PassThrough: Forwards a trap assuming ISM as transmission source. - Transparent: Forward a received trap as it is.
Mail		object	Specify the information of a mail.

Parameter		Type	Description
			It is required to be filled when selecting SendMail as a type of action.
	Destination	string	Specify a destination address.
	Sender	string	Specify a mail address at transmission source.
	Subject	string	Specify the name of a mail.
	Message	string	Specify the text of a mail.
	EncryptionFlag	integer	Specify if encryption is to be executed by S/MIME. Select from the following. - When do encrypt: 1 - When do not encrypt: 0
SyslogForwarding		object	Information of forwarding Syslog Destination Specify the information of forwarding Syslog destination. It is required to be filled when selecting SyslogForwarding as a type of action.
	ServerNameType	string	Type of Server Name Specify the type of server name. Select from the following. - IPv4 - IPv6 - FQDN
	ServerName	string	Server Name Specify the server name.
	PortNumber	integer	Port Number Specify the port number or null. When keys omitted or null specified, the port number of 514 (TCP) will be set.
	Protocol	string	Protocol Select from the following. - TCP - UDP When keys omitted, the default value (TCP) is set.

[Response Parameter]

Parameter	Type	Description
ActionId	string	Action ID
ActionName	string	Action Name
ActionType	string	Action Type Selected from the following. - ExecuteCommand - SendMail

Parameter		Type	Description
			<ul style="list-style-type: none"> - TrapForwarding - SyslogForwarding - ExecuteRemoteCommand
Command		object	Settings of Script Execution
	FileName	string	Execution Target File Name
	ArgumentList	array(string)	Arguments at Execution
RemoteCommand		object	Settings of Remote Script Execution
	FileName	string	File Name of the Execution
	ArgumentList	array(string)	Arguments at Execution
	MaxTimeOut	integer	Maximum Execution Time (seconds)
	Host	object	Host Inventory Information
	OsType	string	OS Type Selected from the following. <ul style="list-style-type: none"> - RedHat - SUSELinuxEnterprise - Windows
	OsIpAddress	string	IP Address
	OsIpVersion	string	IP Version Selected from the following. <ul style="list-style-type: none"> - V4 - V6
	OsDomain	string	Domain Name
	OsAccount	string	Account Name
	OsPortNum	integer	Connection Port Number
TrapForwarding		object	Settings of Trap forwarding
	SNMPServerId	string	SNMP Server ID at the Destination of Forwarding
	ForwardingType	string	Forwarding Type Selected from the following. <ul style="list-style-type: none"> - PassThrough - Transparent
Mail		object	Mail Information
	Destination	string	Destination Address
	Sender	string	Address of the Origin of Transmission
	Subject	string	Mail Subject
	Message	string	Mail Text
	EncryptionFlag	integer	Mail Encryption Flag
SyslogForwarding		object	Information of forwarding Syslog Destination
	ServerNameType	string	Type of Server Name Selected from the following.

Parameter		Type	Description
			<ul style="list-style-type: none"> - IPv4 - IPv6 - FQDN
	ServerName	string	Server Name
	PortNumber	integer	Port number
	Protocol	string	Protocol Selected from the following. <ul style="list-style-type: none"> - TCP - UDP

4.8.4 Deletion of Action Settings

[Overview]

Deletes the settings of the specified action.

[Format]

```
DELETE /event/actions/{actionid}
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

None

4.8.5 Registration of Alarm Settings

[Overview]

Registers an alarm settings definition (settings at the destination of event notification).

[Format]

```
POST /event/alarms
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
AlarmName		string	Specify an Alarm Name.
Resources		object	Specify the Resource Information.
	ResourceType	string	Specify a type of resource.

Parameter		Type	Description
			Select from the following. <ul style="list-style-type: none"> - Node - System
	ResourceId	array(integer)	Specify the Resource ID. If they are of the identical resource type, it is possible to specify multiple IDs. When a resource type is "System", specify it with empty.
Events		object	Specify the Event Information. Specify either trap information or the ISM event information: You cannot set two kinds of information for the same alarm settings.
	SNMPTrap	object	Specify the information of a trap.
	Severity	array(string)	Specify the severity of a trap. It is possible to specify multiple degrees of severity to the trap and to make the traps with the same severity specified the targets for alarm setting at once. Select severity from the following: <ul style="list-style-type: none"> - Critical - Major - Minor - Informational - Unknown
	OID	array(string)	Specify the OID. It is possible to specify multiple symbol names and they can be the targets for alarm settings by trap.
	ISMEvent	object	Specify the ISM event information.
	Severity	array(string)	Specify priority level of ISM event. It is possible to specify multiple degrees of severity to the ISM event and to make the events with the same severity specified the targets for alarm setting at once. Select severity from the following: <ul style="list-style-type: none"> - Error - Warning - Info
	EventInfo	array	Specify the ISM event information individually.
	EventId	string	Specify the ISM event ID. It is possible to specify multiple event IDs and they can be the targets for alarm settings by event.
	Actions	array	Specify an Action Settings. It is possible to specify multiple action settings.
	ActionId	string	Specify an Action ID.

Parameter		Type	Description
			<p>The actions that can be set are determined according to the selected event, a trap or ISM event.</p> <ul style="list-style-type: none"> - Actions that can be set for trap <p>All actions can be set.</p> <ul style="list-style-type: none"> - Actions that can be set for ISM event <p>Can be set only for the following.</p> <ul style="list-style-type: none"> - Script Execution - Mail Transmission
IsActive		string	<p>Specify a status of an Action Setting.</p> <p>Select from the following.</p> <ul style="list-style-type: none"> - Enable: Enabled - Disable: Disabled

[Response Parameter]

Parameter		Type	Description
AlarmId		string	Alarm Settings ID
AlarmName		string	Alarm Name
Resources		object	Resource Information
	ResourceType	string	<p>Type of Resource</p> <p>Selected from the following.</p> <ul style="list-style-type: none"> - Node - System
	ResourceId	array(integer)	Resource ID
Events		object	Event Information
	SNMPTrap	object	Trap Information
	Severity	array(string)	<p>Severity of Trap</p> <p>Selected from the following.</p> <ul style="list-style-type: none"> - Critical - Major - Minor - Informational - Unknown
	OID	array(string)	OID
ISMEvent		object	ISM Event Information
	Severity	array(string)	<p>Severity of ISM Event</p> <p>Selected from the following.</p> <ul style="list-style-type: none"> - Error - Warning

Parameter			Type	Description	
				- Info	
		EventInfo		array	ISM Event Information
			EventId	string	ISM Event ID
Actions			array	Action Settings	
	ActionId		string	Action ID	
IsActive			string	Status of Action Settings Selected from the following. - Enable: Enabled - Disable: Disabled	

4.8.6 List Retrieval for Alarm Settings

[Overview]

Retrieves all alarm settings definitions (settings at the destination of event notification).

[Format]

```
GET /event/alarms
```

[Query Parameter]

None

[Response Parameter]

Parameter			Type	Description
Alarms			array	List of Alarm Settings
	AlarmId		string	Alarm Settings ID
	AlarmName		string	Alarm Name
	Resources		object	Resource Information
		ResourceType	string	Type of Resource <ul style="list-style-type: none"> - Node - System
		ResourceId	array(integer)	Resource ID
	Events		object	Event Information
		SNMPTrap	object	Trap Information
		Severity	array(string)	Severity of Trap Selected from the following. <ul style="list-style-type: none"> - Critical - Major - Minor - Informational - Unknown

Parameter			Type	Description
		OID	array(string)	OID
		ISMEvent	object	ISM Event Information
		Severity	array(string)	Severity of ISM Event Selected from the following. - Error - Warning - Info
		EventInfo	array	ISM Event Information
		EventId	string	ISM Event ID
	Actions		array	Action Settings
	ActionId		string	Action ID
	IsActive		string	Status of Action Settings Selected from the following. - Enable: Enabled - Disable: Disabled

4.8.7 Updating of Alarm Settings

[Overview]

Updates an alarm settings definition (settings at the destination of event notification).

[Format]

```
PATCH /event/alarms/{alarmid}
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
AlarmName		string	Specify an Alarm Name.
Resources		object	Specify the Resource Information.
	ResourceType	string	Specify a Type of Resource. Select from the following. - Node - System
	ResourceId	array(integer)	Specify the Resource ID. If they are of the identical resource type, it is possible to specify multiple IDs. When a resource type is "System", specify it with empty.
Events		object	Specify the Event Information.

Parameter		Type	Description
			Specify either trap information or the ISM event information: You cannot set two kinds of information for the same alarm settings.
	SNMPTrap		Specify the Information of a Trap.
	Severity	array(string)	Specify the Severity of a Trap. It is possible to specify multiple degrees of severity to the trap and to make the traps with the same severity specified the targets for alarm setting at once. Select severity from the following: <ul style="list-style-type: none"> - Critical - Major - Minor - Informational - Unknown
	OID	array(string)	Specify the OID. It is possible to specify multiple symbol names and they can be the targets for alarm settings by trap.
	ISMEvent		Specify the ISM event information.
	Severity	array(string)	Specify the Severity level of ISM Event. It is possible to specify multiple degrees of severity to the ISM event and to make the events with the same severity specified the targets for alarm setting at once. Select severity from the following: <ul style="list-style-type: none"> - Error - Warning - Info
	EventInfo		Specify the ISM event information individually.
	EventId	string	Specify the ISM event ID. It is possible to specify multiple event IDs and they can be the targets for alarm settings by event.
Actions		array	Specify an Action Settings. It is possible to specify settings of action.
	ActionId	string	Specify an Action ID. The actions that can be set are determined according to the selected event, a trap or ISM event. <ul style="list-style-type: none"> - Actions that can be set for trap All actions can be set. - Actions that can be set for ISM event Can be set only for the following. <ul style="list-style-type: none"> - Script Execution - Mail Transmission

Parameter	Type	Description
IsActive	string	Specify a status of an Action Setting. Select from the following. <ul style="list-style-type: none"> - Enable: Enabled - Disable: Disabled

[Response Parameter]

Parameter	Type	Description
AlarmId	string	Alarm Settings ID
AlarmName	string	Alarm Name
Resources	object	Resource Information
ResourceType	string	Type of Resource Selected from the following. <ul style="list-style-type: none"> - Node - System
ResourceId	array(integer)	Resource ID
Events	object	Event Information
SNMPTrap	object	Trap Information
Severity	array(string)	Severity of Trap Selected from the following. <ul style="list-style-type: none"> - Critical - Major - Minor - Informational - Unknown
OID	array(string)	OID
ISMEvent	object	ISM Event Information
Severity	array(string)	Severity of ISM Event Selected from the following. <ul style="list-style-type: none"> - Error - Warning - Info
EventInfo	array	ISM Event Information
EventId	string	ISM Event ID
Actions	array	Action Settings
ActionId	string	Action ID
IsActive	string	Status of Action Settings Selected from the following. <ul style="list-style-type: none"> - Enable: Enabled

Parameter	Type	Description
		- Disable: Disabled

4.8.8 Deletion of Alarm Settings

[Overview]

Deletes an alarm settings definition (settings at the destination of event notification).

[Format]

```
DELETE /event/alarms/{alarmid}
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

None

4.8.9 Registration of SMTP Server Settings Information

[Overview]

Registers the settings for SMTP server that transmits during the mail notification action.

[Format]

```
PATCH /system/settings/smtpserver
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
SMTPServer		object	Specify the Information of SMTP Server.
	ServerNameType	string	Specify a Type of Server Name. Selectable from the following. IPv4, IPv6, FQDN
	ServerName	string	Specify the Name of a Server.
	UserName	string	Specify a User Name for SMTP auth. Specify null if not using SMTP auth.
	Password	string	Specify a Password for SMTP auth. Specify null if not using SMTP auth.
	PortNumber	integer	Specify the Number of a Port. When specifying null, default value 25 is assigned.

[Response Parameter]

Parameter		Type	Description
SMTPServer		object	SMTP Server Information
	ServerNameType	string	Type of Server Name One of the following is set. IPv4, IPv6, FQDN
	ServerName	string	Server Name
	UserName	string	SMTP auth User Name
	PortNumber	integer	Port Number

4.8.10 Retrieval of SMTP Server Settings Information**[Overview]**

Retrieves the settings information for the SMTP server that transmits during the mail notification action.

[Format]

```
GET /system/settings/smtpserver
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
SMTPServer		object	SMTP Server Information
	ServerNameType	string	Type of Server Name One of the following is set. IPv4, IPv6, FQDN
	ServerName	string	Server Name
	UserName	string	User Account at Authentication SMTP auth User Name
	PortNumber	integer	Port Number

4.8.11 Registration of SNMP Server Settings Information**[Overview]**

Adds the settings of SNMP server that transmits during the SNMP event notification action.

[Format]

```
POST /event/snmpmanagers
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
ServerNameType	string	Specify a Type of Server. Selectable from the following. IPv4, IPv6, FQDN
ServerName	string	Specify the Name of a Server.
PortNumber	integer	Specify receive Port Number to be used in SNMP communication. When specifying null, 162 is automatically set.
SNMPVersion	string	Specify the Version of SNMP. Selectable from the following. v1, v2, v3
Community	string	Specify a Community Name. (Only when specifying v1 or v2 in SNMPVersion)
EngineId	string	Specify an Engine ID. (Only when specifying v3 in SNMPVersion)
Context	string	Specify a context name. (Only when specifying v3 in SNMPVersion)
SecurityLevel	string	Specify a Security Level. Selectable from the following. noAuthNoPriv, authNoPriv, authPriv (Only when specifying v3 in SNMPVersion)
UserName	string	Specify the Name of a User. (Only when specifying v3 in SNMPVersion)
AuthProtocol	string	Specify authentication protocols. Selectable from the following. MD5, SHA (Only when specifying v3 in SNMPVersion and specifying either authNoPriv or authPriv in SecurityLevel)
AuthPassword	string	Specify a password for authentication. (Only when specifying v3 in SNMPVersion and specifying either authNoPriv or authPriv in SecurityLevel) Length of a string before encryption should be 8 characters in minimum.
PrivProtocol	string	Specify a privacy protocol. Selectable from the following. DES, AES (Only when of specifying v3 in SNMPVersion and specifying authPriv in SecurityLevel)
PrivPassword	string	Specify a privacy password. (Only when of specifying v3 in SNMPVersion and specifying authPriv in SecurityLevel)

Parameter	Type	Description
		Length of a string before encryption should be 8 characters in minimum.

[Response Parameter]

Parameter	Type	Description
SNMPServerId	string	ID for Settings Management of SNMP
ServerNameType	string	Type of Server Name One of the following is set. IPv4, IPv6, FQDN
ServerName	string	Server Name
PortNumber	integer	Receive Port Number to be used in SNMP Communication
SNMPVersion	string	Version of SNMP One of the following is set. v1, v2, v3
Community	string	Community Name (Only when specifying v1 or v2 in SNMPVersion)
EngineId	string	Engine ID (Only when specifying v3 in SNMPVersion)
Context	string	Context Name (Only when specifying v3 in SNMPVersion)
SecurityLevel	string	Security level noAuthNoPriv, authNoPriv, authPriv (Only when specifying v3 in SNMPVersion)
UserName	string	User Name (Only when specifying v3 in SNMPVersion)
AuthProtocol	string	Authentication Protocol MD5, SHA (Only when specifying v3 in SNMPVersion and specifying either authNoPriv or authPriv in SecurityLevel)
PrivProtocol	string	Privacy Protocol DES, AES (Only when of specifying v3 in SNMPVersion and specifying authPriv by SecurityLevel)

4.8.12 List Retrieval for SNMP Server Settings Information

[Overview]

Retrieves all the information for the SNMP server that transmits during the SNMP event notification action.

[Format]

```
GET /event/snmpmanagers
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
SNMPServers		array	SNMP Settings Information
	SNMPServerId	string	SNMP Settings Management ID
	ServerNameType	string	Type of Server Name One of the following is set. IPv4, IPv6, FQDN
	ServerName	string	Server Name
	PortNumber	integer	Receive Port Number to be used in SNMP Communication
	SNMPVersion	string	Version of SNMP One of the following is set. v1, v2, v3
	Community	string	Community Name (Only when specifying v1 or v2 in SNMPVersion)
	EngineId	string	Engine ID (Only when specifying v3 in SNMPVersion)
	Context	string	Context Name (Only when specifying v3 in SNMPVersion)
	SecurityLevel	string	Security Level noAuthNoPriv, authNoPriv, authPriv (Only when specifying v3 in SNMPVersion)
	UserName	string	User Name (Only when specifying v3 in SNMPVersion)
	AuthProtocol	string	Authentication Protocol MD5, SHA (Only when specifying v3 in SNMPVersion and specifying either authNoPriv or authPriv in SecurityLevel)
	PrivProtocol	string	Privacy Protocol DES, AES (Only when of specifying v3 in SNMPVersion and specifying authPriv in SecurityLevel)

4.8.13 Updating of SNMP Server Settings Information**[Overview]**

Updates the settings of the SNMP server that transmits during the SNMP event notification action.

[Format]

```
PATCH /event/snmpmanagers/{snmpserverid}
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
ServerNameType	string	Specify a type of server name. Selectable from the following. IPv4, IPv6, FQDN
ServerName	string	Specify the name of a server.
PortNumber	integer	Specify receive port number to be used in SNMP communication. When specifying null, 162 is automatically set.
SNMPVersion	string	Specify the Version of SNMP. Selectable from the following. v1, v2, v3
Community	string	Specify a community name. (Only when specifying v1 or v2 in SNMPVersion)
EngineId	string	Specify an Engine ID. (Only when specifying v3 in SNMPVersion)
Context	string	Specify a context name. (Only when specifying v3 in SNMPVersion)
SecurityLevel	string	Specify a security level. Selectable from the following. noAuthNoPriv, authNoPriv, authPriv (Only when specifying v3 in SNMPVersion)
UserName	string	Specify the name of a user. (Only when specifying v3 in SNMPVersion)
AuthProtocol	string	Specify authentication protocols. Selectable from the following. MD5, SHA (Only when specifying v3 in SNMPVersion and specifying either authNoPriv or authPriv in SecurityLevel)
AuthPassword	string	Specify a password for authentication. (Only when specifying v3 in SNMPVersion and specifying either authNoPriv or authPriv in SecurityLevel) Length of a string before encryption should be 8 characters in minimum.
PrivProtocol	string	Specify a privacy protocol. Selectable from the following. DES, AES (Only when specifying v3 in SNMPVersion and specifying authPriv in SecurityLevel)

Parameter	Type	Description
PrivPassword	string	Specify a privacy password. (Only when of specifying v3 in SNMPVersion and specifying authPriv in SecurityLevel) Length of a string before encryption should be 8 characters in minimum.

[Response Parameter]

Parameter	Type	Description
SNMPServerId	string	SNMP Settings Management ID
ServerNameType	string	Type of Server Name One of the following is set. IPv4, IPv6, FQDN
ServerName	string	Server Name
PortNumber	integer	Receive Port Number to be used in SNMP Communication
SNMPVersion	string	Version of SNMP One of the following is set. v1, v2, v3
Community	string	Community Name (Only when specifying v1 or v2 in SNMPVersion)
EngineId	string	Engine ID (Only when specifying v3 in SNMPVersion)
Context	string	Context Name (Only when specifying v3 in SNMPVersion)
SecurityLevel	string	Security Level noAuthNoPriv, authNoPriv, authPriv (Only when specifying v3 in SNMPVersion)
UserName	string	User Name (Only when specifying v3 in SNMPVersion)
AuthProtocol	string	Authentication Protocol MD5, SHA (Only when specifying v3 in SNMPVersion and specifying either authNoPriv or authPriv in SecurityLevel)
PrivProtocol	string	Privacy Protocol DES, AES (Only when of specifying v3 in SNMPVersion and specifying authPriv in SecurityLevel)

4.8.14 Deletion of SNMP Server Settings Information

[Overview]

Deletes the settings of the SNMP server that transmits during the SNMP event notification action.

[Format]

```
DELETE /event/snmpmanagers/{snmpserverid}
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

None

4.8.15 List Retrieval for Available SNMP Traps

[Overview]

Retrieves all the information of the available SNMP traps.

[Format]

```
GET /event/alarms/traplist
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
SNMPTraps		array	Trap Information List
	TrapType	string	Symbol Name of Trap
	OID	string	OID of Trap
	Description	string	Description of Trap
	MibName	string	MIB Name of Trap
	Severity	string	Severity of Trap Selected from the following: <ul style="list-style-type: none"> - Critical - Major - Minor - Informational - Unknown
	TargetRemoteReport	boolean	Displays whether it is a target for remote report. <ul style="list-style-type: none"> - False: Not a target - True: Target

4.8.16 List Retrieval for Available ISM Event IDs

[Overview]

Retrieves a list of the available ISM event IDs.

[Format]

```
GET /event/alarms/eventlist
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
ISMEvents		array	List of Event Information
	EventId	string	Event ID
	EventType	string	Event Type
	Description	string	Description of Event
	Severity	string	Severity of Event
	ResourceType	array(string)	Resource Type to be the Target of the Event Selected from the following. <ul style="list-style-type: none">- Node- Facility- NodeGroup- System

4.8.17 List Retrieval for Logs for Received SNMP Traps

[Overview]

Retrieves a list of the reception histories of the SNMP trap.

[Format]

```
GET /event/history/trap
```

[Query Parameter]

Parameter	Type	Description
StartTime	string	Retrieves data after the specified date. The format is RFC3339.
EndTime	string	Retrieves data before the specified date. The format is RFC3339.
ResourceType	string	Retrieves data of specified resource types. Usable any of the following. <ul style="list-style-type: none">- Node: Specific node- Unknown: ISM unregistered node
ResourceId	string	Can add and specify only when selecting Node in ResourceType. Retrieves all applicable nodes when specifying more than one.

[Response Parameter]

Parameter		Type	Description
TrapLogs		array	Trap Log List
	TrapLogId	string	Trap Log ID
	TimeStamp	string	Time/Date of Receiving Trap
	TrapType	string	Symbol Name of Trap
	OID	string	OID
	TrapMessage	string	Message of Trap
	ResourceType	string	Type of Resource at the Origin of Transmission of the Trap. Selected from the following. <ul style="list-style-type: none">- Node- Unknown
	ResourceId	integer	Resource ID of Origin of Transmission of the Trap
	Severity	string	Severity of the Trap Selected from the following. <ul style="list-style-type: none">- Critical- Major- Minor- Informational- Unknown

4.8.18 Registration of SNMP Traps To Be Excluded

[Overview]

Registers the traps to be excluded in a list.

[Format]

```
POST /event/history/trap/ignore
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
ResourceType	string	Specify a type of resource. Select from the following. <ul style="list-style-type: none">- Node
ResourceId	integer	Specify the Resource ID.
OID	string	Specify the OID of a trap

[Response Parameter]

Parameter	Type	Description
ResourceType	string	Type of Resource Selected from the following. - Node
ResourceId	integer	Resource ID
OID	string	OID of Trap

4.8.19 List Retrieval for Information on Excluded SNMP Traps

[Overview]

Retrieves a list of the information of the excluded traps.

[Format]

```
GET /event/history/trap/ignore
```

[Query Parameter]

None

[Response Parameter]

Parameter	Type	Description
IgnoredSNMPTraps	array	List of Traps for Exclusion
ResourceType	string	Type of Resource Selected from the following. - Node
ResourceId	integer	Resource ID
OID	string	Symbol Name of Trap

4.8.20 Deletion of Excluded SNMP Traps

[Overview]

Deletes excluded traps from the list.

[Format]

```
POST /event/history/trap/ignore/delete
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
ResourceType	string	Specify a type of resource. Select from the following. - Node

Parameter	Type	Description
ResourceId	integer	Specify the Resource ID.
OID	string	Specify the OID of a trap.

[Response Parameter]

None

4.8.21 Registration of Shared Alarm Settings

[Overview]

Registers information of the settings commonly used in the alarm settings.

[Format]

```
PATCH /event/alarms/settings
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
InhibitionInterval	integer	Specifies the period for inhibiting trap reception. Inhibits reception of the same trap from the same resource in the period.

[Response Parameter]

Parameter	Type	Description
InhibitionInterval	integer	Duration to Inhibit Trap Reception

4.8.22 Retrieval of Shared Alarm Settings

[Overview]

Retrieves the information of the settings commonly used in the alarm settings.

[Format]

```
GET /event/alarms/settings
```

[Query Parameter]

None

[Response Parameter]

Parameter	Type	Description
InhibitionInterval	integer	Duration to Inhibit Trap Reception

4.8.23 Test Execution of Actions

[Overview]

Executes a test of the specified action.

[Format]

```
POST /event/actions/{actionid}/test
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
TestEvent		object	Specify event information as parameters at test run of an action.
	ResourceType	string	Specify a type of resource. Select from the following. <ul style="list-style-type: none">- System- Node- Disable When unspecified, it automatically will be substituted by System.
	ResourceId	integer	Specify the Resource ID. When a resource type is specified as Node, a specification is essential.
	EventType	string	Specify an Event Type. Select from the following. <ul style="list-style-type: none">- ISMEvent- SNMPTrap When unspecified, it automatically will be substituted by SNMPTrap.

[Response Parameter]

Parameter		Type	Description
TestEvent		object	Parameters at Test Run of an Action
	ResourceType	string	Resource Types
	ResourceId	integer	Resource ID
	EventType	string	Event Type

4.8.24 Adding Information on SNMP Trap Reception Settings

[Overview]

Adds reception settings for the SNMP trap.

[Format]

```
POST /system/settings/snmptrapsettings
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
SNMPVersion		string	Specify the Version of SNMP. Selectable from the following. v1/v2, v3
Community		string	Specify a community name. (Only when specifying v1/v2 in SNMPVersion)
SecurityLevel		string	Specify a security level. Selectable from the following. noAuthNoPriv, authNoPriv, authPriv (Only when specifying v3 in SNMPVersion)
UserName		string	Specify the name of a user. (Only when specifying v3 in SNMPVersion)
AuthProtocol		string	Specify authentication protocols. Selectable from the following. MD5, SHA (Only when specifying v3 in SNMPVersion and specifying either authNoPriv or authPriv in SecurityLevel)
AuthPassword		string	Specify a password for authentication. (Only when specifying v3 in SNMPVersion and specifying either authNoPriv or authPriv in SecurityLevel) Length of a string before encryption should be 8 characters in minimum.
PrivProtocol		string	Specify a privacy protocol. Selectable from the following. DES, AES (Only when of specifying v3 in SNMPVersion and specifying authPriv in SecurityLevel)
PrivPassword		string	Specify a privacy password. (Only when of specifying v3 in SNMPVersion and specifying authPriv in SecurityLevel) Length of a string before encryption should be 8 characters in minimum.
NodeList		array	Specify node information that uses the SNMP trap reception settings. When SNMPv3, a specification is essential.
	NodeId	integer	Specify the Node ID.
	EngineId	string	Specify the Engine ID.

[Response Parameter]

Parameter		Type	Description
SNMPTrapSettingsId		string	SNMP Trap Settings ID
SNMPVersion		string	SNMP Version One of the following is set. v1/v2, v3
Community		string	Community Name (Only when specifying v1/v2 in SNMPVersion)
SecurityLevel		string	Security Level noAuthNoPriv, authNoPriv, authPriv (Only when specifying v3 in SNMPVersion)
UserName		string	User Name (Only when specifying v3 in SNMPVersion)
AuthProtocol		string	Authentication Protocol MD5, SHA (Only when specifying v3 in SNMPVersion and specifying either authNoPriv or authPriv in SecurityLevel)
PrivProtocol		string	Privacy Protocol DES, AES (Only when of specifying v3 in SNMPVersion and specifying authPriv in SecurityLevel)
NodeList		array	Node Information List (Only when specifying v3 in SNMPVersion)
	NodeId	integer	Node ID
	EngineId	string	Engine ID

4.8.25 Retrieval for Information on SNMP Trap Reception Settings**[Overview]**

Retrieves the SNMP trap reception settings.

[Format]

```
GET /system/settings/snmptrapsettings
```

[Query Parameter]

Parameter	Type	Description
nodeid	integer	Specify a node ID. Retrieves all corresponding SNMP trap reception settings when specifying more than one.

[Response Parameter]

Parameter		Type	Description
SNMPTrapSettings		array	
	SNMPTrapSettingsId	string	SNMP Trap Settings ID
	SNMPVersion	string	SNMP Version One of the following is set. v1/v2, v3
	Community	string	Community Name (Only when specifying v1/v2 in SNMPVersion)
	SecurityLevel	string	Security Level noAuthNoPriv, authNoPriv, authPriv (Only when specifying v3 in SNMPVersion)
	UserName	string	User Name (Only when specifying v3 in SNMPVersion)
	AuthProtocol	string	Authentication Protocol MD5, SHA (Only when specifying v3 in SNMPVersion and specifying either authNoPriv or authPriv in SecurityLevel)
	PrivProtocol	string	Privacy Protocol DES, AES (Only when of specifying v3 in SNMPVersion and specifying authPriv in SecurityLevel)
	NodeList	array	Node Information List
	NodeId	integer	Node ID
	EngineId	string	Engine ID

4.8.26 Updating Information on SNMP Trap Reception Settings

[Overview]

Updates the SNMP trap reception settings.

[Format]

```
PATCH /system/settings/snmptrapsettings/{snmptrapsettingsid}
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
SNMPVersion	string	Specify the Version of SNMP. Selectable from the following. v1/v2, v3
Community	string	Specify a community name.

Parameter		Type	Description
			(Only when specifying v1/v2 in SNMPVersion)
SecurityLevel		string	Specify a security level. Selectable from the following. noAuthNoPriv, authNoPriv, authPriv (Only when specifying v3 in SNMPVersion)
UserName		string	Specify the name of a user. (Only when specifying v3 in SNMPVersion)
AuthProtocol		string	Specifies authentication protocols. Selectable from the following. MD5, SHA (Only when specifying v3 in SNMPVersion and specifying either authNoPriv or authPriv in SecurityLevel)
AuthPassword		string	Specifies a password for authentication. (Only when specifying v3 in SNMPVersion and specifying either authNoPriv or authPriv in SecurityLevel) Length of a string before encryption should be 8 characters in minimum.
PrivProtocol		string	Specify a privacy protocol. Selectable from the following. DES, AES (Only when of specifying v3 in SNMPVersion and specifying authPriv in SecurityLevel)
PrivPassword		string	Specify a privacy password. (Only when of specifying v3 in SNMPVersion and specifying authPriv in SecurityLevel) Length of a string before encryption should be 8 characters in minimum.
NodeList		array	Specifies node information that uses the SNMP trap reception settings. When SNMPv3, a specification is essential.
	NodeId	integer	Specify the Node ID.
	EngineId	string	Specify the Engine ID.

[Response Parameter]

Parameter		Type	Description
SNMPTrapSettingsId		string	SNMP Trap Settings ID
SNMPVersion		string	SNMP Version One of the following is set. v1/v2, v3
Community		string	Community Name (Only when specifying v1/v2 in SNMPVersion)

Parameter		Type	Description
SecurityLevel		string	Security Level noAuthNoPriv, authNoPriv, authPriv (Only when specifying v3 in SNMPVersion)
UserName		string	User Name (Only when specifying v3 in SNMPVersion)
AuthProtocol		string	Authentication Protocol MD5, SHA (Only when specifying v3 in SNMPVersion and specifying either authNoPriv or authPriv in SecurityLevel)
PrivProtocol		string	Privacy Protocol DES, AES (Only when of specifying v3 in SNMPVersion and specifying authPriv in SecurityLevel)
NodeList		array	Node Information List (Only when specifying v3 in SNMPVersion)
	NodeId	integer	Node ID
	EngineId	string	Engine ID

4.8.27 Deletion of Information on SNMP Trap Reception Settings

[Overview]

Deletes the SNMP trap reception settings.

[Format]

```
DELETE /system/settings/snmptrapsettings/{snmptrapsettingsid}
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

None

4.9 Event List Management

4.9.1 Output of Log Type

[Overview]

Retrieves the information on the type of logs that can be used.

[Format]

```
GET /event/history
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
LogTypes		array	Log Type Information
	Name	string	Log Type Name - event: Operation Log - audit: Audit Log
	Description	string	Description

4.9.2 List Retrieval for Operation Logs

[Overview]

Searches Operation Logs according to the specified requirements.

Query parameters can be used to narrow down the Operation Logs to retrieve.

[Format]

```
GET /event/history/event/show?
loglevel={value}&loglevel={value}&logtype={value}&start={value}&end={value}&resourceidtype={value}&resourceid={value}&resourceid={value}&messageid={value}&extendedmessage={value}&operator={value}&continuekey={value}
```

[Query Parameter]

Parameter	Type	Description
loglevel	string	Narrowing down by severity Multiple severities can be set.
logtype	string	Narrowing down by the Type of Operation Logs
start	string	Narrowing down by the Start of Date and Time of Occurrence YYYY-MM-DDThh:mm:ss.xxxZ (date:year-month-day, time:hour-minute-second-millisecond. T and Z represent both delimiters and UTC in ISO8601 format.)
end	string	Narrowing down by the End of Date and Time of Occurrence YYYY-MM-DDThh:mm:ss.xxxZ (date:year-month-day, time:hour-minute-second-millisecond. T and Z represent both delimiters and UTC in ISO8601 format.)
resourceidtype	string	Narrowing down by the Use of Resource ID Type In this narrowing, specifying of the resource ID is required.
resourceid	integer	Narrowing down by Resource ID Can specify more than one of resource IDs. In this narrowing, specifying of the resource ID is required.

Parameter	Type	Description
messageid	string	Narrowing down by Message ID
extendedmessage	string	Narrowing down by Extended Message
operator	string	Narrowing down by Operator
continuekey	string	Continued Read Key

[Response Parameter]

Parameter	Type	Description
Logs	array	List of Log Information
Id	string	Log ID Range: 1-999999
OccurrenceDate	string	Date and Time of Occurrence YYYY-MM-DDThh:mm:ss.xxxZ (date:year-month-day, time:hours-minute-second-millisecond. T and Z represent both delimiters and UTC in ISO8601 format.)
Level	string	Severity
MessageId	string	Message ID
Message	string	Message
Type	string	Types of Operation Logs
TargetInfo	object	Target Information
Name	string	Resource Name
ResourceIdType	string	Type of Resource ID
ResourceId	integer	Resource ID
Operator	string	Operator
RowCounter	integer	Total Search Queries
ContinueKey	string	Continued Read Key

[Precautions]

- Only the users that belong to the Administrator group and have an Administrator role can retrieve the all log information.
- When the executing user does not belong to the Administrator group or does not have an Administrator role, only the own log information and the log information of the members in the same group can be searched.
- When the same key has been specified several times in query parameters, the one specified lastly becomes valid.
- When omitting time/date of start and time/date of finish, all of log information are to become targets for narrowing.
- When omitting time/date of start, log information before the time/date of the finish is to become targets for narrowing. Also, when omitting time/date of termination, log information after the starting time/date becomes targets for narrowing.
- When there is no log information as target output, it outputs 0 log information.
- When information of log exceeds 1,000, it outputs up to 1,000 records in the order of time and date of new log registration.
- Without changing conditions for narrowing down, the rest of log information can be output by specifying the value of response parameter, "ContinueKey" as a value of query parameter, "continuekey."
- When narrowing down, specify values of corresponding output results of ["4.9.2 List Retrieval for Operation Logs"](#) and ["4.9.4 Individual Retrieval of Operation Logs"](#) as specified values for query parameters.

4.9.3 List Retrieval for Audit Logs

[Overview]

Searches Audit Logs according to set requirements.

Query parameters can be used to narrow down the Audit Logs to retrieve.

[Format]

```
GET /event/history/audit/show?
loglevel={value}&loglevel={value}&logtype={value}&start={value}&end={value}&resourceidtype={value}&resourceid={value}&resourceid={value}&messageid={value}&extendedmessage={value}&operator={value}&continuekey={value}
```

[Query Parameter]

Parameter	Type	Description
loglevel	string	Narrowing down by Severity Multiple severities can be set.
logtype	string	Narrowing down by the Type of Audit Logs
start	string	Narrowing down by the Start of Date and Time of Occurrence YYYY-MM-DDThh:mm:ss.xxxZ (date:year-month-day, time:hours-minute-second-millisecond. T and Z represent both delimiters and UTC in ISO8601 format.)
end	string	Narrowing down by the End of Date and Time of Occurrence YYYY-MM-DDThh:mm:ss.xxxZ (date:year-month-day, time:hours-minute-second-millisecond. T and Z represent both delimiters and UTC in ISO8601 format.)
resourceidtype	string	Narrowing down by the Use of Resource ID Type In this narrowing, specifying of the resource ID is required.
resourceid	integer	Narrowing down by Resource ID Can specify more than one of resource IDs. In this narrowing, specifying of the resource ID is required.
messageid	string	Narrowing down by Message ID
extendedmessage	string	Narrowing down by Extended Message
operator	string	Narrowing down by Operator
continuekey	string	Continued Read Key

[Response Parameter]

Parameter	Type	Description
Logs	array	List of Log Information
	Id	Log ID Range: 1-999999
	OccurrenceDate	Date and Time of Occurrence YYYY-MM-DDThh:mm:ss.xxxZ (date:year-month-day, time:hours-minute-second-millisecond. T and Z represent both delimiters and UTC in ISO8601 format.)

Parameter		Type	Description
	Level	string	Severity
	MessageId	string	Message ID
	Message	string	Message
	Type	string	Types of Audit Logs
	TargetInfo	object	Target Information
	Name	string	Resource Name
		string	Type of Resource ID
		integer	Resource ID
	UserInfo	object	User Information
	IpAddress	string	IP Address at Access Source
		string	Operator
		string	User ID
		string	Session ID
	RowCount	integer	Total Search Queries
	ContinueKey	string	Continued Read Key

[Precautions]

- Only the users that belong to the Administrator group and have an Administrator role can search log information.
- When the same key has been specified several times in query parameters, the one specified lastly becomes valid.
- When omitting time/date of start and time/date of finish, all of log information are to become targets for narrowing.
- When omitting time/date of start, log information before the time/date of the finish is to become targets for narrowing. Also, when omitting time/date of termination, log information after the starting time/date can become targets for narrowing.
- When there is no log information as target output, it outputs 0 log information.
- When information of log exceeds 1,000, it outputs up to 1,000 records in the order of time and date of new log registration.
- Without changing conditions for narrowing down, the rest of log information can be output by specifying the value of response parameter, "ContinueKey" as a value of query parameter, "continuekey."
- When narrowing down, narrowing, specify values of corresponding output results of "[4.9.3 List Retrieval for Audit Logs](#)" and "[4.9.5 Individual Retrieval of Audit Logs](#)" as specified values for query parameters.

4.9.4 Individual Retrieval of Operation Logs

[Overview]

Retrieves detailed information of the specified Operation Log number.

[Format]

```
GET /event/history/event/logs/{logid}
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
Logs		object	Log Information
	Id	string	Log ID Range: 1-999999
	OccurrenceDate	string	Date and Time of Occurrence YYYY-MM-DDThh:mm:ss.xxxZ (date:year-month-day, time:hours-minute-second-millisecond. T and Z represent both delimiters and UTC in ISO8601 format.)
	Level	string	Severity
	MessageId	string	Message ID
	Message	string	Message
	Type	string	Types of Operation Logs
	TargetInfo	object	Target Information
	Name	string	Resource Name
		string	Type of Resource ID
		integer	Resource ID
	UserGroupId	string	User Group Information
	Operator	string	Operator

[Precautions]

- Only the users that belong to the Administrator group and have an Administrator role can output all of the detailed log information.
- When the executing user does not belong to the Administrator group or does not have an Administrator role, only the log information of the members in the same group can be retrieved.

4.9.5 Individual Retrieval of Audit Logs

[Overview]

Retrieves detailed information of the specified Audit Log number.

[Format]

```
GET /event/history/audit/logs/{logid}
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
Logs		object	Log Information
	Id	string	Log ID Range: 1-999999
	OccurrenceDate	string	Date and Time of Occurrence YYYY-MM-DDThh:mm:ss.xxxZ (date:year-month-day, time:hours-minute-second-millisecond. T and Z represent both delimiters and UTC in ISO8601 format.)

Parameter		Type	Description
	Level	string	Severity
	MessageId	string	Message ID
	Message	string	Message
	Type	string	Types of Audit Logs
	TargetInfo	object	Target Information
	Name	string	Resource Name
		string	Type of Resource ID
		integer	Resource ID
	UserGroupId	string	User Group Information
	UserInfo	object	User Information
	IpAddress	string	IP Address at Access Source Presently it is not supported.
		string	Operator
		string	User ID
		string	Session ID

[Precautions]

- Only the users that belong to the Administrator group and have an Administrator role can output the detailed log information.

4.9.6 Export of Operation Logs

[Overview]

Searches Operation Logs according to the set requirements and exports them in ZIP format.

[Format]

```
POST /event/history/event/export
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
StartTime	string	Narrowing down by the Start of Date and Time of Occurrence YYYY-MM-DDThh:mm:ss.xxxZ (date:year-month-day, time:hour-minute-second-millisecond. T and Z represent both delimiters and UTC in ISO8601 format.)
EndTime	string	Narrowing down by the End of Date and Time of Occurrence YYYY-MM-DDThh:mm:ss.xxxZ (date:year-month-day, time:hour-minute-second-millisecond. T and Z represent both delimiters and UTC in ISO8601 format.)

[Response Parameter]

Parameter		Type	Description
StoreInfo		object	Storing Information
	Url	string	URL of Storage Destination
	Log	object	Log File Information
	Name	string	Stored Log File Name Events_YYYYMMDD-hhmmss_xxx.zip (YYYYMMDD-hhmmss_xxx displays date of creation as yearmonthday-hourminutesecond_millisecond)
	Size	integer	File Size Unit: byte

[Precautions]

- Only the users that belong to the Administrator group and have an Administrator role can export all of the log information.
- When the executing user does not belong to the Administrator group or does not have an Administrator role, only the log information of the members in the same group can be retrieved.
- When omitting time/date of start and time/date of finish, all of log information are to become targets for narrowing.
- When omitting time/date of start, log information before the time/date of the finish is to become targets for narrowing. Also, when omitting time/date of termination, log information after the starting time/date can become targets for narrowing.

4.9.7 Export of Audit Logs

[Overview]

Searches Audit Logs according to the set requirements and exports them in ZIP format.

[Format]

```
POST /event/history/audit/export
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
StartTime	string	Narrowing down by the Start of Date and Time of Occurrence YYYY-MM-DDThh:mm:ss.xxxZ (date:year-month-day, time:hour-minute-second-millisecond. T and Z represent both delimiters and UTC in ISO8601 format.)
EndTime	string	Narrowing down by the End of Date and Time of Occurrence YYYY-MM-DDThh:mm:ss.xxxZ (date:year-month-day, time:hour-minute-second-millisecond. T and Z represent both delimiters and UTC in ISO8601 format.)

[Response Parameter]

Parameter	Type	Description
StoreInfo	object	Storing Information

Parameter		Type	Description
	Url	string	URL of Storage Destination
	Log	object	Log File Information
	Name	string	Stored Log File Name Audits_YYYYMMDD-hhmmss_xxx.zip (YYMMDD-hhmmss_xxx displays date of creation as yearmonthday-hourminutesecond_millisecond)
	Size	integer	File Size Unit: byte

[Precautions]

- Only the users that belong to the Administrator group and have an Administrator role can export log information.
- When omitting time/date of start and time/date of finish, all of log information is to become targets for narrowing.
- When omitting time/date of start, log information before the time/date of the finish is to become targets for narrowing. Also, when omitting time/date of termination, log information after the starting time/date can become targets for narrowing.

4.9.8 Display of Retention Periods

[Overview]

Displays the number of days to retain the log files for the Operation Log or Audit Log retrieved by export.

[Format]

```
GET /event/history/retentionperiod/settings
```

[Query Parameter]

None

[Response Parameter]

Parameter	Type	Description
StoreTerm	integer	Log Retention Period Setting range: 1-365

4.9.9 Renewal of Retention Periods

[Overview]

Updates the number of days to retain the log files for the Operation Log or Audit Log retrieved by export.

[Format]

```
PATCH /event/history/retentionperiod/settings
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
StoreTerm	integer	Log Retention Period Setting range: 1-365

[Response Parameter]

Parameter	Type	Description
StoreTerm	integer	Log Retention Period Setting range: 1-365

[Precautions]

- Only the users that belong to the Administrator group and have an Administrator role can update.

4.10 Profile Management

4.10.1 List Retrieval for Profile Categories

[Overview]

Retrieves a profile category list.

[Format]

```
GET /profiles/categories
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
Server		array	Classification: Server
	CategoryId	string	Category ID
	CategoryName	string	Category Name <ul style="list-style-type: none"> - Server-BX: FUJITSU Server PRIMERGY BX series - Server-RX: FUJITSU Server PRIMERGY RX series - Server-TX: FUJITSU Server PRIMERGY TX series - Server-CX: FUJITSU Server PRIMERGY CX series - Server-PRIMEQUEST2000-Partition: FUJITSU Server PRIMEQUEST2000 series - Server-PRIMEQUEST3000B: FUJITSU Server PRIMEQUEST3000B series - Server-PRIMEQUEST3000E-Partition: FUJITSU Server PRIMEQUEST3000E series
Storage		array	Classification: Storage
	CategoryId	string	Category ID

Parameter		Type	Description
	CategoryName	string	Category Name - Storage-DX: FUJITSU Storage ETERNUS DX series - Storage-NetAppCluster: FUJITSU Storage ETERNUS NR series
Switch		array	Classification: Switch
	CategoryId	string	Category ID
	CategoryName	string	Category Name - Switch-SRX: Server housing switch SR-X series - Switch-CFX: Converged fabric switch CFX series - Switch-VDX: Converged switch VDX(Brocade VDX) series - Switch-PSWITCH: Ethernet switch PSWITCH series
Other		array	Classification: Other
	CategoryId	string	Category ID
	CategoryName	string	Category Name - Other

4.10.2 Conversion of Profile Categories

[Overview]

Converts profiles into the applicable categories of the profile by using the model name specified.

[Format]

```
POST /profiles/categories
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
Model	string	Model

[Response Parameter]

Parameter	Type	Description
CategoryId	string	Category ID
CategoryName	string	Category Name - Server-BX: FUJITSU Server PRIMERGY BX series - Server-RX: FUJITSU Server PRIMERGY RX series - Server-TX: FUJITSU Server PRIMERGY TX series - Server-CX: FUJITSU Server PRIMERGY CX series

Parameter	Type	Description
		<ul style="list-style-type: none"> - Server-PRIMEQUEST2000-Partition: FUJITSU Server PRIMEQUEST2000 series - Server-PRIMEQUEST3000B: FUJITSU Server PRIMEQUEST3000B series - Server-PRIMEQUEST3000E-Partition: FUJITSU Server PRIMEQUEST3000E series - Storage-DX: FUJITSU Storage ETERNUS DX series - Storage-NetAppCluster: FUJITSU Storage ETERNUS NR series - Switch-SRX: server housing switch SR-X series - Switch-CFX: converged fabric switch CFX series - Switch-VDX: converged switch VDX(Brocade VDX) series - Switch-PSWITCH: Ethernet switch PSWITCH series - Other

4.10.3 Adding Profiles

[Overview]

Adds a profile.

[Format]

```
POST /profiles/profiles
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
ProfileName	string	Profile name
Description	string	Description of Profile
CategoryId	string	Category ID
ProfileGroupId	string	Profile Group ID to save
ReferencePolicyList	array	Policy list used in the succession referenced The maximum value is 2000.
PolicyId	string	Policy ID used in the succession referenced
OneTimePasswordKey	string	One-time Encryption Key for Password Information Set the password encrypted with AES256+Base64 and assign the encryption key for all password information in ProfileData.
ProfileData	object	Profile Settings
Server-BX	object	FUJITSU Server PRIMERGY BX series
BIOS	object	BIOS Settings

Parameter		Type	Description
			For details, refer to "BIOS" in " C.1 Server-BX. "
	iRMC	object	iRMC (Integrated Remote Management Controller) Settings For details, refer to "iRMC" in " C.1 Server-BX. "
	IOVirtualization	object	Virtual IO Settings For details, refer to " D.3 IOVirtualization. "
	OSInstallation	object	OS Installation Settings For details, refer to " D.4 OSInstallation. "
	Server-RX	object	FUJITSU Server PRIMERGY RX series
	BIOS	object	BIOS Settings For details, refer to " D.1 BIOS. "
	iRMC	object	iRMC (Integrated Remote Management Controller) Settings For details, refer to " D.2 iRMC. "
	IOVirtualization	object	Virtual IO Settings For details, refer to " D.3 IOVirtualization. "
	OSInstallation	object	OS Installation Settings For details, refer to " D.4 OSInstallation. "
	Server-TX	object	FUJITSU Server PRIMERGY TX series
	BIOS	object	BIOS Settings For details, refer to " D.1 BIOS. "
	iRMC	object	iRMC (Integrated Remote Management Controller) Settings For details, refer to " D.2 iRMC. "
	IOVirtualization	object	Virtual IO Settings For details, refer to " D.3 IOVirtualization. "
	OSInstallation	object	OS Installation Settings For details, refer to " D.4 OSInstallation. "
	Server-CX	object	FUJITSU Server PRIMERGY CX series
	BIOS	object	BIOS Settings For details, refer to " D.1 BIOS. "
	iRMC	object	iRMC (Integrated Remote Management Controller) Settings For details, refer to " D.2 iRMC. "
	IOVirtualization	object	Virtual IO Settings For details, refer to " D.3 IOVirtualization. "
	OSInstallation	object	OS Installation Settings For details, refer to " D.4 OSInstallation. "
	Server-PRIMEQUEST2000-Partition	object	FUJITSU Server PRIMEQUEST2000 series
	MMB	object	MMB (Management Board) Partition Settings

Parameter		Type	Description
			For details, refer to " D.5 MMB. "
	OSInstallation	object	OS Installation Settings For details, refer to " D.4 OSInstallation. "
	Server-PRIMEQUEST3000B	object	FUJITSU Server PRIMEQUEST3000B series
	BIOS	object	BIOS Settings For details, refer to " D.1 BIOS. "
	iRMC	object	iRMC (Integrated Remote Management Controller) Settings For details, refer to " D.2 iRMC. "
	OSInstallation	object	OS Installation Settings For details, refer to " D.4 OSInstallation. "
	Server-PRIMEQUEST3000E-Partition	object	FUJITSU Server PRIMEQUEST3000E series
	MMB	object	MMB (Management Board) Partition Settings For details, refer to " D.5 MMB. "
	IOVirtualization	object	Virtual IO Settings For details, refer to " D.3 IOVirtualization. "
	OSInstallation	object	OS Installation Settings For details, refer to " D.4 OSInstallation. "
	Storage-DX	object	FUJITSU Storage ETERNUS DX series disk storage system
	StandRaid	object	Raid Settings For details, refer to "StandRaid" in " C.2 Storage-DX. "
	GHotSpare	object	Hot Spares Settings For details, refer to "GHotSpare" in " C.2 Storage-DX. "
	HostAffinity	object	Host Affinity Settings For details, refer to "HostAffinity" in " C.2 Storage-DX. "
	DetailSettings	object	Detail Settings of Profile For details, refer to "DetailSettings" in " C.2 Storage-DX. "
	Storage-NetAppCluster	object	FUJITSU Storage ETERNUS NR series Network Disk Array
	Snmp	object	SNMP Function Information For details, refer to "Snmp" in " C.3 Storage-NetAppCluster. "
	Ntp	object	Information of Auto Time Adjustment For details, refer to "Ntp" in " C.3 Storage-NetAppCluster. "
	Switch-SRX	object	Server Housing Switch SR-X series
	Snmp	object	SNMP Function Information For details, refer to "Snmp" in " C.4 Switch-SRX. "
	AutoTime	object	Automatic Time Setting Information For details, refer to "AutoTime" in " C.4 Switch-SRX. "
	Account	object	Information on Password of the Administrator of the Device

Parameter		Type	Description
			For details, refer to "Account" in " C.4 Switch-SRX. "
	Stp	object	STP For details, refer to "Stp" in " C.4 Switch-SRX. "
	Switch-CFX	object	Converged Fabric Switch CFX series
	Interface	array	Interface Information Setting available for up to a maximum of 256. For details, refer to "Interface" in " C.5 Switch-CFX. "
	Snmp	object	SNMP Function Information For details, refer to "Snmp" in " C.5 Switch-CFX. "
	AutoTime	object	Automatic Time Setting Information For details, refer to "AutoTime" in " C.5 Switch-CFX. "
	Account	object	Information on Password of the Administrator of the Device For details, refer to "Account" in " C.5 Switch-CFX. "
	Aaa	object	AAA Information For details, refer to "Aaa" in " C.5 Switch-CFX. "
	Switch-VDX	object	Converged switch VDX(Brocade VDX) series
	Snmp	object	SNMP Function Information For details, refer to "Snmp" in " C.6 Switch-VDX. "
	AutoTime	object	Automatic Time Setting Information For details, refer to "AutoTime" in " C.6 Switch-VDX. "
	Account	object	Account Information For details, refer to "Account" in " C.6 Switch-VDX. "
	Switch-PSWITCH	object	Ethernet Switch PSWITCH series
	Snmp	object	SNMP Function Information For details, refer to "Snmp" in " C.7 Switch-PSWITCH. "
	AutoTime	object	Automatic Time Setting Information For details, refer to "AutoTime" in " C.7 Switch-PSWITCH. "
	Account	object	Account Information For details, refer to "Account" in " C.7 Switch-PSWITCH. "

[Response Parameter]

Parameter	Type	Description
ProfileId	string	Profile ID
ProfileName	string	Profile Name

4.10.4 List Retrieval for Profiles

[Overview]

Retrieves a profile list.

[Format]

```
GET /profiles/profiles?status={unassigned|assigned|mismatch|processing|canceling|canceled|
error}&categoryid={categoryid}&profilegroupid={groupid}&referencepolicyid={policyid}&assignednodeid
={nodeid}
```

[Query Parameter]

Parameter	Type	Description
status	string	Assigned Status <ul style="list-style-type: none"> - unassigned: unassigned - assigned: assignment complete - mismatch: an assigned profile is edited and takes on unassigned status (there is a finite difference between the profile and the device) - processing: 'assigned/unassigned' processing in progress - canceling: cancellation of 'assigned/unassigned' is in progress - canceled: cancellation of 'assigned/unassigned' is complete - error: 'assigned/unassigned' has failed When 'assigned' is specified, a list of profiles assigned to the nodes is output.
categoryid	string	Category ID The profile list belonging to the specified category is output.
profilegroupid	string	Profile Group ID The profile list belonging to the specified profile group is output.
referencepolicyid	string	Policy ID using the succession referenced The profile list using the specified policy in the referential succession is output.
assignednodeid (ISM 2.3.0.b or later)	integer	Assigned Node ID The profile list for specified assigned Node ID is output.

[Response Parameter]

Parameter	Type	Description
ProfileList	array	Profile List The maximum value is 2000.
ProfileId	string	Profile ID
ProfileName	string	Profile Name
Description	string	Description of Profile
CategoryId	string	Category ID
ProfileGroupId	string	Profile Group ID that it currently belongs to
PathName	string	Path Name for this profile group

Parameter		Type	Description
	ReferencePolicyList	array	Policy List used in the succession referenced The maximum value is 2000.
	PolicyId	string	Policy ID used in the succession referenced
	AssignedNodeId	integer	Node ID Assigned Null when unassigned.
	Status	string	Displays assigned Status. <ul style="list-style-type: none"> - unassigned: unassigned - assigned: assignment complete - mismatch: an assigned profile is edited and takes on unassigned status (there is a finite difference between the profile and the device) - processing: 'assigned/unassigned' processing in progress - canceling: cancellation of 'assigned/unassigned' is in progress - canceled: cancellation of 'assigned/unassigned' is complete - error: 'assigned/unassigned' has failed
	InternalStatus	object	Internal Status
	BiosStatus	string	Displays the Assignment Status for BIOS Profiles. <ul style="list-style-type: none"> - invalid: profile unregistered - unassigned: profile not yet assigned - assigned: profile assignment complete - reassign: profile update available - processing: assignment in process
	IrmcStatus	string	Displays the Assignment Status for iRMC Profiles. <ul style="list-style-type: none"> - invalid: profile unregistered - unassigned: profile not yet assigned - assigned: profile assignment complete - reassign: profile update available - processing: assignment in process Output when the CategoryId is 1(Server-BX), 2(Server-CX), 3(Server-RX), 5(Server-PRIMEQUEST3000B) or 7(Server-TX).
	MmbStatus	string	Displays the Assignment Status for MMB Profiles. <ul style="list-style-type: none"> - invalid: profile unregistered - unassigned: profile not yet assigned - assigned: profile assignment complete - reassign: profile update available - processing: assignment in process

Parameter		Type	Description
			Output when the CategoryId is 4(Server-PRIMEQUEST2000-Partition) or 6(Server-PRIMEQUEST3000E-Partition).
	IovStatus	string	Displays the Assignment Status for IOVirtualization profiles. <ul style="list-style-type: none"> - invalid: profile unregistered - unassigned: profile not yet assigned - assigned: profile assignment complete - reassign: profile update available - processing: assignment in process
	OsStatus	string	Displays the Assignment Status for OS Profiles. <ul style="list-style-type: none"> - invalid: profile unregistered - unassigned: profile not yet assigned - assigned: profile assignment complete - reassign: profile update available - processing: assignment in process
	HistoryList	array	When edited during assignment, the profile as it was before editing is returned. The maximum value is 1.
	ProfileId	string	When edited during assignment, the profile as it was before editing is returned.
	TimeStampInfo	object	Time Stamp Information
	Register	string	Registration Time
	Update	string	Time of Last Updated
	Assigned	string	Time of Last Assignment

4.10.5 Individual Retrieval of Profiles

[Overview]

Retrieves the individual information of the specified profiles.

[Format]

```
GET /profiles/profiles/{profileid}?passwordkey={passwordkey}
```

[Query Parameter]

Parameter	Type	Description
passwordkey	string	Encryption Key for Password Information For all password information in ProfileData, Specify the encryption key for passwords encrypted with AES256+Base64.

[Response Parameter]

Parameter		Type	Description
ProfileId		string	Profile ID
ProfileName		string	Profile Name
Description		string	Description of Profile
CategoryId		string	Category ID
ProfileGroupId		string	Profile Group ID that it currently belongs to
PathName		string	Path Name for this profile group Absolute path. Everything up to the group name is displayed.
ReferencePolicyList		array	Policy List used in the succession referenced The maximum value is 2000.
	PolicyId	string	Policy ID used in the succession referenced
AssignedNodeId		integer	Assigned Node ID Null when unassigned.
Status		string	Displays Assigned Status. <ul style="list-style-type: none"> - unassigned: unassigned - assigned: assignment complete - mismatch: an assigned profile is edited and takes on unassigned status (there is a finite difference between the profile and the device) - processing: 'assigned/unassigned' processing in progress - canceling: cancellation of 'assigned/unassigned' is in progress - canceled: cancellation of 'assigned/unassigned' is complete - error: 'assigned/unassigned' has failed
InternalStatus		object	Internal Status
	BiosStatus	string	Displays the Assignment Status for BIOS Profiles. <ul style="list-style-type: none"> - invalid: profile unregistered - unassigned: profile not yet assigned - assigned: profile assignment complete - reassign: profile update available - processing: assignment in process
	IrmcStatus	string	Displays the Assignment Status for iRMC Profiles. <ul style="list-style-type: none"> - invalid: profile unregistered - unassigned: profile not yet assigned - assigned: profile assignment complete - reassign: profile update available - processing: assignment in process Output when the CategoryId is 1(Server-BX), 2(Server-CX), 3(Server-RX), 5(Server-PRIMEQUEST3000B) or 7(Server-TX).

Parameter		Type	Description
	MmbStatus	string	Displays the Assignment Status for MMB Profiles. <ul style="list-style-type: none"> - invalid: profile unregistered - unassigned: profile not yet assigned - assigned: profile assignment complete - reassign: profile update available - processing: assignment in process Output when the CategoryId is 4(Server-PRIMEQUEST2000-Partition) or 6(Server-PRIMEQUEST3000E-Partition).
	IovStatus	string	Displays the Assignment Status for IOVirtualization Profiles. <ul style="list-style-type: none"> - invalid: profile unregistered - unassigned: profile not yet assigned - assigned: profile assignment complete - reassign: profile update available - processing: assignment in process
	OsStatus	string	Displays the Assignment Status for OS profiles. <ul style="list-style-type: none"> - invalid: profile unregistered - unassigned: profile not yet assigned - assigned: profile assignment complete - reassign: profile update available - processing: assignment in process
HistoryList		array	When edited during assignment, the Profile ID as it was before editing is returned. The maximum value is 1.
	ProfileId	string	Profile ID before editing
TimeStampInfo		object	Time Stamp Information
	Register	string	Registration Time
	Update	string	Time of Last Updated
	Assigned	string	Time of Last Assignment
ProfileData		object	Profile Settings
	Server-BX	object	FUJITSU Server PRIMERGY BX series
	BIOS	object	BIOS Settings For details, refer to "BIOS" in " C.1 Server-BX. "
	iRMC	object	iRMC (Integrated Remote Management Controller) Settings For details, refer to "iRMC" in " C.1 Server-BX. "
	IOVirtualization	object	Virtual IO Settings For details, refer to " D.3 IOVirtualization. "
	OSInstallation	object	OS Installation Settings For details, refer to " D.4 OSInstallation. "

Parameter		Type	Description
	Server-RX	object	FUJITSU Server PRIMERGY RX series
	BIOS	object	BIOS Settings For details, refer to " D.1 BIOS. "
	iRMC	object	iRMC (Integrated Remote Management Controller) Settings For details, refer to " D.2 iRMC. "
	IOVirtualization	object	Virtual IO Settings For details, refer to " D.3 IOVirtualization. "
	OSInstallation	object	OS Installation Settings For details, refer to " D.4 OSInstallation. "
	Server-TX	object	FUJITSU Server PRIMERGY TX series
	BIOS	object	BIOS Settings For details, refer to " D.1 BIOS. "
	iRMC	object	iRMC (Integrated Remote Management Controller) Settings For details, refer to " D.2 iRMC. "
	IOVirtualization	object	Virtual IO Settings For details, refer to " D.3 IOVirtualization. "
	OSInstallation	object	OS Installation Settings For details, refer to " D.4 OSInstallation. "
	Server-CX	object	FUJITSU Server PRIMERGY CX series
	BIOS	object	BIOS Settings For details, refer to " D.1 BIOS. "
	iRMC	object	iRMC (Integrated Remote Management Controller) Settings For details, refer to " D.2 iRMC. "
	IOVirtualization	object	Virtual IO Settings For details, refer to " D.3 IOVirtualization. "
	OSInstallation	object	OS Installation Settings For details, refer to " D.4 OSInstallation. "
	Server-PRIMEQUEST2000-Partition	object	FUJITSU Server PRIMEQUEST2000 series
	MMB	object	MMB (Management Board) Partition Settings For details, refer to " D.5 MMB. "
	OSInstallation	object	OS Installation Settings For details, refer to " D.4 OSInstallation. "
	Server-PRIMEQUEST3000B	object	FUJITSU Server PRIMEQUEST3000B series
	BIOS	object	BIOS Settings For details, refer to " D.1 BIOS. "
	iRMC	object	iRMC (Integrated Remote Management Controller) Settings For details, refer to " D.2 iRMC. "
	OSInstallation	object	OS Installation Settings For details, refer to " D.4 OSInstallation. "

Parameter		Type	Description
Server-PRIMEQUEST3000E-Partition		object	FUJITSU Server PRIMEQUEST3000E series
	MMB	object	MMB (Management Board) Partition Settings For details, refer to " D.5 MMB. "
	IOVirtualization	object	Virtual IO Settings For details, refer to " D.3 IOVirtualization. "
	OSInstallation	object	OS Installation Settings For details, refer to " D.4 OSInstallation. "
Storage-DX		object	FUJITSU Storage ETERNUS DX series disk storage system
	StandRaid	object	Raid Settings For details, refer to "StandRaid" in " C.2 Storage-DX. "
	GHotSpare	object	Hot Spares Settings For details, refer to "GHotSpare" in " C.2 Storage-DX. "
	HostAffinity	object	Host Affinity Settings For details, refer to "HostAffinity" in " C.2 Storage-DX. "
	DetailSettings	object	Detail Settings of Profile For details, refer to "DetailSettings" in " C.2 Storage-DX. "
Storage-NetAppCluster		object	FUJITSU Storage ETERNUS NR series Network Disk Array
	Snmp	object	SNMP Function Information For details, refer to "Snmp" in " C.3 Storage-NetAppCluster. "
	Ntp	object	Information of Auto Time Adjustment For details, refer to "Ntp" in " C.3 Storage-NetAppCluster. "
Switch-SRX		object	Server Housing Switch SR-X series
	Snmp	object	SNMP Function Information For details, refer to "Snmp" in " C.4 Switch-SRX. "
	AutoTime	object	Automatic Time Setting Information For details, refer to "AutoTime" in " C.4 Switch-SRX. "
	Account	object	Device Administrator Password Information For details, refer to "Account" in " C.4 Switch-SRX. "
	Stp	object	STP For details, refer to "Stp" in " C.4 Switch-SRX. "
Switch-CFX		object	Converged Fabric Switch CFX series
	Interface	array	Interface Information The maximum value is 256. For details, refer to "Interface" in " C.5 Switch-CFX. "
	Snmp	object	SNMP Function Information For details, refer to "Snmp" in " C.5 Switch-CFX. "
	AutoTime	object	Automatic Time Setting Information For details, refer to "AutoTime" in " C.5 Switch-CFX. "
	Account	object	Device Administrator Password Information

Parameter		Type	Description
			For details, refer to "Account" in " C.5 Switch-CFX. "
	Aaa	object	AAA Information For details, refer to "Aaa" in " C.5 Switch-CFX. "
	Switch-VDX	object	Converged Switch VDX(Brocade VDX) series
	Snmp	object	SNMP Function Information For details, refer to "Snmp" in " C.6 Switch-VDX. "
			Automatic Time Setting Information For details, refer to "AutoTime" in " C.6 Switch-VDX. "
			Account Information For details, refer to "Account" in " C.6 Switch-VDX. "
	Switch-PSWITCH	object	Ethernet Switch PSWITCH series
	Snmp	object	SNMP Function Information For details, refer to "Snmp" in " C.7 Switch-PSWITCH. "
			Automatic Time Setting Information For details, refer to "AutoTime" in " C.7 Switch-PSWITCH. "
			Account Information For details, refer to "Account" in " C.7 Switch-PSWITCH. "
	Account	object	Account Information For details, refer to "Account" in " C.7 Switch-PSWITCH. "

4.10.6 Updating Profiles

[Overview]

Updates the specified profiles.

[Format]

```
PATCH /profiles/profiles/{profileid}
```

[Query Parameter]

None

[Request Parameter]

Refer to "[4.10.3 Adding Profiles.](#)"

[Response Parameter]

Parameter	Type	Description
ProfileId	string	Profile ID
ProfileName	string	Profile Name

4.10.7 Deleting Profiles

[Overview]

Deletes the specified profiles.

[Format]

```
DELETE /profiles/profiles/{profileid}
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

None

4.10.8 Assigning Profiles to Nodes

[Overview]

Assigns the specified profiles to the specified nodes.

[Format]

```
POST /nodes/{nodeid}/profiles/assign
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
ProfileId	string	Profile ID to be assigned Can be omitted when a profile has been assigned to the node.
AssignMode	string	Specifies Assign Mode. <ul style="list-style-type: none"> - Normal: Normal assignment - Advanced: Advanced assignment When this setting is omitted or null, operations will be performed as Normal.
AdvancedKind	string	Specifies Type of Advanced Assignment. To be specified when the AssignMode is 'Advanced'. <ul style="list-style-type: none"> - ForcedAssign: Forced assignment - WithoutHardwareAccess: Assignment without hardware access - OnlineAssign: Online assignment ForcedAssign cannot be used in the first-time assignment. When IOVirtualization or OSInstallation is included in the AssignRange, OnlineAssign cannot be used.
AssignRange	array	Records Types of Profile for Assignment. If the AssignMode is Advanced, "BIOS," "iRMC," "MMB," "IOVirtualization" and/or "OSInstallation" can be specified either individually or together.

Parameter	Type	Description
		E.g.) ["BIOS", "iRMC"] When this setting is omitted or null, all types of profile in ProfileData are assigned.
FirmwareUpdate	string	Updates the Target Node for Profile Assignment to the latest firmware before assignment. - Disable: Disabled

[Response Parameter]

Parameter	Type	Description
TaskId	string	Task ID

4.10.9 Cancellation of Assigning Profile to Nodes

[Overview]

Cancels the assignment of a profile to a node by using the specified task ID.

[Format]

```
POST /nodes/profiles/assign/cancel
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
TaskId	string	Task ID

[Response Parameter]

None

4.10.10 Releasing Profile Assignment to Nodes

[Overview]

Releases the profile assigned to a node by using the specified node ID.

[Format]

```
POST /nodes/{nodeid}/profiles/unassign
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

Parameter	Type	Description
TaskId	string	Task ID

4.10.11 Cancellation of Releasing Profile Assignment to Nodes

[Overview]

Cancels the release of a profile assignment to a node by using the specified task ID.

[Format]

```
POST /nodes/profiles/unassign/cancel
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
TaskId	string	Task ID

[Response Parameter]

None

4.10.12 Adding Profile Groups

[Overview]

Adds profile groups.

[Format]

```
POST /profiles/profiles/groups
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
ProfileGroupName	string	Profile Group Name
Description	string	Profile Group Description
ParentProfileGroupId	string	Parent Profile Group ID

[Response Parameter]

Parameter	Type	Description
ProfileGroupId	string	Profile Group ID
ProfileGroupName	string	Profile Group Name

4.10.13 List Retrieval for Profile Groups

[Overview]

Retrieves a list of profile groups.

[Format]

```
GET /profiles/profiles/groups
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
ProfileGroupList		array	Profile Group List There is no upper limit.
	ProfileGroupId	string	Profile Group ID
	ProfileGroupName	string	Profile Group Name
	Description	string	Profile Group Description
	PathName	string	Path Name (absolute path) for this Profile Group
	ProfileGroupList	array	Subordinate Profile Group ID List There is no upper limit.
	ProfileGroupId	string	Profile Group ID
	ProfileList	array	Subordinate Profile ID List The maximum value is 2000.
	ProfileId	string	Profile ID
	TimeStampInfo	object	Time Stamp Information
	Register	string	Registration Time
	Update	string	Update Time

4.10.14 Individual Retrieval of Profile Groups

[Overview]

Retrieves individual information of the specified profile groups.

[Format]

```
GET /profiles/profiles/groups/{groupid}
```

[Query Parameter]

None

[Response Parameter]

Parameter	Type	Description
ProfileGroupId	string	Profile Group ID

Parameter		Type	Description
ProfileGroupName		string	Profile Group Name
Description		string	Profile Group Description
PathName		string	Path Name (absolute path) for this Profile Group
ProfileGroupList		array	Subordinate Profile Group ID list There is no upper limit.
	ProfileGroupId	string	Subordinate Profile Group ID
ProfileList		array	Subordinate Profile ID List The maximum value is 2000.
	ProfileId	string	Subordinate Profile ID
TimeStampInfo		object	Time Stamp Information
	Register	string	Registration Time
	Update	string	Update Time

4.10.15 Updating Profile Groups

[Overview]

Updates the specified profile groups.

[Format]

```
PATCH /profiles/profiles/groups/{groupid}
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
ProfileGroupName	string	Profile Group Name
Description	string	Profile Group Description
ParentProfileGroupId	string	Parent Profile Group ID

[Response Parameter]

Parameter	Type	Description
ProfileGroupId	string	Profile Group ID
ProfileGroupName	string	Profile Group Name

4.10.16 Deleting Profile Groups

[Overview]

Deletes the specified profile groups.

[Format]

```
DELETE /profiles/profiles/groups/{groupid}
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

None

4.10.17 Adding Policies

[Overview]

Adds policies.

[Format]

POST /profiles/policies

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
PolicyName		string	Policy Name
Description		string	Description of Policy
CategoryId		string	Category ID
PolicyGroupId		string	Policy Group ID to be saved
OneTimePasswordKey		string	One-time Encryption Key for Password Information Set the password encrypted with AES256+Base64 and assign the encryption key for all password information in ProfileData.
ProfileData		object	Policy Setting Details
	Server-BX	object	FUJITSU Server PRIMERGY BX series
	BIOS	object	BIOS Settings For details, refer to " C.1 Server-BX. "
	iRMC	object	iRMC (Integrated Remote Management Controller) Settings For details, refer to " C.1 Server-BX. "
	Server-RX	object	FUJITSU Server PRIMERGY RX series
	BIOS	object	BIOS Settings For details, refer to " D.1 BIOS. "
	iRMC	object	iRMC (Integrated Remote Management Controller) settings For details, refer to " D.2 iRMC. "
	Server-TX	object	FUJITSU Server PRIMERGY TX series
	BIOS	object	BIOS Settings

Parameter		Type	Description
			For details, refer to " D.1 BIOS ."
	iRMC	object	iRMC (Integrated Remote Management Controller) settings For details, refer to " D.2 iRMC ."
	Server-CX	object	FUJITSU Server PRIMERGY CX series
	BIOS	object	BIOS Settings For details, refer to " D.1 BIOS ."
	iRMC	object	iRMC (Integrated Remote Management Controller) settings For details, refer to " D.2 iRMC ."
	Server-PRIMEQUEST2000-Partition	object	FUJITSU Server PRIMEQUEST2000 series
	MMB	object	MMB (Management Board) Partition Settings For details, refer to " D.5 MMB ."
	Server-PRIMEQUEST3000B	object	FUJITSU Server PRIMEQUEST3000B series
	BIOS	object	BIOS Settings For details, refer to " D.1 BIOS ."
	iRMC	object	iRMC (Integrated Remote Management Controller) settings For details, refer to " D.2 iRMC ."
	Server-PRIMEQUEST3000E-Partition	object	FUJITSU Server PRIMEQUEST3000E series
	MMB	object	MMB (Management Board) Partition Settings For details, refer to " D.5 MMB ."

[Response Parameter]

Parameter	Type	Description
PolicyId	string	Policy ID
PolicyName	string	Policy Name

4.10.18 List Retrieval for Policies

[Overview]

Retrieves a list of policies.

[Format]

```
GET /profiles/policies?categoryid={categoryid}&policygroupid={groupid}&policytype={BIOS|iRMC|MMB}
```

[Query Parameter]

Parameter	Type	Description
categoryid	string	Category ID A list of definitions for the policies belonging to the specified category is output.
policygroupid	string	Policy Group ID A list of definitions for the policies belonging to the specified policy group is output.

Parameter	Type	Description
policytype	string	Policy Type Specify "BIOS", "iRMC" or "MMB."

[Response Parameter]

Parameter	Type	Description
PolicyList	array	Policy List The maximum value is 2000.
	PolicyId	Policy ID
	PolicyName	Policy Name
	Description	Description of Policy
	CategoryId	Category ID
	PolicyType	Policy Type Output "BIOS", "iRMC" or "MMB."
	PolicyGroupId	Policy Group ID that it belongs to
	TimeStampInfo	Time Stamp Information
	Register	Registration Time
		Update Time

4.10.19 Individual Retrieval of Policies

[Overview]

Retrieves the individual information of the specified policies.

[Format]

```
GET /profiles/policies/{policyid}
```

[Query Parameter]

None

[Response Parameter]

Parameter	Type	Description
PolicyId	string	Policy ID
PolicyName	string	Policy Name
Description	string	Description of Policy
CategoryId	string	Category ID
PolicyType	string	Policy Type Outputs "BIOS", "iRMC" or "MMB."
PolicyGroupId	string	Policy Group ID that it belongs to
TimeStampInfo	object	Time Stamp Information
	Register	Registration Time
	Update	Time of Update

Parameter		Type	Description
ProfileData		object	Policy Setting Details
Server-BX		object	FUJITSU Server PRIMERGY BX series
	BIOS	object	BIOS Settings For details, refer to " C.1 Server-BX. "
	iRMC	object	iRMC (Integrated Remote Management Controller) Settings For details, refer to " C.1 Server-BX. "
Server-RX		object	FUJITSU Server PRIMERGY RX series
	BIOS	object	BIOS Settings For details, refer to " D.1 BIOS. "
	iRMC	object	iRMC (Integrated Remote Management Controller) Settings For details, refer to " D.2 iRMC. "
Server-TX		object	FUJITSU Server PRIMERGY TX series
	BIOS	object	BIOS Settings For details, refer to " D.1 BIOS. "
	iRMC	object	iRMC (Integrated Remote Management Controller) Settings For details, refer to " D.2 iRMC. "
Server-CX		object	FUJITSU Server PRIMERGY CX series
	BIOS	object	BIOS Settings For details, refer to " D.1 BIOS. "
	iRMC	object	iRMC (Integrated Remote Management Controller) Settings For details, refer to " D.2 iRMC. "
Server-PRIMEQUEST2000-Partition		object	FUJITSU Server PRIMEQUEST2000 series
	MMB	object	MMB (Management Board) Partition Settings For details, refer to " D.5 MMB. "
Server-PRIMEQUEST3000B		object	FUJITSU Server PRIMEQUEST3000B series
	BIOS	object	BIOS Settings For details, refer to " D.1 BIOS. "
	iRMC	object	iRMC (Integrated Remote Management Controller) Settings For details, refer to " D.2 iRMC. "
Server-PRIMEQUEST3000E-Partition		object	FUJITSU Server PRIMEQUEST3000E series
	MMB	object	MMB (Management Board) Partition Settings For details, refer to " D.5 MMB. "

4.10.20 Updating Policies

[Overview]

Renews the specified policies.

[Format]

```
PATCH /profiles/policies/{policyid}
```

[Query Parameter]

None

[Request Parameter]

Refer to "[4.10.17 Adding Policies](#)."

[Response Parameter]

Parameter	Type	Description
PolicyId	string	Policy ID
PolicyName	string	Policy Name

4.10.21 Deleting Policies

[Overview]

Deletes the specified policies.

[Format]

```
DELETE /profiles/policies/{policyid}
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

None

4.10.22 Adding Policy Groups

[Overview]

Adds policy groups.

[Format]

```
POST /profiles/policies/groups
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
PolicyGroupName	string	Policy Group Name
Description	string	Policy Group Description
ParentPolicyGroupId	string	Parent Policy Group ID

[Response Parameter]

Parameter	Type	Description
PolicyGroupId	string	Policy Group ID
PolicyGroupName	string	Policy Group Name

4.10.23 List Retrieval for Policy Groups

[Overview]

Retrieves a list of policy groups.

[Format]

```
GET /profiles/policies/groups
```

[Query Parameter]

None

[Response Parameter]

Parameter	Type	Description
PolicyGroupList	array	Policy Group list There is no maximum value.
	PolicyGroupId	Policy Group ID
	PolicyGroupName	Policy Group Name
	Description	Policy Group description
	PathName	Path Name (absolute path) for this policy Group
	PolicyGroupList	Subordinate Policy Group ID List There is no maximum value.
	PolicyGroupId	Policy Group ID
	PolicyList	Subordinate Policy ID List The maximum number of lists is 1000.
	PolicyId	Policy ID
	TimeStampInfo	Time Stamp Information
	Register	Registration Time
	Update	Update Time

4.10.24 Individual Retrieval of Policy Groups

[Overview]

Retrieves individual information of the specified policy groups.

[Format]

```
GET /profiles/policies/groups/{groupid}
```

[Query Parameter]

None

[Response Parameter]

Parameter	Type	Description
PolicyGroupId	string	Policy Group ID
PolicyGroupName	string	Policy Group Name
Description	string	Policy Group Description
PathName	string	Path Name (absolute path) for this Policy Group
PolicyGroupList	array	Subordinate Policy Group ID List There is no maximum value.
PolicyGroupId	string	Subordinate Policy Group ID
PolicyList	array	Subordinate Policy ID list The maximum value is 2000.
PolicyId	string	Subordinate Policy ID
TimeStampInfo	object	Time Stamp Information
Register	string	Registration Time
Update	string	Update Time

4.10.25 Updating Policy Groups

[Overview]

Updates the specified policy groups.

[Format]

```
PATCH /profiles/policies/groups/{groupid}
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
PolicyGroupName	string	Policy Group Name
Description	string	Policy Group Description
ParentPolicyGroupId	string	Parent Policy Group ID

[Response Parameter]

Parameter	Type	Description
PolicyGroupId	string	Policy Group ID

Parameter	Type	Description
PolicyGroupName	string	Policy Group Name

4.10.26 Deleting Policy Groups

[Overview]

Deletes the specified policy groups.

[Format]

```
DELETE /profiles/policies/groups/{groupid}
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

None

4.10.27 Importing Profiles

[Overview]

Imports the specified profiles.

[Format]

```
POST /profiles/import
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
FilePath	string	File Name, including the relative path from "<User group name>/ftp/" where the profiles are stored.
ProfileType	string	Profile Type Specify either Profile or Policy.
ProfileGroupId	string	Profile Group ID
OneTimePasswordKey	string	Password Encryption Key Set the password encrypted with AES256+Base64 and specify its encryption key for all of password information in profile to import.

[Response Parameter]

Parameter	Type	Description
ProfileId	string	Profile ID
ProfileName	string	Profile Name (policy name)

4.10.28 Exporting Profiles

[Overview]

Exports the specified profiles.

[Format]

```
POST /profiles/export
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
ProfileId	string	Profile ID
PasswordKey	string	Password Encryption Key Encrypts (AES256+Base64) information of all passwords of profile to export by specified encryption key.

[Response Parameter]

Parameter	Type	Description
FilePath	string	File Name, including the relative path from "<User group name>/ftp/" where the profiles are stored.

4.10.29 DVD Import

[Overview]

Imports from a specified DVD.

[Format]

```
POST /system/settings/repositories/profiles/dvd/import
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
MediaType	string	DVD Media Type Specifies the DVD media type. <ul style="list-style-type: none"> - ServerView Suite DVD - Windows Server 2016 Datacenter (Fujitsu Media)

Parameter	Type	Description
		<ul style="list-style-type: none"> - Windows Server 2016 Standard (Fujitsu Media) - Windows Server 2016 (Microsoft Media) - Windows Server 2016 (Microsoft VL Media) - Windows Server 2012 R2 Datacenter (Fujitsu Media) - Windows Server 2012 R2 Standard (Fujitsu Media) - Windows Server 2012 R2 (Microsoft Media) - Windows Server 2012 R2 (Microsoft VL Media) - Windows Server 2012 Datacenter (Fujitsu Media) - Windows Server 2012 Standard (Fujitsu Media) - Windows Server 2012 (Microsoft Media) - Windows Server 2012 (Microsoft VL Media) - Windows Server 2008 R2 Datacenter + SP1 (Fujitsu Media) - Windows Server 2008 R2 Enterprise + SP1 (Fujitsu Media) - Windows Server 2008 R2 Standard + SP1 (Fujitsu Media) - Windows Server 2008 R2 + SP1 (Microsoft Media) - Windows Server 2008 R2 + SP1 (Microsoft VL Media) - Red Hat Enterprise Linux 7.5 (x86_64) - Red Hat Enterprise Linux 7.4 (x86_64) - Red Hat Enterprise Linux 7.3 (x86_64) - Red Hat Enterprise Linux 7.2 (x86_64) - Red Hat Enterprise Linux 7.1 (x86_64) - Red Hat Enterprise Linux 6.10 (x86_64) (ISM 2.3.0.b or later) - Red Hat Enterprise Linux 6.10 (x86) (ISM 2.3.0.b or later) - Red Hat Enterprise Linux 6.9 (x86_64) - Red Hat Enterprise Linux 6.9 (x86) - Red Hat Enterprise Linux 6.8 (x86_64) - Red Hat Enterprise Linux 6.8 (x86) - Red Hat Enterprise Linux 6.7 (x86_64) - Red Hat Enterprise Linux 6.7 (x86) - Red Hat Enterprise Linux 6.6 (x86_64) - Red Hat Enterprise Linux 6.6 (x86) - SUSE Linux Enterprise Server 15 (x86_64) (ISM 2.3.0.b or later) - SUSE Linux Enterprise Server 12 SP3 (x86_64)

Parameter	Type	Description
		<ul style="list-style-type: none"> - SUSE Linux Enterprise Server 12 SP2 (x86_64) - SUSE Linux Enterprise Server 12 SP1 (x86_64) - SUSE Linux Enterprise Server 12 (x86_64) - SUSE Linux Enterprise Server 11 SP4 (x86_64) - SUSE Linux Enterprise Server 11 SP4 (x86) - VMware ESXi 6.7 (Fujitsu Media) - VMware ESXi 6.5 Update 2 (Fujitsu Media) (ISM 2.3.0.b or later) - VMware ESXi 6.5 Update 1 (Fujitsu Media) - VMware ESXi 6.5 (Fujitsu Media) - VMware ESXi 6.0 Update 3 (Fujitsu Media) - VMware ESXi 6.0 Update 2 (Fujitsu Media) - VMware ESXi 6.0 Update 1 (Fujitsu Media) - VMware ESXi 5.5 Update 3 (Fujitsu Media)
FilePath	string	File Name including the relative pass from "<User group name>/ftp/" where the DVD media are stored.
FilePath2	string	<p>File Name including the relative pass from "<User group name>/ftp/" where the DVD media are stored. (ISM 2.3.0.b or later)</p> <p>Specify when the media type is as follows:</p> <ul style="list-style-type: none"> - SUSE Linux Enterprise Server 15 (x86_64)
DeleteFtpResource	boolean	<p>For specifying ftp Resource Deletion</p> <p>When "true", it deletes the file specified in FilePath and FilePath2 (ISM 2.3.0.b or later) following the normal termination of the DVD import.</p> <p>When "false", when keys have been missed out, or when the DVD import terminates due to error, the file specified in FilePath and FilePath2 (ISM 2.3.0.b or later) is not deleted.</p>
UnMountResource	boolean	<p>When "true", the shared directory used in the import is unmounted following normal termination of the DVD import.</p> <p>When "false" or when keys have been missed out, the shared directory used in the import is not unmounted.</p>
MountId	string	<p>Shared Directory of Mounting ID</p> <p>Specify when an ISM external shared directory is used in an import.</p>

[Response Parameter]

Parameter	Type	Description
TaskId	string	Task ID

4.10.30 Canceling DVD Import

[Overview]

Cancels the DVD import using the assigned Task ID.

[Format]

```
POST /system/settings/repositories/profiles/dvd/import/cancel
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
TaskId	string	Task ID

[Response Parameter]

None

4.10.31 List Retrieval for Registered Repositories

[Overview]

Retrieves a list of registered repositories.

[Format]

```
GET /system/settings/repositories/profiles
```

[Query Parameter]

None

[Response Parameter]

Parameter	Type	Description
RepositoryList	array	Repository List There is no maximum value. (Up to the disc's maximum storage capacity)
RepositoryId	string	Repository ID
FileName	string	DVD Media File Name When there are two types of files for the media, the file names and media information are output.
FileName2	string	DVD Media File Name Outputs when there are two types of files for the media.
MediaType	string	DVD media type Outputs the DVD media type. <ul style="list-style-type: none">- ServerView Suite DVD- Windows Server 2016 Datacenter (Fujitsu Media)

Parameter		Type	Description
			<ul style="list-style-type: none"> - Windows Server 2016 Standard (Fujitsu Media) - Windows Server 2016 (Microsoft Media) - Windows Server 2016 (Microsoft VL Media) - Windows Server 2012 R2 Datacenter (Fujitsu Media) - Windows Server 2012 R2 Standard (Fujitsu Media) - Windows Server 2012 R2 (Microsoft Media) - Windows Server 2012 R2 (Microsoft VL Media) - Windows Server 2012 Datacenter (Fujitsu Media) - Windows Server 2012 Standard (Fujitsu Media) - Windows Server 2012 (Microsoft Media) - Windows Server 2012 (Microsoft VL Media) - Windows Server 2008 R2 Datacenter + SP1 (Fujitsu Media) - Windows Server 2008 R2 Enterprise + SP1 (Fujitsu Media) - Windows Server 2008 R2 Standard + SP1 (Fujitsu Media) - Windows Server 2008 R2 + SP1 (Microsoft Media) - Windows Server 2008 R2 + SP1 (Microsoft VL Media) - Red Hat Enterprise Linux 7.5 (x86_64) - Red Hat Enterprise Linux 7.4 (x86_64) - Red Hat Enterprise Linux 7.3 (x86_64) - Red Hat Enterprise Linux 7.2 (x86_64) - Red Hat Enterprise Linux 7.1 (x86_64) - Red Hat Enterprise Linux 6.10 (x86) (ISM 2.3.0.b or later) - Red Hat Enterprise Linux 6.10 (x86_64) (ISM 2.3.0.b or later) - Red Hat Enterprise Linux 6.9 (x86) - Red Hat Enterprise Linux 6.9 (x86_64) - Red Hat Enterprise Linux 6.8 (x86_64) - Red Hat Enterprise Linux 6.8 (x86) - Red Hat Enterprise Linux 6.7 (x86_64) - Red Hat Enterprise Linux 6.7 (x86) - Red Hat Enterprise Linux 6.6 (x86_64) - Red Hat Enterprise Linux 6.6 (x86) - SUSE Linux Enterprise Server 15 (x86_64) (ISM 2.3.0.b or later) - SUSE Linux Enterprise Server 12 SP3 (x86_64)

Parameter	Type	Description
		<ul style="list-style-type: none"> - SUSE Linux Enterprise Server 12 SP2 (x86_64) - SUSE Linux Enterprise Server 12 SP1 (x86_64) - SUSE Linux Enterprise Server 12 (x86_64) - SUSE Linux Enterprise Server 11 SP4 (x86_64) - SUSE Linux Enterprise Server 11 SP4 (x86) - VMware ESXi 6.7 (Fujitsu Media) - VMware ESXi 6.5 Update 2 (Fujitsu Media) (ISM 2.3.0.b or later) - VMware ESXi 6.5 Update 1 (Fujitsu Media) - VMware ESXi 6.5 (Fujitsu Media) - VMware ESXi 6.0 Update 3 (Fujitsu Media) - VMware ESXi 6.0 Update 2 (Fujitsu Media) - VMware ESXi 6.0 Update 1 (Fujitsu Media) - VMware ESXi 5.5 Update 3 (Fujitsu Media)
RegisterTime	string	Time/Date of Registration
FileSize	integer	File Size of DVD Media Outputs the file size of FileName.
FileSize2	integer	File Size of DVD Media Outputs the file size of FileName2 Outputs when there are two types of file for the media.
Version	string	DVD Media Edition Number Outputs when the DVD media type is ServerView Suite DVD.

4.10.32 Deleting Registered Repositories

[Overview]

Deletes the specified registered repositories.

[Format]

```
DELETE /system/settings/repositories/profiles/{repositoryid}
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

None

4.10.33 List Retrieval for Packages and Applications

[Overview]

Retrieves a list of packages and applications with the type and language of the specified Linux OS.

[Format]

```
GET /profiles/packages?ostype={Red Hat Enterprise Linux 7.4 (x86_64)|...}&language={English|German|Japanese}
```

[Query Parameter]

Parameter	Type	Description
ostype	string	<p>OS Type</p> <p>Outputs the type of the specified Linux OS.</p> <ul style="list-style-type: none">- Red Hat Enterprise Linux 7.5 (x86_64)- Red Hat Enterprise Linux 7.4 (x86_64)- Red Hat Enterprise Linux 7.3 (x86_64)- Red Hat Enterprise Linux 7.2 (x86_64)- Red Hat Enterprise Linux 7.1 (x86_64)- Red Hat Enterprise Linux 6.10 (x86_64) (ISM 2.3.0.b or later)- Red Hat Enterprise Linux 6.10 (x86) (ISM 2.3.0.b or later)- Red Hat Enterprise Linux 6.9 (x86_64)- Red Hat Enterprise Linux 6.9 (x86)- Red Hat Enterprise Linux 6.8 (x86_64)- Red Hat Enterprise Linux 6.8 (x86)- Red Hat Enterprise Linux 6.7 (x86_64)- Red Hat Enterprise Linux 6.7 (x86)- Red Hat Enterprise Linux 6.6 (x86_64)- Red Hat Enterprise Linux 6.6 (x86)- SUSE Linux Enterprise Server 15 (x86_64) (ISM 2.3.0.b or later)- SUSE Linux Enterprise Server 12 SP3 (x86_64)- SUSE Linux Enterprise Server 12 SP2 (x86_64)- SUSE Linux Enterprise Server 12 SP1 (x86_64)- SUSE Linux Enterprise Server 12 (x86_64)- SUSE Linux Enterprise Server 11 SP4 (x86_64)- SUSE Linux Enterprise Server 11 SP4 (x86)
language	string	<p>OS Language</p> <p>Outputs the language of the specified OS</p> <ul style="list-style-type: none">- English

Parameter	Type	Description
		<ul style="list-style-type: none"> - German - Japanese

[Response Parameter]

Parameter	Type	Description
Package	object	A list of Package Groups available for installation on the specified OS
DefaultList	array(string)	A list of Default Installation Packages
MinimumList	array(string)	A list of Minimum Installation Packages
FullList	array(string)	A list of Full Installation Packages
ApplicationList	array	A list of Applications available for installation on the specified OS
Name	string	Application Name
PackageDependencyList	array(string)	A list of Packages Dependent on Applications

4.10.34 Backing Up Hardware Settings

[Overview]

Backs up hardware settings of the specified nodes.

The following categories are supported.

- Server-BX: FUJITSU Server PRIMERGY BX series
- Server-RX: FUJITSU Server PRIMERGY RX series
- Server-TX: FUJITSU Server PRIMERGY TX series
- Server-CX: FUJITSU Server PRIMERGY CX series
- Server-PRIMEQUEST3000B: FUJITSU Server PRIMEQUEST3000B series
- Storage-NetAppCluster: FUJITSU Storage ETERNUS NR series
- Switch-VDX: Converged switch VDX(Brocade VDX) series

[Format]

```
POST /nodes/{nodeid}/profiles/backup
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
BackupType	array	<p>Specifies the Type of Backup.</p> <p>Enabled for the server.</p> <p>Specify "BIOS" or "iRMC" individually or together.</p> <p>E.g.) ["BIOS","iRMC"]</p>

Parameter	Type	Description
		When this setting is omitted or null, all types that can be backed up are backed up.
Description	string	Description of Backups

[Response Parameter]

Parameter	Type	Description
TaskId	string	Task ID

4.10.35 Canceling of Backup Hardware Settings

[Overview]

Cancels backup hardware settings using the assigned task ID.

[Format]

```
POST /nodes/profiles/backup/cancel
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
TaskId	string	Task ID

[Response Parameter]

None

4.10.36 List Retrieval for Registered Backups

[Overview]

Retrieves a list of registered backups.

[Format]

```
GET /profiles/backups?nodetype={Server|Storage|Switch|Other}&nodeid={nodeid}&backuptype={BIOS|iRMC}&backupstatus={Running|Complete|Cancel-Running|Cancel-Complete|Error}&restorestatus={Running|Complete|Cancel-Running|Cancel-Complete|Error}
```

[Query Parameter]

Parameter	Type	Description
nodetype	string	Node Type Outputs a list of backups for the specified node type. <ul style="list-style-type: none"> - Server - Storage - Switch

Parameter	Type	Description
		- Other
nodeid	integer	The Node ID that has been backed-up Outputs a list of backups for the specified node ID.
backuptype	string	Backup Type Outputs a list of backups for the specified backup type. - BIOS - iRMC
backupstatus	string	Backup Status Outputs a list of backups for the specified backup status. - Running: Backup in progress - Complete: Backup complete - Cancel-Running: Canceling in progress - Cancel-Complete: Canceling complete - Error: Error
restorestatus	string	Restoring Status Outputs a list of backups in the specified restoring status. - Running: Restoring in progress - Complete: Restoring complete - Cancel-Running: Canceling in progress - Cancel-Complete: Canceling complete - Error: Error When restoring is not executed, outputs null.

[Response Parameter]

Parameter	Type	Description
BackupList	array	Backup List The maximum value is 16000. The following are the maximum values for each node type. - Server: 10000 - Storage: 1000 - Switch: 5000
BackupId	string	Backup ID
NodeType	string	Node Type One of the following is output. - Server - Storage - Switch - Other

Parameter	Type	Description
NodeId	integer	The Node ID that has been backed-up
BackupType	string	Backup Type Output either "BIOS" or "iRMC" for server. If is it other than a server "" is output.
RegisterTime	string	Time/Date of Registration If BackupStatus is 'Complete', 'Cancel-Complete', or 'Error', the date and time is output. Null is output if BackupStatus is 'Running' or 'Cancel-Running'.
BackupStatus	string	Backup Status <ul style="list-style-type: none"> - Running: Backup in progress - Complete: Backup complete - Cancel-Running: Canceling in progress - Cancel-Complete: Canceling complete - Error: Error
TaskId	string	Task ID Task ID is output when BackupStatus or RestoreStatus is "Running" or "Cancel-Running." Other than the above, "" is output.
RestoreStatus	string	Restoring Status <ul style="list-style-type: none"> - Running: Restoring in progress - Complete: Restoring complete - Cancel-Running: Canceling in progress - Cancel-Complete: Canceling complete - Error: Error When restoring is not executed, outputs null.
RestoredTime	string	Last Restoring Date and Time Date and time are output when RestoreStatus is "Complete", "Cancel-Complete" or "Error." When RestoreStatus is "Running" or "Cancel-Running", outputs null.
Description	string	Description of Backups

4.10.37 Deleting Registered Backups

[Overview]

Deletes the specified registered backup.

[Format]

```
DELETE /profiles/backups/{backupid}
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

None

4.10.38 Exporting Registered Backups

[Overview]

Exports the specified registered backups.

The following categories are supported.

- Server-BX: FUJITSU Server PRIMERGY BX series
- Server-RX: FUJITSU Server PRIMERGY RX series
- Server-TX: FUJITSU Server PRIMERGY TX series
- Server-CX: FUJITSU Server PRIMERGY CX series
- Server-PRIMEQUEST3000B: FUJITSU Server PRIMEQUEST3000B series
- Storage-NetAppCluster: FUJITSU Storage ETERNUS NR series
- Switch-VDX: Converged switch VDX(Brocade VDX) series

[Format]

```
POST /profiles/backups/export
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
BackupId	string	Backup ID

[Response Parameter]

Parameter	Type	Description
FilePath	string	File Name, including the relative path from "<User group name>/ftp/" where the backups are stored.

4.10.39 Adding Profiles from Registered Backups

[Overview]

Converts and add the registered backups specified to profiles.

The following categories are supported.

- Server-BX: FUJITSU Server PRIMERGY BX series
- Server-RX: FUJITSU Server PRIMERGY RX series

- Server-TX: FUJITSU Server PRIMERGY TX series
- Server-CX: FUJITSU Server PRIMERGY CX series
- Server-PRIMEQUEST3000B: FUJITSU Server PRIMEQUEST3000B series

[Format]

```
POST /profiles/backups/profile
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
BackupList	array	Backup List for converting/adding to profiles Specify BackupId with one of BIOS or iRMC, or with the combination of BIOS and iRMC for each at a maximum. Enabled for the server.
BackupId	string	Backup ID
ProfileName	string	Profile Name
Description	string	Profile Description
ProfileGroupId	string	Profile Group ID

[Response Parameter]

Parameter	Type	Description
ProfileId	string	Profile ID
ProfileName	string	Profile Name

4.10.40 Adding Policies from Registered Backups

[Overview]

Converts and adds the registered backups to policies.

The following categories are supported.

- Server-BX: FUJITSU Server PRIMERGY BX series
- Server-RX: FUJITSU Server PRIMERGY RX series
- Server-TX: FUJITSU Server PRIMERGY TX series
- Server-CX: FUJITSU Server PRIMERGY CX series
- Server-PRIMEQUEST3000B: FUJITSU Server PRIMEQUEST3000B series

[Format]

```
POST /profiles/backups/policy
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
BackupList	array	Backup List for converting/adding to policies Specify BackupId with either BIOS or iRMC. Enabled for the server.
BackupId	string	Backup ID
PolicyName	string	Policy Name
Description	string	Policy Description
PolicyGroupId	string	Policy Group ID

[Response Parameter]

Parameter	Type	Description
PolicyId	string	Policy ID
PolicyName	string	Policy Name

4.10.41 Import of Backups

[Overview]

Imports the specified backups.

The following categories are supported.

- Server-BX: FUJITSU Server PRIMERGY BX series
- Server-RX: FUJITSU Server PRIMERGY RX series
- Server-TX: FUJITSU Server PRIMERGY TX series
- Server-CX: FUJITSU Server PRIMERGY CX series
- Server-PRIMEQUEST3000B: FUJITSU Server PRIMEQUEST3000B series
- Switch-VDX: Converged switch VDX(Brocade VDX) series

[Format]

```
POST /profiles/backups/import
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
FilePath	string	File Name including a relative path from "/<User group name>/ftp/" where backups are stored. Depending on the node type, the extension will be as follows. <ul style="list-style-type: none"> - Server: No specification - Switch: .cfg
BackupType	string	Backup Type Specify either BIOS or iRMC.

Parameter	Type	Description
		Enabled for the server.
Description	string	Backup Descriptions
NodeId	integer	Backed up Node Id

[Response Parameter]

Parameter	Type	Description
BackupId	string	Backup ID

4.10.42 Restoring Hardware Settings

[Overview]

Restores hardware settings to the specified node.

The following categories are supported.

- Server-BX: FUJITSU Server PRIMERGY BX series
- Server-RX: FUJITSU Server PRIMERGY RX series
- Server-TX: FUJITSU Server PRIMERGY TX series
- Server-CX: FUJITSU Server PRIMERGY CX series
- Server-PRIMEQUEST3000B: FUJITSU Server PRIMEQUEST3000B series
- Switch-VDX: Converged switch VDX(Brocade VDX) series

[Format]

```
POST /nodes/{nodeid}/profiles/restore
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
BackupList	array	Backup List for restoring For server, specify BackupId with either BIOS or iRMC , or with the combination of BIOS and iRMC for each at a maximum. When it is other than a server, specify one BackupId.
BackupId	string	Backup ID

[Response Parameter]

Parameter	Type	Description
TaskId	string	Task ID

4.10.43 Cancellation of Restoring Hardware Settings

[Overview]

Cancels restoring of the hardware settings with the specified task ID.

[Format]

```
POST /nodes/profiles/restore/cancel
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
TaskId	string	Task ID

[Response Parameter]

None

4.10.44 List Retrieval of Profile Information for Nodes (ISM 2.3.0.b or later)

[Overview]

Retrieves a list of profile information for nodes.

[Format]

```
GET /profiles/profiles/nodes?listtype={All|Boot}&nodeid={nodeid}&nodetype={Server|Storage|Switch|Other}&categoryid={categoryid}&profileid={profileid}&status={unassigned|assigned|mismatch|processing|canceling|canceled|error}
```

[Query Parameter]

Parameter	Type	Description
listtype	string	List Type Outputs a list of profile information for nodes in the specified list type. <ul style="list-style-type: none">- All: All data- Boot: Data of boot information When specified Boot, outputs the list of nodes whose node type is Server.
nodeid	integer	Node ID Outputs a list of profile information for nodes whose Node ID is specified.
nodetype	string	Node Type Outputs a list of profile information for the specified node type. <ul style="list-style-type: none">- Server- Storage- Switch

Parameter	Type	Description
		<ul style="list-style-type: none"> - Other <p>When specified "Other", outputs a list of nodes other than profile assignment target.</p>
categoryid	string	<p>Category ID</p> <p>Outputs a list of profile information for nodes belonging to the specified category.</p>
profileid	string	<p>Profile ID</p> <p>Outputs a list of profile information for nodes whose profile ID is specified.</p>
status	string	<p>Assigned Status</p> <p>Outputs a list of profile information for nodes whose assigned status is specified.</p> <ul style="list-style-type: none"> - unassigned: unassigned - assigned: assignment complete - mismatch: an assigned profile is edited and takes on unassigned status (there is a finite difference between the profile and the device) - processing: 'assigned/unassigned' processing in progress - canceling: cancellation of 'assigned/unassigned' is in progress - canceled: cancellation of 'assigned/unassigned' is complete - error: 'assigned/unassigned' has failed

[Response Parameter]

Parameter	Type	Description															
ProfileNodeList	array	A List of Profile Information for Nodes															
<table> <tr> <td>NodeId</td><td>integer</td><td>Node ID</td></tr> <tr> <td>NodeType</td><td>string</td><td> <p>Node Type</p> <p>One of the following is output.</p> <ul style="list-style-type: none"> - Server - Storage - Switch - Other <p>Outputs "Other" for nodes other than profile assignment target.</p> </td></tr> <tr> <td>CategoryId</td><td>string</td><td>Category ID</td></tr> <tr> <td>ProfileId</td><td>string</td><td> <p>Profile ID that is assigned</p> <p>When a profile is unassigned, null is output.</p> </td></tr> <tr> <td>Status</td><td>string</td><td> <p>Assigned Profile ID</p> <ul style="list-style-type: none"> - unassigned: unassigned </td></tr> </table>	NodeId	integer	Node ID	NodeType	string	<p>Node Type</p> <p>One of the following is output.</p> <ul style="list-style-type: none"> - Server - Storage - Switch - Other <p>Outputs "Other" for nodes other than profile assignment target.</p>	CategoryId	string	Category ID	ProfileId	string	<p>Profile ID that is assigned</p> <p>When a profile is unassigned, null is output.</p>	Status	string	<p>Assigned Profile ID</p> <ul style="list-style-type: none"> - unassigned: unassigned 		
NodeId	integer	Node ID															
NodeType	string	<p>Node Type</p> <p>One of the following is output.</p> <ul style="list-style-type: none"> - Server - Storage - Switch - Other <p>Outputs "Other" for nodes other than profile assignment target.</p>															
CategoryId	string	Category ID															
ProfileId	string	<p>Profile ID that is assigned</p> <p>When a profile is unassigned, null is output.</p>															
Status	string	<p>Assigned Profile ID</p> <ul style="list-style-type: none"> - unassigned: unassigned 															

Parameter		Type	Description
			<ul style="list-style-type: none"> - assigned: assignment complete - mismatch: an assigned profile is edited and takes on unassigned status (there is a finite difference between the profile and the device) - processing: 'assigned/unassigned' processing in progress - canceling: cancellation of 'assigned/unassigned' is in progress - canceled: cancellation of 'assigned/unassigned' is complete - error: 'assigned/unassigned' has failed <p>When the profile is unassigned, it is null.</p>
	Boot	object	<p>Boot Information</p> <p>When the node type is other than Server, it is null.</p>
	BootType	string	<p>Boot Type</p> <ul style="list-style-type: none"> - Not assigned: Profile is not assigned - Local disk: Local disk boot - SAN boot: SAN boot - iSCSI boot: iSCSI boot - PXE boot: PXE boot <p>When assigned a profile with no boot type, it is Local disk.</p>
	Wwpn	string	<p>WWPN</p> <p>WWPN of the storage booted with SAN boot</p> <p>When the boot type is not "SAN boot", it is null.</p>
	Lun	integer	<p>LUN</p> <p>LUN of the storage booted</p> <p>When the boot type is not "SAN boot", it is null.</p>
	AssignedDate	string	<p>Time of Last Assignment</p> <p>When a profile is unassigned, it is null.</p>

4.11 Firmware Management

4.11.1 Starting Update Firmware

[Overview]

Starts the firmware update process.

[Format]

```
POST /nodes/firmware/update
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
UpdateRequest		array	Update Firmware Request List
	NodeId	integer	Node ID
	FirmwareName	string	Firmware Name
	RepositoryName	string	Repository Name
	FirmwareVersion	string	Firmware Version
	OperationMode	string	Supported Modes - Online: Online update - Offline: Offline update
	AfterPowerOn	boolean	When true and OperationMode is Offline, powers on the target node after updating the firmware. When false and the keys are omitted, powers off the target node after updating the firmware. This setting is valid only when OperationMode is Offline.
ExecutionDate		string	Execution Time (UTC time) Setting example: 2017-09-23T11:10:00 AM.000Z The update should be started immediately when omitting this setting.
AutoMaintenance		boolean	When true, sets the maintenance mode at updating of the firmware and release maintenance mode after completing the firmware updates. When false and keys are omitted, it does not set and release maintenance mode.

[Response Parameter]

Parameter	Type	Description
TaskId	string	Task ID
CancelUri	string	URI at the Time of Termination
JobId	integer	Job ID Omitted if an execution date for the request parameter has not been set.

4.11.2 Canceling Update Firmware

[Overview]

Cancels the firmware update processing.

[Format]

```
POST /nodes/firmware/update/cancel
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
TaskId	string	Task ID

[Response Parameter]

None

[Precautions]

- Updating of the firmware cannot be canceled depending on the state of progress of updating process. In that case, the task moves to the status of canceling but the subtasks are not canceled. Moreover, an error of failing to cancel is registered to the Operation Log.
- If not a Update Firmware task, or if the user is not the user who started the task, it will result in an error.

4.11.3 List Retrieval for Firmware Documents

[Overview]

Retrieves a list of firmware documents.

[Format]

```
POST /system/settings/firmware/documents
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description															
Lang	string	Language used - Ja: Japanese - En: English															
UpdateRequest	array	Update Firmware Request															
<table> <tr> <td>NodeId</td><td>integer</td><td>Node ID</td></tr> <tr> <td>FirmwareName</td><td>string</td><td>Firmware Name</td></tr> <tr> <td>RepositoryName</td><td>string</td><td>Repository Name</td></tr> <tr> <td>FirmwareVersion</td><td>string</td><td>Firmware Version</td></tr> <tr> <td>OperationMode</td><td>string</td><td>Supported Modes - Online: Online update - Offline: Offline update</td></tr> </table>	NodeId	integer	Node ID	FirmwareName	string	Firmware Name	RepositoryName	string	Repository Name	FirmwareVersion	string	Firmware Version	OperationMode	string	Supported Modes - Online: Online update - Offline: Offline update		
NodeId	integer	Node ID															
FirmwareName	string	Firmware Name															
RepositoryName	string	Repository Name															
FirmwareVersion	string	Firmware Version															
OperationMode	string	Supported Modes - Online: Online update - Offline: Offline update															

[Response Parameter]

Parameter	Type	Description
Lang	string	Language used - Ja: Japanese - En: English

Parameter		Type	Description
ReleaseNoteList		array	Firmware Document
	NodeId	integer	Node ID
	FirmwareType	string	Firmware Type
	RepositoryName	string	Repository Name
	ReleaseNoteUrl	string	Document Display URL
	FileName	string	File Name of Document

4.11.4 List Retrieval for Registered Repositories

[Overview]

Retrieves a list of repositories registered in individual firmware and DVD import.

[Format]

```
GET /system/settings/firmware/repositories
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
RepositoryList		array	Repository List
	RepositoryId	integer	Repository ID
	Name	string	Repository Name
	MediaType	string	Type of Media <ul style="list-style-type: none"> - Update DVD: ServerView Suite Update DVD - Update Supplement: Update Supplement - Dedicated: Repository for individual import use
	ImportDate	string	Date of Registration
	DiskUsage	string	Disk Capacity used by the repositories (MB)
	ImportStatus	string	Import Status <ul style="list-style-type: none"> - Running: Execution in progress - Complete: Finished - Cancel-Running: Termination in progress
	TaskId	string	Task ID

4.11.5 List Retrieval for Firmware

[Overview]

Retrieves the summary of the firmware registered to the ISM-VA.

[Format]

```
GET /system/settings/firmware/list
```


GET /system/settings/firmware/list?nodeid={value}

GET /system/settings/firmware/list?modelname={value}

GET /system/settings/firmware/list?firmwarename={value}

GET /system/settings/firmware/list?repositoryid={value}

[Query Parameter]

Parameter	Type	Description
nodeid	integer	Node ID
modelname	string	Model Name
firmwarename	string	Firmware Name
repositoryid	integer	Repository ID

[Response Parameter]

Parameter		Type	Description
FirmwareList		array	List of Firmware
	FirmwareId	integer	Firmware ID
	NodeId	integer	Node ID
	ModelName	string	Model Name
	FirmwareName	string	Firmware Name
	RepositoryName	string	Repository Name
	FirmwareVersion	string	Firmware Version
	OperationMode	string	Supported Modes
	FirmwareType	string	Firmware Type
	DiskUsage	string	Disk Capacity used by the firmware (MB)
	RegisterDate	string	Time/Date of Firmware Registration

[Precautions]

- You can specify the keys "nodeid", "modelname", "firmwarename" and "repositoryid" as queries. Specifying a key means creating an exclusive connection; only one type of key can be specified each time.
The same key can be specified multiple times.
- When nodeid is specified, a list of firmware applicable to the devices with NodeId specified from among the firmware managed by the user is output.
- When modelname is specified, a list of firmware applicable to devices corresponding to the ModelName specified from among the firmware managed by the user is output.
- When firmwarename is specified, a list of firmware applicable to devices corresponding to the FirmwareName specified from among the firmware managed by the user is output.
- When repositoryid is specified, a list of firmware stored in repositories with the RepositoryId specified from among the firmware managed by the user is output.
- If the query parameters are omitted, the information of all of the firmware managed by the user is displayed.

4.11.6 Retrieval of Version Number Template Information

[Overview]

Retrieves input method template information for the "Version" to be input when executing individual firmware import.

[Format]

```
GET /system/settings/firmware/template
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
VersionTemplateList		array	Version Information Template List
	FirmwareType	string	Firmware Type
	ModelList	array	Model List
	Model	string	Model Name
	VersionTemplate	string	Input method template for the "Version" to be input at the time of carrying out individual import firmware.
	VersionExample	string	Example of Version Number Input

[Precautions]

- In a response parameter "VersionTemplate", output of * means any value while % means any alphabet and the value none means any string characters.

4.11.7 DVD Import

[Overview]

Imports the Update DVD and Update Supplement that are used during Update Firmware.

[Format]

```
POST /system/settings/firmware/dvd/import
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
Path	string	Relative path from the "<User group name>/ftp/" of the directory that contains the ISO image of the DVD being imported, or the files on the DVD
Type	string	Type of the DVD being imported Type of Media - Update DVD: ServerView Suite Update DVD - Update Supplement: Update Supplement

Parameter	Type	Description
DeleteFtpResource	boolean	For Specifying ftp Resource Deletion When "true", it deletes the file specified in Path following normal termination of the DVD import. When "false", when keys have been missed out, or when the DVD import terminates due to error, the file specified in Path is not deleted.
UnMountResource	boolean	When "true", the shared directory used in the import is unmounted following normal termination of the DVD import. When "false" or when keys have been missed out, the shared directory used in the import is not unmounted.
MountId	string	Shared Directory of Mounting ID Specify when a shared directory other than ISM is used in an import.

[Response Parameter]

Parameter	Type	Description
TaskId	string	Task ID
CancelUri	string	URI at the Time of Termination

[Precautions]

- When specifying the directory containing the files on the DVD for the "Path" request parameter, the configuration of the selected directory must be the same as that of the directory on the DVD.

4.11.8 Canceling DVD Import

[Overview]

Cancels the DVD import processes.

[Format]

```
POST /system/settings/firmware/dvd/import/cancel
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
TaskId	string	Task ID

[Response Parameter]

None

[Precautions]

- If not a DVD import task, or if the user is not the user who executed the import, it will result in an error.

4.11.9 Individual Import Firmware

[Overview]

Imports firmware.

[Format]

```
POST /system/settings/firmware/import
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
Path	string	Relative Path from the "/<User group name>/ftp/" of the firmware directory
FirmwareType	string	Firmware Type
Model	string	Firmware Model
Version	string	Firmware Version When the value of AutoAquisitionVersion is "true" this parameter is ignored. When the value of AutoAquisitionVersion is "false" or if there is no setting for AutoAquisitionVersion, this parameter is required.
AutoAcquisitionVersion	boolean	Automatic Judgment of the Firmware Version - true: Automatic judgment is executed for the firmware version. Version is ignored. - false: Automatic judgment is not executed for the firmware version. It is required to specify the version.

[Response Parameter]

Parameter	Type	Description
TaskId	string	Task ID
CancelUri	string	URI at the Time of Termination

[Precautions]

- For request parameter "Path", a directory that contains firmware should be specified.
For request parameters, refer to ["4.11.6 Retrieval of Version Number Template Information."](#)

4.11.10 Canceling Individual Import Firmware

[Overview]

Cancels individual firmware import processes.

[Format]

```
POST /system/settings/firmware/import/cancel
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
TaskId	string	Task ID

[Response Parameter]

None

[Precautions]

- If not an individual firmware import task, or if the user is not the user who executed the import, it will result in an error.

4.11.11 Deleting Repositories

[Overview]

Deletes repositories.

[Format]

```
DELETE /system/settings/firmware/dvd/{repositoryid}
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

None

[Precautions]

- For the URI {repositoryid}, enter the repository ID to be deleted.
Retrieve the repository ID from "[4.11.4 List Retrieval for Registered Repositories](#)."

4.11.12 Deleting Individual Firmware

[Overview]

Deletes the firmware imported by individual firmware import.

[Format]

```
DELETE /system/settings/firmware/{firmwareid}
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

None

[Precautions]

- For the URI {firmwareid}, enter the firmware ID to be deleted.
Retrieve the firmware ID from "[4.11.5 List Retrieval for Firmware](#)."

4.11.13 List Output of Update Firmware Jobs

[Overview]

Displays a list of scheduled Update Firmware jobs.

[Format]

```
GET /system/settings/job/firmwareupdate
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
FirmwareJobList		array	
	JobId	integer	A Notification containing the Job ID is given.
	JobName	string	A Notification containing the Job Name is given.
	TaskId	string	A Notification containing the Task ID is given.
	ExecutionDate	string	Scheduled Update Time(s)
	JobDetailList	array	
	SubTaskId	string	A Notification containing the Subtask ID is given.
	NodeId	integer	A Notification containing the Node ID is given.

[Precautions]

- When there is no job to display, notifications will simply contain the key and "FirmwareJobList."
E.g.) "FirmwareJobList":[]

4.11.14 Deleting Update Firmware Jobs

[Overview]

Deletes scheduled Update Firmware jobs.

[Format]

```
DELETE /system/settings/job/firmwareupdate/{JobId}
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

None

[Precautions]

- For the URI {JobId}, enter the ID of the Update Firmware job to be deleted.
Retrieve the Update Firmware Job ID from "[4.11.13 List Output of Update Firmware Jobs.](#)"

4.12 Log Management

4.12.1 Retrieving Log Collection Settings

[Overview]

Retrieves the log collection settings for the specified node ID.

It is possible to specify multiple node IDs in the query parameters.

When no node ID is specified, all node IDs managed by the user group that the users belong to become a target for acquisition.

[Format]

```
GET /nodes/logs/collection/settings?nodeid={value}
```

[Query Parameter]

Parameter	Type	Description
nodeid	integer	Narrowing down by Node ID

[Response Parameter]

Parameter		Type	Description
LogCollect		object	Log Collection Settings Information
	Nodes	array	List of Node Information
	NodeId	integer	Node ID
	Schedule	object	Scheduling Information
	ScheduleEnable	integer	Schedule (enable/disable) - 0: Disable - 1: Enable
	ScheduleMethod	string	How to Specify Scheduling - Days: Specifies date - Weeks: Specifies day of the week
	Days	array	List of Date Specification Information
	Day	integer	Date

Parameter				Type	Description
					<ul style="list-style-type: none"> - 0: Every day - 1-31: 1st to the 31st - 32: End of the month
			Time	string	Time (HHmm: hour and minutes) Setting Range: 0000-2359
			Weeks	array	List of Day-of-the-week Specification Information
			Week	string	Day of the Week <ul style="list-style-type: none"> - Mon: Monday - Tue: Tuesday - Wed: Wednesday - Thu: Thursday - Fri: Friday - Sat: Saturday - Sun: Sunday
			WeekNum	integer	Numbers for Days of the week <ul style="list-style-type: none"> - 0: Every week - 1-5: The first - The fifth - 6: Final
			Time	string	Time (HHmm: hour and minutes) Setting Range: 0000-2359
			NextExecutionDate	string	Next Execution Time and Date YYYY-MM-DDThh:mm:ss.xxxZ (date:year-month-day, time:hour-minute-second-millisecond. T and Z represent both delimiters and UTC in ISO8601 format.)
			ArchivedLogGeneration	integer	The Number of Generations saved Logs Setting Range: 0-366
			SecurityLogGeneration	integer	Number of Generations of Node Log (Security Log) saved Setting range: 0-1830
			OperationLogGeneration	integer	Number of Generations of Node Log (Operation Log) saved Setting range: 0-1830
			EventLogGeneration	integer	Number of Generations of Node Log (Event Log) saved Setting range: 0-1830
			HWLogEnable	integer	Subject Hardware Log (enable/disable) <ul style="list-style-type: none"> - 0: Disable - 1: Enable
			OSLogEnable	integer	Subject Operating System Log (enable/disable) <ul style="list-style-type: none"> - 0: Disable

Parameter		Type	Description
			- 1: Enable
	SVSLogEnable	integer	Subject ServerView Suite Log (enable/disable) - 0: Disable - 1: Enable
	RAIDLogEnable	integer	Subject RAID Log (enable/disable) - 0: Disable - 1: Enable
	HWLogPossible	integer	Collection Availability Hardware Log (possible/impossible) - 0: Impossible - 1: Possible
	OSLogPossible	integer	Collection Availability Operating System Log (possible/impossible) - 0: Impossible - 1: Possible
	SVSLogPossible	integer	Collection Availability ServerView Suite Log (possible/impossible) - 0: Impossible - 1: Possible
	RAIDLogPossible	integer	Collection Availability RAID Log (possible/impossible) - 0: Impossible - 1: Possible

[Precautions]

- Collection availability (HWLogPossible) becomes 1 (possible) for hardware that ISM supports for log collection.
- Collection availability (OSLogPossible) becomes 1 (possible) when the OS information is registered to the target node and detailed node information is retrieved, and the OS is such that ISM supports log collection for it.
- Collection availability (SVSLogPossible) becomes 1 (possible) when ServerView Agents or ServerView Agentless Service is installed to the OS of the target node.
- Collection availability (RAIDLogPossible) becomes 1 (possible) when ServerView RAID Manager is installed to the OS of the target node.

4.12.2 Changing Log Collection Settings

[Overview]

Changes log collection settings for the specified node ID.

Can accept multiple node IDs.

[Format]

```
PATCH /nodes/logs/collection/settings
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
LogCollect		object	Log Collection Settings Information
	Nodes	array	List of Node Information
	NodeId	integer	Node ID
	Schedule	object	Scheduling Information
	ScheduleEnable	integer	Schedule (enable/disable) - 0: Disable - 1: Enable
	ScheduleMethod	string	How to Specify Scheduling - Days: Specifies date - Weeks: Specifies day of the week
	Days	array	List of Date Specification Information
	Day	integer	Date - 0: Every day - 1-31: 1st to the 31st - 32: End of the month
	Time	string	Time (HHmm: hour and minutes) Setting range: 0000-2359
	Weeks	array	List of Day-of-the-week Specification Information
	Week	string	Day of the week - Mon: Monday - Tue: Tuesday - Wed: Wednesday - Thu: Thursday - Fri: Friday - Sat: Saturday - Sun: Sunday
	WeekNum	integer	Numbers for Days of the week - 0: Every week - 1-5: The first - The fifth - 6: Final
	Time	string	Time (HHmm: hour and minutes)

Parameter				Type	Description
					Setting range: 0000-2359
			ArchivedLogGeneration	integer	Number of Generations of Archived Logs - Setting range: 0-366 - 0: Archived Log not saved
			SecurityLogGeneration	integer	The number of Generation of Node Logs (Security Log) saved - Setting range: 0-1830 - 0: Node logs (Security Log) not saved
			OperationLogGeneration	integer	Number of Generations of Node Logs (Operation Log) saved - Setting range: 0-1830 - 0: Node log (Operation Log) not saved
			EventLogGeneration	integer	Number of Generations of Node logs (Event Log) saved - Setting range: 0-1830 - 0: Node log (Event Log) not saved
			HWLogEnable	integer	Target Hardware Log (enable/disable) - 0: Disable - 1: Enable
			OSLogEnable	integer	Target Operating System Log (enable/disable) - 0: Disable - 1: Enable
			SVSLogEnable	integer	Target ServerView Suite Log (enable/disable) - 0: Disable - 1: Enable
			RAIDLogEnable	integer	Target RAID Log (available/unavailable) - 0: Disable - 1: Enable

[Response Parameter]

Parameter				Type	Description
LogCollect				object	Log Collection Settings Information
	Nodes			array	List of Node Information
		NodeId		integer	Node ID
		Schedule		object	Scheduling Information
			ScheduleEnable	integer	Schedule (enable/disable)

Parameter		Type	Description
			<ul style="list-style-type: none"> - 0: Disable - 1: Enable
		ScheduleMethod	How to Specify Scheduling <ul style="list-style-type: none"> - Days: Specifies date - Weeks: Specifies day of the week
		Days	List of Date Specification Information
		Day	Date <ul style="list-style-type: none"> - 0: Every day - 1-31: 1st to the 31st - 32: End of the month
		Time	Time (HHmm: hour and minutes) Setting range: 0000-2359
		Weeks	List of day-of-the-week specification information
		Week	Day of the week <ul style="list-style-type: none"> - Mon: Monday - Tue: Tuesday - Wed: Wednesday - Thu: Thursday - Fri: Friday - Sat: Saturday - Sun: Sunday
		WeekNum	Numbers for Days of the week <ul style="list-style-type: none"> - 0: Every week - 1-5: The first - The fifth - 6: Final
		Time	Time (HHmm: hour and minutes) Setting range: 0000-2359
		NextExecutionDate	Next Execution Time and Date YYYY-MM-DDThh:mm:ss.xxxZ (date:year-month-day, time:hours-minute-second-millisecond. T and Z represent both delimiters and UTC in ISO8601 format.)
		ArchivedLogGeneration	Number of Generations of Archived Logs Setting range: 0-366
		SecurityLogGeneration	Number of Generation of Node Logs (Security Log) saved Setting range: 0-1830
		OperationLogGeneration	Number of Generations of Node Logs (Operation Log) saved Setting range: 0-1830
		EventLogGeneration	Number of Generations of Node Logs (Event Log) saved Setting range: 0-1830

Parameter		Type	Description
	HWLogEnable	integer	Target Hardware Log (enable/disable) - 0: Disable - 1: Enable
	OSLogEnable	integer	Target Operating System Log (enable/disable) - 0: Disable - 1: Enable
	SVSLogEnable	integer	Target ServerView Suite Log (enable/disable) - 0: Disable - 1: Enable
	RAIDLogEnable	integer	Target RAID Log (enable/disable) - 0: Disable - 1: Enable
	HWLogPossible	integer	Collection Availability Hardware Log (possible/impossible) - 0: Impossible - 1: Possible
	OSLogPossible	integer	Collection Availability Operating System Log (possible/impossible) - 0: Impossible - 1: Possible
	SVSLogPossible	integer	Collection Availability ServerView Suite Log (possible/impossible) - 0: Impossible - 1: Possible
	RAIDLogPossible	integer	Collection Availability RAID Log (possible/impossible) - 0: Impossible - 1: Possible

[Precautions]

- Setup is required for any request parameter other than Days (array) or Weeks (array).
- 'Days' (array) is required to be set if it was specified in ScheduleMethod, or if ScheduleEnable is set to 1.
- 'Weeks' (array) is required to be set if it was specified in ScheduleMethod, or if ScheduleEnable is set to 1.
- When Days (array) and/or Weeks (array) are omitted, their respective schedule settings will not be displayed.
- All settings (both Days (array) and Weeks (array)) should always be executed for the required scheduling settings.

- For Time (string), set it in accordance with the standard time of the environment (local time) where ISM runs.
- Even if specifying 1 (enabled) for the subject of the request parameter (HWLogEnable/OSLogEnable/SVSLogEnable/RAIDLogEnable), if collection availability (HWLogPossible/OSLogPossible/SVSLogPossible/RAIDLogPossible) is 0 (impossible), the subject will automatically be set as 0 (disabled).
- Collection availability (HWLogPossible) becomes 1 (possible) for the hardware that ISM supports for log collection.
- Collection availability (OSLogPossible) becomes 1 (possible) when the OS information is registered to the target node and detailed node information is retrieved, and the OS is such that ISM supports log collection for it.
- Collection availability (SVSLogPossible) becomes 1 (possible) when ServerView Agents or ServerView Agentless Service is installed to the OS of the target node.
- Collection availability (RAIDLogPossible) becomes 1 (possible) when ServerView RAID Manager is installed to the OS of the target node.

4.12.3 Retrieving Log File Information

[Overview]

Retrieves log file information for the specified node ID.

It is possible to specify multiple node IDs in the query parameters.

When no node ID is specified, all node IDs managed by the user group that the users belong to become a target for retrieval.

When no log type is specified, all log types become a target for retrieval.

[Format]

```
GET /nodes/logs/files?nodeid={value}&logtype={value}&excludekey={value}
```

[Query Parameter]

Parameter	Type	Description
nodeid	integer	Narrowing down by node ID
logtype	string	Narrowing down by Type of Audit Logs <ul style="list-style-type: none"> - ArchivedLog: Archived Log - Event: Node Log (Event Log) - Security Node Log (Security Log) - Operation: Node Log (Operation Log)
excludekey	string	Displays all information except for items related to specified keys <ul style="list-style-type: none"> - Files: Omits file information - Size: Omits service information

[Response Parameter]

Parameter	Type	Description
LogCollect	object	Log Collection Information
Nodes	array	List of Node IDs
NodeId	integer	Node ID
ArchivedLog	object	Archived Log Information
Generation	integer	Number of Generations saved

Parameter			Type	Description		
			Files	array	File List	
				FileName	string	File Name
			Size	integer	Total Size Unit: MB	
		Security		object	Node Log (Security Log) Information	
			Period	object	Duration of Storage	
				From	string	Start Date (YYYY-MM-DD; Year-Month-Date)
				To	string	End Date (YYYY-MM-DD; Year-Month-Date)
			Size	integer	Total Size Unit: MB	
		Operation		object	Node Log (Operation Log) Information	
			Period	object	Duration of Storage	
				From	string	Start Date (YYYY-MM-DD; Year-Month-Date)
				To	string	End Date (YYYY-MM-DD; Year-Month-Date)
			Size	integer	Total Size Unit: MB	
		Event		object	Node Log (Event Log) Information	
			Period	object	Duration of Storage	
				From	string	Start Date (YYYY-MM-DD; Year-Month-Date)
				To	string	End Date (YYYY-MM-DD; Year-Month-Date)
			Size	integer	Total Size Unit: MB	

4.12.4 Retrieving Node Statuses

[Overview]

Retrieves node status for the specified node ID.

It is possible to specify multiple node IDs in the query parameters.

When no node ID is specified, all node IDs managed by the user group that the users belong to become a target for retrieval.

[Format]

```
GET /nodes/logs?nodeid={value}
```

[Query Parameter]

Parameter	Type	Description
nodeid	integer	Narrowing down by Node ID

[Response Parameter]

Parameter	Type	Description
StatusInfo	object	Node Status Information
Nodes	array	Node ID List

Parameter			Type	Description
		NodeId	integer	Node ID
		Status	string	Status <ul style="list-style-type: none"> - Idle: Idle (log collection enabled) - LogCollect: Log collection in progress - LogDelete: Log deletion in progress - Prepare: Under Preparation - Exempt: Out of scope (log collection not possible)

4.12.5 Collecting Logs

[Overview]

Compile log of specified node ID.

Multiple node IDs can be specified.

[Format]

```
POST /nodes/logs/collection/collect
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
Nodes		array	List of Node IDs
	NodeId	integer	Node ID
	HWLogEnable	integer	Subject Hardware Log (enable/disable) <ul style="list-style-type: none"> - 0: Disable - 1: Enable This item can be omitted. When omitted, log collection is executed as it is set.
	OSLogEnable	integer	Subject Operating System Log (enable/disable) <ul style="list-style-type: none"> - 0: Disable - 1: Enable This item can be omitted. When omitted, log collection is executed as it is set.
	SVSLogEnable	integer	Subject ServerView Suite Log (enable/disable) <ul style="list-style-type: none"> - 0: Disable - 1: Enable

Parameter		Type	Description
			This item can be omitted. When omitted, log collection is executed as it is set.
	RAIDLogEnable	integer	Subject RAID Log (enable/disable) - 0: Disable - 1: Enable This item can be omitted. When omitted, log collection is executed as it is set.

[Response Parameter]

Parameter	Type	Description
TaskId	string	Task ID

4.12.6 Canceling Log Collection

[Overview]

Cancels the log collection process.

[Format]

```
POST /nodes/logs/collection/collect/cancel
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
TaskId	string	Task ID

[Response Parameter]

None

[Precautions]

- Log collection cannot be canceled depending on the state of progress of the log collection.
- If not a log collection task, or if executed by a user without cancellation privileges, it will result in an error.

4.12.7 Creating Node Log Download Files

[Overview]

Creates Node Log download files for the Node Log corresponding to the specified node ID and conditions.

[Format]

```
POST /nodes/logs/nodelog/downloadfiles/create
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
Nodes	array	List of Node IDs
NodeId	integer	Node ID
Period	object	Extraction Period
From	string	Start Date (YYYY-MM-DD; Year-Month-Date)
To	string	End Date (YYYY-MM-DD; Year-Month-Date)
LogCategory	array(string)	Category - HW: Hardware log - OS: Operating system log
LogType	array(string)	Log Type - Event: Node Log (Event Log) - Security: Node Log (Security Log) - Operation: Node Log (Operation Log)
PasswordEnable	integer	Password Setting to Download File - 0: Do not set password - 1: Set password

Password	string	Password for the Downloaded File Set an encrypted password when specifying 1 for PasswordEnable. Refer to " 2.4 Encryption " for the encryption method.
----------	--------	--

[Response Parameter]

Parameter	Type	Description
TaskId	string	Task ID

[Precautions]

- When PasswordEnable is 1 (Set password), if the password is not specified or null then it will result in an error.
- For 'Period', specify a date within the Period (duration of storing) range in the response parameter shown in "[4.12.3 Retrieving Log File Information](#)."

4.12.8 Canceling Creation of Node Log Download Files

[Overview]

Cancels the creation processing of the Node Log download files.

[Format]

```
POST /nodes/logs/nodelog/downloadfiles/create/cancel
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
TaskId	string	Task ID

[Response Parameter]

None

[Precautions]

- File creation cannot be canceled depending on the state of progress of the file creation.
- If not a Node Log download file creation task, or if executed by a user without cancellation privileges, it will result in an error.

4.12.9 Creating Archived Log Download Files

[Overview]

Creates Archived Log download files for the Archived Log corresponding to the specified node ID and conditions.

[Format]

```
POST /nodes/logs/archivedlog/downloadfiles/create
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
Generation		object	Generation Information of Download File created
	Nodes	array	List of Node IDs
	NodeId	integer	Node ID
	Generation	integer	Number of Generations Setting range: 1-366 E.g.) When designated as 1, one download file for the latest Archived Log will be created.
File		array	Created Download File Information List
	NodeId	integer	Node ID
	Files	array	List of File Names
	FileName	string	File Name
PasswordEnable		integer	Password Setting to Download File - 0: Do not set password - 1: Set password
Password		string	Password for the Downloaded File

Parameter	Type	Description
		Set an encrypted password when specifying 1 for PasswordEnable. Refer to "2.4 Encryption" for the encryption method.

[Response Parameter]

Parameter	Type	Description
TaskId	string	Task ID

[Precautions]

- Specifying the Generation (object) and File (array) request parameters at the same will result in an error. Specify one of them.
- For FileName, set the response parameter FileName (file name) in ["4.12.3 Retrieving Log File Information."](#)
- For the number of generations, specify the number you want to download from the log with the newest time and date. For example, by specifying 1, one latest stored log will be downloaded.
- When PasswordEnable is 1 (Set password), if the password is not specified or null, it will result in an error.

4.12.10 Canceling Creation of Archived Log Download Files

[Overview]

Cancels the creation processing of the Archived Log download files.

[Format]

```
POST /nodes/logs/archivedlog/downloadfiles/create/cancel
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
TaskId	string	Task ID

[Response Parameter]

None

[Precautions]

- Archived Logs download file creation cannot be canceled depending on the state of progress of the file creation.
- If not an Archived Log download file creation task, or if executed by a user without cancellation privileges, it will result in an error.

4.12.11 Retrieving Information on Node Log Download Files

[Overview]

Retrieves information to create Node Log download files.

[Format]

```
GET /nodes/logs/nodeolog/downloadfiles
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
DownloadFiles		object	Download File Information
	FileCreateStatus	string	Download File Creation Status <ul style="list-style-type: none"> - Created: Creation complete - Creating: Currently being created - Uncreated: Not created yet - Error: Creation error - Canceled: Creation canceled
	TaskId	string	Task ID during and after creation
	FileUrl	string	URL of the download File
	FileCreated	string	Time Stamp of the Download File YYYY-MM-DDThh:mm:ss.xxxZ (date:year-month-day, time:hours-minute-second-millisecond. T and Z represent UTC in ISO8601 format.)
	FileSize	string	Size of the Download File
	FileSizeUnit	string	Unit of Download File Size MiB

[Precautions]

- TaskId is output except when the FileCreateStatus is Uncreated (not yet created).
- FileUrl/FileCreated/FileSize/FileSizeUnit is output only when the FileCreateStatus is Created (creation complete).

4.12.12 Retrieving Information on Archived Log Download Files**[Overview]**

Retrieves information to create Archived Log download files.

[Format]

GET /nodes/logs/archivedlog/downloadfiles

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
DownloadFiles		object	Download File information
	FileCreateStatus	string	Download File Creation Status <ul style="list-style-type: none"> - Created: Creation complete

Parameter		Type	Description
			<ul style="list-style-type: none"> - Creating: Currently being created - Uncreated: Not created yet - Error: Creation error - Canceled: Creation canceled
	TaskId	string	Task ID during and after creation
	FileUrl	string	URL of the download File
	FileCreated	string	Time Stamp of the Download File YYYY-MM-DDThh:mm:ss.xxxZ (date:year-month-day, time:hours-minute-second-millisecond. T and Z represent both delimiters and UTC in ISO8601 format.)
	FileSize	string	Size of the Download File
	FileSizeUnit	string	Unit of the Download File Size MiB

[Precautions]

- TaskId is output except when the FileCreateStatus is Uncreated (not yet created).
- FileUrl/FileCreated/FileSize/FileSizeUnit is output only when the FileCreateStatus is Created (creation complete).

4.12.13 Deleting Log Files

[Overview]

Deletes Node Log and Archived Log files corresponding to specified conditions.

To delete only Node Logs, specify only NodeLog (object).

To delete only Archived Logs, specify only ArchivedLog (object).

Both Generation (object) and File (array) can be specified at the same time for the ArchivedLog (object).

[Format]

```
POST /nodes/logs/files/delete
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
NodeLog		object	Information on the Node Logs of the Deletion Target
	Nodes	array	List of Node IDs
	NodeId	integer	Node ID
	Period	string	Date (YYYY-MM-DD; Year-Month-Date) Deletes Node Logs from before the specified time and date.
	LogType	array(string)	Log Type <ul style="list-style-type: none"> - Security: Node Logs (Security Logs) - Operation: Node Logs (Operation Log)

Parameter		Type	Description
			- Event: Node Logs (Event Logs)
ArchivedLog		object	Information on the Archived Logs of the deletion target
	Generation	object	Deletion request at specification of the Number of Generations
	Nodes	array	List of Node IDs
	NodeId	integer	Node ID
	Generation	integer	Number of Generations Deletes all generations following that specified. Setting range: 0-366 For 0 and 1, all Archived Logs for the specified node IDs are deleted.
	File	array	List of the File Information on the Deletion Target
	NodeId	integer	Node ID
	Files	array	List of File Names
	FileName	string	File Name

[Response Parameter]

Parameter	Type	Description
TaskId	string	Task ID

[Precautions]

- For 'Period', specify a date within the Period (duration of storing) range in the response parameter shown in "[4.12.3 Retrieving Log File Information](#)."
- In the FileName, set the FileName in the response parameter shown in "[4.12.3 Retrieving Log File Information](#)."

4.12.14 Canceling Deletion of Log Files

[Overview]

Cancels the deletion processing of the log files.

[Format]

```
POST /nodes/logs/files/delete/cancel
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
TaskId	string	Task ID

[Response Parameter]

None

[Precautions]

- Log file deletion cannot be canceled depending on the state of deleting process.
- If not a log file deletion task, or if executed by a user without cancellation privileges, it will result in an error.

4.12.15 Searching Node Logs

[Overview]

Searches for Node Logs according to the specified conditions.

[Format]

```
POST /nodes/logs/nodelog/search
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
Nodes		array	List of node IDs
	NodeId	integer	Node ID
SearchRequest		object	Input Data for Searching Logs As for input data, it should be specified with a request body of search API in Elasticsearch. Refer to the following URL for information regarding the search API of Elasticsearch. https://www.elastic.co/guide/en/elasticsearch/reference/current/search.html

[Response Parameter]

Parameter	Type	Description
SearchResponse	object	Output Data of Result of Log search Output data is the output results of Elasticsearch search API. Refer to the following URL for information regarding the search API of Elasticsearch. https://www.elastic.co/guide/en/elasticsearch/reference/current/search.html

[Precautions]

- As for specifications of search API request body in Elasticsearch to be specified as input data and specifications of response body of output data, refer to the following URL.

<https://www.elastic.co/guide/en/elasticsearch/reference/2.3/search.html>

https://www.elastic.co/guide/en/elasticsearch/reference/2.3/_the_search_api.html

[Item Name List]

Support for the item name displayed on the ISM GUI (message detail screen) and item name registered to Elasticsearch is as follows.

For searching, use an Elasticsearch subject name. Detailed screen of a message can be displayed by clicking the message at display of [Structuring] - [Log Collection] - [Node Log Search].

ISM GUI Item Name	Elasticsearch title name	Type	Description
Severity	level	string	Severity of Message <ul style="list-style-type: none"> - Critical - Major - Minor - Information - Unknown
Date and Time	@timestamp	date	Time/Date of Message YYYY-MM-DDThh:mm:ss.xxxZ (date:year-month-day, time:hours-minute-second-millisecond. T and Z represent UTC in ISO8601 format.)
Category	class	string	Category of Message <ul style="list-style-type: none"> - hardware: Hardware log - OS: Operating system log
Type	type	string	Type of Message <ul style="list-style-type: none"> - event: Event - Security: Security - operation: Operation
Host Name	hostname	string	Host Name of Message
Source	source	string	Sender of Message
Event ID	eventid	string	Event ID of Message
Log Name	logname	string	Log Name of Message
Log Level	loglevel	string	Log Level of Message
Message	message	string	Text of Message
-	nodeid	string	Node ID

4.13 Network Management

4.13.1 Retrieving Port Information from All Nodes

[Overview]

Retrieves port information of all nodes. A node to deal with whole retrieval of port information is a server and network switch.

[Format]

```
GET /networks/ports
```

[Query Parameter]

None

[Response Parameter]

Parameter			Type	Description		
NodeInformation			array	Node Information		
	NodeId		integer	Node ID		
	NodeMacAddress		string	MAC Address of a Node		
	NodeWwnn		string	WWNN of a Node		
	PortInformation		array	Port Information		
		PortName		string	Port Name	
		PortNumber		string	Port Number	
		Category		string	Port Category Output: LAN, FC, FCoE, iSCSI, IB, CNA, Unknown	
		SubCategory		string	Port Subcategory Output: Ether, FC, IB, LAN, SAS, LinkAggregation, Mirror, Backup, Backup LA, Peerlink	
		Technologytype		string	Port Type Output: LAN, FC, FCoE, iSCSI, Unified	
		LinkStatus		string	Port Link Status Output: Up, Down, Unknown	
		DetailedInformation		object	Port Detail Information	
		IpAddress		object	Port IP Address Information	
			Ipv4Address	string	IPv4 Address	
			Ipv6Address	string	IPv6 Address	
		PortMacAddress		string	Port MAC Address	
		PortWwpn		string	Port WWPN	
		Speed		object	Information of Port Communication Speed	
			Value	string	Value of Port Communication Speed	
			Unit	string	Unit of Port Communication Speed	
		RemoteInformation		array	Information of the destination of connection	
		RemoteNodeId		integer	Node ID at the Destination of Connection	
		RemotePortName		string	Port Name at the Destination of Connection	
		RemotePortNumber		string	Port Number at the Destination of Connection	
		RemoteMacAddress		string	MAC Address at the Destination of Connection	
		RemotePortWwpn		string	WWPN at the Destination of Connection	
		VirtualSwitchId		integer	Virtual Switch ID at the Destination of Connection	
		VirtualMachineId		integer	Virtual Machine ID at the Destination of Connection	
		VirtualRouterId		integer	Virtual Router ID at the Destination of Connection	
		CnaPortInformation		array	CNA Port Information	
			CnaPortName		string	Split CNA Port Name
			VirtualSwitchId		integer	Virtual Switch ID at the Destination of Connection
			VirtualMachineId		integer	Virtual Machine ID at the Destination of Connection

Parameter				Type	Description
			VirtualRouterId	integer	Virtual Router ID at the Destination of Connection
	PinGroups			array	Pin Group Information
		PinGroupName		string	Pin Group Name
		PortList		array	Pin Group Configuration Port List
		PortName		string	Port Name

4.13.2 Retrieving Virtual Switch Connection Information from All Nodes

[Overview]

Retrieves virtual switch connection information of all nodes.

[Format]

```
GET /networks/virtualswitches
```

[Query Parameter]

None

[Response Parameter]

Parameter				Type	Description
NodeInformation				array	Node Information
	NodeId			integer	Node ID
	VirtualSwitchInformation			array	Virtual Switch Information
		VirtualSwitchId		integer	Virtual Switch ID
		ConnectionInformation		array	Connection Information
		VirtualPortName		string	Virtual Port Name
		RemoteInformation		object	Information of the Destination of Connection
			RemoteNodeId	integer	Node ID at the Destination of Connection
			RemotePortName	string	Port Name at the Destination of Connection
			RemoteVirtualSwitchId	integer	Virtual Switch ID at the Destination of Connection
			RemoteVirtualMachineId	integer	Virtual Machine ID at the Destination of Connection
			RemoteVirtualRouterId	integer	Virtual Router ID at the Destination of Connection
			RemoteVirtualPortName	string	Virtual Port Name at the Destination of Connection
		VlanId		string	VLAN ID

4.13.3 Retrieving Virtual Machine Connection Information from All Nodes

[Overview]

Retrieves virtual machine connection information of all nodes.

[Format]

```
GET /networks/virtualmachines
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
NodeInformation		array	Node Information
	NodeId	integer	Node ID
	VirtualMachineInformation	array	Virtual Machine Information
	VirtualMachineId	integer	Virtual Machine ID
	ConnectionInformation	array	Connection Information
	VirtualNetworkAdapterName	string	Name of Virtual Network Adapter
	RemoteInformation	object	Information of the Destination of Connection
	RemoteNodeId	integer	Node ID at the Destination of Connection
	RemotePortName	string	Port Name at the Destination of Connection
	RemoteVirtualSwitchId	integer	Virtual Switch ID at the Destination of Connection
	RemoteVirtualRouterId	integer	Virtual Router ID at the Destination of Connection
	RemoteVirtualPortName	string	Virtual Port Name at the Destination of Connection

4.13.4 List Retrieval for Definitions for Manual Connection**[Overview]**

Retrieves all definitions for the manual connection. Definition of manual connection is information of the connection to be defined by the ISM administrator.

[Format]

GET /networks/connections

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
ConnectionInformation		array	Information of Definitions for Manual Connection
	ConnectionType	integer	Type of Definition for Manual Connection
	PortInformation	object	Port Information at the Source of Connection
	NodeId	integer	Node ID at the Source of Connection
	PortName	string	Port Name at the Source of Connection
	RemotePortInformation	object	Port Information at the Destination of Connection
	RemoteNodeId	integer	Node ID at the Destination of Connection
	RemotePortName	string	Port Name at the Destination of Connection

4.13.5 Changing Definitions for Manual Connection

[Overview]

Changes the definitions of manual connection. ISM administrator can change the manual connection definitions.

[Format]

PATCH /networks/connections

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
ConnectionInformation		array	Information of Definitions for Manual Connection
	ConnectionType	integer	Type of Definition for Manual Connection For the purpose of distinguishing types of communication to define, a type of manual connection definition has been prepared. It is possible to specify 0-9 label or null.
	PortInformation	object	Port Information at the source of connection
	NodeId	integer	Node ID at the Source of Connection Node ID can be retrieved by Node Management. Always needs to set a node ID at the connection source.
	PortName	string	Port Name at the Source of Connection A port name can be retrieved by API for retrieval for detailed node information of Detailed Node Information Management. Always needs to set a port name at the connection destination.
	RemotePortInformation	object	Port Information at the Destination of Connection
	RemoteNodeId	integer	Node ID at the Destination of Connection Node ID can be retrieved by Node Management. Always needs to set a node ID at the destination of connection.
	RemotePortName	string	Port Name at the Destination of Connection A port name can be retrieved by API for retrieval for detailed node information of Detailed Node Information Management. Always needs to set a port name at the destination of connection.

[Response Parameter]

Parameter		Type	Description
ConnectionInformation		array	Information of Definitions for Manual Connection
	ConnectionType	integer	Type of Definition for Manual Connection
	PortInformation	object	Port Information at the Source of Connection
	NodeId	integer	Node ID at the Source of Connection
	PortName	string	Port Name at the Source of Connection
	RemotePortInformation	object	Port Information at the Destination of Connection
	RemoteNodeId	integer	Node ID at the Destination of Connection
	RemotePortName	string	Port Name at the Destination of Connection

4.13.6 Retrieving Information on Changes in Network Connections

[Overview]

Retrieves change information from the standard position of the network connection information. As for the types of changes, there are "add" and "delete" where "add" refers to an added connection between ports while "delete" means a deleted connection between ports.

[Format]

```
GET /networks/differences
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
ReferenceTime		string	Completion Time for Setting of a Standard for Information on changes in network connections Output in UTC hours. Example of Output) 2016-06-22T09:09:41.741Z
DifferenceInformation		array	Information on Changes in Network Connections
	Kind	string	Classification of Changes Output: add, delete
	PortInformation	object	Port Information at the Source of Connection
	NodeId	integer	Node ID at the Source of Connection
	PortName	string	Port Name at the Source of Connection
	RemotePortInformation	object	Port Information at the Destination of Connection
	RemoteNodeId	integer	Node ID at the Destination of Connection
	RemotePortName	string	Port Name at the Destination of Connection

4.13.7 Reference Settings for Information on Changes in Network Connections

[Overview]

Sets reference values for information on changes in network connections. Records information on changes (added or deleted connections) from the set reference values. Reference values can only be set by ISM administrators.

[Format]

```
POST /networks/differences
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

None

4.13.8 Retrieving Information on Implemented Updates of Network Management Information

[Overview]

Retrieves execution information of "4.13.9 Updating Network Management Information." Outputs start time, end time and results of the immediate "4.13.9 Updating Network Management Information", a mutual reference.

[Format]

```
GET /networks/refresh
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
RefreshInformation		object	
	RefreshStartTime	string	Start Time of Updating of the Network Management Information Output in UTC hours. Example of Output) 2016-06-22T09:09:41.741Z
	RefreshEndTime	string	Completion Time of Updating of the Network Management Information Output in UTC hours. Example of Output) 2016-06-22T09:09:41.741Z
	UpdatedTime	string	Final Updating Time of Updating of the Network Management Information Output in UTC hours. Example of Output) 2016-06-22T09:09:41.741Z
	Status	string	Results of Updating of the Network Management Information Output: success, failure

4.13.9 Updating Network Management Information

[Overview]

Instructs updates Network Management information. Termination of the update of the Network Management information can be confirmed by acquiring the Operation Log of the Event List Management. In order to re-evolve Network Management information, execute an instruction to retrieve node information of Detailed Node Information Management before updating. Cannot execute respective API for Network Management during the updating.

[Format]

```
POST /networks/refresh
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

None

4.13.10 List Retrieval for VLAN Settings

[Overview]

Retrieves all VLAN Settings of the specified nodes. Specify a node ID in {nodeid}. The node ID can be retrieved with Node Management. The node to deal with retrieval of all VLAN settings is network switch.

[Format]

```
GET /networks/nodes/{nodeid}/vlans
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
VlanInformation		array	VLAN Information
	PortName	string	Port Name
	TaggedVlanId	string	Tag VLAN Information
	UntaggedVlanId	string	Port VLAN Information

4.13.11 Batch Modification of VLAN Settings on Multiple Nodes

[Overview]

Changes the VLAN settings of the specified ports of the specified nodes. Specify Node ID and Port name to the NodeId and the PortName, which are respectively the key names of the request parameter. The port name can be retrieved with the API for retrieval of node detailed information of Node Detailed Information Management.

The node that deals with batch changes of VLAN settings is network switch. In case you are specifying both for a machine that is unable to configure tag VLAN and port VLAN onto the same port, the settings of tag VLAN are prioritized.

Not specified nodes and ports cannot be changed.

Settings of VLAN for a device will be implemented in an async manner.

[Format]

```
POST /networks/vlans
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
NodeInformation		array	Node Information
	NodeId	integer	Node ID
	VlanInformation	array	VLAN Information
	PortName	string	Port Name
	TaggedVlanId	string	Tag VLAN Information Can change settings of multiple tag VLAN IDs. Several VLAN IDs can be specified with "," (comma) or "-" (hyphen).
	UntaggedVlanId	string	Port VLAN Information Only single VLAN ID can be specified as a port VLAN ID. Cannot specify multiple VLAN IDs.

[Response Parameter]

Parameter	Type	Description
TaskId	string	Task ID

4.13.12 Canceling Batch Modification of VLAN Settings on Multiple Nodes

[Overview]

Cancels batch modification processing of VLAN settings of nodes.

[Format]

```
POST /networks/vlans/cancel
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
TaskId	string	Task ID

[Response Parameter]

None

[Precautions]

- As a batch change process of settings of VLAN for nodes cannot be canceled, it always results in an error reply.

4.13.13 Retrieving of Settings for Link Aggregation

[Overview]

Retrieves link aggregation settings of the specified nodes. Specify a node ID in {nodeid}. The node ID can be retrieved by Node Management.

The node that deals with the whole retrieval of VLAN settings is the network switch.

[Format]

```
GET /networks/nodes/{nodeid}/lags
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
LagInformation		array	Information of Link Aggregation
	LagName	string	Name of Link Aggregation
	LagMode	string	Operating Mode of Link Aggregation Output: Static, Active, Passive, Auto, Desirable, Auto non-silent, Desirable non-silent
	LagType	string	Type of Link Aggregation Output: ISL, peerlink, MLAG
	MlagId	string	MLAG ID(vPC ID)
	CfabricPortType	string	Port Type of C-Fabric Output: endpoint, cir
	PortInformation	array	Port Information of Link Aggregation
	PortName	string	Port Name

4.13.14 Changing Settings for Link Aggregation

[Overview]

Changes the link aggregation settings of the specified nodes. Specify a node ID in {nodeid}. The node ID can be retrieved by Node Management.

The node that deals with the whole retrieval of VLAN settings is the network switch.

[Format]

```
PATCH /networks/nodes/{nodeid}/lags
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
LagInformation		array	Information of Link Aggregation
	LagName	string	Name of Link Aggregation Be careful as names of link aggregation assignable are different by node.
	LagMode	string	Operating Mode of Link Aggregation It is possible to specify Static, LACP algorithm (Active and Passive) or PAGP algorithm (Auto, Desirable, Auto non-silent)

Parameter		Type	Description
			and Desirable non-silent). Some algorithms cannot be set depending on the node. Alternatives: Static, Active, Passive, Auto, Desirable, Auto non-silent, Desirable non-silent
	LagType	string	Type of Link Aggregation For typical link aggregation, specify null or empty character (""). For MLAG(vPC), specify MLAG, and set MALG ID(vPC ID) for "MlagId" for next parameter if required. Settings cannot be changed for the ISL as well as the Peer-link. Alternatives: ISL, peerlink, MLAG
	MlagId	string	MLAG ID Specifies when LagType is MLAG. Set null when MLAG ID(vPC ID) does not exist.
	CfabricPortType	string	Port Type of C-Fabric Specifies when specified node is C-Fabric. For all cases other than that, set null. Alternatives: endpoint, cir
	PortInformation	array	Port Information of Link Aggregation
	PortName	string	Port Name Specify a port name that forms a link aggregation

[Response Parameter]

Parameter		Type	Description
LagInformation		array	Information of Link Aggregation
	LagName	string	Name of Link Aggregation
	LagMode	string	Operating Mode of Link Aggregation Output: Static, Active, Passive, Auto, Desirable, Auto non-silent, Desirable non-silent
	LagType	string	Type of Link Aggregation Output: ISL, peerlink, MLAG
	MlagId	string	MLAG ID
	CfabricPortType	string	Port Type of C-Fabric Output: endpoint, cir
	PortInformation	array	Port Information of Link Aggregation
	PortName	string	Port Name

4.13.15 List Retrieval for VFAB Settings

[Overview]

Retrieves all of VFAB Settings of the specified nodes. Specify a node ID in {nodeid}. Node ID can be retrieved with Node Management.

[Format]

```
GET /networks/nodes/{nodeid}/vfabs
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
VfabInformation		array	VFAB Information
	VfabId	string	VFAB ID
	VfabStatus	string	VFAB Status Output: on, off
	VfabMode	string	VFAB Mode Output: host, network, san
	EndPointPortInformation	array	End Point Port Information
	IfGroupId	integer	ID of Interface Group
		array	VLAN Information
		integer	VLAN ID
		string	VLAN Type Output: tagged, untagged
		integer	Translate VLAN ID
	CirPortInformation	array	CIR Port Information
	IfGroupId	integer	ID of Interface Group
		array	VLAN Information
		integer	VLAN ID
		string	VLAN Type Output: tagged, untagged
		integer	Translate VLAN ID
	AmppAreaInformation	array	AMPP Area Information
	IfGroupId	integer	ID of Interface Group

4.13.16 List Retrieval for Information on Interface Groups**[Overview]**

Retrieves all of Information of the interface group of the specified nodes. Specify a node ID in {nodeid}. Node ID can be retrieved with Node Management.

[Format]

```
GET /networks/nodes/{nodeid}/ifgroups
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
InterfaceGroupInformation		array	Information of Interface Group
	IfGroupId	integer	ID of Interface Group
	PortInformation	array	Port Information
	PortName	string	Port Name
	LagInformation	array	Information of Link Aggregation
	LagName	string	Name of Link Aggregation It is set in the format of "domain ID/group ID."

4.13.17 Retrieving Virtual Router Connection Information from All Nodes

[Overview]

Retrieves virtual router connection information of all nodes.

[Format]

```
GET /networks/virtualrouters
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
NodeInformation		array	Node Information
	NodeId	integer	Node ID
	VirtualRouterInformation	string	Virtual Router Information
	VirtualRouterId	integer	Virtual Router ID
	ConnectionInformation	array	Connection Information
	PortName	string	Virtual Port Name
	RemoteInformation	object	Information of the Destination of Connection
	RemoteNodeId	integer	Node ID at the Destination of Connection
	RemotePortName	string	Port Name at the Destination of Connection
	RemoteVirtualSwitchId	integer	Virtual Switch ID at the Destination of Connection
	RemoteVirtualMachineId	integer	Virtual Machine ID at the Destination of Connection
	RemoteVirtualRouterId	integer	Virtual Router ID at the Destination of Connection
	RemoteVirtualPortName	string	Virtual Port Name at the Destination of Connection

4.14 Power Capping

4.14.1 Adding Definitions to the Settings for Power Capping

[Overview]

Adds a definition of the settings for Power Capping.

[Format]

POST /nodes/powercapping

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
Defines		array	Information of Definitions Only one element can be specified.
	Name	string	Name of Definition Body
	ResourceIdType	string	Category of Targets for Definition (Rack) Specify a Rack.
	ResourceId	integer	ID by Category of the Targets for Definition
	Catalog	array	Catalog Information
	NodeId	integer	Configuration Node ID When specifying a node ID that doesn't belong to the target definition, its catalog information will be neglected.
	MaxWat	integer	Maximum Power Consumption Specify the maximum power consumption in watts. Tolerance: 0-999,999 Can specify 0 only when fixed power value specification is on. Specify 1 or higher when fixed power value specification is off.
	FixedValue	string	Specifying Fixed Power Value "On", "Off" By turning it "On", a value specified by the maximum power consumption is set as the power consumption value.
	Priority	string	Priority <ul style="list-style-type: none">- Critical: Specify when the task is high priority or to ensure adequate performance.- High: Specify when decline in performance is more permitted than "Critical."- Middle: Specify when a lower performance is permitted than "High" but is not as accepted as for "Low."- Low: Specify when trying to make power saving control on the target actively while watching the overall status of the rack.
	Policies	array	Policies Always specify the following four: Custom1, Custom2, Schedule and Minimum.
	Policy	object	Policy Information

Parameter			Type	Description
		Name	string	Policy Name <ul style="list-style-type: none"> - Custom1: "Custom1" - Custom2: "Custom2" - For Scheduling: "Schedule" - Fixed as minimum: "Minimum"
		MaxWat	integer	Upper Limit Value for power consumption of the devices mounted in racks under power saving controlling Specify the total power consumption of the target devices by subtracting the fixed power value (total power consumption of devices other than the target devices) from the upper limit value to be set for power saving controlling (total power consumption of the devices in racks). Tolerance: 1-999,999 When a policy name is Minimum (fixed as minimum), specify null.
		Activate	string	Enable or Disable the Settings <ul style="list-style-type: none"> - Enable: "True" - Disable: "False"
	Schedule		object	Information on Scheduling When a port name is either Custom1, Custom2 or Minimum, it permits null.
		StartTime	string	Start Time of Power Saving Controlling Specifies in the form of HH:MM. Do not set values to the same as EndTime. If done in a whole day, specify null (That is, specify EndTime and null). Can omit the key when Schedule is null.
		EndTime	string	End time of power saving controlling Specifies in the form of HH:MM. Do not specify the same values as StartTime. If done in a whole day, specify null (That is, specify StartTime and null). Can omit key when Schedule is null.
		DayOfTheWeek	array(integer)	Validated Days of week Specify more than one day of week to execute power saving control (Values "0" to "6") <ul style="list-style-type: none"> - Sunday: "0" - Monday: "1" - Tuesday: "2" - Wednesday: "3" - Thursday: "4" - Friday: "5" - Saturday: "6" Can omit the key when Schedule is null.

[Response Parameter]

Parameter	Type	Description
TaskId	string	Task ID
CancelUri	string	URI at the Time of Termination

4.14.2 List Retrieval for Definitions in the Settings for Power Capping**[Overview]**

Retrieves a list of definitions of the settings for Power Capping.

[Format]

```
GET /nodes/powercapping
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
Defines		array	Information of Definitions
	CappingId	integer	Definition ID for Setting of Power Capping
	Name	string	Name of Definition Body
	ResourceIdType	string	Category of Targets for Definition (Rack)
	ResourceId	integer	ID by Category of Targets for Definition
	Status	string	Status of Processing for the Target Definition <ul style="list-style-type: none">- Initializing: Adding definitions- Processing: Definition being changed or deleted- Complete: Processing completed (other REST handling is possible)

4.14.3 Individual Retrieval of Definitions in the Settings for Power Capping**[Overview]**

Retrieves a definition of the specified settings for Power Capping.

[Format]

```
GET /nodes/powercapping/{cappingid}
```

[Query Parameter]

None

[Response Parameter]

Parameter	Type	Description
CappingId	integer	Definition ID for Setting of Power Capping

Parameter		Type	Description
Name		string	Name of Definition Body
ResourceIdType		string	Category of Targets for Definition (Rack)
ResourceId		integer	ID by Category of Targets for Definition
Catalog		array	Catalog Information
	NodeId	integer	Configuration Node ID
	MaxWat	integer	Maximum Power Consumption
	FixedValue	string	Specifying Fixed Power Value
	CurrentWat	integer	Current Power Consumption The latest value for a node that can be measured for power consumption. For a case other than that, it returns null. When "FixedValue" is set On, it returns null.
	Priority	string	Priority
Policies		array	Policies
	Policy	object	Policy Information
	Name	string	Policy Name - Custom1: "Custom1" - Custom2: "Custom2" - For Scheduling: "Schedule" - Fixed as minimum: "Minimum"
	MaxWat	integer	Upper Limit value for power consumption of the devices mounted in racks under power saving controlling When being minimum, it returns null.
	Activate	string	Enable or Disable the Settings - Enable: "True" - Disable: "False"
	Schedule	object	Information on Scheduling
	StartTime	string	Start Time of Power Saving Controlling Returns in the form of HH:MM. In a whole day, return null.
	EndTime	string	End time of Power Saving Controlling Returns in the form of HH:MM. In a whole day, return null.
	DayOfTheWeek	array(integer)	Validated Days of week Days of week to execute power saving control (Values "0" to "6") - Sunday: "0" - Monday: "1" - Tuesday: "2" - Wednesday: "3" - Thursday: "4" - Friday: "5"

Parameter			Type	Description
				- Saturday: "6"

4.14.4 Changing Definitions in the Settings for the Power Capping

[Overview]

Changes a definition of the settings for Power Capping.

[Format]

```
PATCH /nodes/powercapping/{cappingid}
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
Name		string	Name of Definition Body
ResourceIdType		string	Category of the Targets for Definition (Rack) Specifies a Rack.
ResourceId		integer	ID by Category of the Targets for Definition
Catalog		array	Catalog Information
	NodeId	integer	Configuration Node ID When specifying a node ID that doesn't belong to the target definition, its catalog information will be neglected.
	MaxWat	integer	Maximum Power Consumption Specifies the maximum power consumption in watts. Tolerance: 0-999,999 Can specify 0 only when fixed power value specification is on. Specify 1 or higher when fixed power value specification is off.
	FixedValue	string	Specifying Fixed Power Value "On", "Off" By turning it "On", a value specified by the maximum power consumption is set as power consumption value.
	Priority	string	Priority - Critical: Specify when the task is high priority or to ensure adequate performance. - High: Specify when decline in performance is more permitted than "Critical." - Middle: Specify when a lower performance is permitted than "High" but is not as accepted as for "Low." - Low: Specify when trying to make power saving control on the target actively while watching the overall status of the rack.
Policies		array	Policies

Parameter		Type	Description
			Always specify the following four: Custom1, Custom2, Schedule and Minimum.
	Policy	object	Policy Information
	Name	string	Policy Name <ul style="list-style-type: none"> - Custom1: "Custom1" - Custom2: "Custom2" - For Scheduling: "Schedule" - Fixed as minimum: "Minimum"
	MaxWat	integer	Upper Limit value for power consumption of the devices mounted in racks under power saving controlling Specify the total power consumption of the target devices by subtracting the fixed power value (total power consumption of devices other than the target devices) from the upper limit value to be set for power saving controlling (total power consumption of the devices in racks). Tolerance: 1-999,999 When a policy name is Minimum (fixed as minimum), it should specify null.
	Activate	string	Enable or Disable the Settings <ul style="list-style-type: none"> - Enable: "True" - Disable: "False"
	Schedule	object	Information on Scheduling When a port name is either Custom1, Custom2 or Minimum, it permits null.
	StartTime	string	Start Time of Power Saving Controlling Specify in the form of HH:MM. Do not set values to the same as EndTime. If done in a whole day, specify null (That is, specify EndTime and null). Can omit the key when Schedule is null.
	EndTime	string	End Time of Power Saving Controlling Specify in the form of HH:MM. Do not specify the same values as StartTime. If done in a whole day, specify null (That is, specify StartTime and null). Can omit the key when Schedule is null.
	DayOfTheWeek	array(integer)	Validated Days of week Specify more than one day of week to execute power saving control (Values "0" to "6"). <ul style="list-style-type: none"> - Sunday: "0" - Monday: "1" - Tuesday: "2" - Wednesday: "3" - Thursday: "4" - Friday: "5"

Parameter			Type	Description
				- Saturday: "6" Can omit the key when Schedule is null.

[Response Parameter]

Parameter			Type	Description
		TaskId	string	Task ID
		CancelUri	string	URI at the Time of Termination

4.14.5 Deleting Definitions from the Settings for Power Capping

[Overview]

Deletes a definition of the settings for Power Capping.

[Format]

```
DELETE /nodes/powercapping/{cappingid}
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

None

4.14.6 Enabling and Disabling Policies in the Settings for Power Capping

[Overview]

Switches enabling/disabling policy in the settings for Power Capping.

[Format]

```
PATCH /nodes/powercapping/{cappingid}/policy
```

[Query Parameter]

None

[Request Parameter]

Parameter			Type	Description
		Policy	object	Policy Information
	Name		string	Policy Name - Custom1: "Custom1" - Custom2: "Custom2" - For Scheduling: "Schedule"

Parameter		Type	Description
			- Fixed as minimum: "Minimum"
	Activate	string	Enable or Disable the Settings - Enable: "True" - Disable: "False"

[Response Parameter]

Parameter		Type	Description
CappingId		integer	Definition ID for Setting of Power Capping
Name		string	Definition Name
ResourceIdType		string	Category of Targets for Definition (Rack)
ResourceId		integer	ID by Category of Targets for Definition
Policy		object	Policy Information
	Name	string	Policy Name - Custom1: "Custom1" - Custom2: "Custom2" - For Scheduling: "Schedule" - Fixed as minimum: "Minimum"
	Activate	string	Enable or Disable the Settings - Enable: "True" - Disable: "False"

4.14.7 Releasing Power Capping Settings

[Overview]

Releases the settings for Power Capping.

[Format]

```
POST /nodes/powercapping/cancel
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
TaskId	string	Task ID

[Response Parameter]

None

[Precautions]

- Settings for Power Capping cannot be aborted in the current edition.

4.15 Virtual Resource Management

4.15.1 List Retrieval for Storage Pools

[Overview]

Retrieves a list of storage pools managed with ISM.

[Format]

```
GET /resources/storagepools
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
BasicStoragePoolInfo		array	Basic Information of Storage Pools
	PoolId	long	Storage Pool ID
	CmsId	long	IDs of cloud management software (CMS) that the cluster belongs to Output for vSAN, Storage Spaces Direct.
	NodeId	long	Node ID Output for ETERNUS RAID group.
	PoolStatus	string	Status of Storage Pool - RED: Error - YELLOW: Warning - GRAY: Unknown - GREEN: Normal
	PoolName	string	Name of Storage Pool
	PoolType	string	Type of Storage Pool - VSAN: "VMware Virtual SAN" - S2D: "Microsoft Storage Spaces Direct" - ETERNUS DX: "ETERNUS DX"
	TotalCapacity	long	Total Capacity of Storage Pool
	FreeCapacity	long	Free Capacity of Storage Pool
	NotAllocatedCapacity	long	Not Allocated Capacity of Storage Pool Only displays Storage Spaces Direct
	UsedCapacity	long	Used Capacity of Storage Pool
	UsedRate	short	Used Rate of Storage Pool
	LatestUpdate	string	Time/Date of Latest Acquisition of Information

4.15.2 Individual Retrieval of Storage Pool

[Overview]

Retrieves detailed information on the storage pool of the specified {storagepoolid}.

[Format]

```
GET /resources/storagepools/{storagepoolid}
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
BasicStoragePoolInfo		object	Basic Information of Storage Pools
	PoolId	long	Storage Pool ID
	CmsId	long	IDs of the cloud management software (CMS) that the cluster belongs to Output for vSAN, Storage Spaces Direct.
	NodeId	long	Node ID Output for ETERNUS RAID group.
	PoolStatus	string	Status of Storage Pool - RED: Error - YELLOW: Warning - GRAY: Unknown - GREEN: Normal
	PoolName	string	Name of Storage Pool
	PoolType	string	Type of Storage Pool - VSAN: "VMware Virtual SAN" - S2D: "Microsoft Storage Spaces Direct" - ETERNUS DX: "ETERNUS DX"
	TotalCapacity	long	Total Capacity of Storage Pool
	FreeCapacity	long	Free Capacity of Storage Pool
	NotAllocatedCapacity	long	Not Allocated Capacity of Storage Pool Output for Storage Spaces Direct.
	UsedCapacity	long	Used Capacity of Storage Pool
	UsedRate	short	Used Rate of Storage Pool
	LatestUpdate	string	Time/Date of Latest Acquisition of Information
	VariableData		Specific Information by Type of Storage Pools
	VSAN	object	Specific Information of vSAN
	Url	string	URL of Data Store
	ManagedObjectId	string	A managed number specified with the cloud management software (VMware Managed Object ID)
	Version	string	Version of vSAN

Parameter		Type	Description
	ClusterId	long	ID of Cluster that the Storage Pool belongs to
	S2D	object	Specific Information of Storage Spaces Direct
	UniqueId	string	ID to show Unique Storage Pool
	Version	string	Version
	Availability	string	Availability
	Iops	integer	IOPS Presently it is not supported.
	Throughput	integer	Throughput Presently it is not supported.
	Response	integer	Response Presently it is not supported.
	Deduplication	boolean	Deduplication
	ClusterId	long	ID to show Unique Cluster that the Storage Pool belongs to
	ETERNUS	object	Specific Information of ETERNUS RAID Group
	Availability	string	Availability
EquipmentInfo		array	Information of the Node that constitutes the Storage Pool
	NodeId	long	Node ID
	NodeGroupId	long	Node Group ID
	NodeStatus	string	Node Status
	AlarmStatus	string	Alarm Status
	NodeName	string	Node Name
	Type	string	Node Type
	ComputerName	string	Computer Name
	Model	string	Model Name
	IpAddress	string	IP Address
	IpVersion	string	Edition Number of the IP Address ("V4" or "V6")
	OS	string	OS Name
	MaintenanceMode	integer	Maintenance Mode - 0: Disable - 1: Manual Maintenance Mode - 2: Automatic Maintenance Mode - 3: Manual and Automatic Maintenance Mode
	HDD	integer	Number of HDDs Presently it is not supported.
	SSD	integer	Number of SSDs Presently it is not supported.
	Description	string	Nodes Description
Firmware		array	Firmware Information
	Name	string	Firmware Name

Parameter		Type	Description
	SlotId	string	Slot ID
	Model	string	Firmware Model
	Type	string	Firmware Type (Card type/iRMC/BIOS)
	FirmwareVersion	string	Firmware Version Number
	Slot	string	PCI Bus Slot Number
	Segment	string	PCI Bus Segment Number
	Bus	string	PCI Bus Bus Number
	Device	string	PCI Bus Device Number
	Function	string	PCI Bus Function Number
	Version	string	Version of iRMC
	ParentName	string	Name of Parent Device
	Unified	string	Unified Model
VirtualDiskInfo		array	Information of Virtual Disk
	UniqueId	string	Virtual Disk ID
	HealthStatus	string	Status of Virtual Disk - Healthy: Healthy - Warning: Caution - Unhealthy: Not healthy - Unknown: Not known
	FriendlyName	string	Virtual Disk Name
	TotalCapacity	long	Total Capacity of Virtual Disk
	FreeCapacity	long	Free Capacity of Virtual Disk
	UsedCapacity	long	Capacity Used of Virtual Disk
	UsedRate	short	Capacity Used Rate of Virtual Disk
	FormatType	string	Type of File System

4.15.3 Updating Storage Pool Information

[Overview]

Updates the storage pool information.

[Format]

```
POST /resources/storagepools/refresh
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

Parameter	Type	Description
TaskId	long	Task Management ID

4.15.4 List Retrieval for Clusters

[Overview]

Retrieves a list of the cluster information managed with ISM.

[Format]

```
GET /resources/clusters
```

[Query Parameter]

None

[Response Parameter]

Parameter	Type	Description
BasicClusterInfo	array	Basic Information of Clusters
ClusterId	long	Cluster ID
CmsId	long	IDs of the cloud management software (CMS) that the cluster belongs to Output for vSAN, Storage Spaces Direct.
ClusterType	string	Type of Hypervisor where the Cluster runs - VMware: For VMware vSAN Cluster - Hyper-V: For Microsoft Failover Cluster
ClusterName	string	Name of Cluster
LatestUpdate	string	Time/Date of Last Updated of Information
Status	string	Status of the Cluster - RED: Error - YELLOW: Warning - GRAY: Unknown - GREEN: Normal
PoolId	array	List of Storage Pool IDs that belong to the cluster
Id	long	ID of the Storage Pool it belongs to
NodeId	array	List of Node IDs that belong to the cluster
Id	long	IDs of Nodes that belong to the cluster

4.15.5 Individual Retrieval of Cluster

[Overview]

Retrieves cluster information of the specified {clusterid}.

[Format]

```
GET /resources/clusters/{clusterid}
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
BasicClusterInfo		object	Basic Information of Clusters
	ClusterId	long	Cluster ID
	CmsId	long	IDs of the cloud management software (CMS) that the cluster belongs to Output for vSAN, Storage Spaces Direct.
	ClusterType	string	Type of Hypervisor where the Cluster runs - VMware: VMware vSAN Cluster - Hyper-V: Microsoft Failover Cluster
	ClusterName	string	Name of Cluster
	LatestUpdate	string	Time/Date of Last Updated of Information
	Status	string	Status of the Cluster - RED: Error - YELLOW: Warning - GRAY: Unknown - GREEN: Normal
	PoolId	list	List of Storage Pool IDs that belong to the cluster
	Id	long	IDs of the Storage Pool that belong to the cluster
	NodeId	array	List of Node IDs that belong to the cluster
	Id	long	IDs of Nodes that belong to the cluster
VariableData		object	Information by Type of Clusters
	vCenter	object	Cluster Management Information by VMware vCenter. (vCenter: Cloud management software for controlling vSAN)
	ManagedObjectId	string	Cluster Management ID of the cloud management software (VMware Managed Object ID)
	Drs	boolean	VMware DRS Function - true: enabled - false: disabled
	ClusterMode	boolean	Operation Mode of the vSAN Cluster - true: enabled - false: disabled
	Deduplication	boolean	Status of Deduplication - true: enabled - false: disabled
	Compression	boolean	Status of Compression - true: enabled

Parameter		Type	Description
			- false: disabled
	TotalDiskGroupName	long	Total Number of Disk Groups in vSAN Cluster
	Windows	object	Cluster Management Information for Microsoft Windows OS
	Id	string	Windows Cluster Management ID
	Compression	boolean	Status of Compression - true: enabled - false: disabled
	CmsType	string	CMS Type that the Cluster belongs to - Cluster principal IP: MicrosoftFailoverCluster - System Center: SystemCenter
	OwnerNode	string	Name of the Owner (primary) Node of the Cluster
	GroupStatus	string	Status of a Cluster Group - Online: Group is operative - Offline: Group is not operative - Pending: Group in action During switching a primary node, it turns to Pending. Returns Offline when unable to communicate.
	EquipmentInfo	array	Node Information that constitutes a cluster
	NodeId	long	Node ID
	NodeGroupId	long	Node Group ID
	NodeStatus	string	Node Status
	AlarmStatus	string	Alarm Status of a Node
	NodeName	string	Node Name
	Type	string	Node Types
	ComputerName	string	Computer Name (Name of the computer set on OS)
	Model	string	Model Name of a Node
	IpAddress	string	Node IP Address
	IpVersion	string	IP Address Version of a Node "V4" or "V6"
	OS	string	Type of OS for Nodes
	MaintenanceMode	integer	Maintenance Mode - 0: Disable - 1: Manual Maintenance Mode - 2: Automatic Maintenance Mode - 3: Manual and Automatic Maintenance Mode
	HDD	integer	Number of HDDs Presently it is not supported.
	SSD	integer	Number of SSDs Presently it is not supported.

Parameter		Type	Description
	Condition	string	Status of Nodes [When cluster's type is VMware vSAN] <ul style="list-style-type: none"> - Status of Connection: "CONNECTED" - Not connected: "DISCONNECTED" - No Response: "NOTRESPONDING" [When cluster's type is MS Failover Cluster] <ul style="list-style-type: none"> - Unknown: "Unknown" - Non-operating/Abnormality: "Down" - Normal: "Up" - Part of functions disabled: "Paused" - Embedding to a cluster in progress: "Joining"
	Description	string	Nodes Description
	Firmware	array	Firmware Information
	Name	string	Firmware Name
	SlotId	string	Slot ID
	Model	string	Firmware Model
	Type	string	Firmware type (Card type/iRMC/BIOS)
	FirmwareVersion	string	Firmware Version Number
	Slot	string	PCI Bus Slot Number
	Segment	string	PCI Bus Segment Number
	Bus	string	PCI Bus Bus Number
	Device	string	PCI Bus Device Number
	Function	string	PCI Bus Function Number
	Version	string	Version of iRMC
	ParentName	string	Name of Parent Device
	Unified	string	Unified Model
	DatacenterName	string	Datacenter Name that has been located
	DatacenterId	string	Datacenter ID that has been located
	FloorName	string	Floor Name that has been located
	FloorId	string	Floor ID that has been located
	RackName	string	Rack Name that has been mounted
	RackId	string	Rack ID that has been mounted
	RackPosition	string	Position in a rack
	DiskGroup	string	Disk Group Information
	DiskNumber	long	Number of Disks
	DiskGroupCapacity	long	Disk Group Capacity

4.15.6 Migrating Virtual Machines

[Overview]

Migrates a virtual machine to a specified node.

The process results are managed by a task and it is possible to check the completed results by status of "[4.16.1 Individual Retrieval of Task](#)" as well as the completion report.

[Format]

```
POST /resources/virtualmachines/{virtualmachineid}/move
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
To	integer	Node ID of host at a migration destination of a virtual machine
Mode	integer	<p>Specifies an Operation Mode of a virtual machine when it was migrated (Applicable only for a case of Microsoft Storage Spaces Direct)</p> <ul style="list-style-type: none">- 1: Live- 2: Quick- 3: Shutdown- 4: ShutdownForce- 5: TurnOff <p>When the key is omitted, it is executed with the setting of "1: Live."</p>

[Response Parameter]

Parameter	Type	Description
TaskId	long	Task Management ID

[Precautions]

- Migration of a VMware virtual machine requires the following conditions.
 - CPUs of node at the migration source and node at the migration destination must be identical.
 - It should be a VM migration within the same data centers.

4.15.7 Turning On Power of Virtual Machines

[Overview]

Connect the power of the specified virtual machine.

The process results are managed by a task and it is possible to check the completed results by status of "[4.16.1 Individual Retrieval of Task](#)" as well as the completion report.

[Format]

```
POST /resources/virtualmachines/{virtualmachineid}/power/on
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

Parameter	Type	Description
TaskId	long	Task Management ID

4.15.8 Turning Off Power of Virtual Machines

[Overview]

Disconnect the power of the specified virtual machine. The process results are managed by a task and it is possible to check the completed results by status of "[4.16.1 Individual Retrieval of Task](#)" as well as the completion report.

[Format]

```
POST /resources/virtualmachines/{virtualmachineid}/power/off
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
OperationType	integer	Specifies how to shut off the power of a virtual machine. <ul style="list-style-type: none">- Shutdown: Shutdown- PowerOff: Power is shut off When the key is omitted, it is executed with the setting of "Shutdown."

[Response Parameter]

Parameter	Type	Description
TaskId	long	Task Management ID

4.15.9 Restarting Nodes

[Overview]

Specify a node that constitutes a storage pool to restart it.

The process results are confirmed according to the completed results of the status of "[4.16.1 Individual Retrieval of Task](#)."

[Format]

```
POST /resources/nodes/{nodeid}/restart
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

Parameter	Type	Description
TaskId	long	Task Management ID

[Precautions]

- The node to be specified is required to be in the Maintenance mode.

4.15.10 Setting Maintenance Mode on Nodes

[Overview]

Specify a node that constitutes a storage pool to set into maintenance mode.

The process results are managed by a task and it is possible to check the completed results by the status of "[4.16.1 Individual Retrieval of Task](#)" as well as the completion report.

[Format]

```
POST /resources/nodes/{nodeid}/cmsmaintenancemode/set
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
Mode	integer	Settings of Maintenance Mode operation [For VMware vSAN] <ul style="list-style-type: none">- 1: Accessibility security- 2: Migration of all data- 3: No data migration [For Microsoft Storage Spaces Direct] <ul style="list-style-type: none">- 1: Migrate all virtual machines to a different host within the cluster.- 2: Ensure all running virtual machines are in a saved state. When a key is omitted, it runs assuming that 1 has been selected.

[Response Parameter]

Parameter	Type	Description
TaskId	long	Task Management ID

4.15.11 Releasing Maintenance Mode on Nodes

[Overview]

Specify a node that configures a storage pool to release Maintenance Mode.

Confirm the processing results by referring to the status and the results in "[4.16.1 Individual Retrieval of Task.](#)"

[Format]

```
POST /resources/nodes/{nodeid}/cmsmaintenancemode/unset
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

Parameter	Type	Description
TaskId	long	Task Management ID

4.15.12 Retrieval of Storage Pool History Information

[Overview]

Retrieves the information on the storage pool history of the specified {storagepoolid}.

[Format]

```
POST /resources/storagepools/{storagepoolid}/history
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
BasicStoragePoolInfoList		array	Basic Information of Storage Pools
	PoolId	long	Storage Pool ID
	CmsId	long	IDs of the cloud management software (CMS) that the cluster belongs to Output for vSAN, Storage Spaces Direct.
	NodeId	long	Node ID Output for ETERNUS RAID group.
	PoolStatus	string	Status of Storage Pool - RED: Error - YELLOW: Warning - GRAY: Unknown - GREEN: Normal
	PoolName	string	Name of Storage Pool
	PoolType	string	Type of Storage Pool

Parameter		Type	Description
			<ul style="list-style-type: none"> - VSAN: "VMware Virtual SAN" - S2D: "Microsoft Storage Spaces Direct" - ETERNUS DX: "ETERNUS DX"
	TotalCapacity	long	Total Capacity of Storage Pool
	FreeCapacity	long	Free Capacity of Storage Pool
	NotAllocatedCapacity	long	Not Allocated Capacity of Storage Pool Only displays Storage Spaces Direct
	UsedCapacity	long	Used Capacity of Storage Pool
	UsedRate	short	Used Rate of Storage Pool
	LatestUpdate	string	Time/Date of Latest Acquisition of Information
VariableData		object	Specific Information by Type of Storage Pools
	VSAN		Specific Information of vSAN
	Url	string	URL of Data Store
	ManagedObjectId	string	A managed number specified with cloud management software (VMware Managed Object ID)
	Version	string	Version of vSAN
	Availability	string	Availability
	Iops	integer	IOPS Presently it is not supported.
	Throughput	integer	Throughput Presently it is not supported.
	Response	integer	Response Presently it is not supported.
	AcceptableFailure	integer	Number of Acceptable Failure
	DiskStriping	integer	Number of disk strips
	ObjectSpaceReserve	integer	Reservation of the object space
	FlashCache	integer	The amount of cache allocated for flash reading
	Provisioning	boolean	Enabled/disabled of the forced provisioning
	ClusterId	long	ID of Cluster that the Storage Pool belongs to
	S2D		Specific Information of Storage Spaces Direct
	UniqueId	string	ID to show Unique Storage Pool
	Version	string	Version
	Availability	string	Availability
	Iops	integer	IOPS Presently it is not supported.
	Throughput	integer	Throughput Presently it is not supported.
	Response	integer	Response Presently it is not supported.

Parameter			Type	Description
		Deduplication	boolean	Deduplication
		ClusterId	long	ID to show Unique Cluster that the Storage Pool belongs to
	ETERNUS		object	Specific Information of ETERNUS RAID Group
		Availability	string	Availability
		Iops	integer	IOPS Presently it is not supported.
		Response	integer	Response Presently it is not supported.

4.16 Task Management

4.16.1 Individual Retrieval of Task

[Overview]

Retrieves detailed information of tasks.

[Format]

```
GET /tasks/{taskId}
```

[Query Parameter]

None

[Response Parameter]

Parameter			Type	Description
TaskId			string	Task ID
ServiceName			string	Service Name at issuer
TaskType			string	Task Type
TimeStampInfo			object	Timestamp Information
	Register		string	Time/Date of Task Registration
	Update		string	Last Updated Time/Date of a task
ProgressNumerator			integer	Numerator of the Progress of a task
ProgressDenominator			integer	Denominator of the Progress of a task
Status			string	Status of aTask <ul style="list-style-type: none"> - Wait: Already received - Running: Execution in progress - Complete: Finished - Cancel-Running: Canceling in Process - Cancel-Complete: Cancelling complete
Result			string	Completion Result of Task <ul style="list-style-type: none"> - Undecided: Running

Parameter		Type	Description
			<ul style="list-style-type: none"> - Success: Success - Error: Failed
CancelUri		string	URI at the Time of Abortion
UserName		string	User Name
SubTaskInfoList		array	List of Sub-task Information
	SubTaskId	string	Sub-task ID
	TimeStampInfo	object	Timestamp Information
	Register	string	Registration Time/Date of Sub-task
	Update	string	Last Updated Time/Date of Sub-task
	ProgressNumerator	integer	Numerator of the Progress of a subtask
	ProgressDenominator	integer	Denominator of the Progress of a subtask
	Status	string	Status of Sub-task <ul style="list-style-type: none"> - Running: Execution in progress - Complete: Finished - Cancel-Running: Canceling in Process - Cancel-Complete: Canceling complete
	Result	string	Completion Result of Sub-task <ul style="list-style-type: none"> - Undecided: Running - Success: Success - Error: Failed
	TargetNode	string	Sub-task Target String
	Message	string	Message
	Action	string	Contents of Countermeasures
	ResourceIdType	string	Type of Resource ID
	ResourceId	integer	Resource ID

4.16.2 List Retrieval for Tasks

[Overview]

Retrieves a list of tasks.

[Format]

```
GET /tasks?
servicename={value}&tasktype={value}&start={value}&end={value}&taskstatus={value}&taskresult={value}
&continuekey={value}&resourceidtype={value}&resourceid={value}
```

[Query Parameter]

Parameter	Type	Description
servicename	string	Narrowing down by the use of Service Name at issuer
tasktype	string	Narrowing down by Task Type
start	string	Narrowing down by Start Time/Date of the Task registration

Parameter	Type	Description
end	string	Narrowing down by End Time/Date of the Task registration
taskstatus	string	Narrowing down by Task Status
taskresult	string	Narrowing down by Completion Result of the Task
continuekey	string	Continued Read Key
resourceidtype	string	Narrowing down by the Type of Resource ID
resourceid	integer	Narrowing down by Resource ID

[Response Parameter]

Parameter	Type	Description
TaskInfoList	array	List of Task Information
TaskId	string	Task ID
ServiceName	string	Service name at issuer
TaskType	string	Task Type
TimeStampInfo	object	Timestamp Information
Register	string	Time/Date of Task Registration
Update	string	Last Updated Time/Date of the Task
ProgressNumerator	integer	Numerator of the progress of a Task
ProgressDenominator	integer	Denominator of the progress of a Task
Status	string	Status of Task <ul style="list-style-type: none"> - Wait: Already received - Running: Execution in progress - Complete: Finished - Cancel-Running: Canceling in Process - Cancel-Complete: Canceling complete
Result	string	Completion Result of Task <ul style="list-style-type: none"> - Undecided: Running - Success: Success - Error: Failed
UserName	string	User Name
ContinueKey	string	Continued Read Key
RowCounter	integer	Total Search Queries

[Precautions]

- When omitting all query parameters, all information of tasks that a user executes become subject for.
- When the same key has been specified several times in query parameters, the one specified lastly becomes valid.
When narrowing down, specify values of corresponding output results of "[4.16.2 List Retrieval for Tasks](#)" and "[4.16.1 Individual Retrieval of Task](#)" as specified values for query parameters.
- When there is no task information as a target, it outputs 0 task information.
- When information of task exceeds 1,000, it outputs up to 1,000 records in the order of time and date of new task registration.

- Without changing conditions for narrowing down, the rest of log information can be output by specifying the value of response parameter, "ContinueKey" as a value of query parameter, "continuekey."

4.17 ISM-VA Management

ISM-VA Management includes the following functions:

- The function executes ismadm command from API

4.17.1 Retrieving and Releasing Privileges for VA Operation

[Overview]

Retrieves and releases privileges for VA operation.

[Format]

```
POST /ismva/privilege
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
Mode	string	VA Operation Privilege Mode Specifies retrieve/release of VA operation privilege. <ul style="list-style-type: none">- Get: Retrieves VA operating privilege.- Release: Releases VA Operation Privilege.
Password	string	Password Specify an encrypted password. Refer to "2.4 Encryption" for encryption method. In addition, specify an encrypted character string whose decrypted result is 32 characters or less.

[Response Parameter]

Parameter	Type	Description
Result	string	Process Results <ul style="list-style-type: none">- OK:- NG:

[Precautions]

- Can only be executed by a user holding an Administrator role and belonging to the Administrator group.
- The following API should retrieve VA operation privilege by this API in advance. Unless retrieving VA operation privilege, it becomes a privilege error.
 - [4.2.1 Setting Licenses](#)
 - [4.2.3 Deleting Licenses](#)
 - [4.2.4 Replacing Licenses](#)

- [4.17.5 Setting of ISM-VA System Information](#)
- [4.17.7 Applying Plug-Ins](#)
- [4.17.8 Applying Patches](#)
- [4.17.10 Deleting Plug-Ins](#)
- [4.17.15 Setting Locales and Keymaps](#)
- [4.17.19 Setting of Time Information](#)
- [4.17.22 Creating LVM Volumes](#)
- [4.17.23 Allocating LVM Volumes to User Groups](#)
- [4.17.24 Deallocating LVM Volumes from User Groups](#)
- [4.17.25 Deleting LVM Volumes](#)
- [4.17.26 Expanding LVM Volumes](#)
- [4.17.28 Deploying SSL Server Certificates](#)
- [4.17.31 Setting up ISM-VA Internal DHCP Server](#)
- [4.17.33 Initializing Domain Settings](#)
- [4.17.34 Adding Domain Settings](#)
- [4.17.35 Going Back to Previous Domain Setting](#)
- [4.17.37 Restarting ISM-VA](#)
- [4.17.38 Stopping ISM-VA](#)

- The password specified in the VA operation privilege is identical with the log in password for each user.

4.17.2 Changing Password for the Privilege for VA Operation

[Overview]

Changes the password of the VA operation privilege.

[Format]

```
PATCH /ismva/privilege/settings
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
User		object	User Information
	UserName	string	User Name When a user name is set empty, the following value is set to all users who belong to Administrator group and having Administrator roles.
	PasswordPolicy	string	VA Operation Privilege Mode Specify if VA operation privilege is given to a user at all times. - Disable: Permanently allow VA operation privilege.

Parameter		Type	Description
			- Enable: Release permanently set operating privileges.
	Password	string	Password Specify an encrypted password. Refer to " 2.4 Encryption " for encryption method. Specify an encrypted character string whose decrypted result is 32 characters or less.

[Response Parameter]

Parameter		Type	Description
User		object	User Information
	UserName	string	User Name
	PasswordPolicy	string	VA Operation Privilege Mode
	Password	string	Password

[Precautions]

- Can only be executed by a user holding an Administrator role and belonging to the Administrator group.
- Precautions of request parameters are as follows:
 - Omitting a parameter means there is no change in the contents of that parameter.
 - Specifying null to the parameter means to delete all contents of that parameter.
- The output data contains all of the contents including the data relevant to the omitted request parameters.

4.17.3 Display of Information on Privilege for VA Operation

[Overview]

Displays the information of VA operation privilege.

[Format]

```
GET /ismva/privilege/settings
```

[Query Parameter]

Parameter	Type	Description
UserName	string	User Name If no specification, the information of all users in the Administrator group will be displayed.

[Response Parameter]

Parameter		Type	Description
Users		object	User Information
	UserName	string	User Name
	LastAccess	string	Time and date of the last access Time and date of the latest access are output.

Parameter		Type	Description
	Modified	string	Time/Date of Last Updated Time and date of update are output.
	Status	string	Status The settings of VA operation privilege information is output. <ul style="list-style-type: none"> - ExternalValid: VA operating privileges are always allowed. - PasswordValid: A password for VA operation privilege is set. - PasswordInvalid: A password for VA operation privilege is not set.

[Precautions]

- Can only be executed by a user holding an Administrator role and belonging to the Administrator group.

4.17.4 Display of ISM-VA Information

[Overview]

Displays the ISM-VA information.

[Format]

```
GET /ismva/settings
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
System		object	System Information
	ISM Version	string	Version Information
	GUIPortNumber	string	GUI Port Number
	HostName	string	Host Name for ISM-VA
	Log Level	string	Log Level <ul style="list-style-type: none"> - small - medium - large
	PluginList	object	Plug-in Information
	Name	string	Plug-in Name
		string	VL
	DebugMode	string	Debugging Mode <ul style="list-style-type: none"> - Enable: Sets debug mode - Disable: Cancels debug mode (default)
	DebugServiceList	array(string)	Debugging Services

Parameter	Type	Description
		Names of services that turn to debug mode are output in array. This key will be omitted unless it is in the debug mode.

[Precautions]

- This API executes the ismadm command below.
- Display of System Information: ismadm system show

4.17.5 Setting of ISM-VA System Information

[Overview]

Sets the system information of ISM-VA.

[Format]

```
PATCH /ismva/settings
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
System	object	System Information
GUIPortNumber	string	GUI Port Number
HostName	string	Host Name for ISM-VA
Log Level	string	Log Level <ul style="list-style-type: none"> - small - medium - large
DebugMode	string	Debugging Mode <ul style="list-style-type: none"> - Enable: Sets debug mode - Disable: Cancels debug mode
DebugServiceList	array(string)	Debugging Services Specifies names of services that turn to debugging mode in array.

[Response Parameter]

Parameter	Type	Description
System	object	System Information
ISM Version	string	Version information
GUIPortNumber	string	GUI Port Number
HostName	string	Host Name for ISM-VA
Log Level	string	Log Level

Parameter		Type	Description
			<ul style="list-style-type: none"> - small - medium - large
	PluginList	object	Plug-in Information
	Name	string	Plug-in Name
	VL	string	VL
	DebugMode	string	Debugging Mode <ul style="list-style-type: none"> - Enable: Sets debug mode - Disable: Cancels debug mode
	DebugServiceList	array(string)	Debugging Services Names of services that turn to debug mode in array. This key will be omitted unless it is in the debug mode.
Restart		string	Restart Outputs if a restart is required as the result of this API. <ul style="list-style-type: none"> - ISM-VA: Restart is required for the ISM-VA - ISM-Service: Restart is required for the ISM service - null: No need for restarting It shows that if ISM-VA or ISM-Service is output, the result of this API will be enabled after restarting.

[Precautions]

- Can only be executed by a user holding an Administrator role and belonging to the Administrator group.
- This API executes the ismadm commands below.
 - Modification of destination port number of ISM: ismadm service modify
 - Modification of Host Names: ismadm system modify
 - Switching the ISM RAS Log mode: ismadm system set-debug-flag
 - Switching the ISM RAS Log level: ismadm system change-log-level
- To execute this API, it is required to retrieve VA operation privilege in advance.

4.17.6 Collecting of Archived Logs

[Overview]

Collects Archived Log of ISM-VA.

[Format]

```
POST /system/snap
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
MaintenanceData		object	Maintenance Data
	Directory	string	<p>Specify a Destination Directory</p> <p>The setting changes depending on the synchronization mode.</p> <ul style="list-style-type: none"> - Sync <p>Specify a destination of output from the "ftp" directory of the "Administrator" directory.</p> <p>When the key is omitted, "" and null, /Administrator/ftp becomes a destination of output.</p> <ul style="list-style-type: none"> - Async <p>Specify the relative path from the user group name. The following are the two types of paths that can be specified.</p> <ul style="list-style-type: none"> - /<User Group Name>/ftp/... - /<User Group Name>/transfer/...
	Mode	string	<p>Mode</p> <p>Specify one of the following.</p> <ul style="list-style-type: none"> - "Part": (default) - "Full": Outputs detail information <p>For null and "", it assumes that the default value was specified.</p>
	SyncMode	string	<p>Synchronization mode</p> <p>If the maintenance data is large, it cannot be retrieved in synchronization mode before the API response has completed, and it will time out. In this case, execute this API in Async mode.</p> <ul style="list-style-type: none"> - Sync: Synchronized execution (Default) - Async: Asynchronized execution

[Response Parameter]

Parameter		Type	Description
MaintenanceData		object	Maintenance Data
	Path	string	<p>Output File Path</p> <p>The path of the output file is output.</p> <ul style="list-style-type: none"> - When executing in Synchronized mode <p>/<Directory specified in the request parameter>/ismsnap-YYYYMMDDHHMMSS.tar.gz</p> <p>YYYYMMDDHHMMSS: Local time</p> <p>Example:</p> <p>"Path": "Administrator/ftp/test/ismsnap-20170927170755.tar.gz"</p> <ul style="list-style-type: none"> - When executing in Asynchronized mode <p>"" is output.</p>

Parameter		Type	Description
			<p>For Asynchronized mode, after executing this API, a file with the following name is created after the task processing has been completed.</p> <p>/<Directory specified in the request parameter>/ismsnap-XXXX-YYYYMMDDHHMMSS.zip</p> <p>YYYYMMDDHHMMSS: Local time</p> <p>XXXX: Task ID</p> <p>Example:</p> <p>"Administrator/transfer/ismsnap-0100-20170927170755.zip"</p>
	Mode	string	<p>Mode</p> <p>The Specified mode will be output.</p>
	SyncMode	string	<p>Synchronized mode</p> <p>The Specified mode will be output.</p>
	TaskId	string	<p>Task ID</p> <p>If you executed in Asynchronized mode, the task ID will be output.</p> <p>Except for that, null will be output.</p>
Restart		string	<p>Restart</p> <p>Outputs if a restart is required as the result of this API.</p> <p>null: No need for restarting</p>

[Precautions]

- Can only be executed by a user holding an Administrator role and belonging to Administrator the group.
- This API executes the ismadm command below.
 - Collection of Archived Logs: ismadm system snap

4.17.7 Applying Plug-Ins

[Overview]

Applies a plug-in.

[Format]

```
POST /ismva/settings/plugin/add
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
Plugin		object	Plug-in Information
	File	string	Specify a File of plug-in to apply

Parameter		Type	Description
			Specify a file path from the "ftp" directory of "Administrator" directory.
	ExecuteFile	string	Executes an optional program within a plug-in file. When null, " " and keys are omitted, no program is executed.

[Response Parameter]

Parameter		Type	Description
Plugin		object	Plug-in Information
	Result	string	Process Results
	Output	string	Output of the Result of an executed file Outputs the name of path for the result of execution by applied plug-in. /vareresult/vareresultXXXX XXXX: Time/Date Omits the key when there are no output results.
Restart		string	Restart Outputs if a restart is required as the result of this API. Auto: Will automatically restart after this API is executed.

[Precautions]

- Can only be executed by a user holding an Administrator role and belonging to the Administrator group.
- This API executes the ismadm command below.
 - Application of Plug-in: ismadm system plugin-add
- To execute this API, it is required to retrieve VA operation privilege in advance.

4.17.8 Applying Patches

[Overview]

Applies patches to ISM-VA.

[Format]

```
POST /ismva/settings/patch/add
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
Patch		object	Information of Patch
	File	string	Specify the File of the patches to apply Specify a file path from the "ftp" directory of "Administrator" directory.

Parameter		Type	Description
	ExecuteFile	string	Executes an optional program within a file When null, " " and keys are omitted, no program is executed.

[Response Parameter]

Parameter		Type	Description
Patch		object	Information of Patch
	Result	string	Process results
	Output	string	Output of the Result of an executed file Outputs the name of the path for the result of the execution by the applied patches. /vareult/vareultXXXX XXXX: Time/Date Omits the key when there are no output results.
Restart		string	Restart Outputs if a restart is required as the result of this API. Auto: Will automatically restart after this API is executed.

[Precautions]

- Can only be executed by a user holding an Administrator role and belonging to the Administrator group.
- This API executes the ismadm command below.
 - Application of Patches: ismadm system patch-add
- To execute this API, it is required to retrieve VA operation privilege in advance.

4.17.9 Displaying Plug-Ins

[Overview]

Displays information of a plug-in.

[Format]

```
GET /ismva/settings/plugin
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
Output		string	Output Results to display
PluginList		object	Plug-in Information
	Name	string	Plug-in Name
	VL	string	VL

[Precautions]

- Can only be executed by a user holding an Administrator role and belonging to the Administrator group.
- This API executes the ismadm command below.
 - Display of Plug-in: ismadm system plugin-show

4.17.10 Deleting Plug-Ins

[Overview]

Deletes a plug-in.

[Format]

```
POST /ismva/settings/plugin/delete
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
Name	string	Plug-in Name Specify the Name of plug-in to delete.

[Response Parameter]

Parameter	Type	Description
Output	string	Output Results to display
Restart	string	Restart Outputs if a restart is required as the result of this API. <ul style="list-style-type: none">- ISM-VA: Restart is required for the ISM-VA- ISM-Service: Restart is required for the ISM service It shows that if ISM-VA or ISM-Service is output, the result of this API will be enabled after restarting.

[Precautions]

- Can only be executed by a user holding an Administrator role and belonging to the Administrator group.
- This API executes the ismadm command below.
 - Deletion of Plug-in: ismadm system plugin-del
- To execute this API, it is required to retrieve VA operation privilege in advance.

4.17.11 Displaying ISM-VA Login Statuses

[Overview]

Retrieves the login status of the ISM-VA system.

[Format]

```
GET /ismva/loginstatus
```

[Query Parameter]

None

[Response Parameter]

Parameter	Type	Description
ISMLoginUsers	array	ISM Login Information
User	string	User Name
SSHLoginUsers	array	ISM Login Information
User	string	User Name
IpAddress	string	IP Address
FTPLLoginUsers	array	ISM Login Information
User	string	User Name
IpAddress	string	IP Address

[Precautions]

- Can only be executed by a user holding an Administrator role and belonging to the Administrator group.

4.17.12 Displaying Results of Operation Before Restarting

[Overview]

Displays the result of the operation before the restart.

[Format]

```
GET /ismva/settings/result
```

[Query Parameter]

Parameter	Type	Description
Time	string	<p>Time</p> <p>Processing time of results to display</p> <p>Displays the latest result of processing unless specified.</p> <p>Time can be specified for one with a form of yyyy-mm-dd hh:mm:ss.</p> <p>It shows newer results than this setting value.</p>

[Response Parameter]

Parameter	Type	Description
Output	string	<p>Process Results</p> <p>Contents of the results of the following execution are to be output as follows:</p> <p>/vareult/vareultXXXX</p>

Parameter	Type	Description
		XXXX: Time/Date

[Precautions]

- Can only be executed by a user holding an Administrator role and belonging to the Administrator group.

4.17.13 Output of Web Server Logs

[Overview]

Outputs the https communication log of the Web server log.

[Format]

```
POST /ismva/webserverlog/export
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
Directory	string	Destination Directory Specify a path from the "ftp" directory of "Administrator" directory.

[Response Parameter]

Parameter	Type	Description
LogData	object	Log Information
Path	string	Output File Path The path to the stored files in the specified directory will be output. /<Directory specified in the request parameter>/ weblogYYYYMMDDHHMMSS.tar.gz
Restart	string	Restart Outputs if a restart is required as the result of this API. null: No need for restarting

[Precautions]

- Can only be executed by a user holding an Administrator role and belonging to the Administrator group.
- Outputs the logs of the last five weeks.

4.17.14 Displaying Locales and Keymaps

[Overview]

Displays locales/keymaps that are set.

[Format]

```
GET /ismva/settings/locale
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
LocaleSetting		object	Locale Information
	Locale	string	Locale
	Keymap	string	Keymap

[Precautions]

- This API executes the ismadm command below.
- Display of locales and keymaps: ismadm locale show

4.17.15 Setting Locales and Keymaps

[Overview]

Sets a locale/keymap.

[Format]

```
PATCH /ismva/settings/locale
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
LocaleSetting		object	Locale Information
	Locale	string	Specifies a Locale Specifies a locale to be set. Specifies output results of a list of locale.
	Keymap	string	Specifies Keymap Specifies a Keymap to be set. Specifies output results of a list of keymap.

[Response Parameter]

Parameter		Type	Description
LocaleSetting		object	Locale Information
	Locale	string	Locale
	Keymap	string	Keymap
Restart		string	Restart

Parameter	Type	Description
		<p>Outputs if a restart is required as the result of this API.</p> <p>ISM-VA: Restart is required for the ISM-VA</p> <p>It shows that the result of this API will be enabled after restarting.</p>

[Precautions]

- Can only be executed by a user holding an Administrator role and belonging to the Administrator group.
- It is required that either Locale parameter or Keymap parameter is specified.
- This API executes the ismadm commands below.
 - Locale Setting: ismadm locale set-locale
 - Keymap Setting: ismadm locale set-keymap
- To execute this API, it is required to retrieve VA operation privilege in advance.

4.17.16 Displaying Available Locale Settings

[Overview]

Displays a list of locales that are available for setting.

[Format]

```
GET /ismva/settings/locale/list
```

[Query Parameter]

None

[Response Parameter]

Parameter	Type	Description
LocaleList	array(string)	Outputs Locales in array.

[Precautions]

- This API executes the ismadm command below.
 - Display of available locales: ismadm locale list-locales

4.17.17 Displaying Available Keymap Settings

[Overview]

Displays a list of keymaps that are available to be set.

[Format]

```
GET /ismva/settings/locale/keymap/list
```

[Query Parameter]

None

[Response Parameter]

Parameter	Type	Description
KeymapList	array(string)	Outputs Keymaps in array.

[Precautions]

- This API executes the ismadm command below.
- Display of available keymaps: ismadm locale list-keymaps

4.17.18 Displaying Time Information

[Overview]

Displays the ISM time information.

[Format]

```
GET /ismva/settings/time
```

[Query Parameter]

Parameter	Type	Description
OutputMode	string	Output Mode Specifies an output mode. <ul style="list-style-type: none">- ALL: Outputs all- VA: Outputs only the current time in a format which includes the day of the week- API (default): Output only the current time in a format which excludes the day of the week

[Response Parameter]

Parameter		Type	Description
Time		object	Time Information
	LocalTime	string	Local Time Output takes in the following forms. <ul style="list-style-type: none">- When OutputMode=All or VA Week Year-Month-Day Hours:Minutes:Seconds Time Zone E.g.) Wed 2017-02-01 15:19:50 JST- When OutputMode=API Year-Month-DayTHours:Minutes:Seconds.nnn Time difference with UTC E.g.) 2017-02-01T15:19:50.000+09:00
	UniversalTime	string	Time in UTC Outputs time in UTC. <ul style="list-style-type: none">- When OutputMode=All or VA

Parameter		Type	Description
			<p>Week Year-Month-Day Hours:Minutes:Seconds UTC E.g.) Wed 2017-02-01 06:19:50 UTC</p> <p>- When OutputMode=API</p> <p>Year-Month-DayTHours:Minutes:Seconds.nnnZ E.g.) 2017-02-01T06:19:50.000Z</p>
	Timezone	string	<p>Time Zone</p> <p>E.g.)</p> <p>Asia/Tokyo (JST, +0900)</p> <p>UTC (UTC, +0000)</p>
NTP		object	<p>NTP Information</p> <p>Output only when OutputMode is All.</p>
	NTPenabled	string	<p>To enable or disable NTP Server</p> <p>Outputs to enable or disable NTP server.</p> <p>- Disabled: Disable NTP server</p> <p>- Enabled: Enable NTP server</p>
	NTPsynchronized	string	<p>Availability or Unavailability of Synchronization with NTP Server</p> <p>Outputs availability or unavailability of synchronization with NTP server.</p> <p>- no: No synchronization</p> <p>- yes: Synchronization enabled</p>
	RTCinlocalTZ	string	Time zone settings of real time clock
	DSTactive	string	<p>Setting of Daylight Saving Time</p> <p>- yes: Period of daylight saving time</p> <p>- no: Other than the period of daylight saving time</p> <p>- n/a: Time zones without settings of daylight saving time</p>
	LastDSTChange	string	<p>Latest Information of Daylight Saving Time change</p> <p>- When DSTactive: yes, it is the time information of when the latest daylight saving time started.</p> <p>E.g.)</p> <p>DST began at</p> <p>Sun 2017-03-12 01:59:59 CST</p> <p>Sun 2017-03-12 03:00:00 CDT</p> <p>- When DSTactive: no, it is the time information of when the last daylight saving time ended.</p> <p>E.g.)</p> <p>DST ended at</p> <p>Sun 2016-11-06 01:59:59 EDT</p> <p>Sun 2016-11-06 01:00:00 EST</p>
	NextDSTChange	string	Update Information of the Next Daylight Saving Time

Parameter		Type	Description
			<ul style="list-style-type: none"> - When DSTactive: yes, it is the time information of when the next daylight saving time will end. E.g.) DST ends (the clock jumps one hour backwards) at Sun 2017-11-05 01:59:59 CDT Sun 2017-11-05 01:00:00 CST - When DSTactive: no, it is the time information of when the next daylight saving time starts. E.g.) DST begins (the clock jumps one hour forward) at Sun 2017-03-12 01:59:59 EST Sun 2017-03-12 03:00:00 EDT
	NTPStatus	string	Status of NTP Server Outputs the following. <ul style="list-style-type: none"> - When NTP Server is not specified 506 Cannot talk to daemon - When NTP Server is specified 210 Number of sources = n (number of registered servers)
	NTPServerList	array	NTP Server
	Type	string	Category The following are output as NTP types. <ul style="list-style-type: none"> - Server: Server
	Status	string	Status Notifies the current status. <ul style="list-style-type: none"> - *: Synchronization target - +: Synchronization target candidates - -: Out of the target for synchronization - ?: Verifying targets
	Name	string	Host Name Host Name or IP address
	Stratum	string	Hierarchy Hierarchy of NTP Server
	Poll	string	Interval of Inquiry Interval of Inquiry (seconds) This shows the rate at which the source is being polled, as a base-2 logarithm of the interval in seconds. Thus, a value of 6 would indicate that a measurement is being made every 64 seconds. chronyd automatically varies the polling rate in response to prevailing conditions.
	Reach	string	Result of Inquiry Displays if the last 8 queries were successful in octal.

Parameter			Type	Description
		LastRx	string	Previous Inquiry Displays when the previous inquiry was executed.
		LastSample	string	Gap Gap of time from the last measurement. Inside [] indicates result after subtracting slew adjustment. After +/- is the measurement error margin

[Precautions]

- This API executes the ismadm command below.
- Display of time settings: ismadm time show

4.17.19 Setting of Time Information

[Overview]

Sets the ISM time information.

[Format]

```
PATCH /ismva/settings/time
```

[Query Parameter]

None

[Request Parameter]

Parameter			Type	Description
Time			object	Time Information
	Timezone		string	Name of Preset Time Zone Specifies a time zone for setting. Specify from a list of Time Zone. For null, it sets the Default value. If the key is omitted, it does not set a value.
	Time		string	Preset Time Specifies time for setting. If the key is omitted, it does not set a value.
NTP			object	NTP Information
	NTPenabled		string	To enable or disable NTP Server Set to disable or enable NTP server settings. - Disabled: Disable NTP server - Enabled: Enable NTP server
	NTPServerList		array	NTP Server
		Name	string	Host Name Host Name or IP address
		Mode	string	Mode

Parameter			Type	Description
				<p>Specifies server processing mode which was set in Name.</p> <ul style="list-style-type: none"> - Add: Add a server - Delete: Delete a server.

[Response Parameter]

Parameter			Type	Description
Time			object	Time Information
	LocalTime		string	<p>Local Time</p> <p>Output takes in the following forms.</p> <ul style="list-style-type: none"> - When OutputMode=All or VA Week Year-Month-Day Hours:Minutes:Seconds Time Zone E.g.) Wed 2017-02-01 15:19:50 JST - When OutputMode=API Year-Month-DayTHours:Minutes:Seconds.nnn Time difference with UTC E.g.) 2017-02-01T15:19:50.000+09:00
	UniversalTime		string	<p>Time in UTC</p> <p>Outputs time in UTC.</p> <ul style="list-style-type: none"> - When OutputMode=All or VA Week Year-Month-Day Hours:Minutes:Seconds UTC E.g.) Wed 2017-02-01 06:19:50 UTC - When OutputMode=API Year-Month-DayTHours:Minutes:Seconds.nnnZ E.g.) 2017-02-01T06:19:50.000Z
	Timezone		string	<p>Time Zone</p> <p>E.g.) Asia/Tokyo (JST, +0900) UTC (UTC, +0000)</p>
NTP			object	<p>NTP Information</p> <p>Output only when OutputMode is All.</p>
	NTPenabled		string	<p>To enable or disable NTP Server</p> <p>Outputs to enable or disable NTP server.</p> <ul style="list-style-type: none"> - Disabled: Disable NTP server - Enabled: Enable NTP server
	NTPsynchronized		string	<p>Availability or unavailability of synchronization with NTP Server</p> <p>Outputs availability or unavailability of synchronization with NTP server.</p> <ul style="list-style-type: none"> - no: No synchronization

Parameter		Type	Description
			- yes: Synchronization enabled
	RTCLocalTZ	string	Time Zone Settings of Real Time Clock
	DSTactive	string	Setting of Daylight Saving Time <ul style="list-style-type: none"> - yes: Period of daylight saving time - no: Other than the period of daylight saving time - n/a: Time zones without settings of daylight saving time
	LastDSTChange	string	Latest Information of Daylight Saving Time Change <ul style="list-style-type: none"> - When DSTactive: yes, it is the time information of when the latest daylight saving time started. E.g.) DST began at Sun 2017-03-12 01:59:59 CST Sun 2017-03-12 03:00:00 CDT - When DSTactive: no, it is the time information of when the last daylight saving time ended. E.g.) DST ended at Sun 2016-11-06 01:59:59 EDT Sun 2016-11-06 01:00:00 EST
	NextDSTChange	string	Update Information of the Next Daylight Saving Time <ul style="list-style-type: none"> - When DSTactive: yes, it is the time information of when the next daylight saving time will end. E.g.) DST ends (the clock jumps one hour backwards) at Sun 2017-11-05 01:59:59 CDT Sun 2017-11-05 01:00:00 CST - When DSTactive: no, it is the time information of when the next daylight saving time starts. E.g.) DST begins (the clock jumps one hour forward) at Sun 2017-03-12 01:59:59 EST Sun 2017-03-12 03:00:00 EDT
	NTPStatus	string	Status of NTP Server Outputs the following. <ul style="list-style-type: none"> - When NTP Server is not specified 506 Cannot talk to daemon - When NTP Server is specified 210 Number of sources = n (number of registered servers)
	NTPServerList	array	NTP Server
	Type	string	Category The following are output as NTP types. <ul style="list-style-type: none"> - Server: Server

Parameter		Type	Description
	Status	string	<p>Status</p> <p>Notifies the current status.</p> <ul style="list-style-type: none"> - *: Synchronization target - +: Synchronization target candidates - -: Out of the target for synchronization - ?: Verifying targets
	Name	string	<p>Host Name</p> <p>Host Name or IP address</p>
	Stratum	string	<p>Hierarchy</p> <p>Hierarchy of NTP Server</p>
	Poll	string	<p>Interval of Inquiry</p> <p>Interval of Inquiry (seconds)</p> <p>The value converted from the original data (Original data: Logarithm base 2 of inquiry interval (seconds). The inquiry interval is equal to 2 to the power of Poll's value.)</p>
	Reach	string	<p>Result of Inquiry</p> <p>Displays if the last 8 queries were successful in octal.</p>
	LastRx	string	<p>Previous inquiry</p> <p>Displays when the previous inquiry was executed.</p>
	LastSample	string	<p>Gap</p> <p>Gap of time from the last measurement. Inside [] indicates result after subtracting slew adjustment. After +/- is the measurement error margin</p>
Restart		string	<p>Restart</p> <p>Outputs if a restart is required as the result of this API.</p> <p>ISM-VA: Restart is required for the ISM-VA</p> <p>It shows that the result of this API will be enabled after restarting.</p>

[Precautions]

- Can only be executed by a user holding an Administrator role and belonging to the Administrator group.
- This API executes the ismadm commands below.
 - Setting of date and time: ismadm time set-time
 - Timezone setting: ismadm time set-timezone
 - Enabling/Disabling of NTP synchronization: ismadm time set-ntp
 - Adding of NTP server: ismadm time add-ntpserver
 - Removal of NTP server: ismadm time del-ntpserver
- To execute this API, it is required to retrieve VA operation privilege in advance.
- If the time settings and the NTP server settings are done at the same time, it may cause an error.

4.17.20 Displaying Available Time Zone Settings

[Overview]

Displays a list of time zones that are available to be set.

[Format]

```
GET /ismva/settings/timezone
```

[Query Parameter]

None

[Response Parameter]

Parameter	Type	Description
TimezoneList	array(string)	List of Time Zone Outputs timezones in array.

[Precautions]

- Can only be executed by a user holding an Administrator role and belonging to the Administrator group.
- This API executes the ismadm command below.
 - Display of available time zones: ismadm time list-timezones

4.17.21 Displaying Volume Settings

[Overview]

Displays volume setting information.

[Format]

```
GET /ismva/settings/volume
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
Output		string	Output Result Outputs a result of a command directly.
FilesystemList		object	List of File System Information
	Size	string	Whole Size Unit: Automatically set for such units as G, M and others. Sets null for empty disks.
	Used	string	Size used Unit: Automatically set for such units as G, M and others. Sets null for empty disks.

Parameter		Type	Description
	Avail	string	Empty Size Unit: Automatically set for such units as G, M and others. Sets null for empty disks.
	UseRate	string	Use Rate, % Sets null for empty disks.
	MountedOn	string	Mount Directory Sets null for empty disks.
	UserGroupName	string	User Group Name When it is allocated to a user group, it is output. When it is not allocated to a user group, it outputs null.
VolumeList		object	List of Volume Information
	DeviceName	string	Disk Name
	VolumeName	string	Volume Name
	DeviceSize	string	Size
FreeDeviceList		array	List of Free Device Information
	DeviceName	string	Disk Name
DirectoryList		object	Directory Information List
	DirectoryType	string	Notifies a Type of Directory. - Log: Entire log - IsmLog: Entire ISM RAS log - Repository: Repository - UserGroup
	DirectoryName	string	Notifies a Directory Name. Notifies a directory as follows. - Log: "ISM-VA Log" - IsmLog: "ISM RasLog" - Repository: "Repository" - User Group Name
	DirectorySize	string	Size of Directory Name above For user group, it is a coincident value with the size under use that is output as details of the user group. It differs from the size shown by Used.

[Precautions]

- This API executes the ismadm command below.
- Display of volume settings: ismadm volume show

4.17.22 Creating LVM Volumes

[Overview]

Creates an LVM volume.

[Format]

```
POST /ismva/settings/volume
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
Volume		object	Information of Volume
	VolumeName	string	Volume Name
	DeviceName	string	Device Name of Virtual Disk ID

[Response Parameter]

Parameter		Type	Description
Volume		object	Information of Volume
	VolumeName	string	Volume Name
	DeviceName	string	Device Name of Virtual Disk ID
Restart		string	Outputs if a restart is required as the result of this API. ISM-VA: Restart is required for the ISM-VA It shows that the result of this API will be enabled after restarting.

[Precautions]

- Can only be executed by a user holding an Administrator role and belonging to the Administrator group.
- This API executes the ismadm command below.
 - Adding of LVM volume: ismadm volume add
- To execute this API, it is required to retrieve VA operation privilege in advance.

4.17.23 Allocating LVM Volumes to User Groups

[Overview]

Allocates the LVM volume to the specified user group.

[Format]

```
POST /ismva/settings/volume/mount
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
Volume		object	Information of Volume
	VolumeName	string	Volume Name
	UserGroupName	string	User Group Name

[Response Parameter]

Parameter		Type	Description
Volume		object	Information of Volume
	VolumeName	string	Volume Name
	UserGroupName	string	User Group Name
Restart		string	<p>Outputs if a restart is required as the result of this API.</p> <ul style="list-style-type: none"> - ISM-VA: Restart is required for the ISM-VA - ISM-Service: Restart is required for the ISM service - null: No need for restarting <p>It shows that if ISM-VA or ISM-Service is output, the result of this API will be enabled after restarting.</p>

[Precautions]

- Can only be executed by a user holding an Administrator role and belonging to the Administrator group.
- This API executes the ismadm command below.
 - Allocation of LVM volume to the user group: ismadm volume mount
- To execute this API, it is required to retrieve VA operation privilege in advance.

4.17.24 Deallocating LVM Volumes from User Groups

[Overview]

Cancels LVM volume allocation in the specified user group.

[Format]

```
POST /ismva/settings/volume/umount
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
UserGroupName	string	User Group Name

[Response Parameter]

Parameter		Type	Description
Volume		object	Volume Information that has been specified
	VolumeName	string	Volume Name

Parameter		Type	Description
	UserGroupName	string	User Group Name
Restart		string	Restart Outputs if a restart is required as the result of this API. <ul style="list-style-type: none"> - ISM-VA: Restart is required for the ISM-VA - ISM-Service: Restart is required for the ISM service - null: No need for restarting It shows that if ISM-VA or ISM-Service is output, the result of this API will be enabled after restarting.

[Precautions]

- Can only be executed by a user holding an Administrator role and belonging to the Administrator group.
- This API executes the ismadm command below.
 - Cancellation of allocation of LVM volume to the user group: ismadm volume umount
- To execute this API, it is required to retrieve VA operation privilege in advance.

4.17.25 Deleting LVM Volumes

[Overview]

Deletes an LVM volume.

[Format]

```
POST /ismva/settings/volume/delete
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
VolumeName	string	Volume Name

[Response Parameter]

Parameter		Type	Description
Volume		object	Deleted Volume Information
	VolumeName	string	Volume Name
	DeviceName	string	Device Name of Virtual Disk ID
Restart		string	Outputs if a restart is required as the result of this API. ISM-VA: Restart is required for the ISM-VA It shows that the result of this API will be enabled after restarting.

[Precautions]

- Can only be executed by a user holding an Administrator role and belonging to the Administrator group.
- This API executes the ismadm command below.
 - Removal of LVM volume: ismadm volume delete
- To execute this API, it is required to retrieve VA operation privilege in advance.

4.17.26 Expanding LVM Volumes

[Overview]

Expands an LVM volume.

[Format]

```
POST /ismva/settings/volume/extend
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
Volume		object	Information of Volume
	VolumeName	string	Volume Name When the key is omitted, empty character or null, it is added to the system volume.
	DeviceName	string	Device Name of Virtual Disk ID

[Response Parameter]

Parameter		Type	Description
Volume		object	Information of Volume
	VolumeName	string	Volume Name
	DeviceName	string	Device Name of Virtual Disk ID
Restart		string	Outputs if a restart is required as the result of this API. ISM-VA: Restart is required for the ISM-VA It shows that the result of this API will be enabled after restarting.

[Precautions]

- Can only be executed by a user holding an Administrator role and belonging to the Administrator group.
- This API executes the ismadm commands below.
 - Extension of LVM volume size: ismadm volume extend
 - Extension of the size of LVM system volume: ismadm volume sysvol-extend
- To execute this API, it is required to retrieve VA operation privilege in advance.

4.17.27 Displaying SSL Server Certificates

[Overview]

Displays the SSL server certificate.

[Format]

```
GET /ismva/settings/sslcert
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
SSLCert		object	Certificate Information
	Issuer	string	Issuer
	Subject	string	Issued to (subject) (CN part only)
	ValidityNotBefore	string	Start of Validated Period
	ValidityNotAfter	string	End of Validated Period
	Output	string	Outputs Contents of a Certificate (Output results of openssl x509 -text -noout -in).

[Precautions]

- This API executes the ismadm command below.
- Display of SSL server certificates: ismadm sslcert show

4.17.28 Deploying SSL Server Certificates

[Overview]

Deploys the SSL server certificate.

[Format]

```
PATCH /ismva/settings/sslcert
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
SSLCert		object	Certificate Information
	KeyFile	string	Specifies a key File for setting.
	CrtFile	string	Specifies a crt File for setting.
	CaFile	string	Specifies a ca File for setting.

[Response Parameter]

Parameter	Type	Description
Output	string	Outputs Contents of a Certificate (Output results of openssl x509 -text -noout -in).
Restart	string	Restart Outputs if a restart is required as the result of this API. ISM-VA: Restart is required for the ISM-VA It shows that the result of this API will be enabled after restarting.

[Precautions]

- Can only be executed by a user holding Administrator role and belonging to Administrator group.
- This API executes the ismadm command below.
 - Deployment of SSL server certificates: ismadm sslcert set
- To execute this API, it is required to retrieve VA operation privilege in advance.

4.17.29 Output of SSL Server Certificates

[Overview]

Outputs the SSL server certificate.

[Format]

```
POST /ismva/settings/sslcert/export
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
Directory	string	Specifies a Destination Directory.

[Response Parameter]

Parameter	Type	Description
Path	string	Output File Outputs a path of output file.
Restart	string	Restart Outputs if a restart is required as the result of this API. ISM-VA: Restart is required for the ISM-VA It shows that the result of this API will be enabled after restarting.

[Precautions]

- Can only be executed by a user holding an Administrator role and belonging to the Administrator group.

- This API executes the ismadm command below.
- Export of SSL server certificates: ismadm sslcert export

4.17.30 Displaying Information on ISM-VA Internal DHCP server

[Overview]

Displays the information on ISM-VA internal DHCP servers.

[Format]

```
GET /ismva/settings/dhcp
```

[Query Parameter]

Parameter	Type	Description
OutputMode	string	Output Mode Specifies an output mode. <ul style="list-style-type: none"> - Conf: Output a Conf file. - Log: Output Operation Log. In this case, Line parameters can be specified at the same time. <ul style="list-style-type: none"> - DHCPMode: Specify DHCP server operation mode. - All: Output all.
Line	integer	Specifies the Number of Lines of Output. When unspecified, it will output 20 lines.

[Response Parameter]

Parameter	Type	Description
DHCP	object	DHCP Information
DHCPMode	string	Operation Mode It displays operation mode of DHCP. <ul style="list-style-type: none"> - local: Use ISM internal DHCP Server - remote: Uses external DHCP Server
DHCPConf	string	Content of Conf File
DHCPLog	string	Contents of Operation Log

[Precautions]

- Can only be executed by a user holding Administrator role and belonging to Administrator group.
- This API executes the ismadm command below.
 - Display of the contents of the currently set DHCP server: ismadm dhcpsrv show-conf
 - Display of the DHCP server message: ismadm dhcpsrv show-msg [-line]

4.17.31 Setting up ISM-VA Internal DHCP Server

[Overview]

Sets up an ISM-VA internal DHCP server.

[Format]

```
PATCH /ismva/settings/dhcp
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
DHCP		object	DHCP Information
	DHCPMode	string	Operation Mode Specifies operation modes of DHCP. <ul style="list-style-type: none">- local: Use ISM internal DHCP Server- remote: Uses external DHCP Server
	DHCPConf	string	File Path of Conf File Setting up is required when operation mode is set as remote.
	DHCPLog	string	Contents of Operation Log
	Setting	object	Content of DHCP Simple Setting Setting up is required when operation mode is set as local.
	Subnet	string	Specifies an Address of Sub-net Address
	Netmask	string	Specifies Subnet Mask
	Start	string	Specifies a Lease Starting Address
	End	string	Specifies a Lease Ending Address
	Broadcast	string	Specifies a Broadcast Address
	Dns	string	Specifies IP Address of DNS Server
	GateWay	string	Specifies an Address of a Gateway

[Response Parameter]

Parameter		Type	Description
DHCP		object	DHCP Information
	DHCPMode	string	Operation Mode Operation mode of DHCP is displayed. <ul style="list-style-type: none">- local: Uses ISM internal DHCP Server- remote: Uses external DHCP Server
	DHCPConf	string	Content of Conf File
	DHCPLog	string	Contents of the Operation Log
	Setting	object	Content of DHCP Simple Setting
	Subnet	string	Sub-net Address
	Netmask	string	Netmask

Parameter			Type	Description
		Start	string	Lease Starting Address
		End	string	Lease Ending Address
		Broadcast	string	Broadcast Address
		Dns	string	Address of DNS Server
		GateWay	string	Address of a Gateway
Restart			string	Restart Outputs if a restart is required as the result of this API. null: No restarting required

[Precautions]

- Can only be executed by a user holding an Administrator role and belonging to the Administrator group.
- This API executes the ismadm commands below.
 - Setting of ISM-VA internal DHCP Server: ismadm dhcpsrv set-simple, ismadm dhcpsrv set-file
 - Switch of DHCP server: ismadm dhcpsrv show-mode
- To execute this API, it is required to retrieve VA operation privilege in advance.

4.17.32 Exporting Setting Files for ISM-VA Internal DHCP

[Overview]

Exports a DHCP setting file under use.

[Format]

```
POST /ismva/settings/dhcp/export
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
Directory	string	Specify an Output Destination Directory.
ExportMode	string	Export Mode Specify the export mode. <ul style="list-style-type: none"> - Conf: DHCP setting file in use - Sample: DHCP setting file of a sample

[Response Parameter]

Parameter	Type	Description
Path	string	Output File Path Outputs a path of the output file. <ul style="list-style-type: none"> - When the ExportMode is Conf /Directory of Request Parameters/dhcpd.conf

Parameter	Type	Description
		- When the ExportMode is Sample /Directory of Request Parameters/dhcpd.conf.sample
Restart	string	Restart Outputs if a restart is required as the result of this API. null: No restarting required

[Precautions]

- Can only be executed by a user holding Administrator role and belonging to Administrator group.
- This API executes the ismadm commands below.
 - Export of the current setting contents (conf file) to the location where ftp access is possible: ismadm dhcprsv export-conf -dir
 - Export a sample setting content (conf file) to the location where ftp access is possible: ismadm dhcprsv export-sample -dir

4.17.33 Initializing Domain Settings

[Overview]

Initializes settings of a domain.

[Format]

```
POST /ismva/settings/kerberos/init
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

Parameter	Type	Description
Restart	string	Restart Outputs if a restart is required as the result of this API. ISM-VA: Restart is required for the ISM-VA It shows that the result of this API will be enabled after restarting.

[Precautions]

- Can only be executed by a user holding an Administrator role and belonging to the Administrator group.
- This API executes the ismadm command below.
 - Initialization of the domain setting information: ismadm kerberos init
- To execute this API, it is required to retrieve VA operation privilege in advance.

4.17.34 Adding Domain Settings

[Overview]

Adds settings of a domain.

[Format]

```
POST /ismva/settings/kerberos
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
Domain		object	Domain Information
	DomainName	string	Specifies the name of a domain.
	Realm	string	Specifies a realm name.
	ControllerName	string	Specifies a domain control server.

[Response Parameter]

Parameter		Type	Description
Domain		object	Domain Information
	DomainName	string	Name of a Domain
	Realm	string	Realm Name
	ControllerName	string	Domain Control Server
Restart		string	Restart Outputs if a restart is required as the result of this API. ISM-VA: Restart is required for the ISM-VA It shows that the result of this API will be enabled after restarting.

[Precautions]

- Can only be executed by a user holding Administrator role and belonging to Administrator group.
- This API executes the ismadm command below.
 - Addition of the domain setting information: ismadm kerberos add
- To execute this API, it is required to retrieve VA operation privilege in advance.

4.17.35 Going Back to Previous Domain Setting

[Overview]

Goes back to the previous domain setting.

[Format]

```
POST /ismva/settings/kerberos/restore
```


[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

Parameter	Type	Description
Restart	string	Restart Outputs if a restart is required as the result of this API. ISM-VA: Restart is required for the ISM-VA It shows that the result of this API will be enabled after restarting.

[Precautions]

- Can only be executed by a user holding an Administrator role and belonging to the Administrator group.
- This API executes the ismadm command below.
 - Reverting to the previous domain setting information: ismadm kerberos restore
- To execute this API, it is required to retrieve VA operation privilege in advance.

4.17.36 Displaying Domain Settings

[Overview]

Displays the settings of a domain.

[Format]

```
GET /ismva/settings/kerberos
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
Domain		object	Domain Information
	Logging	object	Logging Information
	Default	string	Default
	Kdc	string	kdc
	AdminServer	string	admins_server
	Comment	string	Comment Information
	Libdefaults	object	Default Value Information
	Dns_lookup_realm	string	dns_lookup_realm
	Ticket_lifetime	string	ticket_lifetime
	Renew_lifetime	string	renew_lifetime

Parameter			Type	Description
		Forwardable	string	forwardable
		Rdns	string	rdns
		Default_ccache_name	string	default_ccache_name
		Default_realm	string	default_realm
		Comment	string	Comment Information
	Realms		object	Realms Information
		Realm	string	realm
		Kdc	string	kdc
		AdminServer	string	admin_server
		Comment	string	Comment Information
	DomainRealm		array(string)	
	Output		string	Output Result of Command

[Precautions]

- Can only be executed by a user holding an Administrator role and belonging to the Administrator group.
- This API executes the ismadm command below.
 - Display of the domain setting information: ismadm kerberos show

4.17.37 Restarting ISM-VA

[Overview]

Restarts ISM-VA.

[Format]

```
POST /ismva/power/restart
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

None

[Precautions]

- The following are the precautions for restarting ISM-VA.
 - After logging out internally from a session that has been logged in, it restarts ISM-VA.
 - In order to return this API, it will restart ISM-VA a few seconds after the response.
 - Login cannot be executed automatically after a restart.
- This API executes the ismadm command below.
 - Restart of ISM-VA: ismadm power restart

- To execute this API, it is required to retrieve VA operation privilege in advance.

4.17.38 Stopping ISM-VA

[Overview]

Stops ISM-VA.

[Format]

```
POST /ismva/power/stop
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

None

[Precautions]

- After internal logging out a session that has been logged in, it stops ISM-VA.
- In order to return this API, it will stop ISM-VA a few seconds after the response.
- This API executes the ismadm command below.
 - Stop of ISM-VA: ismadm power stop
- To execute this API, it is required to retrieve VA operation privilege in advance.

4.17.39 Displaying Service Status

[Overview]

Displays the status of an ISM service in ISM-VA.

[Format]

```
GET /ismva/settings/service
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
ServiceList		string	Service List
	UnitFile	string	Service Name Outputs the following. ism.service
	Active	string	Execution status During running of the service, outputs the following.

Parameter		Type	Description
			active (running) since Time and Date of start Time and Date of start is output in the following form. Day of the week YYYY-MM-DD hh:mm:ss Timezone; elapsed time E.g.) Thu 2017-10-26 19:06:14 JST; 24h ago

4.17.40 Retrieving ISM Version Number

[Overview]

Retrieves information on the ISM version number.

[Format]

```
GET /system/ismva/version
```

[Query Parameter]

None

[Response Parameter]

Parameter	Type	Description
IsmVersion	string	ISM Version Number Information

4.18 Common Information

4.18.1 List Retrieval for FTP Files

[Overview]

Retrieves all files that stored in the FTP site of the ISM managed by the user group that the users belong to.

[Format]

```
GET /system/settings/ftp/filelist
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
Directory		array	File Information
	Path	string	Path it belongs to
	Name	string	File Name or Directory Name
	Type	string	Type <ul style="list-style-type: none"> - File: File - Folder: Directory
	Size	integer	Size

Parameter		Type	Description
	Timestamp	string	Update Time and Date
	UserId	integer	Owner User ID User ID of ISM-VA.
	GroupId	integer	Owner Group ID Group ID of ISM-VA.
	Permission	string	Access Privilege E.g.) "rwxr--r--"

4.18.2 Registration of Cloud Management Software

[Overview]

Registers a cloud management software.

[Format]

```
POST /system/settings/cms
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
CmsInfo		object	Information of a cloud management software
	UserGroupId	string	User group ID for managing of the cloud management software
	CmsName	string	Name of the cloud management software for managing Designate a Unique Name in the ISM.
	CmsType	string	Type of the cloud management software <ul style="list-style-type: none"> - vCenter: VMware vCenter Server - MicrosoftFailoverCluster: Microsoft Failover Cluster - SystemCenter: Microsoft System Center Virtual Machine Manager - KVM RedHat: KVM running on Red Hat Enterprise Linux - KVM SUSELinuxEnterprise: KVM running on SUSE Linux Enterprise Server - IPCOM OS: IPCOM OS - OpenStack: OpenStack
	CmsVersion	string	Version Number of the cloud management software <ul style="list-style-type: none"> - vCenter: 5.5/ 6.0/ 6.5/ 6.7 - MicrosoftFailoverCluster: 2012/ 2012R2/ 2016/ 2019 (ISM 2.3.0.b or later) - SystemCenter: 2012/ 2012R2/ 2016

Parameter	Type	Description
		<ul style="list-style-type: none"> - KVM RedHat: 6.0/ 6.1/ 6.2/ 6.3/ 6.4/ 6.5/ 6.6/ 6.7/ 6.8/ 6.9/ 6.10 (ISM 2.3.0.b or later)/ 7.0/ 7.1/ 7.2/ 7.3/ 7.4/ 7.5 - KVM SUSELinuxEnterprise: 11/ 11SP1/ 11SP2/ 11SP3/ 11SP4/ 12/ 12SP1/ 12SP2/ 12SP3/ 15 (ISM 2.3.0.b or later) - IPCOM OS: 1.x - OpenStack: Ocata/ Pike/ Queens
IpAddress	string	IP Address of the cloud management software
IpVersion	string	IP Version of IP Address <ul style="list-style-type: none"> - V4: IPv4 - V6: IPv6
PortNum	integer	Port Number used Specify the port number or null. When null specified, sets the standard port number for the protocol. Connecting protocols for respective cloud management software are as follows: <ul style="list-style-type: none"> - vCenter: CIM (No. 443) - MicrosoftFailoverCluster, SystemCenter: WinRM (No. 5986) - KVM RedHat, KVM SUSELinuxEnterprise, IPCOM OS: SSH (No. 22) - OpenStack: HTTPS (Port number for OpenStack connection port, number 5001)
DomainName	string	Domain Name The following are the domain names set for the cloud management software type. <ul style="list-style-type: none"> - vCenter, MicrosoftFailoverCluster, SystemCenter, KVM RedHat, KVM SUSELinuxEnterprise, IPCOM OS: Windows domain name - OpenStack: OpenStack domain name For Windows domain name, specify a name of FQDN for a realm. Example: ISMDOMAIN.LOCAL For MicrosoftFailoverCluster and SystemCenter, this is required to set. For OpenStack, if null is specified "Default" (character string) is set.
AccountName	string	Account Name Specify a account name excluding a realm. Example: ismadmin
Password	string	Password Encrypt the password with a method described in "2.4 Encryption."

Parameter		Type	Description
	Url	string	WebURL Can register access URL to WebUI and others.
	VCenter	object	Additional Information for vCenter Presently it is not supported.
	Scvmm	object	Additional Information for SCVMM Presently it is not supported.
	OpenStack	object	Additional Information for OpenStack Presently it is not supported.

[Response Parameter]

Parameter		Type	Description
CmsInfo		object	Information of a cloud management software
	CmsId	integer	ID of the cloud management software
	UserGroupId	string	User Group ID for managing of the cloud management software
	CmsName	string	Name of the cloud management software for managing
	CmsType	string	Type of the cloud management software <ul style="list-style-type: none"> - vCenter: VMware vCenter Server - MicrosoftFailoverCluster: Microsoft Failover Cluster - SystemCenter: Microsoft System Center Virtual Machine Manager - KVM RedHat: KVM running on Red Hat Enterprise Linux - KVM SUSELinuxEnterprise: KVM running on SUSE Linux Enterprise Server - IPCOM OS: IPCOM OS - OpenStack: OpenStack
	CmsVersion	string	Version Number of the cloud management software
	IpAddress	string	IP Address of the cloud management software
	IpVersion	string	IP Version of IP Address <ul style="list-style-type: none"> - V4: IPv4 - V6: IPv6
	PortNum	integer	Port Number used
	DomainName	string	Domain Name
	AccountName	string	Account Name
	Url	string	WebURL
	VCenter	object	Additional Information for vCenter Presently it is not supported.
	Scvmm	object	Additional Information for SCVMM Presently it is not supported.

Parameter		Type	Description
	MicrosoftFailoverCluster	object	Additional Information for Microsoft Failover Cluster
	SystemCenterId	integer	ID of the cloud management software for SystemCenter If Microsoft Failover Cluster is managed by the SystemCenter, cloud management software ID of the SystemCenter is set up. Cannot retrieve information from Microsoft Failover Cluster that is managed by SystemCenter. Retrieve information from SystemCenter.
	OpenStack	object	Additional Information for OpenStack Presently it is not supported.
	Timestamp	string	Last Updated Time
	RefreshDate	string	The Last Retrieval Time of the information on the cloud management software

[Precautions]

- The name of a cloud management software starting with under bar "_" cannot be used as it is used with ISM. After registration of the cloud management software, execute an instruction of retrieving virtual information.

4.18.3 List Retrieval for Cloud Management Softwares

[Overview]

Retrieves information of all cloud management software under managed by the user group that the users belong to.

[Format]

```
GET /system/settings/cms
```

[Query Parameter]

Parameter	Type	Description
usergroupid	string	Narrowing down by User Group ID

[Response Parameter]

Parameter		Type	Description
CmsInfoList		array	Information of a cloud management software
	CmsId	integer	ID of the cloud management software
	UserGroupId	string	User group ID for managing of the cloud management software
	CmsName	string	Name of the cloud management software for managing
	CmsType	string	Type of the cloud management software - vCenter: VMware vCenter Server - MicrosoftFailoverCluster: Microsoft Failover Cluster - SystemCenter: Microsoft System Center Virtual Machine Manager - KVM RedHat: KVM running on Red Hat Enterprise Linux

Parameter		Type	Description
			<ul style="list-style-type: none"> - KVM SUSELinuxEnterprise: KVM running on SUSE Linux Enterprise Server - IPCOM OS: IPCOM OS - OpenStack: OpenStack
	CmsVersion	string	Version Number of the cloud management software
	IpAddress	string	IP Address of the cloud management software
	IpVersion	string	IP Version of IP address <ul style="list-style-type: none"> - V4: IPv4 - V6: IPv6
	PortNum	integer	Port Number used
	DomainName	string	Domain Name
	AccountName	string	Account Name
	Url	string	WebURL
	VCenter	object	Additional Information for vCenter Presently it is not supported.
	Scvmm	object	Additional Information for SCVMM Presently it is not supported.
	MicrosoftFailoverCluster	object	Additional Information for Microsoft Failover Cluster
	SystemCenterId	integer	ID of the cloud management software for SystemCenter If Microsoft Failover Cluster is managed by the SystemCenter, the cloud management software ID of the SystemCenter is set up. Cannot retrieve information from Microsoft Failover Cluster that is managed by SystemCenter. Retrieve information from SystemCenter.
	OpenStack	object	Additional Information for OpenStack Presently it is not supported.
	Timestamp	string	Last Updated Time
	RefreshDate	string	The Last Acquisition Time of the information on the cloud management software

4.18.4 Individual Retrieval of Cloud Management Software

[Overview]

Retrieves the specified cloud management software.

[Format]

```
GET /system/settings/cms/{cmsid}
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
CmsInfo		object	Information of a cloud management software
	CmsId	integer	ID of the cloud management software
	UserGroupId	string	User group ID for managing of the cloud management software
	CmsName	string	Name of the cloud management software for managing
	CmsType	string	Type of the cloud management software <ul style="list-style-type: none"> - vCenter: VMware vCenter Server - MicrosoftFailoverCluster: Microsoft Failover Cluster - SystemCenter: Microsoft System Center Virtual Machine Manager - KVM RedHat: KVM running on Red Hat Enterprise Linux - KVM SUSELinuxEnterprise: KVM running on SUSE Linux Enterprise Server - IPCOM OS: IPCOM OS - OpenStack: OpenStack
	CmsVersion	string	Version Number of the cloud management software
	IpAddress	string	IP Address of the cloud management software
	IpVersion	string	IP Version of IP address <ul style="list-style-type: none"> - V4: IPv4 - V6: IPv6
	PortNum	integer	Port Number used
	DomainName	string	Domain Name
	AccountName	string	Account Name
	Url	string	WebURL
	VCenter	object	Additional Information for vCenter Presently it is not supported.
	Scvmm	object	Additional Information for SCVMM Presently it is not supported.
	MicrosoftFailoverCluster	object	Additional Information for Microsoft Failover Cluster
	SystemCenterId	integer	ID of the cloud management software for SystemCenter If Microsoft Failover Cluster is managed by the SystemCenter, the cloud management software ID of the SystemCenter is set up. Cannot retrieve information from Microsoft Failover Cluster that is managed by SystemCenter. Retrieve information from SystemCenter.
	OpenStack	object	Additional Information for OpenStack Presently it is not supported.
	Timestamp	string	Last Updated Time

Parameter	Type	Description
RefreshDate	string	The Last Acquisition Time of the information on the cloud management software

4.18.5 Updating of Cloud Management Software

[Overview]

Updates the information of the specified cloud management software.

[Format]

```
PATCH /system/settings/cms/{cmsid}
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
CmsInfo	object	Information of a cloud management software
UserGroupId	string	User Group ID for managing of the cloud management software
CmsName	string	Name of the cloud management software for managing Designate a unique name in the ISM.
IpAddress	string	IP Address of the cloud management software
IpVersion	string	IP Version of IP address - V4: IPv4 - V6: IPv6
PortNum	integer	Port Number used Specify the port number or null. When null specified, sets the standard port number for the protocol. Connecting protocols for respective cloud management software are as follows: - vCenter: CIM (No. 443) - MicrosoftFailoverCluster, SystemCenter: WinRM (No. 5986) - KVM RedHat, KVM SUSELinuxEnterprise, IPCOM OS: SSH (No. 22) - OpenStack: HTTPS (Port number for OpenStack connection port, number 5001)
DomainName	string	Domain Name The following are the domain names set for the cloud management software type. - vCenter, MicrosoftFailoverCluster, SystemCenter, KVM RedHat, KVM SUSELinuxEnterprise, IPCOM OS: Windows domain name

Parameter	Type	Description
		<ul style="list-style-type: none"> - OpenStack: OpenStack domain name <p>For Windows domain name, specify a name of FQDN for a realm.</p> <p>Example: ISMDOMAIN.LOCAL</p> <p>For MicrosoftFailoverCluster and SystemCenter, this is required to set.</p> <p>For OpenStack, if null is specified "Default" (character string) is set.</p>
AccountName	string	<p>Account Name</p> <p>Specify an account name excluding a realm.</p> <p>Example: ismadmin</p>
Password	string	<p>Password</p> <p>Encrypt the password with a method described in "2.4 Encryption."</p>
Url	string	<p>WebURL</p> <p>Can register access URL to WebUI and others.</p>
VCenter	object	<p>Additional Information for vCenter</p> <p>Presently it is not supported.</p>
Scvmm	object	<p>Additional Information for SCVMM</p> <p>Presently it is not supported.</p>
OpenStack	object	<p>Additional Information for OpenStack</p> <p>Presently it is not supported.</p>

[Response Parameter]

Parameter	Type	Description
CmsInfo	object	Information of a cloud management software
CmsId	integer	ID of the cloud management software
UserGroupId	string	User Group ID for managing of the cloud management software
CmsName	string	Name of the cloud management software for managing
CmsType	string	<p>Type of the cloud management software</p> <ul style="list-style-type: none"> - vCenter: VMware vCenter Server - MicrosoftFailoverCluster: Microsoft Failover Cluster - SystemCenter: Microsoft System Center Virtual Machine Manager - KVM RedHat: KVM running on Red Hat Enterprise Linux - KVM SUSELinuxEnterprise: KVM running on SUSE Linux Enterprise Server - IPCOM OS: IPCOM OS - OpenStack: OpenStack
CmsVersion	string	Version Number of the cloud management software

Parameter		Type	Description
	IpAddress	string	IP Address of the cloud management software
	IpVersion	string	IP Version of IP address - V4: IPv4 - V6: IPv6
	PortNum	integer	Port Number used
	DomainName	string	Domain Name
	AccountName	string	Account Name
	Url	string	WebURL
	VCenter	object	Additional Information for vCenter Presently it is not supported.
	Scvmm	object	Additional Information for SCVMM Presently it is not supported.
	MicrosoftFailoverCluster	object	Additional Information for Microsoft Failover Cluster
	SystemCenterId	integer	ID of the cloud management software for SystemCenter If Microsoft Failover Cluster is managed by the SystemCenter, the cloud management software ID of the SystemCenter is set up. Cannot retrieve information from Microsoft Failover Cluster that is managed by SystemCenter. Retrieve information from SystemCenter.
	OpenStack	object	Additional Information for OpenStack Presently it is not supported.
	Timestamp	string	Last Updated Time
	RefreshDate	string	The last acquisition time of the information on the cloud management software

[Precautions]

- The name of a cloud management software starting with under bar "_" cannot be used as it is used with ISM. After updating of cloud management software, execute an instruction of acquiring virtual information.

4.18.6 Deletion of Cloud Management Software

[Overview]

Deletes the information of the specified cloud management software.

[Format]

```
DELETE /system/settings/cms/{cmsid}
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

None

4.18.7 Pool Settings

[Overview]

Sets the pool information managed in the ISM.

[Format]

```
PATCH /pools
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
Pool		object	Pool Information
	PoolType	string	Type of Pool <ul style="list-style-type: none">- MacAddress: Virtual MAC Address- Wwn: Virtual WWN
	ValueRangeList	array	Range of Values to pool Specify all information of the range of the specified pool type. Overwrites information of the pool type with the specified values. Cannot specify to duplicate ranges. When there are values already dispensed and the dispensed values are beyond a range of pool, it will be an error.
	BeginValue	string	Start Value of Range Specify in correct format for the respective types of pools <ul style="list-style-type: none">- MacAddress: xx-xx-xx-xx-xx-xx (X is 0-9a-f, Capital or lower case, delimited by "-" or ":")- Wwn: XX:XX:XX:XX:XX:XX:XX:XX (X is 0-9A-F, Capital or lower case, delimited by "-" or ":")
	EndValue	string	End Value of Range Specify in correct format for the respective types of pools <ul style="list-style-type: none">- MacAddress: xx-xx-xx-xx-xx-xx (X is 0-9a-f, Capital or lower case, delimited by "-" or ":")- Wwn: XX:XX:XX:XX:XX:XX:XX:XX (X is 0-9A-F, Capital or lower case, delimited by "-" or ":")
	UserGroupId	string	User Group ID available for the pool range It turns to a range usable for all users unless specified.

[Response Parameter]

Parameter		Type	Description
Pool		object	Pool Information
	PoolType	string	Pool Type - MacAddress: Virtual MAC Address - Wwn: Virtual WWN
	ValueRangeList	array	Range of Values to pool
	BeginValue	string	Start Value of Range - MacAddress: xx-xx-xx-xx-xx-xx (X is 0-9a-f, lower case, delimited by "-") - Wwn: XX:XX:XX:XX:XX:XX:XX:XX (X is 0-9A-F, Capital, delimited by ":")
	EndValue	string	End Value of Range - MacAddress: xx-xx-xx-xx-xx-xx (X is 0-9a-f, lower case, delimited by "-") - Wwn: XX:XX:XX:XX:XX:XX:XX:XX (X is 0-9A-F, Capital, delimited by ":")
	UserGroupId	string	User Group ID available for the pool range It turns to a range usable for all users unless specified.

[Precautions]

- Can only be executed by ISM administrators.
- It turns to error when the pool range is specified as follows:
 - When ranges of pools overlap
 - When there are values already dispensed and the dispensed values are beyond a range of pool

4.18.8 Retrieval of Pool Information

[Overview]

Retrieves information of all pools managed by the user group that the users belong to.

[Format]

```
GET /pools
```

[Query Parameter]

Parameter	Type	Description
pooltype	string	Narrowing down by Pool Type - MacAddress: Virtual MAC Address - Wwn: Virtual WWN
assigned	string	Enable/Disable List output of assigned values It is recommended to use it by combining with pooltype as the assigned pool may get larger content of information. - No specification: Do not display

Parameter	Type	Description
		- Output: Display

[Response Parameter]

Parameter		Type	Description
PoolList		array	Pool Information
	PoolType	string	Type of Pool - MacAddress: Virtual MAC Address - Wwn: Virtual WWN
	ValueRangeList	array	Range of Values to pool
	BeginValue	string	Start Value of Range - MacAddress: xx-xx-xx-xx-xx-xx (x is 0-9a-f, lower case, delimited by "-") - Wwn: XX:XX:XX:XX:XX:XX:XX:XX (X is 0-9A-F, Capital, delimited by ":")
	EndValue	string	End Value of Range - MacAddress: xx-xx-xx-xx-xx-xx (X is 0-9a-f, lower case, delimited by "-") - Wwn: XX:XX:XX:XX:XX:XX:XX:XX (X is 0-9A-F, Capital, delimited by ":")
	UserGroupId	string	User Group ID available for the pool range It turns to a range usable for all users unless specified.
	ValueLeftNumber	integer	The Number of Pool Values available Displays the number of pool values that are not discharged yet.
	AssignedList	array(string)	Assigned Value Only displayed when "Output" is specified for "assigned" of the query parameter.

4.18.9 Allocating Values from Pools

[Overview]

Allocates values from the pool information managed by the user group that the users belong to.

[Format]

```
POST /pools/assign
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
Pool		object	Pool Information
	PoolType	string	Type of Pool

Parameter		Type	Description
			<ul style="list-style-type: none"> - MacAddress: Virtual MAC Address - Wwn: Virtual WWN
	UserGroupId	string	<p>User Group that demands assignment</p> <p>Dispense values in the range available for user groups as specified.</p> <p>A range of values under management of a user group will be prioritized. When there is no available value to dispense from the value range managed by a user group, it is dispensed from a range that all users can use. Becomes an error when there is no value to assign.</p>
	AssignMode	string	<p>Mode to assign</p> <p>Unless specified, it operates by Automatic.</p> <ul style="list-style-type: none"> - Automatic: A free value is allocated automatically. - Manual: Specifies a value to assign. It turns to error unless it is a value within a range that a user can use.
	Value	string	<p>Value to assign</p> <p>Specify when AssignMode is Manual.</p> <p>Specify in correct format for the respective types of pools</p> <ul style="list-style-type: none"> - MacAddress: xx-xx-xx-xx-xx-xx (X is 0-9a-f, Capital or lower case, delimited by "-" or ":") - Wwn: XX:XX:XX:XX:XX:XX:XX:XX (X is 0-9A-F, Capital or lower case, delimited by "-" or ":")

[Response Parameter]

Parameter		Type	Description
Pool		object	Pool Information
	PoolType	string	<p>Type of Pool</p> <ul style="list-style-type: none"> - MacAddress: Virtual MAC Address - Wwn: Virtual WWN
	Value	string	<p>Assigned Value</p> <ul style="list-style-type: none"> - MacAddress: xx-xx-xx-xx-xx-xx (X is 0-9a-f, lower case, delimited by "-") - Wwn: XX:XX:XX:XX:XX:XX:XX:XX (X is 0-9A-F, Capital, delimited by ":")

4.18.10 Release of Assigned Values

[Overview]

Releases assigned values managed by the user group that the users belong to.

[Format]

```
POST /pools/unassign
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
Pool		object	Pool Information
	PoolType	string	Type of Pool <ul style="list-style-type: none">- MacAddress: Virtual MAC Address- Wwn: Virtual WWN
	Value	string	Value to release <ul style="list-style-type: none">- MacAddress: xx-xx-xx-xx-xx-xx (X is 0-9a-f, lower case, delimited by "-")- Wwn: XX:XX:XX:XX:XX:XX:XX:XX (X is 0-9A-F, Capital, delimited by ":")

[Response Parameter]

None

4.18.11 Adding Shared Directories

[Overview]

Adds shared directories.

[Format]

```
POST /system/settings/shareddirectory/{usergroupid}
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
SharedDirectoryList		array	Shared Directory Information List Specifies a shared directory information. The maximum value is 5.
	SharedDirectoryHostName	string	Host Name Specifies IP address (or Host Name).
	SharedDirectoryDomainName	string	Domain Name
	SharedDirectoryAccountSetting	object	Account Information
	Account	string	Account Name Specifies the Account Name (User Name).
	Password	string	Password Specifies a password of an account name by encrypting. Refer to " 2.4 Encryption " for encryption method.

Parameter			Type	Description
				In addition, specify an encrypted character string whose decrypted result is 256 characters or less.
	SharedDirectoryPath		string	Shared Directory Path Specifies a shared directory path.
	SharedDirectoryType		string	Shared Directory Type Specifies a type of shared directories. <ul style="list-style-type: none"> - NFS: Mount NFS - SMB: Mount SMB/CIFS

[Response Parameter]

Parameter			Type	Description
SharedDirectoryList			array	Shared Directory Information List Notifies a shared directory information. The maximum value is 5.
	MountId		string	Mount ID Notifies a mount ID. Notifies null when the result is NG.
	SharedDirectoryHostName		string	Host Name Notifies IP address (or Host Name).
	SharedDirectoryDomainName		string	Domain Name
	SharedDirectoryAccountSetting		object	Account Information
		Account	string	Account Name Notifies the Account Name (User Name).
		Password	string	Password Notifies a password of the account name.
	SharedDirectoryPath		string	Shared Directory Path Informs a shared directory path.
	SharedDirectoryType		string	Shared Directory Type Notifies types of shared directories. <ul style="list-style-type: none"> - NFS: Mount NFS - SMB: Mount SMB/CIFS
	Modified		string	Update Time and Date Notifies a time stamp of the update time and date.
	Result		string	Results Notifies results added. Notifies the following. <ul style="list-style-type: none"> - OK: Success - NG: Failed - -: Not yet processed
	Message		object	Message

Parameter		Type	Description
			Notifies error message when the result is NG.
	MessageId	string	Message ID
	Message	string	Text of Message

[Precautions]

- Can only be executed by a user holding an Administrator role.
- There are two kinds of errors of this API as shown below:
 - When API itself becomes an error
The API Response is error.
 - is set in the Result parameter.
 - When one of the elements specified results in an error
An API Response is normal.
NG is set in the Result parameter.
- Mount ID are as shown below:
 - Each user group is created by the following rules:
User group ID with number of +1-n (n: maximum number of mounting enabled for each user group)
Due to above mentioned reason, by repeating addition and deletion, it may result in the same number.
- The number of registrations is as shown below:
 - Up to 5 IDs can be registered for each user group at a maximum.
 - If you try to register a 6th ID, it will result in an error.
- Details of domain assignment is as shown below:
Specify when Samba server had jointed in Kerberos domain.

4.18.12 List Retrieval for Shared Directories

[Overview]

Retrieves a list of shared directories.

[Format]

```
GET /system/settings/shareddirectory
```

[Query Parameter]

Parameter	Type	Description
UserGroupId	string	User Group ID If no specified, displays everything within a range of the executing user's user group.

[Response Parameter]

Parameter	Type	Description
UserGroupList	array	List of User Group Information

Parameter		Type	Description
	UserGroupId	string	User Group ID
	SharedDirectory	object	Shared Directory Information List Notifies a shared directory information. The maximum value is 5.
	MountId	string	Mount ID Notifies a mount ID. Notifies null when the result is NG.
	SharedDirectoryHostName	string	Host Name IP address (or Host Name) is notified.
	SharedDirectoryDomainName	string	Domain Name
	SharedDirectoryPath	string	Shared Directory Path Informs a shared directory path.
	SharedDirectoryType	string	Shared Directory Type Notifies types of shared directories. - NFS: Mount NFS - SMB: Mount SMB/CIFS
	SharedDirectoryStatus	string	Mount Status Notifies Status of a node. - Mount: Being mounted - Unmount: Not mounted.
	SharedDirectoryMountOn	string	Mounting position. When being mounted, it notifies its mounting position as follows: /User Group/- When not being mounted, it notifies null.

[Precautions]

- Users holding Administrator or Operator privilege can execute this API.

4.18.13 Individual Retrieval of Shared Directory

[Overview]

Retrieves detailed information of a shared directory.

[Format]

```
GET /system/settings/shareddirectory/{mountid}
```

[Query Parameter]

None

[Response Parameter]

Parameter		Type	Description
UserGroup		object	List of User Group Information
	UserGroupId	string	User Group ID
	SharedDirectoryList	object	Shared Directory Information List Notifies a shared directory information. The maximum value is 5.
	MountId	string	Mount ID Notifies a mount ID. Notifies null when the result is NG.
	SharedDirectoryHostName	string	Host Name Notifies IP address (or Host Name).
	SharedDirectoryDomainName	string	Domain Name
	SharedDirectoryAccountSetting	object	Account Information
	Account	string	Account Name Notifies the Account Name (User Name).
	Password	string	Password Notifies a password of the account name.
	SharedDirectoryPath	string	Shared Directory Path Informs a shared directory path.
	SharedDirectoryType	string	Shared Directory Type Notifies types of shared directories. - NFS: Mount NFS - SMB: Mount SMB/CIFS
	Modified	string	Update Time and Date Notifies a time stamp of the update time and date.
	SharedDirectoryStatus	string	Mount Status Notifies Status of a node. - Mount: Being mounted - Unmount: Not mounted.
	SharedDirectoryMountOn	string	Mounting Position. When being mounted, it notifies its mounting position as follows: /User Group/- When not being mounted, it notifies null.
	SharedDirectoryMountCounter	integer	Mounting Frequency When being mounted, it notifies the number of mounting. When not being mounted, it notifies null.
	Mounted	string	Time/Date of Mount Notifies a time stamp of the mounting. When not being mounted, it notifies null.

[Precautions]

- Users holding Administrator or Operator privilege can execute this API.

4.18.14 Updating Shared Directories

[Overview]

Updates shared directories.

[Format]

```
PATCH /system/settings/shareddirectory/{mountid}
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
SharedDirectory		object	Shared Directory Information Specifies a shared directory information. The maximum value is 5.
	SharedDirectoryHostName	string	Host Name Specifies IP address (or Host Name).
	SharedDirectoryDomainName	string	Domain Name
	SharedDirectoryAccountSetting	object	Account Information
	Account	string	Account Name Specifies the Account Name (User Name).
	Password	string	Password Specifies a password of an account name by encrypting. Refer to " 2.4 Encryption " for encryption method. In addition, specify an encrypted character string whose decrypted result is 256 characters or less.
	SharedDirectoryPath	string	Shared Directory Path Specifies a shared directory path.
SharedDirectoryType		string	Shared Directory Type Specifies a type of shared directories. <ul style="list-style-type: none">- NFS: Mount NFS- SMB: Mount SMB/CIFS

[Response Parameter]

Parameter		Type	Description
UserGroup		object	User Group Information
	UserGroupId	string	User Group ID
	SharedDirectory	object	Shared Directory Information

Parameter		Type	Description
			Notifies a shared directory information. The maximum value is 5.
	MountId	string	Mount ID Notifies a mount ID. Notifies null when the result is NG.
	SharedDirectoryHostName	string	Host Name Notifies IP address (or Host Name).
	SharedDirectoryDomainName	string	Domain Name
	SharedDirectoryAccountSetting	object	Account Information
	Account	string	Account Name Notifies the Account Name (User Name).
	Password	string	Password Notifies a password of the account name.
	SharedDirectoryPath	string	Shared Directory Path Informs a shared directory path.
	SharedDirectoryType	string	Shared Directory Type Notifies types of shared directories. - NFS: Mount NFS - SMB: Mount SMB/CIFS
	Modified	string	Update Time and Date Notifies a time stamp of the update time and date.

[Precautions]

- Can only be executed by a user holding an Administrator role.
- Updates only keys as specified. Values of the omitted keys are not changed.
- It becomes an error when specifying null to the key. (As any key element has no default value and cannot be deleted)
- The information of the shared directories of which status is Mount cannot be changed.

4.18.15 Deleting Shared Directories

[Overview]

Deletes shared directories.

[Format]

```
DELETE /system/settings/shareddirectory/{mountid}
```

[Query Parameter]

None

[Request Parameter]

None

[Response Parameter]

None

[Precautions]

- Can only be executed by a user holding an Administrator role.
- The information of the shared directories of which status is Mount cannot be changed.

4.18.16 Mounting Shared Directories

[Overview]

Mounts shared directories.

[Format]

```
POST /system/settings/shareddirectory/mount/{mountid}
```

[Query Parameter]

None

[Request Parameter]

Parameter		Type	Description
SharedDirectory		object	Shared Directory Information Notifies a shared directory information. The maximum value is 5.
	MountOn	string	Mounting Position. Specifies a mounting position. It will be notified appropriately at mounting unless specified. When specifying, specify as follows. /User Group/-

[Response Parameter]

Parameter		Type	Description
SharedDirectory		object	Shared Directory Information Notifies a shared directory information. The maximum value is 5.
	MountId	string	Mount ID Notifies a mount ID. Notifies null when the result is NG.
	MountOn	string	Mounting Position Will be notified of mounting positions as follows <ul style="list-style-type: none">- When a mounting position is not specified /User Group/mount/n (n: 1-5)- When a mounting position is specified Will be notified of the specified mounting position.

Parameter		Type	Description
	Mounted	string	Time/Date of Mount Notifies a time stamp of the mounting.

[Precautions]

- Can be executed with a user holding an Administrator or an Operator privilege.
- Privilege of mounted directory are as shown below:
 - They will be mounted as read-only.
 - Case of SMB: The same as the directory at the mounting destination
 - Case of NFS: root
- The same and shared directory information cannot be mounted to the different mounting destinations.
- The same and shared directory information can be mounted several times on the same mounting destinations.

4.18.17 Unmounting Shared Directories

[Overview]

Unmounts shared directories.

[Format]

```
POST /system/settings/shareddirectory/umount/{mountid}
```

[Query Parameter]

None

[Request Parameter]

Parameter	Type	Description
UnmountMode	string	Unmount Mode Specifies a mode of unmount. <ul style="list-style-type: none"> - Normal: Executes unmount according to the number of mounts. - Forced: Unmount forcibly. When the key is omitted, it assumes Normal is specified.

[Response Parameter]

None

[Precautions]

- Users holding Administrator or Operator privilege can execute this API.
- When the same and shared directory information is mounted on the same mounting destinations for several times, it will be unmounted when the frequency of mounting is 0.

Appendix A List of Privileges for Each API

The following table summarizes for each user type (privilege) which API they can execute.

The following is a breakdown of the list items.

Authorized users

This section describes the authorized users in the "Execution privileges of each authorized user" column in the table below.

- ISM administrator

A user who belongs to an Administrator group and holds an Administrator role.

Can manage resources before they are assigned to tenants and make operations for portions (racks and chassis) that are shared by multiple tenants.

- Administrator

A user who holds an Administrator role but does not belong to an Administrator group.

Can control the partitioning of resources (such as user creation) within the user group to which they belong to.

- Operator

A user who belongs to any group (including Administrator) and holds an Operator role.

Can control the resources within the user group to which they belong to.

- Monitor

A user who belongs to any group (including Administrator) and holds a Monitor role.

Can look up the resources within the user group to which they belong to.

Meanings of symbols in table

Y: Can execute

-: Cannot execute

I: Only ISM administrators can execute

API		Execution abilities of each authorized user						Remarks
		Resource operation of entire ISM			Resource operation within own group			
URI	Method	ISM administrator	Operator	Monitor	Administrator	Operator	Monitor	
/datacenters	GET	Y	Y	Y	Y	Y	Y	
/datacenters	POST	I	-	-	-	-	-	
/datacenters/{datacenterid}	DELETE	I	-	-	-	-	-	
/datacenters/{datacenterid}	GET	Y	Y	Y	Y	Y	Y	
/datacenters/{datacenterid}	PATCH	I	-	-	-	-	-	
/event/actions	GET	Y	Y	Y	Y	Y	Y	
/event/actions	POST	Y	Y	-	Y	Y	-	
/event/actions/{actionid}	DELETE	Y	Y	-	Y	Y	-	
/event/actions/{actionid}	PATCH	Y	Y	-	Y	Y	-	
/event/actions/{actionid}/test	POST	Y	Y	-	Y	Y	-	

API		Execution abilities of each authorized user						Remarks
		Resource operation of entire ISM			Resource operation within own group			
URI	Method	ISM administrator	Operator	Monitor	Administrator	Operator	Monitor	
/event/alarms	GET	Y	Y	Y	Y	Y	Y	
/event/alarms	POST	Y	Y	-	Y	Y	-	
/event/alarms/{alarmid}	DELETE	Y	Y	-	Y	Y	-	
/event/alarms/{alarmid}	PATCH	Y	Y	-	Y	Y	-	
/event/alarms/eventlist	GET	Y	Y	Y	Y	Y	Y	
/event/alarms/settings	GET	Y	Y	Y	Y	Y	Y	
/event/alarms/settings	PATCH	Y	Y	-	Y	Y	-	
/event/alarms/traplist	GET	Y	Y	Y	Y	Y	Y	
/event/history	GET	Y	Y	Y	Y	Y	Y	
/event/history/audit/export	POST	I	-	-	-	-	-	If not an ISM administrator, you will be notified of lack of privileges.
/event/history/audit/logs/{logid}	GET	I	Y	Y	Y	Y	Y	For users other than ISM administrators, searches yield 0 results.
/event/history/audit/show	GET	I	Y	Y	Y	Y	Y	For users other than ISM administrators, searches yield 0 results.
/event/history/event/export	POST	Y	Y	Y	Y	Y	Y	
/event/history/event/logs/{logid}	GET	Y	Y	Y	Y	Y	Y	
/event/history/event/show	GET	Y	Y	Y	Y	Y	Y	
/event/history/retentionperiod/settings	GET	Y	Y	Y	Y	Y	Y	
/event/history/retentionperiod/settings	PATCH	I	-	-	-	-	-	
/event/history/trap	GET	Y	Y	Y	Y	Y	Y	
/event/history/trap/ignore	GET	Y	Y	Y	Y	Y	Y	
/event/history/trap/ignore	POST	Y	Y	-	Y	Y	-	
/event/history/trap/ignore/delete	POST	Y	Y	-	Y	Y	-	
/event/snmpmanagers	GET	Y	Y	Y	Y	Y	Y	
/event/snmpmanagers	POST	Y	Y	-	Y	Y	-	
/event/snmpmanagers/{snmpserverid}	DELETE	Y	Y	-	Y	Y	-	
/event/snmpmanagers/{snmpserverid}	PATCH	Y	Y	-	Y	Y	-	

API		Execution abilities of each authorized user						Remarks
		Resource operation of entire ISM			Resource operation within own group			
URI	Method	ISM administrator	Operator	Monitor	Administrator	Operator	Monitor	
/floors	GET	Y	Y	Y	Y	Y	Y	
/floors	POST	I	-	-	-	-	-	
/floors/{floorid}	DELETE	I	-	-	-	-	-	
/floors/{floorid}	GET	Y	Y	Y	Y	Y	Y	
/floors/{floorid}	PATCH	I	-	-	-	-	-	
/ismva/loginstatus	GET	I	-	-	-	-	-	
/ismva/power/restart	POST	I	-	-	-	-	-	
/ismva/power/stop	POST	I	-	-	-	-	-	
/ismva/privilege	POST	I	-	-	-	-	-	
/ismva/privilege/settings	GET	I	-	-	-	-	-	
/ismva/privilege/settings	POST	Y	Y	Y	-	-	-	
/ismva/settings	GET	Y	Y	Y	Y	Y	Y	
/ismva/settings	PATCH	I	-	-	-	-	-	
/ismva/settings/dhcp	GET	I	-	-	-	-	-	
/ismva/settings/dhcp	PATCH	I	-	-	-	-	-	
/ismva/settings/dhcp/export	POST	I	-	-	-	-	-	
/ismva/settings/kerberos	GET	I	-	-	-	-	-	
/ismva/settings/kerberos	POST	I	-	-	-	-	-	
/ismva/settings/kerberos/init	POST	I	-	-	-	-	-	
/ismva/settings/kerberos/restore	POST	I	-	-	-	-	-	
/ismva/settings/locale	GET	Y	Y	Y	Y	Y	Y	
/ismva/settings/locale	PATCH	I	-	-	-	-	-	
/ismva/settings/locale/keymap/list	GET	Y	Y	Y	Y	Y	Y	
/ismva/settings/locale/list	GET	Y	Y	Y	Y	Y	Y	
/ismva/settings/patch/add	POST	I	-	-	-	-	-	
/ismva/settings/plugin	GET	I	-	-	-	-	-	
/ismva/settings/plugin/add	POST	I	-	-	-	-	-	
/ismva/settings/plugin/delete	POST	I	-	-	-	-	-	
/ismva/settings/result	GET	I	-	-	-	-	-	
/ismva/settings/service	GET	I	-	-	-	-	-	
/ismva/settings/sslcert	GET	Y	Y	Y	Y	Y	Y	
/ismva/settings/sslcert	PATCH	I	-	-	-	-	-	

API		Execution abilities of each authorized user						Remarks
		Resource operation of entire ISM			Resource operation within own group			
URI	Method	ISM administrator	Operator	Monitor	Administrator	Operator	Monitor	
/ismva/settings/sslcert/export	POST	I	-	-	-	-	-	
/ismva/settings/time	GET	Y	Y	Y	Y	Y	Y	
/ismva/settings/time	PATCH	I	-	-	-	-	-	
/ismva/settings/timezone	GET	Y	Y	Y	Y	Y	Y	
/ismva/settings/volume	GET	Y	Y	Y	Y	Y	Y	
/ismva/settings/volume	POST	I	-	-	-	-	-	
/ismva/settings/volume/delete	POST	I	-	-	-	-	-	
/ismva/settings/volume/extend	POST	I	-	-	-	-	-	
/ismva/settings/volume/mount	POST	I	-	-	-	-	-	
/ismva/settings/volume/umount	POST	I	-	-	-	-	-	
/ismva/webserverlog/export	POST	I	-	-	-	-	-	
/networks/connections	GET	Y	Y	Y	Y	Y	Y	
/networks/connections	PATCH	I	-	-	-	-	-	
/networks/differences	GET	Y	Y	Y	Y	Y	Y	
/networks/differences	POST	I	-	-	-	-	-	
/networks/nodes/{nodeid}/ifgroups	GET	Y	Y	Y	Y	Y	Y	
/networks/nodes/{nodeid}/lags	GET	Y	Y	Y	Y	Y	Y	
/networks/nodes/{nodeid}/lags	PATCH	Y	Y	-	Y	Y	-	
/networks/nodes/{nodeid}/vfabs	GET	Y	Y	Y	Y	Y	Y	
/networks/nodes/{nodeid}/vlans	GET	Y	Y	Y	Y	Y	Y	
/networks/ports	GET	Y	Y	Y	Y	Y	Y	
/networks/refresh	GET	Y	Y	Y	Y	Y	Y	
/networks/refresh	POST	Y	Y	Y	Y	Y	Y	
/networks/virtualmachines	GET	Y	Y	Y	Y	Y	Y	
/networks/virtualrouters	GET	Y	Y	Y	Y	Y	Y	
/networks/virtualswitches	GET	Y	Y	Y	Y	Y	Y	
/networks/vlans	POST	Y	Y	Y	Y	Y	Y	
/networks/vlans/cancel	POST	Y	Y	Y	Y	Y	Y	
/nodegroups	GET	Y	Y	Y	Y	Y	Y	
/nodegroups	POST	I	-	-	-	-	-	
/nodegroups/{nodegroupid}	DELETE	I	-	-	-	-	-	

API		Execution abilities of each authorized user						Remarks
		Resource operation of entire ISM			Resource operation within own group			
URI	Method	ISM administrator	Operator	Monitor	Administrator	Operator	Monitor	
/nodegroups/{nodegroupid}	GET	Y	Y	Y	Y	Y	Y	
/nodegroups/{nodegroupid}	PATCH	I	-	-	-	-	-	
/nodes	GET	Y	Y	Y	Y	Y	Y	
/nodes	POST	I	-	-	-	-	-	
/nodes/{nodeid}	DELETE	I	-	-	-	-	-	
/nodes/{nodeid}	GET	Y	Y	Y	Y	Y	Y	
/nodes/{nodeid}	PATCH	Y	Y	-	Y	Y	-	Only the ISM administrator can change the built-in location information of the rack.
/nodes/{nodeid}/accounts	GET	Y	Y	Y	Y	Y	Y	
/nodes/{nodeid}/accounts	POST	Y	Y	-	Y	Y	-	
/nodes/{nodeid}/accounts/{accountid}	DELETE	Y	Y	-	Y	Y	-	
/nodes/{nodeid}/accounts/{accountid}	GET	Y	Y	Y	Y	Y	Y	
/nodes/{nodeid}/accounts/{accountid}	PATCH	Y	Y	-	Y	Y	-	
/nodes/{nodeid}/alarmstatus/deactivate	POST	Y	Y	-	Y	Y	-	
/nodes/{nodeid}/inventory	GET	Y	Y	Y	Y	Y	Y	
/nodes/{nodeid}/inventory/refresh	POST	Y	Y	-	Y	Y	-	
/nodes/{nodeid}/led	GET	Y	Y	-	Y	Y	-	
/nodes/{nodeid}/led	PATCH	Y	Y	-	Y	Y	-	
/nodes/{nodeid}/maintenancemode	PATCH	Y	Y	-	Y	Y	-	
/nodes/{nodeid}/monitor/itemlist	GET	Y	Y	-	Y	Y	-	
/nodes/{nodeid}/monitor/network	PATCH	Y	Y	-	Y	Y	-	
/nodes/{nodeid}/monitor/network/history	GET	Y	Y	Y	Y	Y	Y	
/nodes/{nodeid}/monitor/settings	GET	Y	Y	Y	Y	Y	Y	
/nodes/{nodeid}/monitor/settings	PATCH	Y	Y	-	Y	Y	-	
/nodes/{nodeid}/os	DELETE	Y	Y	-	Y	Y	-	

API		Execution abilities of each authorized user						Remarks
		Resource operation of entire ISM			Resource operation within own group			
URI	Method	ISM administrator	Operator	Monitor	Administrator	Operator	Monitor	
/nodes/{nodeid}/os	GET	Y	Y	Y	Y	Y	Y	
/nodes/{nodeid}/os	PATCH	Y	Y	-	Y	Y	-	
/nodes/{nodeid}/os	POST	Y	Y	-	Y	Y	-	
/nodes/{nodeid}/power	GET	Y	Y	-	Y	Y	-	
/nodes/{nodeid}/power	PATCH	Y	Y	-	Y	Y	-	
/nodes/{nodeid}/profiles/assign	POST	Y	-	-	Y	Y	-	
/nodes/{nodeid}/profiles/backup	POST	Y	-	-	Y	Y	-	
/nodes/{nodeid}/profiles/restore	POST	Y	-	-	Y	Y	-	
/nodes/{nodeid}/profiles/unassign	POST	Y	-	-	Y	Y	-	
/nodes/discovery/auto	GET	I	-	-	-	-	-	
/nodes/discovery/auto/{discoverednodeid}	POST	I	-	-	-	-	-	
/nodes/discovery/manual	GET	I	-	-	-	-	-	
/nodes/discovery/manual	POST	I	-	-	-	-	-	
/nodes/discovery/manual/{manualdiscoveryid}/{manualnodeid}	POST	I	-	-	-	-	-	
/nodes/discovery/manual/csv	POST	I	-	-	-	-	-	
/nodes/discovery/manual/csvitems	GET	I	-	-	-	-	-	
/nodes/firmware/update	POST	Y	Y	-	Y	Y	-	
/nodes/firmware/update/cancel	POST	Y	Y	-	Y	Y	-	Must be executed by same user (user ID).
/nodes/inventory	GET	Y	Y	Y	Y	Y	Y	
/nodes/logs	GET	Y	Y	Y	Y	Y	Y	
/nodes/logs/archivedlog/downloadfiles	GET	Y	Y	-	Y	Y	-	
/nodes/logs/archivedlog/downloadfiles/create	POST	Y	Y	-	Y	Y	-	
/nodes/logs/archivedlog/downloadfiles/create/cancel	POST	Y	Y	-	Y	Y	-	
/nodes/logs/collection/collect	POST	Y	Y	-	Y	Y	-	

API		Execution abilities of each authorized user						Remarks
		Resource operation of entire ISM			Resource operation within own group			
URI	Method	ISM administrator	Operator	Monitor	Administrator	Operator	Monitor	
/nodes/logs/collection/collect/cancel	POST	Y	Y	-	Y	Y	-	
/nodes/logs/collection/settings	GET	Y	Y	Y	Y	Y	Y	
/nodes/logs/collection/settings	PATCH	Y	Y	-	Y	Y	-	
/nodes/logs/files	GET	Y	Y	-	Y	Y	-	
/nodes/logs/files/delete	POST	Y	Y	-	Y	Y	-	
/nodes/logs/files/delete/cancel	POST	Y	Y	-	Y	Y	-	
/nodes/logs/nodelog/downloadfiles	GET	Y	Y	-	Y	Y	-	
/nodes/logs/nodelog/downloadfiles/create	POST	Y	Y	-	Y	Y	-	
/nodes/logs/nodelog/downloadfiles/create/cancel	POST	Y	Y	-	Y	Y	-	
/nodes/logs/nodelog/search	POST	Y	Y	-	Y	Y	-	
/nodes/monitor/items	GET	Y	Y	Y	Y	Y	Y	
/nodes/monitor/items	POST	Y	Y	-	Y	Y	-	
/nodes/monitor/items/{itemid}	DELETE	Y	Y	-	Y	Y	-	
/nodes/monitor/items/{itemid}	PATCH	Y	Y	-	Y	Y	-	
/nodes/monitor/items/{itemid}/history	GET	Y	Y	Y	Y	Y	Y	
/nodes/monitor/network	GET	Y	Y	Y	Y	Y	Y	
/nodes/nodegroups/assign	POST	I	-	-	-	-	-	
/nodes/nodetags	GET	Y	Y	Y	Y	Y	Y	
/nodes/os	GET	Y	Y	Y	Y	Y	Y	
/nodes/powercapping	GET	I	-	-	-	-	-	
/nodes/powercapping	POST	I	-	-	-	-	-	
/nodes/powercapping/{cappingid}	DELETE	I	-	-	-	-	-	
/nodes/powercapping/{cappingid}	GET	I	-	-	-	-	-	
/nodes/powercapping/{cappingid}	PATCH	I	-	-	-	-	-	
/nodes/powercapping/{cappingid}/policy	PATCH	I	-	-	-	-	-	
/nodes/powercapping/cancel	POST	I	-	-	-	-	-	
/nodes/profiles/assign/cancel	POST	Y	-	-	Y	Y	-	

API		Execution abilities of each authorized user						Remarks
		Resource operation of entire ISM			Resource operation within own group			
URI	Method	ISM administrator	Operator	Monitor	Administrator	Operator	Monitor	
/nodes/profiles/backup/cancel	POST	Y	-	-	Y	Y	-	
/nodes/profiles/restore/cancel	POST	Y	-	-	Y	Y	-	
/nodes/profiles/unassign/cancel	POST	Y	-	-	Y	Y	-	
/pools	GET	Y	Y	Y	Y	Y	Y	
/pools	PATCH	I	-	-	-	-	-	
/pools/assign	POST	Y	Y	-	Y	Y	-	
/pools/unassign	POST	Y	Y	-	Y	Y	-	
/profiles/backups	GET	Y	-	-	Y	Y	Y	
/profiles/backups/{backupid}	DELETE	Y	-	-	Y	Y	-	
/profiles/backups/export	POST	Y	-	-	Y	Y	-	
/profiles/backups/import	POST	Y	-	-	Y	Y	-	
/profiles/backups/policy	POST	Y	-	-	Y	Y	-	
/profiles/backups/profile	POST	Y	-	-	Y	Y	-	
/profiles/categories	GET	Y	-	-	Y	Y	Y	
/profiles/categories	POST	Y	-	-	Y	Y	Y	
/profiles/export	POST	Y	-	-	Y	Y	-	
/profiles/import	POST	Y	-	-	Y	Y	-	
/profiles/packages	GET	Y	-	-	Y	Y	Y	
/profiles/policies	GET	Y	-	-	Y	Y	Y	
/profiles/policies	POST	Y	-	-	Y	Y	-	
/profiles/policies/{policyid}	DELETE	Y	-	-	Y	Y	-	
/profiles/policies/{policyid}	GET	Y	-	-	Y	Y	Y	
/profiles/policies/{policyid}	PATCH	Y	-	-	Y	Y	-	
/profiles/policies/groups	GET	Y	-	-	Y	Y	Y	
/profiles/policies/groups	POST	Y	-	-	Y	Y	-	
/profiles/policies/groups/{groupid}	DELETE	Y	-	-	Y	Y	-	
/profiles/policies/groups/{groupid}	GET	Y	-	-	Y	Y	Y	
/profiles/policies/groups/{groupid}	PATCH	Y	-	-	Y	Y	-	
/profiles/profiles	GET	Y	-	-	Y	Y	Y	
/profiles/profiles	POST	Y	-	-	Y	Y	-	
/profiles/profiles/{profileid}	DELETE	Y	-	-	Y	Y	-	

API		Execution abilities of each authorized user						Remarks
		Resource operation of entire ISM			Resource operation within own group			
URI	Method	ISM administrator	Operator	Monitor	Administrator	Operator	Monitor	
/profiles/profiles/{profileid}	GET	Y	-	-	Y	Y	Y	
/profiles/profiles/{profileid}	PATCH	Y	-	-	Y	Y	-	
/profiles/profiles/groups	GET	Y	-	-	Y	Y	Y	
/profiles/profiles/groups	POST	Y	-	-	Y	Y	-	
/profiles/profiles/groups/{groupid}	DELETE	Y	-	-	Y	Y	-	
/profiles/profiles/groups/{groupid}	GET	Y	-	-	Y	Y	Y	
/profiles/profiles/groups/{groupid}	PATCH	Y	-	-	Y	Y	-	
/profiles/profiles/nodes	GET	Y	-	-	Y	Y	Y	ISM 2.3.0.b or later
/racks	GET	Y	Y	Y	Y	Y	Y	
/racks	POST	I	-	-	-	-	-	
/racks/{rackid}	DELETE	I	-	-	-	-	-	
/racks/{rackid}	GET	Y	Y	Y	Y	Y	Y	
/racks/{rackid}	PATCH	I	-	-	-	-	-	
/resources/clusters	GET	Y	Y	Y	Y	Y	Y	
/resources/clusters/{clusterid}	GET	Y	Y	Y	Y	Y	Y	
/resources/inventory/refresh	POST	Y	Y	-	Y	Y	-	
/resources/nodes/{nodeid}/cmsmaintenancemode/set	POST	Y	Y	-	Y	Y	-	
/resources/nodes/{nodeid}/cmsmaintenancemode/unset	POST	Y	Y	-	Y	Y	-	
/resources/nodes/{nodeid}/restart	POST	Y	Y	-	Y	Y	-	
/resources/storagepools	GET	Y	Y	Y	Y	Y	Y	
/resources/storagepools/{storagepoolid}	GET	Y	Y	Y	Y	Y	Y	
/resources/storagepools/{storagepoolid}/history	POST	Y	Y	Y	Y	Y	Y	
/resources/storagepools/refresh	POST	Y	Y	Y	Y	Y	Y	
/resources/virtualmachines	GET	Y	Y	Y	Y	Y	Y	
/resources/virtualmachines/{virtualmachineid}	GET	Y	Y	Y	Y	Y	Y	
/resources/virtualmachines/{virtualmachineid}/move	POST	Y	Y	-	Y	Y	-	

API		Execution abilities of each authorized user						Remarks
		Resource operation of entire ISM			Resource operation within own group			
URI	Method	ISM administrator	Operator	Monitor	Administrator	Operator	Monitor	
/resources/virtualmachines/{virtualmachineid}/power/off	POST	Y	Y	-	Y	Y	-	
/resources/virtualmachines/{virtualmachineid}/power/on	POST	Y	Y	-	Y	Y	-	
/resources/virtualrouters	GET	Y	Y	Y	Y	Y	Y	
/resources/virtualrouters/{virtualrouterid}	GET	Y	Y	Y	Y	Y	Y	
/resources/virtualswitches	GET	Y	Y	Y	Y	Y	Y	
/resources/virtualswitches/{virtualswitchid}	GET	Y	Y	Y	Y	Y	Y	
/system/ismva/version	GET	Y	Y	Y	Y	Y	Y	
/system/licenses	GET	I	-	-	-	-	-	
/system/licenses	PATCH	I	-	-	-	-	-	
/system/licenses	POST	I	-	-	-	-	-	
/system/licenses/delete	POST	I	-	-	-	-	-	
/system/settings/cms	GET	Y	Y	Y	Y	Y	Y	
/system/settings/cms	POST	Y	Y	-	Y	Y	-	
/system/settings/cms/{cmsid}	DELETE	Y	Y	-	Y	Y	-	
/system/settings/cms/{cmsid}	GET	Y	Y	Y	Y	Y	Y	
/system/settings/cms/{cmsid}	PATCH	Y	Y	-	Y	Y	-	
/system/settings/firmware/{firmwareid}	DELETE	Y	Y	-	Y	Y	-	
/system/settings/firmware/documents	POST	Y	Y	Y	Y	Y	Y	
/system/settings/firmware/dvd/{repositoryid}	DELETE	Y	Y	-	Y	Y	-	
/system/settings/firmware/dvd/import	POST	Y	Y	-	Y	Y	-	
/system/settings/firmware/dvd/import/cancel	POST	Y	Y	-	Y	Y	-	Must be executed by same user (user ID).
/system/settings/firmware/import	POST	Y	Y	-	Y	Y	-	
/system/settings/firmware/import/cancel	POST	Y	Y	-	Y	Y	-	Must be executed by same user (user ID).
/system/settings/firmware/repositories	GET	Y	Y	Y	Y	Y	Y	

API		Execution abilities of each authorized user						Remarks
		Resource operation of entire ISM			Resource operation within own group			
URI	Method	ISM administrator	Operator	Monitor	Administrator	Operator	Monitor	
/system/settings/firmware/template	GET	Y	Y	Y	Y	Y	Y	
/system/settings/firmware/list	GET	Y	Y	Y	Y	Y	Y	
/system/settings/ftp/filelist	GET	Y	Y	Y	Y	Y	Y	
/system/settings/job/firmwareupdate	GET	Y	Y	Y	Y	Y	Y	
/system/settings/job/firmwareupdate/{JobId}	DELETE	Y	Y	-	Y	Y	-	
/system/settings/ldaps	GET	I	-	-	-	-	-	
/system/settings/ldaps	PATCH	I	-	-	-	-	-	
/system/settings/ldaps/switch	POST	I	-	-	-	-	-	
/system/settings/repositories/profiles	GET	Y	-	-	Y	Y	Y	
/system/settings/repositories/profiles/{repositoryid}	DELETE	Y	-	-	Y	Y	-	
/system/settings/repositories/profiles/dvd/import	POST	Y	-	-	Y	Y	-	
/system/settings/repositories/profiles/dvd/import/cancel	POST	Y	-	-	Y	Y	-	
/system/settings/shareddirectory	GET	Y	Y	Y	Y	Y	Y	
/system/settings/shareddirectory/{mountid}	DELETE	I	-	-	-	-	-	
/system/settings/shareddirectory/{mountid}	GET	Y	Y	-	Y	Y	-	
/system/settings/shareddirectory/{mountid}	PATCH	I	-	-	-	-	-	
/system/settings/shareddirectory/{usergroupid}	POST	I	-	-	-	-	-	
/system/settings/shareddirectory/mount/{mountid}	POST	Y	Y	-	Y	Y	-	
/system/settings/shareddirectory/umount/{mountid}	POST	Y	Y	-	Y	Y	-	
/system/settings/smtpserver	GET	Y	Y	Y	Y	Y	Y	
/system/settings/smtpserver	PATCH	I	-	-	-	-	-	
/system/settings/snmpttrapsettings	POST	I	-	-	-	-	-	

API		Execution abilities of each authorized user						Remarks
		Resource operation of entire ISM			Resource operation within own group			
URI	Method	ISM administrator	Operator	Monitor	Administrator	Operator	Monitor	
/system/settings/snmptrapsettings	GET	I	-	-	-	-	-	
/system/settings/snmptrapsettings/{snmptrapsettingsid}	PATCH	I	-	-	-	-	-	
/system/settings/snmptrapsettings/{snmptrapsettingsid}	DELETE	I	-	-	-	-	-	
/system/snap	POST	I	-	-	-	-	-	
/tasks	GET	Y	Y	Y	Y	Y	Y	
/tasks/{taskid}	GET	Y	Y	Y	Y	Y	Y	
/usergroups	GET	Y	Y	Y	Y	Y	Y	
/usergroups	POST	I	-	-	-	-	-	
/usergroups/{usergroupid}	DELETE	I	-	-	-	-	-	
/usergroups/{usergroupid}	GET	Y	Y	Y	Y	Y	Y	
/usergroups/{usergroupid}	PATCH	I	-	-	-	-	-	
/users	GET	Y	Y	Y	Y	Y	Y	If executed by a user not holding an Administrator role, only the user's own information can be retrieved.
/users	POST	Y	-	-	Y	-	-	
/users/{userid}	DELETE	Y	-	-	Y	-	-	
/users/{userid}	GET	Y	Y	Y	Y	Y	Y	If executed by a user not holding an Administrator role, only the user's own information can be retrieved.
/users/{userid}	PATCH	Y	Y	Y	Y	Y	Y	If run with a user not holding Administrator role, only the user's own general information can be edited.
/users/login	POST	Y	Y	Y	Y	Y	Y	
/users/logout	POST	Y	Y	Y	Y	Y	Y	
/users/policy	GET	Y	Y	Y	Y	Y	Y	
/users/policy	POST	I	-	-	-	-	-	

Appendix B Examples of REST API Usage

This appendix provides examples for using the REST APIs in ISM, assuming the following cases of operation:

- [Node Registration \(from Discovery to Registration\)](#)

This section provides sample procedures for registering nodes, using the REST APIs for Node Management.

- [List Display of Node Statuses](#)

This section provides sample procedures for displaying a list of node statuses, using the REST APIs for Node Management.

- [Assigning Profiles](#)

This section provides sample procedures for assigning profile to nodes, using the REST APIs for Profile Management.

- [Update Firmware](#)

This section provides sample procedures for updating firmware on nodes, using the REST APIs for Firmware Management.

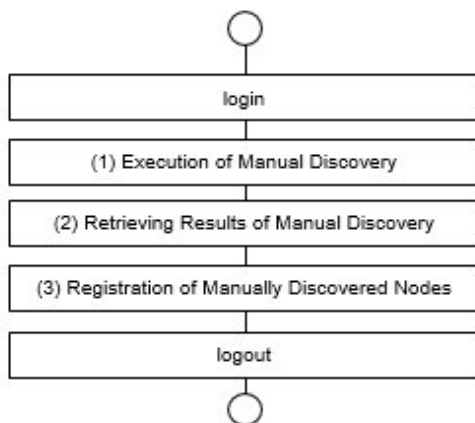
- [Extracting Logs](#)

This section provides sample procedures for extracting logs from nodes, using the REST APIs for Log Management.

B.1 Node Registration (from Discovery to Registration)

This section provides examples of REST API usage for discovering servers and registering them as nodes.

The following is the overview of the process to node registration.



Point

For "login" and "logout" in the above flow, refer to "[3.1.2 Session Authentication](#)."

Based on the overview of processing as described above, this section provides examples of REST API usage for Node Discovery.

Moreover, these examples of REST API usage are described as examples of curl command use.

The subsequent syntax examples are based on the following assumptions.

- The IP address of the ISM-VA is assumed to be "192.168.1.2."
- Certificates retrieved from ISM are assumed to be stored in "/tmp/certificate.crt."
- The session ID retrieved at login is assumed to be "123456789."

The information on the servers to be registered as nodes is assumed to be as follows. Passwords must be encrypted according to the procedures in "[2.4 Encryption](#)."

- Model name: PRIMERGY RX2540 M4

- Serial number: XXXXXXXXX
- IP address: 192.168.1.10
- User name: admin
- Encrypted password: abcdefgh

(1) Execution of Manual Discovery

Discovers a node manually by specifying an IP address and the account information.

Table B.1 REST API for manual node discovery

REST API	Reference
POST /nodes/discovery/manual	4.4.1 Execution of Manual Node Discovery

Example of request

```
curl "https://192.168.1.2:25566/ism/api/v2/nodes/discovery/manual" -X POST
--cacert /tmp/certificate.crt
-H "X-Ism-Authorization:123456789"
-H "Content-Type:application/JSON;charset=UTF8"
-d '{ "IsmBody":{ "ManualDiscoverySetting":{
    "Ranges":[{ "IpAddressRange":"192.168.1.10","IpVersion":"V4"}],
    "Accounts":[ { "AccountType":"Ipmi","PortNum":623,"AccountName":"admin","Password":"abcdefgh",
      "Property":{"Ipmi":null,"Ssh":null,
        "SnmpV1":{"CommunityName":null},"SnmpV2":{"CommunityName":null},
        "SnmpV3":{"SecurityLevel":null,"AuthProtocol":null,"PrivProtocol":null,
          "PrivPassword":null,"ContextName":null,"EngineId":null}
      }
    ]
  }}
}'
```

Example of response (JSON)

```
{
  "SchemaType": "https://192.168.1.2:25566/ism/schema/v2/Nodes/NodesDiscoveryManual-POST-Out.0.0.1.json",
  "MessageInfo": [],
  "IsmBody": {
    "ManualDiscoveryId": 1
  }
}
```

(2) Retrieving Results of Manual Discovery

Retrieves the progress and the results of manual discovery.

Table B.2 REST API for retrieving results of manual discovery

REST API	Reference
GET /nodes/discovery/manual	4.4.2 Retrieving Results of Manual Node Discovery

Example of request

```
curl "https://192.168.1.2:25566/ism/api/v2/nodes/discovery/manual" -X GET
--cacert /tmp/certificate.crt
-H "X-Ism-Authorization:123456789"
-H "Content-Type:application/JSON;charset=UTF8"
```

Example of response (JSON) (Processing for discovery incomplete)

```
{
  "SchemaType": "https://192.168.1.2:25566/ism/schema/v2/Nodes/NodesDiscoveryManual-GET-Out.
```



```

0.0.1.json",
"MessageInfo":[],
"IsmBody":{
  "ManualDiscoveryId":1,
  "Status":"Running",
  "ManualDiscoveredNodes":[],
  "ManualDiscoverySetting":{
    "Ranges":[{"IpAddressRange":"192.168.1.10","IpVersion":"V4"}],
    "Accounts":[{"AccountType":"Ipmi","PortNum":623,"AccountName":"admin",
      "Property":{"Ipmi":null,"Ssh":null,
        "SnmpV1":{"CommunityName":null},"SnmpV2":{"CommunityName":null},
        "SnmpV3":{"SecurityLevel":null,"AuthProtocol":null,"PrivProtocol":null,
          "ContextName":null,"EngineId":null}}
    ]}
  ]}
}
}
}

```

Example of response (JSON) (Processing for discovery completed)

```

{
"SchemaType":"https://192.168.1.2:25566/ism/schema/v2/Nodes/NodesDiscoveryManual-GET-Out.
0.0.1.json",
"MessageInfo":[],
"IsmBody":{
  "ManualDiscoveryId":1,
  "Status":"Complete",
  "TotalIpAddressCount":1,
  "CompletedIpAddressCount":1,
  "ManualDiscoveredNodes":[{"
    "ManualNodeId":1,
    "IpAddress":"192.168.1.10",
    "IpVersion":"V4",
    "NodeStatus":"Success",
    "NodeType":"server",
    "Model":"PRIMERGY RX2540 M4",
    "SerialNumber":"XXXXXXXX",
    "DomainName":"DomainName-1",
    "Chassis":null,
    "Accounts":[{"AccountType":"Ipmi"}]
  }],
  "ManualDiscoverySetting":{
    "Ranges":[{"IpAddressRange":"192.168.1.10","IpVersion":"V4"}],
    "Accounts":[{"AccountType":"Ipmi","PortNum":623,"AccountName":"admin",
      "Property":{"Ipmi":null,"Ssh":null,
        "SnmpV1":{"CommunityName":null},"SnmpV2":{"CommunityName":null},
        "SnmpV3":{"SecurityLevel":null,"AuthProtocol":null,"PrivProtocol":null,
          "ContextName":null,"EngineId":null}}
    ]}
  ]}
}
}
}

```

(3) Registration of Manually Discovered Nodes

Registers manually discovered nodes in ISM. Execute after confirming that the manual discovery process is complete in "(2) Retrieving Results of Manual Discovery" and that Status of the Manual Discovery Node is Success.

The subsequent syntax examples are based on the following assumptions. You can retrieve manually discovered IDs and manually discovered node IDs by the procedures described in "(2) Retrieving Results of Manual Discovery."

- Manually discovered ID: 1

- Manually discovered node ID: 1
- Node name: Server-1
- Information on mounting position in a rack
 - Rack ID: 1
 - Mounting position: 11 (11 - 12)
 - Number of units in a rack: 2



Note

If you are going to specify information on the mounting positions in racks, execute [4.3.6 Registration of Racks](#) before registering manually discovered nodes.

Table B.3 REST API for registration of manually discovered nodes

REST API	Reference
POST /nodes/discovery/manual/{manualdiscoveryid}/{manualnodeid}	4.4.3 Registration of Manually Discovered Nodes

Example of request

```
curl "https://192.168.1.2:25566/ism/api/v2/nodes/discovery/manual/1/1" -X POST
--cacert /tmp/certificate.crt
-H "X-IsM-Authorization:123456789"
-H "Content-Type:application/JSON;charset=UTF8"
-d '{ "IsMBody":{ "Node":{ "Name":"Server-1", "Type":"server", "Model":"PRIMERGY RX2540 M4",
  "WebUrl":"http://192.168.1.10", "Description":null, "NodeTagList":[{"NodeTag":"Windows"}],
  "RackInfo":{"RackId":1, "Position":11, "OccupySize":2}, "MountType":null, "PduPosition":null,
  "Outlet":[], "Chassis":null
}}}'
```

Example of response (JSON)

```
{
  "SchemaType":"https://192.168.1.2:25566/ism/schema/v2/Nodes/
NodesDiscoveryManualManualDiscoveryIdManualNodeId-POST-Out.0.0.1.json",
  "MessageInfo":[],
  "IsMBody":{
    "Node":{
      "NodeId":10110,
      "Name":"Server-1",
      "Type":"server",
      "Model":"PRIMERGY RX2540 M4",
      "IpAddress":"192.168.1.10",
      "IpVersion":"V4",
      "WebUrl":"http://192.168.1.10",
      "Discription":null,
      "NodeTagList":[{"NodeTag":"Windows"}],
      "RackInfo":{"RackId":1, "Position":11, "OccupySize":2},
      "MountType":null,
      "PduPosition":null,
      "Outlet":[],
      "SlotNum":null,
      "ParentNodeId":null,
      "ParentFabricId":null,
      "ChildNodeList":[],
      "Fabric":[],
      "Status":"Updating",
      "AlarmStatus":"Normal",
```

```

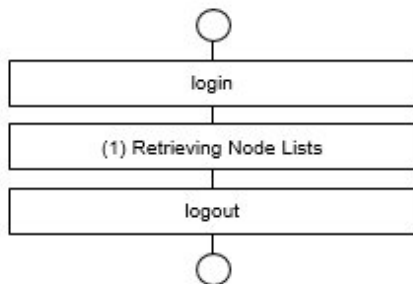
    "MaintenanceMode": "Normal",
    "NodeGroupId": 8,
    "UniqInfo": "XXXXXXXX",
    "UpdateDate": "2017-09-21T09:26:43.572Z"
  }
}

```

B.2 List Display of Node Statuses

This section provides examples of REST API usage for retrieving the statuses of all devices that are registered as nodes.

The following is the overview of the process to display a list of node statuses.



Point

For "login" and "logout" in the above flow, refer to ["3.1.2 Session Authentication."](#)

Based on the overview of processing as described above, this section provides examples of REST API usage for Node Management.

Moreover, these examples of REST API usage are described as examples of curl command use.

The subsequent syntax examples are based on the following assumptions.

- The IP address of the ISM-VA is assumed to be "192.168.1.2."
- Certificates retrieved from ISM are assumed to be stored in "/tmp/certificate.crt."
- The session ID retrieved at login is assumed to be "123456789."

(1) Retrieving Node Lists

Retrieves information on all nodes that are managed by a user group to which users belong to as well as the statuses of respective nodes.

Table B.4 REST API for retrieving node lists

REST API	Reference
GET /nodes	4.3.2 List Retrieval for Nodes

Example of request

```

curl "https://192.168.1.2:25566/ism/api/v2/nodes" -X GET
--cacert /tmp/certificate.crt
-H "X-Ism-Authorization:123456789"
-H "Content-Type:application/JSON;charset=UTF8"

```

Example of response (JSON)

```

{
  "SchemaType": "https://192.168.1.2:25566/ism/schema/v2/Nodes/Nodes-GET-Out.0.0.1.json",
  "MessageInfo": [],

```

```

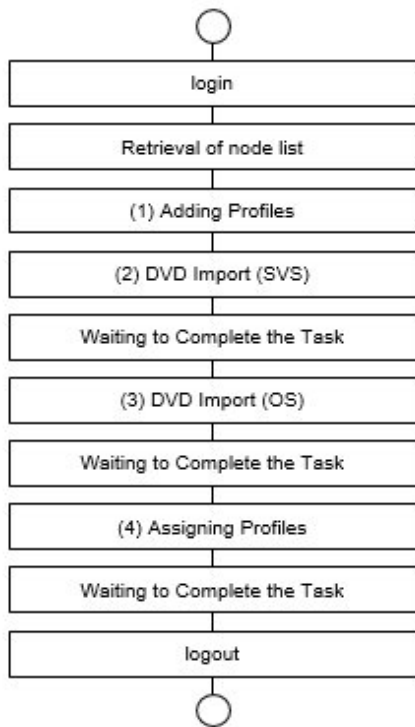
"Ismbody":{
  "Nodes":[{
    "NodeId":10110,
    "Name":"Server-1",
    "Type":"server",
    "Model":"PRIMERGY RX2540 M4",
    "IpAddress":"192.168.1.10",
    "IpVersion":"V4",
    "WebUrl":"http://192.168.1.10",
    "Urls":[],
    "Discription":null,
    "NodeTagList":[{"NodeTag":"Windows"}],
    "RackInfo":{"RackId":1, "Position":11, "OccupySize":2},
    "MountType":null,
    "PduPosition":null,
    "Outlet":[],
    "SlotNum":null,
    "ParentNodeId":null,
    "ParentFabricId":null,
    "ChildNodeList":[],
    "Fabric":[],
    "Status":"Normal",
    "AlarmStatus":"Normal",
    "MaintenanceMode":"Normal",
    "NodeGroupId":8,
    "UniqInfo":"XXXXXXXX",
    "UpdateDate":"2017-09-21T09:26:43.572Z"
  }],{
    "NodeId":10111,
    "Name":"Server-2",
    "Type":"server",
    "Model":"PRIMERGY RX2540 M4",
    "IpAddress":"192.168.1.11",
    "IpVersion":"V4",
    "WebUrl":"http://192.168.1.11",
    "Urls":[],
    "Discription":null,
    "NodeTagList":[{"NodeTag":"Windows"}],
    "RackInfo":{"RackId":1, "Position":13, "OccupySize":2},
    "MountType":null,
    "PduPosition":null,
    "Outlet":[],
    "SlotNum":null,
    "ParentNodeId":null,
    "ParentFabricId":null,
    "ChildNodeList":[],
    "Fabric":[],
    "Status":"Normal",
    "AlarmStatus":"Normal",
    "MaintenanceMode":"Normal",
    "NodeGroupId":8,
    "UniqInfo":"YYYYYYYY",
    "UpdateDate":"2017-09-21T09:26:43.572Z"
  }]
}
}

```

B.3 Assigning Profiles

This section provides examples of REST API usage for assigning profiles for installing the Red Hat Enterprise Linux 7.4 (x86_64) OS on devices that are registered as nodes.

The following is the overview of the process to assign profiles.



Point

- For "login" and "logout" in the above flow, refer to "[3.1.2 Session Authentication](#)."
- For information on "Retrieving Node Lists" in the above flow, refer to "[B.2 List Display of Node Statuses](#)."
- For information on "Waiting to Complete the Task" in the above flow, refer to "[3.8 Task](#)."

Based on the overview of processing as described above, this section provides examples of REST API usage for Profile Management.

Moreover, these examples of REST API usage are described as examples of curl command use.

The subsequent syntax examples are based on the following assumptions.

- The IP address of the ISM-VA is assumed to be "192.168.1.2."
- Certificates retrieved from ISM are assumed to be stored in "/tmp/certificate.crt."
- The session ID retrieved at login is assumed to be "123456789."
- Any node ID that retrieved only a server during retrieval of node list is assumed to be "10110."

The information on the passwords is assumed to be as follows. Passwords must be encrypted according to the procedures in "[2.4 Encryption](#)."

- Password: password123
- Password key used for encryption: 192.168.1.2
- Encrypted password: U2FsGVkX1+25IsK4ZPpgfJitxBE2XM1IqSyuLEMy0M=

(1) Adding Profiles

Adds profiles that specify how to install OSes.

Table B.5 REST API for adding profiles

REST API	Reference
POST /profiles/profiles	4.10.3 Adding Profiles

Example of request (when OS is Red Hat Enterprise Linux 7.4 (x86_64))

```
curl "https://192.168.1.2:25566/ism/api/v2/profiles/profiles" -X POST
--cacert /tmp/certificate.crt
-H "X-Ism-Authorization:123456789"
-H "Content-Type:application/JSON;charset=UTF8"
-d '{"IsmBody":{
  {"ProfileName":"SampleProfile","CategoryId":"2","OneTimePasswordKey":"192.168.1.2",
    "ProfileData":{"Server-RX":{"
      "OSInstallation":{"Linux":{"
        "OsType":{"Type":"Red Hat Enterprise Linux 7.4 (x86_64)",
          "RaidConfig":{"LogicalDiskType":"RAID","RAIDController":"Disabled"},
          "Volumes":{"
            "boot":{"CreatePartition":"Enabled","FileSystem":"ext4",
              "FillToMaximumAllowableSize":"Disabled","PartitionSize":256},
            "swap":{"CreatePartition":"Enabled","FileSystem":"swap",
              "FillToMaximumAllowableSize":"Disabled","PartitionSize":1024},
            "root":{"CreatePartition":"Enabled","FileSystem":"ext4",
              "FillToMaximumAllowableSize":"Enabled"}
          },
          "AdditionalVolumes":[],
          "BasicSettings":{"Language":"English","Keyboard":"United States - English",
            "TimeZone":"Tokyo Standard Time","SystemClockUsesUTC":"Disabled"
          },
          "PackageSettings":{"
            "SelectPackages":{"SelectPackageList":["core"]},
            "SinglePackages":{"SinglePackageList":[]}
          },
          "SystemSettings":{"
            "InstallBootloader":"Enabled","BootloaderLocation":"MBR","KernelParameters":"","
            "SELinux":"Enforcing","UseShadowPasswords":"Enabled","UseMD5":"Enabled",
            "EnableNSCD":"Enabled"
          },
          "AdditionalParameters":{"SelectApplicationList":[]}
          },
          "OsIndividualConfig":{"
            "BasicSettings":{"RootPassword":"U2FsdGVkX1+25IsK4ZPpgfJitxBE2XM1IqSyuLEMy0M="},
            "NetworkSettings":{"GetComputerNameViaDNS":"Enabled","DhcpEnable":"Enabled",
            "NetworkInterface":{"IPv4":{}}}
          }}}
        }}}
      }
    }
  }
}'
```

Example of response (JSON)

```
{
  "SchemaType":"https://192.168.1.2:25566/ism/schema/v2/Profiles/ProfilesProfiles-POST-Out.
0.0.1.json",
  "MessageInfo":[],
  "IsmBody":{"
    "ProfileId":"1",
    "ProfileName":"SampleProfile"
  }
}
```

(2) DVD Import (SVS)

Imports the ServerView Suite DVD to be used in OS installation.

Table B.6 REST API for importing DVDs

REST API	Reference
POST /system/settings/repositories/profiles/dvd/import	4.10.29 DVD Import

Example of request (when MediaType is ServerView Suite DVD)

```
curl "https://192.168.1.2:25566/ism/api/v2/system/settings/repositories/profiles/dvd/import" -X POST
--cacert /tmp/certificate.crt
-H "X-Ism-Authorization:123456789"
-H "Content-Type:application/JSON;charset=UTF8"
-d '{"IsmBody":{"MediaType" : "ServerView Suite DVD","FilePath" : "SVIM_12.17.09.04.iso"}}'
```

Example of response (JSON)

```
{
  "SchemaType": "https://192.168.1.2:25566/ism/schema/v2/System/
SystemSettingsRepositoriesProfilesDvdImport-POST-Out.0.0.1.json",
  "MessageInfo": [],
  "IsmBody": {
    "TaskId": "10"
  }
}
```

(3) DVD Import (OS)

Imports the DVD with the OS to be used in OS installation.

Table B.7 REST API for importing DVDs

REST API	Reference
POST /system/settings/repositories/profiles/dvd/import	4.10.29 DVD Import

Example of request (when MediaType is Red Hat Enterprise Linux 7.4 (x86_64))

```
curl "https://192.168.1.2:25566/ism/api/v2/system/settings/repositories/profiles/dvd/import" -X POST
--cacert /tmp/certificate.crt
-H "X-Ism-Authorization:123456789"
-H "Content-Type:application/JSON;charset=UTF8"
-d '{"IsmBody":{"MediaType" : "Red Hat Enterprise Linux 7.4 (x86_64)",
  "FilePath" : "rhel-server-7.4-x86_64-dvd.iso"}}'
```

Example of response (JSON)

```
{
  "SchemaType": "https://192.168.1.2:25566/ism/schema/v2/System/
SystemSettingsRepositoriesProfilesDvdImport-POST-Out.0.0.1.json",
  "MessageInfo": [],
  "IsmBody": {
    "TaskId": "11"
  }
}
```

(4) Assigning Profiles

Assigns profiles to nodes.

Table B.8 REST API for assigning profiles

REST API	Reference
POST /ism/api/v2/nodes/{nodeid}/profiles/assign	4.10.8 Assigning Profiles to Nodes

Example of request (with Node ID: 10110 and Profile ID: 1)

```
curl "https://192.168.1.2:25566/ism/api/v2/nodes/10110/profiles/assign" -X POST
--cacert /tmp/certificate.crt
```

```
-H "X-Ism-Authorization:123456789"
-H "Content-Type:application/JSON;charset=UTF8"
-d '{"IsmBody":{"ProfileId": "1"}}'
```

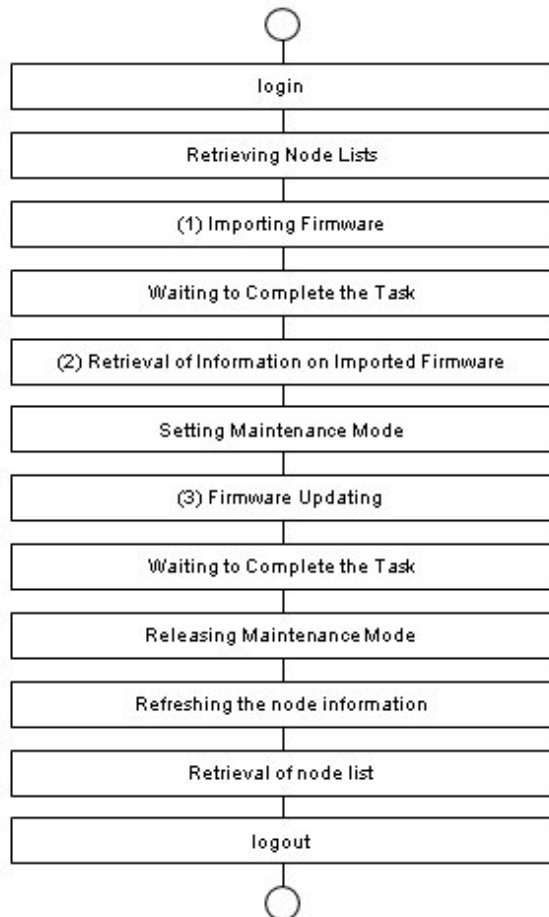
Example of response (JSON)

```
{
  "SchemaType": "https://192.168.1.2:25566/ism/schema/v2/Nodes/NodesNodeIdProfilesAssign-POST-Out.0.0.1.json",
  "MessageInfo": [],
  "IsmBody": {
    "TaskId": "12"
  }
}
```

B.4 Update Firmware

This section provides examples of REST API usage for Firmware Management, assuming updating of firmware on devices that are registered as nodes.

The following is the overview of the process for updating firmware.



Point

- For "login" and "logout" in the above flow, refer to ["3.1.2 Session Authentication."](#)
- For information on "Retrieving Node Lists" in the above flow, refer to ["B.2 List Display of Node Statuses."](#)

- For information on "Waiting to Complete the Task" in the above flow, refer to ["3.8 Task."](#)

Based on the overview of processing as described above, this section provides examples of REST API usage for Firmware Management. Moreover, these examples of REST API usage are described as examples of curl command use.

The subsequent syntax examples are based on the following assumptions.

- The IP address of the ISM-VA is assumed to be "192.168.1.2."
- Certificates retrieved from ISM are assumed to be stored in "/tmp/certificate.crt."
- The session ID retrieved at login is assumed to be "123456789."
- The node IDs of the servers on which to update the firmware are assumed to be "10110" and "10111."
- The firmware to be imported is assumed to be deployed in "<user name>/ftp/RX200_S8" on the ISM-VA.

(1) Importing Firmware

Refer to the node IDs you retrieved in the node list in advance, then check the firmware information. After checking, download the firmware to be applied. After downloading, forward the firmware to be applied to the target servers to the FTP server of the ISM-VA.

After forwarding the firmware, use this REST API to register the firmware in the repository of the ISM-VA.



Point

- For information on how to forward the firmware to the FTP server of the ISM-VA, refer to "User's Manual" - "2.1.2 FTP Access."
- For information on checking the firmware information, refer to ["4.6.2 List Retrieval for Detailed Node Information"](#) or ["4.6.3 Individual Retrieval of Detailed Node Information."](#)

Table B.9 REST API for starting Import Firmware

REST API	Reference
POST /system/settings/firmware/import	4.11.9 Individual Import Firmware

Example of request (when importing iRMC firmware (Version 8.12F&3.0) for PRIMERGY RX200 S8)

```
curl "https://192.168.1.2:25566/ism/api/v2/system/settings/firmware/import" -X POST
--cacert /tmp/certificate.crt
-H "X-IsM-Authorization:123456789"
-H "Content-Type:application/JSON;charset=UTF8"
-d '{"IsmBody":{"Path":"RX200_S8","FirmwareType":"iRMC","Model":"RX200 S8",
"Version":"8.12F&3.0"}}'
```

Example of response (JSON)

```
{
  "SchemaType": "https://192.168.1.2:25566/ism/schema/v2/System/SystemSettingsFirmwareImport-
POST-Out.0.0.1.json",
  "MessageInfo": [],
  "IsmBody": {
    "TaskId": "1",
    "CancelUri": "https://192.168.1.2:25566/ism/api/v2/system/settings/firmware/import/cancel"
  }
}
```



Point

As for the respective values for FirmwareType, Model and Version to be specified in the request, execute the following REST API to look up the applicable FirmwareType, Model and VersionExample:

Table B.10 REST API for retrieving version number templates

REST API	Reference
GET /system/settings/firmware/template	4.11.6 Retrieval of Version Number Template Information

Example of request

```
curl "https://192.168.1.2:25566/ism/api/v2/system/settings/firmware/template" -X GET
--cacert /tmp/certificate.crt
-H "X-Ism-Authorization:123456789"
-H "Content-Type:application/JSON;charset=UTF8"
```

Excerpt from response (JSON)

```
{
  "SchemaType": "https://192.168.1.2:25566/ism/schema/v2/System/SystemSettingsFirmwareTemplate-GET-Out.0.0.1.json",
  "MessageInfo": [],
  "IsmBody": {
    "VersionTemplateList": [
      {
        "FirmwareType": "iRMC",
        "ModelList": [
          {
            "Model": "RX100 S7",
            "VersionTemplate": ".*A&*.*",
            "VersionExample": "6.62A&3.42"
          },
          (Omitted)
          {
            "Model": "RX200 S8",
            "VersionTemplate": ".*F&*.*",
            "VersionExample": "7.82F&3.60"
          },
          (Omitted)
          {
            "Model": "PRIMEQUEST 3800L",
            "VersionTemplate": "PA*",
            "VersionExample": "PA17082"
          }
        ]
      }
    ]
  }
}
```

(2) Retrieval of Information on Imported Firmware

After completing a firmware import task, retrieves the information on the imported firmware.

Table B.11 REST API for retrieving information on imported firmware

REST API	Reference
GET /system/settings/firmware/list?nodeid={ value }	4.11.5 List Retrieval for Firmware

Example of request (Display list of firmware applicable to Node IDs 10110 and 10111)

```
curl "https://192.168.1.2:25566/ism/api/v2/system/settings/firmware/list?nodeid=10110&nodeid=10111" -X GET
--cacert /tmp/certificate.crt
-H "X-Ism-Authorization:123456789"
-H "Content-Type:application/JSON;charset=UTF8"
```

Example of response (JSON)

```
{
  "SchemaType": "https://10.21.114.117:25566/ism/schema/v2/System/SystemSettingsFirmwareList-GET-Out.0.0.1.json",
  "MessageInfo": [],
  "IsmBody": {
    "FirmwareList": [
      {
        "FirmwareId": 1,
        "NodeId": 10110,
        "ModelName": "RX200 S8",
        "FirmwareName": "RX200 S8_iRMC",
        "RepositoryName": "Individual Repository Administrator",
        "FirmwareVersion": "8.12F&3.0",
        "OperationMode": "Online",
        "FirmwareType": "iRMC",
        "DiskUsage": "31",
        "RegisterDate": "2017-09-22T04:00:50.497Z"
      },
      {
        "FirmwareId": 1,
        "NodeId": 10111,
        "ModelName": "RX200 S8",
        "FirmwareName": "RX200 S8_iRMC",
        "RepositoryName": "Individual Repository Administrator",
        "FirmwareVersion": "8.12F&3.0",
        "OperationMode": "Online",
        "FirmwareType": "iRMC",
        "DiskUsage": "31",
        "RegisterDate": "2017-09-22T04:00:50.497Z"
      }
    ]
  }
}
```

Use the FirmwareName, FirmwareVersion, NodeId, OperationMode, and RepositoryName from the retrieved information when executing Update Firmware of REST API.

Setting Maintenance Mode

Sets into Maintenance Mode the nodes on which to apply the firmware.



When you set the value for the request parameter (AutoMaintenance) of Update Firmware to "true" on ISM, this procedure is not required because setting/releasing of the maintenance mode is executed automatically.

For detailed information, refer to "4.11.1 Starting Update Firmware."

Table B.12 REST API for changing Maintenance Mode

REST API	Reference
PATCH /nodes/{nodeid}/maintenancemode	4.3.33 Changing from/to Maintenance Mode

Example of request (with Node ID: 10110)

```
curl "https://192.168.1.2:25566/ism/api/v2/nodes/10100/maintenancemode" -X PATCH
--cacert /tmp/certificate.crt
-H "X-Ism-Authorization:123456789"
```

```
-H "Content-Type:application/JSON;charset=UTF8"
-d '{"IsmBody":{"Node":{"MaintenanceMode":"Maintenance"}}}'
```

Excerpt from response (JSON)

```
{
  "MessageInfo": [],
  "SchemaType": "https://192.168.10.160:25566/ism/schema/v2/Nodes/NodesNodeIdMaintenanceMode-
PATCH-Out.0.0.1.json",
  "IsmBody": {
    "Node": {
      "MaintenanceMode": "Maintenance"
    }
  },
}
```

(3) Firmware Updating

Use the firmware stored in the repository when you start Update Firmware.



Point

If you also imported any documents when you imported firmware, you can check those documents.

For information on checking documents, refer to ["4.11.3 List Retrieval for Firmware Documents."](#)

Table B.13 REST API for starting Update Firmware

REST API	Reference
POST /nodes/firmware/update	4.11.1 Starting Update Firmware

Example of request (when applying iRMC firmware (Version 8.12F&30) of PRIMERGY RX200 S8 to Node IDs: 10110 and 10111)

```
curl "https://192.168.1.2:25566/ism/api/v2/nodes/firmware/update" -X POST
--cacert /tmp/certificate.crt
-H "X-Ism-Authorization:123456789"
-H "Content-Type:application/JSON;charset=UTF8"
-d '{"IsmBody": {"UpdateRequest": [ {"NodeId":10110, "FirmwareName":"RX200 S8_iRMC",
"RepositoryName":"Individual Repository Administrator", "FirmwareVersion":"8.12F&3.0",
"OperationMode":"Online"}, {"NodeId":10111, "FirmwareName":"RX200 S8_iRMC",
"RepositoryName":"Individual Repository Administrator", "FirmwareVersion":"8.12F&3.0",
"OperationMode":"Online"} ] } }'
```

Example of response (JSON)

```
{
  "SchemaType": "https://192.168.1.2:25566/ism/schema/v2/nodes/NodesFirmwareUpdate-POST-Out.
0.0.1.json",
  "MessageInfo": [],
  "IsmBody": {
    "TaskId": "2",
    "CancelUri": "https://192.168.1.2:25566/ism/api/v2/nodes/firmware/update/cancel"
  }
}
```



Note

Even after a Update Firmware task has completed, on some devices Update Firmware becomes effective only by restarting the node. Restart such nodes any time as needed. For information on devices that need to be restarted, refer to the section on "2.6.2.2 Behavior during updates" in "User's Manual."

Releasing Maintenance Mode

Releases Maintenance Mode on the nodes on which application of firmware has completed.



Point

When you set the value for the request parameter (AutoMaintenance) of Update Firmware to "true", this procedure is not required because setting/releasing of the maintenance mode is executed automatically.

For detailed information, refer to "4.11.1 Starting Update Firmware."

Table B.14 REST API for changing Maintenance Mode

REST API	Reference
PATCH /nodes/{nodeid}/maintenancemode	4.3.33 Changing from/to Maintenance Mode

Example of request (with Node ID: 10110)

```
curl "https://192.168.1.2:25566/ism/api/v2/nodes/10100/maintenancemode" -X PATCH
--cacert /tmp/certificate.crt
-H "X-IsM-Authorization:123456789"
-H "Content-Type:application/JSON;charset=UTF8"
-d '{"IsMBody":{"Node":{"MaintenanceMode":"Normal"}}}'
```

Excerpt from response (JSON)

```
{
  "MessageInfo": [],
  "SchemaType": "https://192.168.10.160:25566/ism/schema/v2/Nodes/NodesNodeIdMaintenanceMode-
PATCH-Out.0.0.1.json",
  "IsMBody": {
    "Node": {
      "MaintenanceMode": "Normal"
    }
  }
}
```

Refreshing the node information

After clearing Maintenance Mode, the node information must be refreshed in order to check whether the firmware was correctly applied to the devices.



Point

It is not required to refresh the node information because the node information will be refreshed after the offline updates.

Table B.15 REST API for retrieving node information

REST API	Reference
POST /nodes/{nodeid}/inventory/refresh	4.6.1 Instruction to Execute Retrieval of Node Information

Example of request (with Node ID: 10110)

```
curl "https://192.168.1.2:25566/ism/api/v2/nodes/10100/inventory/refresh" -X POST
--cacert /tmp/certificate.crt
-H "X-Ism-Authorization:123456789"
-H "Content-Type:application/JSON;charset=UTF8"
```

Excerpt from response (JSON)

```
{
  "MessageInfo": [],
  "SchemaType": "https://192.168.10.160:25566/ism/schema/v2/Nodes/NodesNodeIdInventoryRefresh-
POST-Out.0.0.1.json",
  "IsmBody": {
    "RefreshDate": "2017-09-22T06:56:00.668Z"
  }
}
```

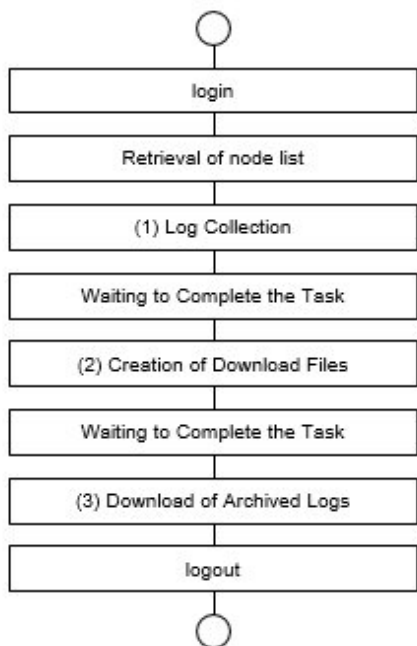
Retrieval of node list

After completing refreshing of the node information, retrieve a list of the nodes. Check the firmware information to confirm whether the firmware was applied to the devices correctly.

B.5 Extracting Logs

This section provides examples of REST API usage for Log Management, assuming that server Archived Logs (hardware logs and operating system logs) from all devices registered as nodes are collected and downloaded any time as needed.

The following is the overview of the process to extracting logs.



Point

- For "login" and "logout" in the above flow, refer to "[3.1.2 Session Authentication](#)."
- For information on "Retrieving Node Lists" in the above flow, refer to "[B.2 List Display of Node Statuses](#)."
- For information on "Waiting to Complete the Task" in the above flow, refer to "[3.8 Task](#)."

Based on the overview of processing as described above, this section provides examples of REST API usage for Log Management. Moreover, these examples of REST API usage are described as examples of curl command use.

The subsequent syntax examples are based on the following assumptions.

- The IP address of the ISM-VA is assumed to be "192.168.1.2."
- Certificates retrieved from ISM are assumed to be stored in "/tmp/certificate.crt."
- The session ID retrieved at login is assumed to be "123456789."
- The node IDs of the servers that were retrieved when retrieving a node list only of servers are assumed to be "10110" and "10111."

(1) Log Collection

After retrieving the node IDs of servers in advance, retrieve their node statuses and make the settings for collecting logs.

After making the settings for collecting logs, execute a log collection.

Retrieval of node statuses

Table B.16 REST API for retrieving node statuses

REST API	Reference
GET /nodes/logs?nodeid={ value }	4.12.4 Retrieving Node Statuses

Example of request (with Node IDs: 10110 and 10111)

```
curl "https://192.168.1.2:25566/ism/api/v2/nodes/logs?nodeid=10110&nodeid=10111" -X GET
--cacert /tmp/certificate.crt
-H "X-Ism-Authorization:123456789"
-H "Content-Type:application/JSON;charset=UTF8"
```

Example of response (JSON)

```
{
  "SchemaType": "https://192.168.1.2:25566/ism/schema/v2/Nodes/NodesLogs-GET-Out.0.0.1.json",
  "IsmBody": {
    "StatusInfo": {
      "Nodes": [
        {
          "NodeId": 10110,
          "Status": "Idle"
        },
        {
          "NodeId": 10111,
          "Status": "Idle"
        }
      ]
    }
  },
  "MessageInfo": []
}
```

Retrieving and changing settings for log collection

Registers the settings for log collection for all nodes with any status other than "Exempt", such as "Idle."

After retrieving the settings for log collection, you can use these retrieved settings as parameters for changing the current log collection settings.

Disable any schedule settings, and then specify collection of both hardware log (HWLogEnable) and operating system log (OSLogEnable).



If no OS information is set on a respective node, log collection will be treated as disabled even if operating system log collection is enabled in the log collection settings.

Table B.17 REST API for retrieving log collection settings

REST API	Reference
GET /nodes/logs/collection/settings?nodeid={value}	4.12.1 Retrieving Log Collection Settings

Example of request (with Node ID: 10110)

```
curl "https://192.168.1.2:25566/ism/api/v2/nodes/logs/collection/settings?nodeid=10110" -X GET
--cacert /tmp/certificate.crt
-H "X-Ism-Authorization:123456789"
-H "Content-Type:application/JSON;charset=UTF8"
```

Example of response (JSON)

```
{
  "SchemaType": "https://192.168.1.2:25566/ism/schema/v2/Nodes/NodesLogsCollectionSettings-GET-
Out.0.0.1.json",
  "IsmBody": {
    "LogCollect": {
      "Nodes": [
        {
          "NodeId": 10110,
          "Schedule": {
            "ScheduleEnable": 0,
            "ScheduleMethod": "Days",
            "NextExecutionDate": ""
          },
          "ArchivedLogGeneration": 7,
          "SecurityLogGeneration": 30,
          "OperationLogGeneration": 30,
          "EventLogGeneration": 30,
          "HWLogEnable": 1,
          "OSLogEnable": 0,
          "SVSLogEnable": 0,
          "RAIDLogEnable": 0,
          "HWLogPossible": 1,
          "OSLogPossible": 1,
          "SVSLogPossible": 1,
          "RAIDLogPossible": 1
        }
      ]
    }
  },
  "MessageInfo": []
}
```

Table B.18 REST API for changing log collection settings

REST API	Reference
PATCH /nodes/logs/collection/settings	4.12.2 Changing Log Collection Settings

Example of request (with Node ID: 10110)

```
curl "https://192.168.1.2:25566/ism/api/v2/nodes/logs/collection/settings" -X PATCH
--cacert /tmp/certificate.crt
-H "X-Ism-Authorization:123456789"
```



```
-H "Content-Type:application/JSON;charset=UTF8"
-d '{"IsmBody": {"LogCollect": {"Nodes": [{"NodeId": 10110, "Schedule": {"ScheduleEnable": 0,
"ScheduleMethod": "Days"}, "ArchivedLogGeneration": 7, "SecurityLogGeneration": 30,
"OperationLogGeneration": 30, "EventLogGeneration": 30, "HWLogEnable": 1, "OSLogEnable": 1,
"SVSLogEnable": 0, "RAIDLogEnable": 0}]}}}'
```

Example of response (JSON)

```
{
  "SchemaType": "https://192.168.1.2:25566/ism/schema/v2/Nodes/NodesLogsCollectionSettings-
PATCH-Out.0.0.1.json",
  "IsmBody": {
    "LogCollect": {
      "Nodes": [
        {
          "NodeId": 10110,
          "Schedule": {
            "ScheduleEnable": 0,
            "ScheduleMethod": "Days",
            "NextExecutionDate": ""
          },
          "ArchivedLogGeneration": 7,
          "SecurityLogGeneration": 30,
          "OperationLogGeneration": 30,
          "EventLogGeneration": 30,
          "HWLogEnable": 1,
          "OSLogEnable": 1,
          "SVSLogEnable": 0,
          "RAIDLogEnable": 0,
          "HWLogPossible": 1,
          "OSLogPossible": 1,
          "SVSLogPossible": 1,
          "RAIDLogPossible": 1
        }
      ]
    }
  },
  "MessageInfo": []
}
```

Log collection

After changing the settings for log collection, start collecting logs from the node ID of each server.

Table B.19 REST API for starting log collection

REST API	Reference
POST /nodes/logs/collection/collect	4.12.5 Collecting Logs

Example of request (with Node IDs: 10110 and 10111)

```
curl "https://192.168.1.2:25566/ism/api/v2/nodes/logs/collection/collect" -X POST
--cacert /tmp/certificate.crt
-H "X-Ism-Authorization:123456789"
-H "Content-Type:application/JSON;charset=UTF8"
-d '{"IsmBody": {"Nodes": [{"NodeId": 10110}, {"NodeId": 10111}]}}'
```

Example of response (JSON)

```
{
  "SchemaType": "https://192.168.1.2:25566/ism/schema/v2/Nodes/NodesLogsCollectionCollect-POST-
Out.0.0.1.json",
  "IsmBody": {
    "TaskId": "1"
  }
}
```

```

    },
    "MessageInfo": []
}

```

(2) Creation of Download Files

After completing a log collection task, creates a download file of the Archived Log.

The following is an example of creating a download file of the latest Archived Log.

Table B.20 REST API for creating download files for Archived Logs

REST API	Reference
POST /nodes/logs/archivedlog/downloadfiles/create	4.12.9 Creating Archived Log Download Files

Example of request (with Node IDs: 10110 and 10111)

```

curl "https://192.168.1.2:25566/ism/api/v2/nodes/logs/archivedlog/downloadfiles/create" -X POST
--cacert /tmp/certificate.crt
-H "X-Ism-Authorization:123456789"
-H "Content-Type:application/JSON;charset=UTF8"
-d '{"IsmBody": {"Generation": {"Nodes": [{"NodeId": 10110}, {"NodeId": 10111}], "Generation":
1}, "PasswordEnable": 0}}'

```

Example of response (JSON)

```

{
  "SchemaType": "https://192.168.1.2:25566/ism/schema/v2/Nodes/
NodesLogsArchivedLogDownloadFilesCreate-POST-Out.0.0.1.json",
  "IsmBody": {
    "TaskId": "2"
  },
  "MessageInfo": []
}

```

(3) Download of Archived Logs

Retrieves the corresponding download URLs to download the download files of the Archived Logs.

Table B.21 REST API for retrieving download files of Archived Logs

REST API	Reference
GET /nodes/logs/archivedlog/downloadfiles	4.12.12 Retrieving Information on Archived Log Download Files

Example of request

```

curl "https://192.168.1.2:25566/ism/api/v2/nodes/logs/archivedlog/downloadfiles" -X GET
--cacert /tmp/certificate.crt
-H "X-Ism-Authorization:123456789"
-H "Content-Type:application/JSON;charset=UTF8"

```

Example of response (JSON)

```

{
  "SchemaType": "https://192.168.1.2:25566/ism/schema/v2/Nodes/NodesLogsArchivedLogDownloadFiles-
GET-Out.0.0.1.json",
  "IsmBody": {
    "DownloadFiles": {
      "FileCreateStatus": "Created",
      "TaskId": "2",
      "FileUrl": "https://192.168.1.2:25566/ism/data/export/Administrator/transfer/Archive/
123456789/download/archivedlog/2/ArchivedLog_20170930120000.zip",
      "FileCreated": "2017-09-30T03:00:00.000Z",
      "FileSize": "5",

```

```
        "FileSizeUnit": "MiB"
    },
    "MessageInfo": []
}
```

When creation of download files of Archived Logs is completed, the status of download file creation (FileCreateStatus) changes to "Created."

In this case, as the download file URL (FileUrl) is specified, download them from here.

```
curl -O "https://192.168.1.2:25566/ism/data/export/Administrator/transfer/Archive/123456789/download/
archivedlog/2/ArchivedLog_20170930120000.zip"
--cacert /tmp/certificate.crt
```

Appendix C List of Profile Parameters (ProfileData)

This section describes detailed information about the following parameters:

- [4.10.3 Adding Profiles](#)
- [4.10.5 Individual Retrieval of Profiles](#)
- [4.10.6 Updating Profiles](#)
- [4.10.17 Adding Policies](#)
- [4.10.19 Individual Retrieval of Policies](#)
- [4.10.20 Updating Policies](#)

C.1 Server-BX

Parameter	Type	Description
BIOS	object	BIOS Settings
SasController	string	Specifies the operation of the onboard SAS/SATA storage controller unit (SCU). If none are set, specifies null. <ul style="list-style-type: none"> - Enabled: Enables SCU. - Disabled: Disables SCU.
SasSataOpRom	string	Specifies the operation of Option ROM for SAS/SATA controller. Specify when SasController is Enabled. If none are set, specifies null. <ul style="list-style-type: none"> - Enabled: Enables Option ROM. - Disabled: Disables Option ROM.
SasSataDriver	string	Specifies the type of Option ROM for SAS/SATA controller. Specify when SasSataOpRom is Enabled. If none are set, specifies null. <ul style="list-style-type: none"> - LSI MegaRAID: Uses Option ROM which uses Embedded MegaRAID. - Intel RSTe: Uses Intel RSTe-use Option ROM.
AspmSupport	string	Specify the operations of Active State Power Management (ASPM). Even if ASPM is generally enabled, certain links will only be enabled when ASPM is supported. If none are set, specifies null. If it is omitted it will be handled as if null was specified. <ul style="list-style-type: none"> - Disabled: Disables function. - Auto: Set to maximize power saving. - L1 Only: Set the power saving mode of the PCI Express link to L1 (Unidirectional).

Parameter	Type	Description
		<ul style="list-style-type: none"> - Force L0s/Limit to L0s: Set the power saving mode of the PCI Express link to L0 (Unidirectional).
DmiControl	string	<p>Specifies the bus connection speed between the CPU and the chip set.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - GEN 1: Set the bus connection speed between the CPU and the chip set and execute at 2.5 GT/s. - GEN 2: Set the bus connection speed between the CPU and the chip set and execute at 5.0 GT/s.
HyperThreading	string	<p>Specifies the CPU's Hyper Threading Technology operation.</p> <p>If the installed CPU does not support this function, this setting has no meaning.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Enables function. - Disabled: Disables function.
CoreProcessingMode	string	<p>For processors that include multiple processor cores, specify the number of enabled processor cores.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - All: Enables all available processor cores. - 1-16: Enables only the selected number of processor cores and disable the remaining processor cores.
HardwarePrefetcher	string	<p>Specifies to pre-load the memory contents that may be required when the memory bus becomes inactive to the cache automatically.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Enabled: Enables function. - Disabled: Disables function.
AdjacentCacheLinePrefetch	string	<p>Specifies whether to load the adjacent 64 byte cache line when the processor is sending cache requests.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Enabled: Loads the requested cache line and the adjacent cache line. - Disabled: Loads the requested cache line.
DcuStreamerPrefecher	string	<p>Specifies to pre-load the memory contents that may be required when the memory bus becomes inactive to the L1 data cache automatically.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p>

Parameter	Type	Description
		<ul style="list-style-type: none"> - Enabled: Enables function. - Disabled: Disables function.
DcuIpPrefecher	string	<p>Specifies the DCU IP Prefetch operations of the CPU.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Enabled: Enables function. - Disabled: Disables function.
XDBitfunctionalityAndNXMemoryProtection	string	<p>Specifies the CPU's Execute Disable Bit operation.</p> <p>This function is also called XD (eXecute Disable) bit or NX (No eXecute) bit.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Enables function. - Disabled: Disables function.
VirtualizationTechnology	string	<p>Specifies operation of the CPU's virtualization support function.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Enables function. - Disabled: Disables function.
IntelVTd	string	<p>Specifies the CPU's Virtualization Technology for Directed I/O function operation.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Enables function. - Disabled: Disables function.
PowerTechnologyCpu	string	<p>Specifies the CPU's power management operation.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Energy Efficient: Behavior optimized for power-saving. - Custom: Detailed behavior setup by using additional setting items. - Disabled: Disables power management function.
CPUHardwarePowerManagement	string	<p>Specifies the settings of HWPM (Hardware Power Management), which manages performance and power saving.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Disabled: Disables function. - Native Mode: HWPM operates in cooperation with the operating system via the software interface. - OOB Mode: The CPU automatically controls the frequency based on the settings of the energy performance policy of the operating system.
EnhancedSpeedStep	string	<p>Specifies operation of power saving functions.</p> <p>If none are set, specifies null.</p>

Parameter	Type	Description
		<ul style="list-style-type: none"> - Enabled: Enables function. - Disabled: Disables function.
TurboMode	string	<p>Specifies Turbo Boost Technology behavior of a CPU.</p> <p>If the installed CPU does not support this function, this function is set to regardless of this setting.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Enables function. - Disabled: Disables function.
OverrideOsEnergyPerformance	string	<p>Specify whether to prevent override of the energy performance policy set up for the OS.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Enabled: Enables function. - Disabled: Disables function.
EnergyPerformance	string	<p>Specify the energy performance policy of non-legacy operating systems.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Performance: Optimize to get maximum performance, even if this sacrifices energy performance. - Balanced Performance: Specify to get performance while also saving energy. - Balanced Energy: Save energy while getting good performance. - Energy Efficient: Optimize to save energy, even if this sacrifices performance.
UtilizationProfile	string	<p>Specify the share of optimized energy performance used for other systems.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Even: Optimize to get a system with a balanced energy performance. - Unbalanced: Optimize to use an unbalanced system prioritizing performance.
CpuC1eSupport	string	<p>Specify whether to stop the processor when it is possible to save energy.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Enabled: Enables function. - Disabled: Disables function.
AutonomousCStateSupport	string	<p>Specify whether to enable the Autonomous C state clock control of the processor.</p>

Parameter	Type	Description
		<p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Enabled: Enables function. - Disabled: Disables function.
CpuC3Report	string	<p>Transfer the C3 status of the processor as a ACPI C-2 status to OSPM (OS Power Management).</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Enabled: CPU C3 is provided to OSPM in ACPI-2 status. - Disabled: CPU C3 is not provided to OSPM in ACPI-2 status.
CpuC6Report	string	<p>Specify whether to transfer the C6 status of the process to OSPM in ACPI C-3 status and whether to enable the Deep Power Down Technology of the processor.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Enabled: CPU C6 is provided to OSPM in ACPI-3 status. - Disabled: CPU C6 is not provided to OSPM in ACPI-3 status.
PackageCStateLimit	string	<p>Specify the upper limit of the C State of the processor.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - C0: Set the upper limit of C State to C0. - C2: Set the upper limit of C State to C2. - C6: Set the upper limit of C State to C6. - C6(Retention): Set the C6 Retention to C status limit. - C7: Set the upper limit of C State to C7. - No Limit: Set the upper limit of C State to C7. - Auto: It is set automatically in the system.
QpiLinkFrequencySelect	string	<p>Specify the frequency of a shared and supported CPU for the link frequency.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Auto: Set the maximum speed from the BIOS, based on the current CPU and chip set in the system. The speed settings that can be used depend on the CPU. - 6.4 GT/s - 7.2 GT/s - 8.0 GT/s - 9.6 GT/S

Parameter	Type	Description
		- 10.4 GT/s
UncoreFrequencyOverride	string	<p>Specify the uncore frequency of the processor.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Disabled: To save power, the processor automatically controls the frequency within the range defined in advance. - Maximum: The frequency is set to the maximum value defined in advance. - Nominal: To save power, the processor automatically controls the frequency within the range defined in advance. It will not exceed the rating frequency.
LlcDeadLineAlloc	string	<p>Specify the processing of the LLC (Last Level Cache) deadline.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Enabled: Meets the LLC deadline temporary. - Disabled: Does not meet the LLC deadline.
StaleAtoS	string	<p>Specifies whether to optimize the directory of data whose use value in Caching Agent has decreased.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Enabled: Enable optimization. - Disabled: Disable optimization.
CODEnable	string	<p>Specify whether the BIOS should configure the added NUMA nodes for each socket and to optimize for high NUMA directionality load performance in COD (Cluster-on-Die).</p> <p>CPU with two home agents is required.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Enabled: Enables function. - Disabled: Disables function.
EarlySnoop	string	<p>Specify whether to enable early snoop.</p> <p>This is not supported when COD is enabled.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Enabled: Enables function. - Disabled: Disables function. - Auto: If COD is disabled in the system configurations, early snoop will be enabled.
HomeSnoopDirOsb	string	<p>Specifies whether to use Home Snoop Directory with plain OSB (Opportunistic Snoop Broadcast) caching to optimize the snoop processing.</p>

Parameter	Type	Description
		<p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Enabled: Enables function. - Disabled: Disables function.
NUMA	string	<p>Specifies operation of NUMA (Non-Uniform Memory Access) function.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Enables NUMA function. - Disabled: Disables NUMA function.
DDR_Performance	string	<p>Specifies operation of memory module.</p> <p>Memory modules operate with different speeds (Frequencies).</p> <p>The faster the speed, the higher the performance.</p> <p>The slower the speed the more the power saved.</p> <p>The available memory speeds differ depending on the installed memory module configurations.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Low-Voltage optimized: The fastest setting available with low voltage - Energy optimized: The slowest setting available with power-saving - Performance optimized: The fastest setting available for achieving the highest performance
PatrolScrub	string	<p>Specify whether to perform regular background screenings.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Enabled: Enable screening. - Disabled: Disable screening.
ImcInterleaving	string	<p>Specifies the interleaving of Integrated Memory Controllers (IMC).</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Auto: Automatically select the interleaving in the BIOS according to the available memory configuration. - 1-Way: Select 1-Way interleaving. - 2-Way: Select 2-Way interleaving.
SubNumaClustering	string	<p>Split the LLC (Last Level Cache) into different clusters based on the address scope.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Enabled: Support 1-Way interleaving for two clusters. - Disabled: Disables function.

Parameter	Type	Description
		<ul style="list-style-type: none"> - Auto: Depending on the selected IMC interleaving, one or two clusters are supported.
Csm	string	<p>Specifies the CSM (Compatibility Support Module) execution operation.</p> <p>Legacy operating system can be booted only when the CSM is loaded.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: CSM is executed to ensure Legacy or UEFI operating system can startup. - Disabled: CSM is not executed to ensure only UEFI operating system can startup.
BootOptionFilter	string	<p>Specifies boot operation of a drive.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - UEFI and Legacy: Bootable from UEFI OS drive and Legacy OS drive. - Legacy only: Bootable only from Legacy OS drive. - UEFI only: Bootable only from UEFI OS drive.
LaunchPxeOpRomPolicy	string	<p>Specifies the PXE Option ROM to be booted.</p> <p>For PXE boot, there are available normal (Legacy) PXE boot and UEFI PXE boot.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Do not launch: Option ROM not booted. - UEFI only: Only UEFI Option ROM booted. - Legacy only: Only Legacy Option ROM booted.
LaunchStorageOpRomPolicy	string	<p>Specifies the Storage Option ROM to be booted.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Do not launch: Storage Option ROM not booted. - UEFI only: Only UEFI Storage Option ROM booted. - Legacy only: Only Legacy Storage Option ROM booted.
OtherPciDeviceRomPriority	string	<p>Specifies the Option Rom booted with the devices other than a network, mass storage device and video.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - UEFI OpROM: Only UEFI Option ROM booted. - Legacy OpROM: Only Legacy Option ROM booted.
USBHostController	string	<p>Specifies whether to enable the USB controller of the system board.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Disabled: Disable the USB controller. - Enabled: Enable the USB controller.

Parameter	Type	Description
NetworkStack	string	<p>Specifies whether UEFI Network Stack can be used for network access on UEFI.</p> <p>For example, when unable to use UEFI network stack, UEFI install cannot be executed via PXE.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Disabled: Cannot use UEFI network stack. - Enabled: Can use UEFI network stack.
IPv4PxeSupport	string	<p>Specifies whether PXE UEFI Boot with IPv4 can be used with UEFI mode for installation of an operating system.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Disabled: Cannot use PXE UEFI Boot with IPv4. - Enabled: Can use PXE UEFI Boot with IPv4.
IPv6PxeSupport	string	<p>Specifies whether PXE UEFI Boot with IPv6 can be used with UEFI mode for installation of an operating system.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Disabled: Cannot use PXE UEFI Boot with IPv6. - Enabled: Can use PXE UEFI Boot with IPv6.
LaunchSlot1Oprom	string	<p>Specifies the execution of extended ROM of the option card mounted on PCI slot 1.</p> <p>You can specify this for multiple slots in profile. Do not specify this for the slot that does not exist on an actual device.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Extended ROM executed. - Disabled: Extended ROM not executed.
LaunchSlot2Oprom	string	<p>Specifies the execution of the extended ROM of the option card mounted in PCI slot 2.</p> <p>You can specify this for multiple slots in the profile. Do not specify this for the slot that does not exist on an actual device.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Extended ROM executed. - Disabled: Extended ROM not executed.
LaunchSlot3Oprom	string	<p>Specifies the execution of extended ROM of the option card mounted on PCI slot 3.</p> <p>You can specify this for multiple slots in profile. Do not specify this for a slot that does not exist on an actual device.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Extended ROM executed. - Disabled: Extended ROM not executed.
LaunchSlot4Oprom	string	<p>Specifies the execution of extended ROM of the option card mounted on PCI slot 4.</p> <p>You can specify this for multiple slots in profile. Do not specify this for the slot that does not exist on an actual device.</p>

Parameter	Type	Description
		<p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Extended ROM executed. - Disabled: Extended ROM not executed.
LaunchSlot5Oprom	string	<p>Specifies the execution of extended ROM of the option card mounted on PCI slot 5.</p> <p>You can specify this for multiple slots in profile. Do not specify this for a slot that does not exist on an actual device.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Extended ROM executed. - Disabled: Extended ROM not executed.
LaunchSlot6Oprom	string	<p>Specifies the execution of extended ROM of the option card mounted on PCI slot 6.</p> <p>You can specify this for multiple slots in profile. Do not specify this for a slot that does not exist on an actual device.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Extended ROM executed. - Disabled: Extended ROM not executed.
SecureBoot	string	<p>Specify whether to permit non-certified boot loaders/ UEFI OpROM boot.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Enabled: Only permit certified boot loaders/ UEFI OpROM boot. - Disabled: All boot loaders/OpROM (Legacy/UEFI) can be executed.
SyncRTCwithMMB	string	<p>Specifies whether to synchronize Real Time Clock with the management blade.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Synchronizes. - Disabled: Does not synchronize.
AdjustDateTime	string	<p>Specifies whether to modify the time of the server based on the time of management server when the profile is assigned.</p> <p>This item can be set up only when SyncRTCwithMMB is Disabled.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Local Time: Specifies time according to the time zone of the management server. - UTC: Specifies time converted to UTC from the time zone of the management server.
iRMC	object	Settings of iRMC (Integrated Remote Management Controller)
ConfPostErrorHalt	string	<p>Specifies performance at startup error of a server</p> <p>If none are set, specifies null.</p>

Parameter	Type	Description
		<ul style="list-style-type: none"> - Continue: Boot continued even after the occurrence of an error. - Halt on errors: Boot interrupted until the key entry when an error occurs.
ConfPowerControlMode	string	<p>Specifies the power-saving and noise canceling operations for a server.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - O/S Controlled: Control by OS followed. - Minimum Power: Operation where priority is placed on reduction in power consumption.
ConfPowerFailBehavior	string	<p>Specifies the power source operation upon power restore operation after interruption of AC power source input.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - As Before: State upon power source interruption maintained (Powered on if a server is powered on upon interruption/ Not powered on if the server is powered off.) - Remain Off: Always powered off. - Always On: Always powered on.
ConfSoftWatchdogEnable	string	<p>Specifies whether to use Software Watchdog to execute periodic communication confirmations while an OS is running.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Communication monitored. - Disabled: Communication not monitored.
ConfSoftWatchdogBehavior	string	<p>Specifies an operation when the OS does not communicate due to Software Watchdog.</p> <p>Specifies when ConfSoftWatchdogEnable is Enabled.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Continue: Continue processing. - Reset: Server rebooted. - Power Cycle: Powered ON after powering OFF the server once.
ConfSoftWatchdogTime	integer	<p>Specifies a value from 1-100 minutes for monitoring time by the Software Watchdog.</p> <p>Specifies when ConfSoftWatchdogEnable is Enabled.</p> <p>It is judged as unable to communicate when there is no communication after a specified time here.</p> <p>If none are set, specifies null.</p>
ConfBootWatchdogEnable	string	<p>Specifies the monitoring the period between POST completion and OS start, with use of Boot Watchdog.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Period monitored. - Disabled: Period not monitored.

Parameter	Type	Description
ConfBootWatchdogBehavior	string	<p>Specifies behavior for the case when an OS does not start within the specified time in Boot Watchdog.</p> <p>Specifies when ConfBootWatchdogEnable is Enabled.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Continue: Continue processing. - Reset: Server rebooted. - Power Cycle: Powered ON after powering OFF the server once.
ConfBootWatchdogTime	integer	<p>Specifies a value from 1-100 minutes for the Boot Watchdog monitoring time.</p> <p>Specifies when ConfBootWatchdogEnable is Enabled.</p> <p>It is judged as abnormality when OS cannot start after a specified time here.</p> <p>If none are set, specifies null.</p>
ConfBmcSnmpServiceEnable	string	<p>Specifies SNMP service performance at iRMC.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Enables the operation. - Disabled: Disables the operation.
ConfBMCSnmpServicePort	integer	<p>Specifies a port where an SNMP service is in an idle state.</p> <p>Typically it becomes the UDP 161 port.</p> <p>If none are set, specifies null.</p>
ConfBMCSnmpServiceEnableV3Only	string	<p>Specifies the SNMP protocol.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - All (SNMPv1/v2c/v3): All protocol support (SNMPv1/v2c/v3) - SNMPv3 only:SNMPv3
ConfBMCSnmpServiceCommunityName	string	<p>Specifies a community name for when it is SNMP v1/v2c.</p> <p>If none are set, specifies null.</p> <p>The number of characters specifiable is 18 at a maximum.</p> <p>Characters and symbols specifiable are A-Z, a-z, 0-9 and (*/*_?;-@&)%!.</p> <p>Blank symbols and \ may not be used.</p>
ConfBMCSnmpV3UserServiceEnabled	string	<p>Specifies SNMPv3 support operations for a user.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Enables it. - Disabled: Disables it.
ConfBMCSnmpV3UserAuthType	string	<p>Specifies authentication protocols that SNMPv3 uses for authentication.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - SHA: Uses SHA (Secure Hash Algorithm) for authentication.

Parameter	Type	Description
		<ul style="list-style-type: none"> - MD5: Uses MD5 (Message-Digest Algorithm 5) authentication. - none: Does not use authentication.
ConfBMCSnmpV3UserPrivType	string	<p>Specifies privacy protocol that SNMPv3 uses to encrypt SNMPv3 traffic.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - DES: Uses DES (Digital Encryption Standard) for SNMPv3 traffic encryption. - AES: Uses AES (Advanced Encryption Standard) 128 bits encryption for SNMPv3 traffic encryption. - none: Does not use encryption.
ConfBMCSnmpV3UserAccessType	string	<p>Specifies access privilege of a user.</p> <p>"Read only" has been set as fixed.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Read Only: Read-only
ConfBMCSnmpTrapCommunityName	string	<p>Specifies the SNMP Community Name.</p> <p>If none are set, specifies null.</p> <p>The number of characters specifiable is 18 at a maximum.</p> <p>Characters and symbols specifiable are A-Z, a-z, 0-9 and (*/*_?;-@&)%!.</p> <p>Blank symbols and \ may not be used.</p>
ConfBMCSnmpV3UserSelected	string	<p>Specifies a SNMPv3 user already defined as SNMPv3 trap destination.</p> <p>Specifies a user name that has been created on iRMC.</p> <p>If none are set, specifies null.</p> <p>A user name can be specified with 16 characters at a maximum.</p> <p>A valid user name should start with an alphabet.</p> <p>For the remaining part of the name, it can accept only alphabets, digits, under bar, dash, period and at mark (@).</p> <p>Blank symbols may not be used.</p>
ConfBMCSnmpTrapDestName1	string	<p>Specifies DNS name or IP address of a server that belongs to a community to be configured as "trap transmission destination."</p> <p>If none are set, specifies null.</p> <p>The number of characters specifiable is 64 at a maximum.</p> <p>Characters and symbols specifiable are half-width alphabets of (a-z, A-Z), Arabian figures (0-9), hyphen (-), colon (:) and dot (.).</p>
ConfBMCSnmpTrapDestName2	string	<p>Specifies DNS name or IP address of a server that belongs to a community to be configured as "trap transmission destination."</p> <p>If none are set, specifies null.</p> <p>The number of characters specifiable is 64 at a maximum.</p>

Parameter	Type	Description
		Characters and symbols specifiable are half-width alphabets of (a-z, A-Z) , Arabian figures (0-9), hyphen (-), colon (:) and dot (.).
ConfBMCSnmpTrapDestName3	string	Specifies DNS name or IP address of a server that belongs to a community to be configured as "trap transmission destination." If none are set, specifies null. The number of characters specifiable is 64 at a maximum. Characters and symbols specifiable are half-width alphabets of (a-z, A-Z) , Arabian figures (0-9), hyphen (-), colon (:) and dot (.).
ConfBMCSnmpTrapDestName4	string	Specifies DNS name or IP address of a server that belongs to a community to be configured as "trap transmission destination." If none are set, specifies null. The number of characters specifiable is 64 at a maximum. Characters and symbols specifiable are half-width alphabets of (a-z, A-Z) , Arabian figures (0-9), hyphen (-), colon (:) and dot (.).
ConfBMCSnmpTrapDestName5	string	Specifies DNS name or IP address of a server that belongs to a community to be configured as "trap transmission destination." If none are set, specifies null. The number of characters specifiable is 64 at a maximum. Characters and symbols specifiable are half-width alphabets of (a-z, A-Z) , Arabian figures (0-9), hyphen (-), colon (:) and dot (.).
ConfBMCSnmpTrapDestName6	string	Specifies DNS name or IP address of a server that belongs to a community to be configured as "trap transmission destination." If none are set, specifies null. The number of characters specifiable is 64 at a maximum. Characters and symbols specifiable are half-width alphabets of (a-z, A-Z) , Arabian figures (0-9), hyphen (-), colon (:) and dot (.).
ConfBMCSnmpTrapDestName7	string	Specifies DNS name or IP address of a server that belongs to a community to be configured as "trap transmission destination." If none are set, specifies null. The number of characters specifiable is 64 at a maximum. Characters and symbols specifiable are half-width alphabets of (a-z, A-Z) , Arabian figures (0-9), hyphen (-), colon (:) and dot (.).
ConfBMCSnmpProtocol1	string	Specifies the version of SNMP protocol used for receiving a trap. If none are set, specifies null. <ul style="list-style-type: none"> - SNMPv1: SNMP Protocol Version 1 - SNMPv2c: SNMP Protocol Version 2c - SNMPv3: SNMP Protocol Version 3

Parameter	Type	Description
ConfBMCSnmpProtocol2	string	Specifies the version of SNMP protocol used for receiving a trap. If none are set, specifies null. <ul style="list-style-type: none"> - SNMPv1: SNMP Protocol Version 1 - SNMPv2c: SNMP Protocol Version 2c - SNMPv3: SNMP Protocol Version 3
ConfBMCSnmpProtocol3	string	Specifies the version of SNMP protocol used for receiving a trap. If none are set, specifies null. <ul style="list-style-type: none"> - SNMPv1: SNMP Protocol Version 1 - SNMPv2c: SNMP Protocol Version 2c - SNMPv3: SNMP Protocol Version 3
ConfBMCSnmpProtocol4	string	Specifies the version of SNMP protocol used for receiving a trap. If none are set, specifies null. <ul style="list-style-type: none"> - SNMPv1: SNMP Protocol Version 1 - SNMPv2c: SNMP Protocol Version 2c - SNMPv3: SNMP Protocol Version 3
ConfBMCSnmpProtocol5	string	Specifies the version of SNMP protocol used for receiving a trap. If none are set, specifies null. <ul style="list-style-type: none"> - SNMPv1: SNMP Protocol Version 1 - SNMPv2c: SNMP Protocol Version 2c - SNMPv3: SNMP Protocol Version 3
ConfBMCSnmpProtocol6	string	Specifies the version of SNMP protocol used for receiving a trap. If none are set, specifies null. <ul style="list-style-type: none"> - SNMPv1: SNMP Protocol Version 1 - SNMPv2c: SNMP Protocol Version 2c - SNMPv3: SNMP Protocol Version 3
ConfBMCSnmpProtocol7	string	Specifies the version of SNMP protocol used for receiving a trap. If none are set, specifies null. <ul style="list-style-type: none"> - SNMPv1: SNMP Protocol Version 1 - SNMPv2c: SNMP Protocol Version 2c - SNMPv3: SNMP Protocol Version 3
IOVirtualization	object	Settings of Virtual IO For details, refer to " D.3 IOVirtualization. "
OSInstallation	object	Settings of OS Installation For details, refer to " D.4 OSInstallation. "

C.2 Storage-DX

Parameter		Type	Description
StandRaid		object	RAID Settings
	RaidGroup	array	List of RAID Groups
	RaidGroupName	string	Name of RAID Group
	RaidLevel	string	RAID Level of Disk Array to be built <ul style="list-style-type: none"> - RAID1: RAID level 1 - RAID5: RAID level 5 - RAID6: RAID level 6 - RAID1+0: RAID level 1+0
	DiskCount	integer	The Number of Disks used in Raid Group
	DiskKind	object	Disk Information List to be registered as Raid Group
	Inch	string	Disk Inch <ul style="list-style-type: none"> - 2.5Inch - 3.5Inch
	Type	string	Disk Interface <ul style="list-style-type: none"> - SAS: SAS - NL-SAS: Near line SAS - SED: Disk for self-encrypting - SSD: SSD
	Size	string	Disk Capacity <ul style="list-style-type: none"> - 100GB - 200GB - 300GB - 400GB - 450GB - 600GB - 800GB - 900GB - 1TB - 1.2TB - 1.6TB - 1.8TB - 2TB - 3TB - 4TB - 6TB
	Volumes	array	List of Volume Information

Parameter				Type	Description		
			VolumeName	string	Volume Name		
			VolumeSize	string	Volume Size		
GHotSpare				object	Setting of Hot Spares		
	GHotDisks			array	List of Hot Spares		
		Disks			array	Disk Information List to be registered as Hot Spare	
			Inch			string	Disk Inch <div>- 2.5Inch - 3.5Inch</div>
			Type			string	Disk Interface <div>- SAS: SAS - NL-SAS: Near line SAS - SED: Disk for self-encrypting - SSD: SSD</div>
		Size			string	Disk Capacity <div>- 100GB - 200GB - 300GB - 400GB - 450GB - 600GB - 800GB - 900GB - 1TB - 1.2TB - 1.6TB - 1.8TB - 2TB - 3TB - 4TB - 6TB</div>	
HostAffinity				object	Settings of Host Affinity		
	HostAffinities			array	List of Host Affinity		
		LunGroup			object	LUN Group Information	
			LunGroupName			string	LUN Group Name
			Volumes			array	Information of Volume
				VolumeName			string
		PortGroup			object	Port Group Information	
		PortGroupName			string	Port Group Name	

Parameter				Type	Description
			Ports	array	Information of Ports that belong to a port group
			PortNumber	string	Port Number
		HostGroup		object	Information of Host Group
			HostGroupName	string	Host Group Name
			HostType	string	Host Type - iscsi:iSCSI - fc:FC
			FcParameter	array	Host Information for FC Designate when HostType is "FC."
			HostName	string	Host Name
			HostWwn	string	Host WWN
		IscsiParameter		array	Host Information for iSCSI Designate when HostType is "iSCSI."
			HostName	string	Host Name
			IscsiName	string	iSCSI Name Specifies "iqn." or "eui." at the head.
		DetailSettings		object	Detail Settings of Profile
		PostRunCommand		string	Control Command to be executed in ETERNUS before running profile assigning operation (structuring of RAID/Hot spare)
		PreRunCommand		string	Control Command to be executed in ETERNUS after running profile assigning operation (structuring of RAID/Hot spare)

C.3 Storage-NetAppCluster

Parameter			Type	Description
Snmpp			object	SNMP Function Information
	Service		object	SNMP Function Settings Information
		Mode	string	Availability/Non-availability of SNMP Function - on: Enables SNMP function. - off: Disables SNMP function.
		Communities	array	SNMP Community Information Setting available for up to 256 at maximum.
		Name	string	SNMP Community Name Specify 3-32 characters in the character string.
		Users	array	SNMP User Information Setting available for up to 100 at a maximum.
		Username	string	SNMP User Name Specify 3-32 characters in character string.
		Auth	object	SNMP Authentication Protocol Information
		Auth	string	SNMP Authentication Protocol

Parameter				Type	Description
					<ul style="list-style-type: none">- md5: Uses MD5.- sha: Uses SHA.- sha2-256: Uses SHA2. (Enabled only when the version of ONTAP is 9.2 or later)- noauth: Does not use a protocol for authentication.
			Password	string	SNMP Authentication Password Set the password encrypted with AES256+Base64. A password before encryption has a length of 8 to 30 characters.
		Priv		object	SNMP Privacy Protocol Information Enabled when SNMP authentication protocol is md5, sha or sha2-256.
			Priv	string	SNMP Privacy Protocol <ul style="list-style-type: none">- des: Uses DES.- aes128: Uses AES 128 bit. (Enabled only when the version of ONTAP is 9.2 or later)- nopriv: Does not use a protocol for encryption.
		Password	string	SNMP Privacy Password Sets the password encrypted with AES256+Base64. A password before encryption has a length of 8 to 30 characters.	
	Traphosts			array	SNMP Transmission Reception Information A maximum of three can be set.
		Address		string	Specify the IP address or host name receiving SNMP transmissions. When specifying the IP address, enter it as a character string following the IPv4 or IPv6 format.
		Username		string	Specify the SNMPv3 USM user. Default is "public."
	Notify			object	SNMP Trap Notification Permission Information
			Access	string	SNMP Trap Notification Permission <ul style="list-style-type: none">- 1: Allows SNMP trap notification.- 0: Does not allow SNMP trap notification. Default is "1: Enable."
Ntp				object	Information of Auto Time Adjustment
	Servers			array	Information of a Time-provider Server Setting available for up to 10 at a maximum.
		Address		string	IP Address or Host Name of the Time-provider Server When specifying the IP address, enter it as a character string following the IPv4 or IPv6 format.

Parameter			Type	Description
		Version	string	<p>Specifies the version of the NTP protocol used by the time-provider server.</p> <ul style="list-style-type: none"> - 3: NTP protocol version 3 based on the Internet standard RFC#1305 - 4: NTP protocol version 4 based on the Internet standard RFC#5905 - auto (Default): Select the NTP protocol version in Data ONTAP

C.4 Switch-SRX

Parameter			Type	Description
Snmp			object	SNMP Function Information
	Service		object	Setting Enabling/Disabling of SNMP Agent Function and SNMP Trap Function
		Mode	string	<p>Availability/Non-availability of SNMP Function</p> <ul style="list-style-type: none"> - on: Enables SNMP Function. - off: Disables SNMP Function.
	Agent		object	SNMP Agent Function
		Address	object	Address Information of SNMP Agent
		Address	string	<p>Address of SNMP Agent</p> <p>Specifies "1.0.0.1- 126.255.255.254,128.0.0.1 - 191.255.255.254,192.0.0.1- 223.255.255.254"</p> <p>When 0.0.0.0 is specified, deletes all settings.</p>
	Engineid		object	SNMP Engine ID Information
		Engineid	string	<p>SNMP Engine ID</p> <p>Specifies 1-27 characters as a string.</p> <p>Specifies when using SNMPv3.</p>
	Manager		array	<p>SNMP Manager Function</p> <p>Setting available for up to 8 at a maximum.</p> <p>Specifies when using SNMPv1, SNMPv2c.</p>
		Number	string	<p>SNMP Host Definition Number</p> <p>Specifies "0"-"7" in the character string.</p>
		Address	string	<p>IP Address of SNMP Host</p> <p>Specifies "1.0.0.1- 126.255.255.254,128.0.0.1 - 191.255.255.254, 192.0.0.1- 223.255.255.254"</p> <p>When 0.0.0.0 is specified, allow access from all hosts.</p>
		Community	string	<p>SNMP Community Name</p> <p>Specifies either "public" (communication with any host enabled) or any string consists of 1-32 characters.</p>
		Trap	string	<p>Availability or Unavailability of Transmission of SNMP Trap</p> <ul style="list-style-type: none"> - v1: Transmits a SNMPv1 trap.

Parameter		Type	Description
			<ul style="list-style-type: none"> - v2c: Transmits a SNMPv2 trap. - off: Does not transmit SNMP trap.
		Write	string Writing Permission from the SNMP Manager <ul style="list-style-type: none"> - enable: Writing from SNMP manager is permitted. - disable: Writing from SNMP manager is not permitted.
	User		array SNMP User Function Setting available for up to 8 at a maximum. Specifies when using SNMPv3.
		Number	string SNMP User Definition Number Specifies "0"-"7" in the character string.
		Name	object SNMP User Name Information
		Name	string SNMP User Name Specifies either "public" (communication with any host enabled) or any string consists of 1-32 characters.
		Address	object SNMP Host Address Information
		Number	string SNMP Host Definition Number Specifies "0"-"7" in the character string.
		Address	string IP Address of SNMP Host Specifies "1.0.0.1- 126.255.255.254,128.0.0.1 - 191.255.255.254, 192.0.0.1- 223.255.255.254" for IPv4. When 0.0.0.0 is specified, allow access from all IPv4 hosts. Specifies "::2- fe7f:ffff:ffff:ffff:ffff:ffff:ffff:ffff, fec0:ffff:ffff:ffff:ffff:ffff:ffff:ffff" for IPv6. When :: is specified, allow access from all IPv6 hosts.
		Notification	object SNMP Trap Notification Host Address Information
		Number	string SNMP Host Definition Number Specifies "0"-"7" in the character string.
		Address	string IP Address of SNMP Host Specifies "1.0.0.1- 126.255.255.254,128.0.0.1 - 191.255.255.254, 192.0.0.1- 223.255.255.254" for IPv4. Specifies "::2- fe7f:ffff:ffff:ffff:ffff:ffff:ffff:ffff, fec0:ffff:ffff:ffff:ffff:ffff:ffff:ffff" for IPv6.
		Auth	object SNMP Authentication Protocol Information
		Protocol	string SNMP Authentication Protocol <ul style="list-style-type: none"> - md5: Uses MD5. - sha: Uses SHA. - none: Does not use a protocol for authentication.
		Password	string SNMP Authentication Password Sets the password encrypted with AES256+Base64. A password before encryption has a length of 8 to 16 characters.

Parameter		Type	Description
	Priv	object	SNMP Privacy Protocol Information
	Protocol	string	SNMP Privacy Protocol - des: Uses DES. - none: Does not use a protocol for encryption.
	Password	string	SNMP Privacy Password Set the password encrypted with AES256+Base64. A password before encryption has a length of 8 to 16 characters.
	Write	object	SNMP MIB Writing Permission Information
	Access	string	SNMP MIB Writing Permission - all: Allows writing to MIB. - none: Does not allow writing to MIB.
	Read	object	SNMP MIB Reading Permission Information
	Access	string	SNMP MIB Reading Permission - all: Allows reading of MIB. - none: Does not allow reading from MIB.
	Notify	object	SNMP Trap Notification Permission Information
	Access	string	SNMP Trap Notification Permission - all: Allows SNMP trap notification. - none: Does not allow SNMP trap notification.
	AutoTime	object	Information of Auto Time Adjustment
	Server	object	Information of a Time-provider Server
	Address	string	IP Address of a Time-provider Server Specifies "1.0.0.1- 126.255.255.254, 128.0.0.1 - 191.255.255.254, 192.0.0.1- 223.255.255.254" for IPv4. Specifies "::2 - fe7f:ffff:ffff:ffff:ffff:ffff:ffff:ffff, fec0:: - feff:ffff:ffff:ffff:ffff:ffff:ffff:ffff" for IPv6.
	Protocol	string	Protocol Used - time: Uses TCP. - snmp: Uses UDP.
	Interval	object	An Interval for Auto Time Adjustment
	Time	string	An Interval for Auto Time Adjustment Specify "start" (for setting of time at power activation) or a string expressing 0 second to 10 days in the units of d (day), h (hours), m (minute) and s (second).
	Zone	object	Time Zone that the Device uses
	Offset	string	Time Zone that the Device uses Specifies sexagesimal digits [-2359]-[2359] in the character string.
	Account	object	Password Information of Device Administrator
	Password	string	Password

Parameter		Type	Description
			Sets the password encrypted with AES256+Base64. A password before encryption has a length of 8 to 32 characters.
Stp		object	STP
	Mode	string	Operation Mode for STP <ul style="list-style-type: none"> - disable: Does not use STP. - stp: STP operating mode - rstp: RSTP operating mode - mstp: MSTP operating mode

C.5 Switch-CFX

Parameter		Type	Description
Interface		array	Interface Information Setting available for up to 256 at a maximum.
	Targets	string	Setting target ether Port Specify by either "chassis ID/ether port number" or "domain ID/switch ID/chassis ID/ether port number." When chassis ID is 0 and ether port number is 1, it specifies "0/1. " It is also possible to specify a range using a character of "-" as a case of "0/1-0/3" as well as to specify partially by using a character of "," as a case of "0/1,0/3." <ul style="list-style-type: none"> - domain ID: Sets in decimal digits within a range of 1-32. - switch ID: Sets in decimal digits within a range of 1-8. - chassis ID: Sets in decimal digits within a range of 0-2. - ether port number: Sets in decimal digits.
	Type	object	Information by Type of ether Port
	Mode	string	Type of ether Port <ul style="list-style-type: none"> - endpoint: C-Fabric End Point
Lldp		object	LLDP Operation Information of ether Port
	Mode	string	LLDP Operation of ether Port <ul style="list-style-type: none"> - disable: LLDP function does not work. - enable: Transmits/receives LLDP information. - send: Executes only transmission of LLDP information. - receive: Executes only reception of LLDP information.
Cfab		object	Usage Mode Information by Type of ether Port
	Mode	string	Usage Mode by Type of ether Port <ul style="list-style-type: none"> - auto: Operates by port type as detected automatically. - external: Runs as external port by force.
Snmp		object	SNMP Function Information

Parameter		Type	Description
Service		object	Setting Enabling/Disabling of SNMP Agent Function and SNMP Trap Function
	Mode	string	Enabling/disabling of SNMP Function - on: Enables SNMP function. - off: Disables SNMP function.
Agent		array	SNMP Agent Function Setting available for up to 32 at a maximum.
	Domainid	string	Domain ID Specifies "1"- "32" in the character string.
	Address	object	Address Information of SNMP Agent
	Address	string	Address of SNMP Agent Specifies "1.0.0.1- 126.255.255.254, 128.0.0.1 - 191.255.255.254, 192.0.0.1- 223.255.255.254" for IPv4. When 0.0.0.0 is specified, deletes all settings. Specifies "::2- fe7f:ffff:ffff:ffff:ffff:ffff:ffff:ffff, fec0:ffff:ffff:ffff:ffff:ffff:ffff:ffff" for IPv6. When :: is specified, deletes all settings.
	Engineid	object	SNMP Engine ID Information
	Engineid	string	SNMP Engine ID Specifies 1-27 characters as a string. Specifies when using SNMPv3.
Manager		array	SNMP Manager Function Setting available for up to 8 at a maximum. Specifies when using SNMPv1, SNMPv2c.
	Number	string	SNMP Host Definition Number Specifies "0"- "7" in the character string.
	Address	string	IP Address of SNMP Host Specifies "1.0.0.1- 126.255.255.254, 128.0.0.1 - 191.255.255.254, 192.0.0.1- 223.255.255.254" for IPv4. When 0.0.0.0 is specified, allow access from all IPv4 hosts. Specifies "::2 - fe7f:ffff:ffff:ffff:ffff:ffff:ffff:ffff, fec0:ffff:ffff:ffff:ffff:ffff:ffff:ffff" for IPv6. When :: is specified, allow access from all IPv6 hosts.
	Community	string	SNMP Community Name Specifies either "public" (communication with any host enabled) or any string consists of 1-32 characters.
	Trap	string	Availability or Unavailability of Transmission of SNMP Trap - v1: Transmits a SNMPv1 trap. - v2c: Transmits a SNMPv2 trap. - off: Does not transmit SNMP trap.

Parameter		Type	Description
	Write	string	Writing Permission from the SNMP Manager <ul style="list-style-type: none"> - enable: Writing from SNMP manager is permitted. - disable: Writing from SNMP manager is not permitted.
	User	array	SNMP User Function Setting available for up to 8 at a maximum. Specifies when using SNMPv3.
	Number	string	SNMP User Definition Number Specifies "0"-"7" in the character string.
	Name	object	SNMP User Name Information
	Name	string	SNMP User Name Specifies any string consists of 1-32 characters.
	Address	object	SNMP Host Address Information
	Number	string	SNMP Host Definition Number Specifies "0"-"7" in the character string.
	Address	string	IP Address of SNMP Host Specifies "1.0.0.1- 126.255.255.254, 128.0.0.1 - 191.255.255.254, 192.0.0.1- 223.255.255.254" for IPv4. Specifies "::2 - fe7f:ffff:ffff:ffff:ffff:ffff:ffff:ffff, fec0:ffff:ffff:ffff:ffff:ffff:ffff:ffff" for IPv6.
	Notification	object	SNMP Trap Notification Host Address Information
	Number	string	SNMP Host Definition Number Specifies "0"-"7" in the character string.
	Address	string	IP Address of SNMP Host Specifies "1.0.0.1- 126.255.255.254, 128.0.0.1 - 191.255.255.254, 192.0.0.1- 223.255.255.254" for IPv4. Specifies "::2 - fe7f:ffff:ffff:ffff:ffff:ffff:ffff:ffff, fec0:ffff:ffff:ffff:ffff:ffff:ffff:ffff" for IPv6.
	Auth	object	SNMP Authentication Protocol Information
	Protocol	string	SNMP Authentication Protocol <ul style="list-style-type: none"> - md5: Uses MD5. - sha: Uses SHA. - none: Does not use a protocol for authentication.
	Password	string	SNMP Authentication Password Set the password encrypted with AES256+Base64. A password before encryption has a length of 8 to 16 characters.
	Priv	object	SNMP Privacy Protocol Information
	Protocol	string	SNMP Privacy Protocol <ul style="list-style-type: none"> - des: Uses DES. - none: Does not use a protocol for encryption.
	Password	string	SNMP Privacy Password

Parameter				Type	Description
					Set the password encrypted with AES256+Base64. A password before encryption has a length of 8 to 16 characters.
			Write	object	SNMP MIB Writing Permission Information
		Access	string	SNMP MIB Writing Permission - all: Allows writing to MIB. - none: Does not allow writing to MIB.	
			Read	object	SNMP MIB Reading Permission Information
		Access	string	SNMP MIB Reading Permission - all: Allows reading of MIB. - none: Does not allow reading from MIB.	
			Notify	object	SNMP Trap Notification Permission Information
		Access	string	SNMP Trap Notification Permission - all: Allows SNMP trap notification. - none: Does not allow SNMP trap notification.	
			AutoTime		
	Server		object	Information of a Time-provider Server	
	Address	string	IP Address of a Time-provider Server Specifies "1.0.0.1- 126.255.255.254,128.0.0.1 - 191.255.255.254, 192.0.0.1- 223.255.255.254" for IPv4. When 0.0.0.0 is specified, use the address informed from the DHCP server. When 255.255.255.255 is specified, use the broadcast address. Specifies "::2 - fe7f:ffff:ffff:ffff:ffff:ffff:ffff:ffff, fec0:: - feff:ffff:ffff:ffff:ffff:ffff:ffff:ffff" for IPv6. When :: is specified, use the address informed from the DHCP server.		
		Protocol	string	Protocol Used - time: Uses TCP. - sntp: Uses UDP.	
	Interval		object	An interval for Auto Time Adjustment	
	Time	string	An interval for Auto Time Adjustment Specifys "start" (for setting of time at power activation) or a string expressing 0 second to 10 days in the units of d (day), h (hours), m (minute) and s (second).		
		Zone		object	Time Zone that the Device uses
	Offset	string	Time Zone that the Device uses Specifies sexagesimal digits [-1200]-[1300] in the character string.		
		Account			object
	Password		string	Password Set the password encrypted with AES256+Base64.	

Parameter		Type	Description
			A password before encryption has a length of 8 to 32 characters.
Aaa		array	AAA information
	Groupid		Group ID Specifies "0"- "9" in the character string.
	Ldap		LDAP Information
	Service		Availability/Non-availability Settings for LDAP Function
	Mode		Availability/Non-availability of LDAP Function - on: Enables LDAP function. - off: Disables LDAP function.
	Client		Client Information
	Number		Server Definition Number Specifies "0"- "3" in the character string.
	Serverinfo		Server Information
	Address		IP Address of LDAP Authentication Server Specifies "1.0.0.1- 126.255.255.254, 128.0.0.1 - 191.255.255.254, 192.0.0.1- 223.255.255.254" for IPv4. Specifies "::2-fe7f:ffff:ffff:ffff:ffff:ffff:ffff:ffff, fec0:ffff:ffff:ffff:ffff:ffff:ffff:ffff" for IPv6.
	Source		Information of LDAP Authentication Client
	Domainid		Domain ID Specifies "1"- "32" in the character string.
	Address		IP Address Specifies "1.0.0.1- 126.255.255.254, 128.0.0.1 - 191.255.255.254, 192.0.0.1- 223.255.255.254" for IPv4. Specifies "::2 - fe7f:ffff:ffff:ffff:ffff:ffff:ffff:ffff, fec0:ffff:ffff:ffff:ffff:ffff:ffff:ffff" for IPv6.
	Rdn		Information of Relative Authentication Name for LDAP Authentication
	Name		Relative attribute for identification of bind identification names E.g.) CN
	Bindnordn		Information of LDAP Authentication Server
	Name		Bind Identification Name Except for Opposing Identification Name E.g.) CN: user, DC: local
	Admin		Information of Administrator's Class for LDAP Authentication Server
	Classid		Number of Class Definition Specifies "0"- "3" in the character string.
	Adminclass		Value of Administrator Classes E.g.) user

C.6 Switch-VDX

Parameter		Type	Description
Snmpp		object	SNMP Function Information
	Service	object	SNMP Function Settings Information
	Mode	string	Availability/Non-availability of SNMP Function NOS6 is reflected on the device (enabling and disabling of functions available) NOS4 is not reflected on the device (Cannot be disabled as always being enabled). - on: Enables SNMP function. - off: Disables SNMP function.
	Host	array	SNMP v1/2c Trap and Destination Settings Setting available for up to 6 at maximum. Specifies when using SNMPv1/2c.
	Address	string	IP Address of SNMP Host Specifies character strings in accordance with address description of IPv4 and IPv6.
	Community	string	SNMP Community Name Specify any of character strings set with keys "Snmpp"-->"Community"-->"Name"
	Severitylevel	string	SNMP Trap Level - none: None - debug: Debug - info: Informational - warning: Warning - error: Error - critical: Critical
	Trapversion	string	SNMP Trap Version - 1: SNMP Version 1 - 2c: SNMP Version 2c
	Udpport	string	SNMP Trap Transmission Port Number Specifies "0"-"65535" in the character string.
	V3host	array	Settings of SNMPv3 Trap and Destination of Transmission Setting available for up to 6 at a maximum. Specifies when using SNMPv3.
	Address	string	IP Address of SNMP Host Specifies character strings in accordance with address description of IPv4 and IPv6.
	Username	string	SNMP User Name Specifies 1-16 characters in the character string.

Parameter		Type	Description
			Specifies any of strings set by "Snmp" --> "User" --> "Username"
	Notifytype	string	SNMP Trap Type - traps: Trap - informs: Inform
	Engineid	string	SNMP Engine ID Specifies "0:0:0:0:0:0:0:0" - "FF:FF:FF:FF:FF:FF:FF:FF" by a character string. (Its character pattern is identical with MAC address. Its byte count is equivalent of 9 bytes.)
	Udpport	string	SNMP Trap Transmission Port Number Specifies "0" - "65535" in the character string.
	Severitylevel	string	SNMP Trap Level - none: None - debug: Debug - info: Informational - warning: Warning - error: Error - critical: Critical
Community		array	SNMP Community Information Setting available for up to 256 at maximum. When assigning the profile, in order to delete a community that exists by default, there is a need to recreate it if required.
	Name	string	SNMP Community Name Specifies 1-64 characters in the character string.
	Write	object	SNMP Community Writing Permission Information
	Access	string	SNMP Community Writing Permission NOS6 is not reflected on the device (direct associating function for the community not available). NOS4 is reflected on the device (function available). - enable: Writing to SNMP community is permitted. - disable: Writing to SNMP community is not permitted.
	Group	object	SNMP Group Information
	Name	string	SNMP Group Name Specify 1-16 characters in character string. Specify any of strings set by keys of "Snmp" --> "Group" --> "Name."
User		array	SNMP User Information Setting available for up to 10 at a maximum.
	Username	string	SNMP User Name Specify 1-16 characters in character string.

Parameter		Type	Description
	Groupname		string SNMP Group Name Specify 1-16 characters in character string. Specify any of strings set by keys of "Snmplib"-->"Group"-->"Name."
	Auth		object SNMP Authentication Protocol Information
	Auth	string	SNMP Authentication Protocol - md5: Uses md5. - sha: Uses SHA. - noauth: Does not use a protocol for authentication.
	Password	string	SNMP Authentication Password Sets the password encrypted with AES256+Base64. A password before encryption has a length of 1 to 32 characters.
	Priv		object SNMP Privacy Protocol Information
	Priv	string	SNMP Privacy Protocol - DES: Uses DES. - AES128: Uses the AES128. - nopriv: Does not use a protocol for encryption.
	Password	string	SNMP Privacy Password Sets the password encrypted with AES256+Base64. A password before encryption has a length of 1 to 32 characters.
	Group		array SNMP Group Information Setting available for up to 10 at maximum. NOS6 is reflected on the device (MIB access possibility grouping function available). NOS4 is not reflected on the device (function not available).
	Name	string	Group Name Specify 1-16 characters in character string.
	Snmplibversion		string SNMP Version - v1: SNMP Version 1 - v2c: SNMP Version 2c - v3: SNMP Version 3
V3		object SNMPv3 Information	
Securitylevel	string	Security Level for SNMPv3 Specify when using SNMPv3. - priv: Enables authentication and encryption. - auth: Enables authentication. - noauth: Disables authentication and encryption.	
Read		object SNMP MIB Reading Permission Information	
Access	string	SNMP MIB Reading Permission	

Parameter				Type	Description	
					<div>- all: Allows reading of MIB.</div> <div>- none: Does not allow reading from MIB.</div>	
			Write	object	SNMP MIB Writing Permission Information	
		Access	string	SNMP MIB Writing Permission	<div>- all: Allows writing to MIB.</div> <div>- none: Does not allow writing to MIB.</div>	
			Notify	object	SNMP Trap Notification Permission Information	
		Access	string	SNMP Trap Notification Permission	<div>- all: Allows SNMP trap notification.</div> <div>- none: Does not allow SNMP trap notification.</div>	
			AutoTime			object
	Server		array	Information of a Time-provider Server	Setting available for up to 5 at maximum.	
		Address	string	IP Address of a Time-provider Server Information	Specifies character strings in accordance with address description of IPv4 and IPv6.	
		Zone		object	Time Zone Information	
			Regioncity	string	Region/City	

Parameter			Type	Description
				<ul style="list-style-type: none"> - Africa/Banjul - Africa/Conakry - Africa/Malabo - Africa/Bissau - Africa/Nairobi - Africa/Monrovia - Africa/Maseru - Africa/Tripoli - Africa/Casablanca - Africa/Bamako - Africa/Nouakchott - Africa/Blantyre - Africa/Maputo - Africa/Windhoek - Africa/Niamey - Africa/Lagos - Africa/Kigali - Africa/Khartoum - Africa/Freetown - Africa/Dakar - Africa/Mogadishu - Africa/Sao_Tome - Africa/Mbabane - Africa/Ndjamena - Africa/Lome - Africa/Tunis - Africa/Dar_es_Salaam - Africa/Kampala - Africa/Johannesburg - Africa/Lusaka - Africa/Harare - America/Antigua - America/Anguilla - America/Curacao - America/Argentina/Buenos_Aires - America/Argentina/Cordoba - America/Argentina/San_Luis

Parameter			Type	Description
				<ul style="list-style-type: none"> - America/Argentina/Jujuy - America/Argentina/Tucuman - America/Argentina/Catamarca - America/Argentina/La_Rioja - America/Argentina/San_Juan - America/Argentina/Mendoza - America/Argentina/Rio_Gallegos - America/Argentina/Ushuaia - America/Aruba - America/Guatemala - America/Guyana - America/Tegucigalpa - America/Port-au-Prince - America/Guadeloupe - America/Jamaica - America/St_Kitts - America/Cayman - America/St_Lucia - America/Marigot - America/Adak - America/Martinique - America/Montserrat - America/Mexico_City - America/Cancun - America/Edmonton - America/Cambridge_Bay - America/Yellowknife - America/Inuvik - America/Dawson_Creek - America/Vancouver - America/Whitehorse - America/Thunder_Bay - America/Iqaluit - America/Pangnirtung - America/Resolute - America/Rankin_Inlet - America/Winnipeg

Parameter			Type	Description
				<ul style="list-style-type: none"> - America/Rainy_River - America/Regina - America/Barbados - America/St_Barthelemy - America/La_Paz - America/Noronha - America/Belem - America/Fortaleza - America/Recife - America/Araguaina - America/Maceio - America/Bahia - America/Sao_Paulo - America/Campo_Grande - America/Cuiaba - America/Santarem - America/Porto_Velho - America/Merida - America/Monterrey - America/Mazatlan - America/Chihuahua - America/Hermosillo - America/Tijuana - America/Managua - America/Panama - America/Lima - America/Miquelon - America/Puerto_Rico - America/Asuncion - America/Paramaribo - America/El_Salvador - America/Grand_Turk - America/Montevideo - America/St_Vincent - America/Caracas - America/Tortola - America/St_Thomas

Parameter			Type	Description
				<ul style="list-style-type: none"> - America/New_York - America/Detroit - America/Kentucky/Monticello - America/Indiana/Indianapolis - America/Indiana/Vincennes - America/Indiana/Knox - America/Indiana/Winamac - America/Indiana/Marengo - America/Indiana/Vevay - America/Chicago - America/Boa_Vista - America/Manaus - America/Eirunepe - America/Rio_Branco - America/Nassau - America/Belize - America/St_Johns - America/Halifax - America/Glace_Bay - America/Moncton - America/Goose_Bay - America/Blanc-Sablon - America/Montreal - America/Toronto - America/Nipigon - America/Swift_Current - America/Dawson - America/Santiago - America/Bogota - America/Costa_Rica - America/Havana - America/Dominica - America/Santo_Domingo - America/Guayaquil - America/Grenada - America/Cayenne - America/Godthab

Parameter			Type	Description
				<ul style="list-style-type: none"> - America/Danmarkshavn - America/Scoresbysund - America/Thule - America/Indiana/Tell_City - America/Indiana/Petersburg - America/Menominee - America/North_Dakota/Center - America/North_Dakota/New_Salem - America/Denver - America/Boise - America/Shiprock - America/Phoenix - America/Los_Angeles - America/Anchorage - America/Juneau - America/Yakutat - America/Nome - America/Port_of_Spain - Antarctica/McMurdo - Antarctica/South_Pole - Antarctica/Rothera - Antarctica/Mawson - Antarctica/Davis - Antarctica/Casey - Antarctica/Vostok - Antarctica/DumontDURville - Antarctica/Syowa - Arctic/Longyearbyen - Asia/Dubai - Asia/Kabul - Asia/Yerevan - Asia/Baku - Asia/Dhaka - Asia/Bahrain - Asia/Brunei - Asia/Thimphu - Asia/Shanghai

Parameter			Type	Description
				<ul style="list-style-type: none"> - Asia/Harbin - Asia/Chongqing - Asia/Urumqi - Asia/Kashgar - Asia/Nicosia - Asia/Tbilisi - Asia/Hong_Kong - Asia/Jakarta - Asia/Pontianak - Asia/Makassar - Asia/Jayapura - Asia/Jerusalem - Asia/Kolkata - Asia/Baghdad - Asia/Tehran - Asia/Amman - Asia/Tokyo - Asia/Bishkek - Asia/Phnom_Penh - Asia/Pyongyang - Asia/Seoul - Asia/Kuwait - Asia/Almaty - Asia/Qyzylorda - Asia/Aqtobe - Asia/Aqtau - Asia/Oral - Asia/Vientiane - Asia/Beirut - Asia/Colombo - Asia/Rangoon - Asia/Ulaanbaatar - Asia/Hovd - Asia/Choibalsan - Asia/Macau - Asia/Kuala_Lumpur - Asia/Kuching

Parameter			Type	Description
				<ul style="list-style-type: none"> - Asia/Katmandu - Asia/Muscat - Asia/Manila - Asia/Karachi - Asia/Gaza - Asia/Qatar - Asia/Yekaterinburg - Asia/Omsk - Asia/Novosibirsk - Asia/Krasnoyarsk - Asia/Irkutsk - Asia/Yakutsk - Asia/Vladivostok - Asia/Sakhalin - Asia/Magadan - Asia/Kamchatka - Asia/Anadyr - Asia/Riyadh - Asia/Singapore - Asia/Damascus - Asia/Bangkok - Asia/Dushanbe - Asia/Dili - Asia/Ashgabat - Asia/Taipei - Asia/Samarkand - Asia/Tashkent - Asia/Ho_Chi_Minh - Asia/Aden - Atlantic/Bermuda - Atlantic/Cape_Verde - Atlantic/Canary - Atlantic/Stanley - Atlantic/Faroe - Atlantic/South_Georgia - Atlantic/Reykjavik - Atlantic/Madeira

Parameter			Type	Description
				<ul style="list-style-type: none"> - Atlantic/Azores - Atlantic/St_Helena - Australia/Lord_Howe - Australia/Hobart - Australia/Currie - Australia/Melbourne - Australia/Sydney - Australia/Brisbane - Australia/Lindeman - Australia/Adelaide - Australia/Darwin - Australia/Perth - Australia/Eucla - Europe/Andorra - Europe/Tirane - Europe/Vienna - Europe/Mariehamn - Europe/Sarajevo - Europe/Brussels - Europe/Sofia - Europe/Minsk - Europe/Zurich - Europe/Prague - Europe/Berlin - Europe/Copenhagen - Europe/Tallinn - Europe/Madrid - Europe/Helsinki - Europe/Paris - Europe/London - Europe/Guernsey - Europe/Oslo - Europe/Gibraltar - Europe/Athens - Europe/Zagreb - Europe/Budapest - Europe/Dublin

Parameter			Type	Description
				<ul style="list-style-type: none"> - Europe/Isle_of_Man - Europe/Rome - Europe/Jersey - Europe/Vaduz - Europe/Vilnius - Europe/Luxembourg - Europe/Riga - Europe/Monaco - Europe/Chisinau - Europe/Podgorica - Europe/Skopje - Europe/Malta - Europe/Amsterdam - Europe/Warsaw - Europe/Lisbon - Europe/Bucharest - Europe/Belgrade - Europe/Kaliningrad - Europe/Moscow - Europe/Volgograd - Europe/Samara - Europe/Stockholm - Europe/Ljubljana - Europe/Bratislava - Europe/San_Marino - Europe/Istanbul - Europe/Kiev - Europe/Uzhgorod - Europe/Zaporozhye - Europe/Simferopol - Europe/Vatican - Indian/Cocos - Indian/Christmas - Indian/Chagos - Indian/Comoro - Indian/Antananarivo - Indian/Mauritius

Parameter			Type	Description
				<ul style="list-style-type: none"> - Indian/Maldives - Indian/Reunion - Indian/Mahe - Indian/Kerguelen - Indian/Mayotte - Pacific/Pago_Pago - Pacific/Rarotonga - Pacific/Easter - Pacific/Galapagos - Pacific/Fiji - Pacific/Truk - Pacific/Ponape - Pacific/Kosrae - Pacific/Guam - Pacific/Tarawa - Pacific/Enderbury - Pacific/Kiritimati - Pacific/Majuro - Pacific/Kwajalein - Pacific/Saipan - Pacific/Noumea - Pacific/Norfolk - Pacific/Nauru - Pacific/Niue - Pacific/Auckland - Pacific/Chatham - Pacific/Tahiti - Pacific/Marquesas - Pacific/Gambier - Pacific/Port_Moresby - Pacific/Pitcairn - Pacific/Palau - Pacific/Guadacanal - Pacific/Fakaofu - Pacific/Tongatapu - Pacific/Funafuti - Pacific/Johnston

Parameter			Type	Description
				<ul style="list-style-type: none"> - Pacific/Midway - Pacific/Wake - Pacific/Honolulu - Pacific/Efate - Pacific/Wallis - Pacific/Apia
Account			object	Account Information
	Password		string	Password Set the password encrypted with AES256+Base64. A password before encryption has a length of 8 to 32 characters.

C.7 Switch-PSWITCH

Parameter			Type	Description
Snmp			object	SNMP Function Information
	Service		object	SNMP Function Settings Information
		Mode	string	Availability/Non-availability of SNMP Function <ul style="list-style-type: none"> - on: Enables SNMP function. - off: Disables SNMP function.
	Host		array	SNMP v1/2c Trap and Destination Settings Setting available for up to 8 at a maximum. Specify when using SNMPv1/2c.
		Address	string	IP Address of SNMP Host Specifies character strings in accordance with address description of IPv4 and IPv6.
		Community	string	SNMP Community Name Specify 1-20 characters in character string. Specify any of character strings set with keys "Snmp"-->"Community"-->"Name."
		Trapversion	string	SNMP Trap Version <ul style="list-style-type: none"> - 1: SNMP Version 1 - 2c: SNMP Version 2c
		Udpport	string	SNMP Trap Transmission Port Number Specify "1"- "65535" in the character string.
	V3host		array	SNMPv3 Trap and Destination Settings Setting available for up to 8 at a maximum. Specify when using SNMPv3.
		Address	string	IP Address of SNMP Host Specify character strings in accordance with address description of IPv4 and IPv6.

Parameter		Type	Description
	Community	Username	string SNMP User Name Specify 1-30 characters in the character string. Specify any of strings set by "Snmp"-->"User"-->"Username."
		Notifytype	string SNMP Trap Type - traps: Trap - informs: Inform
		Udpport	string SNMP Trap Transmission Port Number Specify "1"- "65535" in the character string.
	Community		array SNMP Community Information Setting available for up to 8 at maximum.
	Group	Name	string SNMP Community Name Specify 1-20 characters in the character string.
		Write	object SNMP Community Writing Permission Information
		Access	string SNMP Community Writing Permission - enable: Writing to SNMP community is permitted. - disable: Writing to SNMP community is not permitted.
		Group	object SNMP Group Information
		Name	string SNMP Group Name Specify 1-30 characters in the character string. Specify any of strings set by keys of "Snmp"-->"Group"-->"Name."
	User		array SNMP User Information Setting available for up to 8 at a maximum.
	Auth	Username	string SNMP User Name Specify 1-30 characters in character string.
		Groupname	string SNMP Group Name Specify 1-30 characters in character string. Specify any of strings set by keys of "Snmp"-->"Group"-->"Name."
		Auth	object SNMP Authentication Protocol Information
		Auth	string SNMP Authentication Protocol - md5: Uses MD5. - sha: Uses SHA. - noauth: Does not use a protocol for authentication.
		Password	string SNMP Authentication Password Set the password encrypted with AES256+Base64. A password before encryption has a length of 1 to 32 characters.
	Priv		object SNMP Privacy Protocol Information
		Priv	string SNMP Privacy Protocol

Parameter			Type	Description
				<ul style="list-style-type: none"> - des: Uses DES. - nopriv: Does not use a protocol for encryption.
		Password	string	SNMP Privacy Password Set the password encrypted with AES256+Base64. A password before encryption has a length of 1 to 32 characters.
	Group		array	SNMP Group Information Setting available for up to 8 at a maximum.
		Name	string	Group Name Specify 1-30 characters in character string.
		Snmpversion	string	SNMP Version <ul style="list-style-type: none"> - v1: SNMP Version 1 - v2c: SNMP Version 2c - v3: SNMP Version 3
		V3	object	SNMPv3 Information
		Securitylevel	string	Security Level for SNMPv3 Specify when using SNMPv3. <ul style="list-style-type: none"> - priv: Enables authentication and encryption. - auth: Enables authentication. - noauth: Disables authentication and encryption.
		Read	object	SNMP MIB Reading Permission Information
		Access	string	SNMP MIB Reading Permission <ul style="list-style-type: none"> - Default: Allows reading of MIB. - none: Does not allow reading from MIB.
		Write	object	SNMP MIB Writing Permission Information
		Access	string	SNMP MIB Writing Permission <ul style="list-style-type: none"> - Default: Allows writing to MIB. - none: Does not allow writing to MIB.
		Notify	object	SNMP Trap Notification Permission Information
		Access	string	SNMP Trap Notification Permission <ul style="list-style-type: none"> - Default: Allows SNMP trap notification. - none: Does not allow SNMP trap notification.
	AutoTime		object	Information of Auto Time Adjustment
		Server	array	Information of a Time-provider Server Setting available for up to 3 at a maximum.
		Address	string	IP Address of a Time-provider Server Information Specifies character strings in accordance with address description of IPv4 and IPv6.
	Mode		string	Mode Used

Parameter		Type	Description
			<ul style="list-style-type: none"> - broadcast: Synchronizes the time by inquiring the broadcast information to the SNTP server. - unicast: SNTP client works with a SNTP server in a relation of point-to-point.
	Interval	object	An Interval for Auto Time Adjustment
	Time	integer	An Interval for Auto Time Adjustment Specifies a second value between 6-10 seconds. Default value is 6 seconds.
	Zone	object	Time Zone Information
	Offset	string	Time Zone that the Device uses Specify sexagesimal digits [-1200]-[1300] in character string.
Account		object	Account Information
	Password	string	Password Set the password encrypted with AES256+Base64. A password before encryption has a length of 8 to 64 characters.

Appendix D Details of Profile Parameters (ProfileData)

This section describes detailed information about the following parameters:

- [4.10.3 Adding Profiles](#)
- [4.10.5 Individual Retrieval of Profiles](#)
- [4.10.6 Updating Profiles](#)
- [4.10.17 Adding Policies](#)
- [4.10.19 Individual Retrieval of Policies](#)
- [4.10.20 Updating Policies](#)
- [C.1 Server-BX](#)

D.1 BIOS

Parameter	Type	Description
BIOS	object	BIOS Settings
SasController	string	Specifies the operation of the onboard SAS/SATA storage controller unit (SCU). If none are set, specifies null. <ul style="list-style-type: none"> - Enabled: Enables SCU. - Disabled: Disables SCU.
SasSataOpRom	string	Specifies the operation of Option ROM for SAS/SATA controller. Specifies when SasController is Enabled. If none are set, specifies null. <ul style="list-style-type: none"> - Enabled: Enables Option ROM. - Disabled: Disables Option ROM.
SasSataDriver	string	Specifies the type of Option ROM for SAS/SATA controller. Specifies when SasSataOpRom is Enabled. If none are set, specifies null. <ul style="list-style-type: none"> - LSI MegaRAID: Use Option ROM which uses Embedded MegaRAID. - Intel RSTe: Use Intel RSTe-use Option ROM.
AspmSupport	string	Specify the operations of Active State Power Management (ASPM). Even if ASPM is generally enabled, certain links will only be enabled when ASPM is supported. If none are set, specifies null. If it is omitted it will be handled as if null was specified. <ul style="list-style-type: none"> - Disabled: Disables function. - Auto: Set to maximize power saving. - L1 Only: Set the power save mode of the PCI Express link to L1 (Unidirectional).

Parameter	Type	Description
		<ul style="list-style-type: none"> - Force L0s/Limit to L0s: Set the power saving mode of the PCI Express link to L0 (Unidirectional).
DmiControl	string	<p>Specifies the bus connection speed between the CPU and the chip set.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - GEN 1: Set the bus connection speed between the CPU and the chip set and execute at 2.5 GT/s. - GEN 2: Set the bus connection speed between the CPU and the chip set and execute at 5.0 GT/s.
HyperThreading	string	<p>Specifies the CPU's Hyper Threading Technology operation.</p> <p>If the installed CPU does not support this function, this setting has no meaning.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Enables function. - Disabled: Disables function.
CoreProcessingMode	string	<p>For processors that include multiple processor cores, specify the number of enabled processor cores.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - All: Enable all available processor cores. - 1-64: Enable only the selected number of processor cores and disable the remaining processor cores.
HardwarePrefetcher	string	<p>Specifies to pre-load the memory contents that may be required when the memory bus becomes inactive to the cache automatically.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Enabled: Enables function. - Disabled: Disables function.
AdjacentCacheLinePrefetch	string	<p>Specifies whether to load the adjacent 64 byte cache line when the processor is sending cache requests.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Enabled: Load the requested cache line and the adjacent cache line. - Disabled: Load the requested cache line.
DcuStreamerPrefecher	string	<p>Specifies to pre-load the memory contents that may be required when the memory bus becomes inactive to the L1 data cache automatically.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Enabled: Enables function. - Disabled: Disables function.

Parameter	Type	Description
DcuIpPrefecher	string	<p>Specifies the DCU IP Prefetch operations of the CPU.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Enabled: Enables function. - Disabled: Disables function.
XDBitfunctionalityAndNXMemoryProtection	string	<p>Specifies the CPU's Execute Disable Bit operation.</p> <p>This function is also called XD (eXecute Disable) bit or NX (No eXecute) bit.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Enables function. - Disabled: Disables function.
VirtualizationTechnology	string	<p>Specifies operation of the CPU's virtualization support function.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Enables function. - Disabled: Disables function.
IntelVTd	string	<p>Specifies the CPU's Virtualization Technology for Directed I/O function operation.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Enables function. - Disabled: Disables function.
PowerTechnologyCpu	string	<p>Specifies the CPU's power management operation.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Energy Efficient: Behavior optimized for power-saving. - Custom: Sets detailed behavior setup by using additional setting items - Disabled: Disables power management function.
CPUHardwarePowerManagement	string	<p>Specifies the settings of HWPM (Hardware Power Management), which manages performance and power saving.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Disabled: Disables function. - Native Mode: HWPM operates in cooperation with the operating system via the software interface. - OOB Mode: The CPU automatically controls the frequency based on the settings of the energy performance policy of the operating system.
EnhancedSpeedStep	string	<p>Specifies operation of power saving functions.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Enables function. - Disabled: Disables function.

Parameter	Type	Description
TurboMode	string	<p>Specifies Turbo Boost Technology behavior of a CPU.</p> <p>If the installed CPU does not support this function, this function is set to regardless of this setting.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Enables function. - Disabled: Disables function.
OverrideOsEnergyPerformance	string	<p>Specify whether to prevent override of the energy performance policy set up for the OS.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Enabled: Enables function. - Disabled: Disables function.
EnergyPerformance	string	<p>Specify the energy performance policy of non-legacy operating systems.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Performance: Optimize to get maximum performance, even if this sacrifices energy performance. - Balanced Performance: Specify to get performance while also saving energy. - Balanced Energy: Save energy while getting good performance. - Energy Efficient: Optimize to save energy, even if this sacrifices performance.
UtilizationProfile	string	<p>Specify the share of optimized energy performance used for other systems.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Even: Optimize to get a system with a balanced energy performance. - Unbalanced: Optimize to use an unbalanced system prioritizing performance.
CpuC1eSupport	string	<p>Specify whether to stop the processor when it is possible to save energy.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Enabled: Enables function. - Disabled: Disables function.
AutonomousCStateSupport	string	<p>Specify whether to enable the Autonomous C state clock control of the processor.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Enabled: Enables function.

Parameter	Type	Description
		- Disabled: Disables function.
CpuC3Report	string	<p>Transfer the C3 status of the processor as a ACPI C-2 status to OSPM (OS Power Management).</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Enabled: CPU C3 is provided to OSPM in ACPI-2 status. - Disabled: CPU C3 is not provided to OSPM in ACPI-2 status.
CpuC6Report	string	<p>Specify whether to transfer the C6 status of the process to OSPM in ACPI C-3 status and whether to enable the Deep Power Down Technology of the processor.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Enabled: CPU C6 is provided to OSPM in ACPI-3 status. - Disabled: CPU C6 is not provided to OSPM in ACPI-3 status.
PackageCStateLimit	string	<p>Specify the upper limit of the C State of the processor.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - C0: Set the upper limit of C State to C0. - C2: Set the upper limit of C State to C2. - C6: Set the upper limit of C State to C6. - C6(Retention): Set the C6 Retention to C status limit. - C7: Set the upper limit of C State to C7. - No Limit: Set the upper limit of C State to C7. - Auto: It is set automatically in the system.
QpiLinkFrequencySelect	string	<p>Specify the frequency of a shared and supported CPU for the link frequency.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Auto: Set the maximum speed from the BIOS, based on the current CPU and chip set in the system. The speed settings that can be used depend on the CPU. - 6.4 GT/s - 7.2 GT/s - 8.0 GT/s - 9.6 GT/S - 10.4 GT/s
UncoreFrequencyOverride	string	<p>Specify the uncore frequency of the processor.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p>

Parameter	Type	Description
		<ul style="list-style-type: none"> - Disabled: To save power, the processor automatically controls the frequency within the range defined in advance. - Maximum: The frequency is set to the maximum value defined in advance. - Nominal: To save power, the processor automatically controls the frequency within the range defined in advance. It will not exceed the rating frequency.
LlcDeadLineAlloc	string	<p>Specify the processing of the LLC (Last Level Cache) deadline.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Enabled: Meets the LLC deadline temporary. - Disabled: Does not meet the LLC deadline.
StaleAtoS	string	<p>Specifies whether to optimize the directory of data whose use value in Caching Agent has decreased.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Enabled: Enable optimization. - Disabled: Disable optimization.
CODEnable	string	<p>Specify whether the BIOS should configure the added NUMA nodes for each socket and to optimize for high NUMA directionality load performance in COD (Cluster-on-Die).</p> <p>CPU with two home agents is required.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Enabled: Enables function. - Disabled: Disables function.
EarlySnoop	string	<p>Specify whether to enable early snoop.</p> <p>This is not supported when COD is enabled.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Enabled: Enables function. - Disabled: Disables function. - Auto: If COD is disabled in the system configurations, early snoop will be enabled.
HomeSnoopDirOsb	string	<p>Specifies whether to use Home Snoop Directory with plain OSB (Opportunistic Snoop Broadcast) caching to optimize the snoop processing.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Enabled: Enables function. - Disabled: Disables function.

Parameter	Type	Description
NUMA	string	<p>Specifies operation of NUMA (Non-Uniform Memory Access) function.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Enables NUMA function. - Disabled: Disables NUMA function.
DDR_Performance	string	<p>Specifies operation of memory module.</p> <p>Memory modules operates with different speed (frequencies).</p> <p>The faster the speed, the higher the performance.</p> <p>The slower the speed the more the power saved.</p> <p>The available memory speeds differ depending on the installed memory module configurations.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Low-Voltage optimized: The fastest setting available with low voltage - Energy optimized: The slowest setting available with power-saving - Performance optimized: The fastest setting available for achieving the highest performance
PatrolScrub	string	<p>Specify whether to execute regular background screenings.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Enabled: Enable screening. - Disabled: Disable screening.
ImcInterleaving	string	<p>Specifies the interleaving of Integrated Memory Controllers (IMC).</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Auto: Automatically select the interleaving in the BIOS according to the available memory configuration. - 1-Way: Select 1-Way interleaving. - 2-Way: Select 2-Way interleaving.
SubNumaClustering	string	<p>Split the LLC (Last Level Cache) into different clusters based on the address scope.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Enabled: Support 1-Way interleaving for two clusters. - Disabled: Disables function. - Auto: Depending on the selected IMC interleaving, one or two clusters are supported.
Csm	string	<p>Specifies the CSM (Compatibility Support Module) execution operation.</p> <p>Legacy operating system can be booted only when the CSM is loaded.</p>

Parameter	Type	Description
		<p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: CSM is executed to ensure UEFI operating system can startup. - Disabled: CSM is not executed to ensure only UEFI operating system can startup.
BootOptionFilter	string	<p>Specifies boot operation of a drive.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - UEFI and Legacy: Bootable from UEFI OS drive and Legacy OS drive. - Legacy only: Bootable only from Legacy OS drive. - UEFI only: Bootable only from UEFI OS drive.
LaunchPxeOpRomPolicy	string	<p>Specifies the PXE Option ROM to be booted.</p> <p>For PXE boot, there are available, normal (Legacy) PXE boot and UEFI PXE boot.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Do not launch: Option ROM not booted. - UEFI only: Only UEFI Option ROM booted. - Legacy only: Only Legacy Option ROM booted.
LaunchStorageOpRomPolicy	string	<p>Specifies the Storage Option ROM to be booted.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Do not launch: Storage Option ROM not booted. - UEFI only: Only UEFI Storage Option ROM booted. - Legacy only: Only Legacy Storage Option ROM booted.
OtherPciDeviceRomPriority	string	<p>Specifies the Option ROM booted with the devices other than a network, mass storage device and video.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - UEFI OpROM: Only UEFI Option ROM booted. - Legacy OpROM: Only Legacy Option ROM booted.
USBHostController	string	<p>Specifies whether to enable the USB controller of the system board.</p> <p>If none are set, specifies null.</p> <p>If it is omitted it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Disabled: Disable the USB controller. - Enabled: Enable the USB controller.
NetworkStack	string	<p>Specifies whether UEFI Network Stack can be used for network access on UEFI.</p> <p>For example, when unable to use UEFI network stack, UEFI install cannot be executed via PXE.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Disabled: Cannot use UEFI network stack. - Enabled: Can use UEFI network stack.

Parameter	Type	Description
IPv4PxeSupport	string	<p>Specifies whether PXE UEFI Boot with IPv4 can be used with UEFI mode for installation of an operating system.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Disabled: Cannot use PXE UEFI Boot with IPv4. - Enabled: Can use PXE UEFI Boot with IPv4.
IPv6PxeSupport	string	<p>Specifies whether PXE UEFI Boot with IPv6 can be used with UEFI mode for installation of an operating system.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Disabled: Cannot use PXE UEFI Boot with IPv6. - Enabled: Can use PXE UEFI Boot with IPv6.
LaunchSlot1Oprom	string	<p>Specifies the execution of extended ROM of the option card mounted on PCI slot 1.</p> <p>You can specify this for multiple slots in profile. Do not specify this for the slot that does not exist on an actual device.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Extended ROM executed. - Disabled: Extended ROM not executed.
LaunchSlot2Oprom	string	<p>Specifies the execution of extended ROM of the option card mounted on PCI slot 2.</p> <p>You can specify this for multiple slots in profile. Do not specify this for the slot that does not exist on an actual device.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Extended ROM executed. - Disabled: Extended ROM not executed.
LaunchSlot3Oprom	string	<p>Specifies the execution of extended ROM of the option card mounted on PCI slot 3.</p> <p>You can specify this for multiple slots in profile. Do not specify this for the slot that does not exist on an actual device.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Extended ROM executed. - Disabled: Extended ROM not executed.
LaunchSlot4Oprom	string	<p>Specifies the execution of e extended ROM of the option card mounted on PCI slot 4.</p> <p>You can specify this for multiple slots in profile. Do not specify this for the slot that does not exist on an actual device.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Extended ROM executed. - Disabled: Extended ROM not executed.
LaunchSlot5Oprom	string	<p>Specifies the execution of e extended ROM of the option card mounted on PCI slot 5.</p> <p>You can specify this for multiple slots in profile. Do not specify this for the slot that does not exist on an actual device.</p>

Parameter	Type	Description
		<p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Extended ROM executed. - Disabled: Extended ROM not executed.
LaunchSlot6Oprom	string	<p>Specifies the execution of extended ROM of the option card mounted on PCI slot 6.</p> <p>You can specify this for multiple slots in profile. Do not specify this for the slot that does not exist on an actual device.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Extended ROM executed. - Disabled: Extended ROM not executed.
LaunchSlot7Oprom	string	<p>Specifies the execution of extended ROM of the option card mounted on PCI slot 7.</p> <p>You can specify this for multiple slots in profile. Do not specify this for the slot that does not exist on an actual device.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Extended ROM executed. - Disabled: Extended ROM not executed.
LaunchSlot8Oprom	string	<p>Specifies the execution of extended ROM of the option card mounted on PCI slot 8.</p> <p>You can specify this for multiple slots in profile. Do not specify this for the slot that does not exist on an actual device.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Extended ROM executed. - Disabled: Extended ROM not executed.
LaunchSlot9Oprom	string	<p>Specifies the execution of extended ROM of the option card mounted on PCI slot 9.</p> <p>You can specify this for multiple slots in profile. Do not specify this for the slot that does not exist on an actual device.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Extended ROM executed. - Disabled: Extended ROM not executed.
LaunchSlot10Oprom	string	<p>Specifies the execution of extended ROM of the option card mounted on PCI slot 10.</p> <p>You can specify this for multiple slots in profile. Do not specify this for the slot that does not exist on an actual device.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Extended ROM executed. - Disabled: Extended ROM not executed.
LaunchSlot11Oprom	string	<p>Specifies the execution of extended ROM of the option card mounted on PCI slot 11.</p> <p>You can specify this for multiple slots in profile. Do not specify this for the slot that does not exist on an actual device.</p>

Parameter	Type	Description
		<p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Extended ROM executed. - Disabled: Extended ROM not executed.
LaunchSlot12Oprom	string	<p>Specifies the execution of extended ROM of the option card mounted on PCI slot 12.</p> <p>You can specify this for multiple slots in profile. Do not specify this for the slot that does not exist on an actual device.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Extended ROM executed. - Disabled: Extended ROM not executed.
SecureBoot	string	<p>Specify whether to permit non-certified boot loaders/UEFI OpROM boot.</p> <p>If none are set, specifies null.</p> <p>If it is omitted, it will be handled as if null was specified.</p> <ul style="list-style-type: none"> - Enabled: Only permit certified boot loaders/UEFI OpROM boot. - Disabled: All boot loaders/OpROM (Legacy/UEFI) can be executed.

D.2 iRMC

Parameter	Type	Description
iRMC	object	Settings of iRMC (Integrated Remote Management Controller)
ConfDefaultGuiLanguage	string	<p>Specifies the initial settings of language.</p> <p>This is enabled from the next time iRMC Web interface is called.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - English - German - Japanese
ConfBmcTimeSyncSource	string	<p>Specifies time setting performance of iRMC.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - System RTC: Time of iRMC retrieved from the system clock of a managed server. - NTP Server: Time of iRMC synchronized with that of an NTP server which operates based on specific time as its reference time source by using Network Time Protocol (NTP).
ConfBmcRtcTimeMode	string	<p>Specifies time display performance of iRMC.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - UTC: iRMC time displayed in UTC (Coordinated Universal Time) format. - Localtime: iRMC time displayed in local time format.
ConfBmcTimeZoneLocation	string	Specifies time zone to correspond to a location of a server.

Parameter	Type	Description
		<p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Asia/Tokyo - US/Pacific - US/Mountain - US/Central - US/Eastern - Europe/Berlin - Europe/London - UTC
ConfBmcNtpServer0	string	<p>Specifies the IP address or the DNS name of the primary NTP server.</p> <p>If none are set, specifies null.</p>
ConfBmcNtpServer1	string	<p>Specifies the IP address or the DNS name of the secondary NTP server.</p> <p>If none are set, specifies null.</p>
ConfPostErrorHalt	string	<p>Specifies the operation in response to the occurrence of an error upon server boot.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Continue: Boot continued even after the occurrence of an error. - Halt on errors: Boot interrupted until the key entry when an error occurs.
ConfPowerControlMode	string	<p>Specifies the power-saving and noise canceling operations for a server.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - O/S Controlled: Control by OS followed. - Minimum Power: Operation where priority is placed on reduction in power consumption.
ConfDisableFanTest	string	<p>Specifies the settings of fan test.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Tests conducted every day at the specified time. - Disabled: Fan tests not conducted.
ConfFanDailyTestTime	string	<p>Specifies starting time of the fan test.</p> <p>Becomes valid when executing the fan test.</p> <p>If none are set, specifies null.</p>
ConfPowerFailBehavior	string	<p>Specifies the power source operation upon power restore operation after interruption of AC power source input.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - As Before: State upon power source interruption maintained (Powered on if a server is powered on upon interruption/ Not powered on if the server is powered off.) - Remain Off: Always powered off.

Parameter	Type	Description
		- Always On: Always powered on.
ConfSoftWatchdogEnable	string	Specifies whether to use Software Watchdog to execute periodic communication confirmations while an OS is running. If none are set, specifies null. - Enabled: Communication monitored. - Disabled: Communication not monitored.
ConfSoftWatchdogBehavior	string	Specifies an operation when the OS does not communicate due to Software Watchdog. Specifies when ConfSoftWatchdogEnable is Enabled. If none are set, specifies null. - Continue: Continue processing. - Reset: Server rebooted. - Power Cycle: Powered ON after powering OFF the server once.
ConfSoftWatchdogTime	integer	Specifies a value from 1-100 minutes for monitoring time by the Software Watchdog. Specifies when ConfSoftWatchdogEnable is Enabled. It is judged as unable to communicate when there is no communication after a specified time here. If none are set, specifies null.
ConfBootWatchdogEnable	string	Specifies the monitoring the period between POST completion and OS start, with use of Boot Watchdog. If none are set, specifies null. - Enabled: Period monitored. - Disabled: Period not monitored.
ConfBootWatchdogBehavior	string	Specifies behavior for the case when an OS does not start within the specified time in Boot Watchdog. Specifies when ConfBootWatchdogEnable is Enabled. If none are set, specifies null. - Continue: Continue processing. - Reset: Server rebooted. - Power Cycle: Powered ON after powering OFF the server once.
ConfBootWatchdogTime	integer	Specifies a value from 1-100 minutes for the Boot Watchdog monitoring time. Specifies when ConfBootWatchdogEnable is Enabled. It is judged as abnormality when OS cannot start after a specified time here. If none are set, specifies null.
ConfBMCTelnetPort	integer	Specifies Telnet port for iRMC. If none are set, specifies null.
ConfBMCSshPort	integer	Specifies SSH (Secure Shell) port for iRMC. If none are set, specifies null.

Parameter	Type	Description
ConfBMCTelnetEnable	string	Specifies connection with Telnet. If none are set, specifies null. - Enabled: Enables Telnet connection. - Disabled: Disables Telnet connection.
ConfBMCSshEnable	string	Specifies connection via SSH. If none are set, specifies null. - Enabled: Enables SSH connection. - Disabled: Disables SSH connection.
ConfBmcSnmpServiceEnable	string	Specifies SNMP service performance at iRMC. If none are set, specifies null. - Enabled: Enables the operation. - Disabled: Disable the operation.
ConfBMCSnmpServicePort	integer	Specifies a port where an SNMP service is in an idle state. Typically it becomes the UDP 161 port. If none are set, specifies null.
ConfBMCSnmpServiceEnableV3Only	string	Specifies the SNMP protocol. If none are set, specifies null. - All (SNMPv1/v2c/v3): All protocol support (SNMPv1/v2c/v3) - SNMPv3 only:SNMPv3
ConfBMCSnmpServiceCommunityName	string	Specifies a community name for when it is SNMP v1/v2c. If none are set, specifies null. The number of characters specifiable is 18 at a maximum. Characters and symbols specifiable are A-Z, a-z, 0-9 and (*/*, _?; -@&) %! Blank symbols and \ may not be used.
ConfBMCSnmpV3UserServiceEnabled	string	Specifies SNMPv3 support operations for a user. If none are set, specifies null. Enabled: Enables it. Disabled: Disable it.
ConfBMCSnmpV3UserAuthType	string	Specifies authentication protocols that SNMPv3 uses for authentication. If none are set, specifies null. - SHA: Uses SHA (Secure Hash Algorithm) for authentication. - MD5: Uses MD5 (Message-Digest Algorithm 5) authentication. - none: Does not use authentication.
ConfBMCSnmpV3UserPrivType	string	Specifies privacy protocol that SNMPv3 uses to encrypt SNMPv3 traffic. If none are set, specifies null.

Parameter	Type	Description
		<ul style="list-style-type: none"> - DES: Uses DES (Digital Encryption Standard) for SNMPv3 traffic encryption. - AES: Uses AES (Advanced Encryption Standard) 128 bits encryption for SNMPv3 traffic encryption. - none: Does not use encryption.
ConfBMCSnmpV3UserAccessType	string	<p>Specifies access privilege of a user.</p> <p>"Read only" has been set as fixed.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Read Only: Read-only
ConfBMCSnmpTrapCommunityName	string	<p>Specifies the SNMP Community Name.</p> <p>If none are set, specifies null.</p> <p>The number of characters specifiable is 18 at a maximum.</p> <p>Characters and symbols specifiable are A-Z, a-z, 0-9 and (*,/,_?;-@&) % !.</p> <p>Blank symbols and \ may not be used.</p>
ConfBMCSnmpV3UserSelected	string	<p>Specifies a SNMPv3 user already defined as SNMPv3 trap destination.</p> <p>Specifies a user name that has been created on iRMC.</p> <p>If none are set, specifies null.</p> <p>A user name can be specified with 16 characters at a maximum.</p> <p>A valid user name should start with an alphabet.</p> <p>For the remaining part of the name, it can accept only alphabets, digits, under bar, dash, period and at mark (@).</p> <p>Blank symbols may not be used.</p>
ConfBMCSnmpTrapDestName1	string	<p>Specifies DNS name or IP address of a server that belongs to a community to be configured as "trap transmission destination."</p> <p>If none are set, specifies null.</p> <p>The number of characters specifiable is 64 at a maximum.</p> <p>Characters and symbols specifiable are half-width alphabets of (a-z, A-Z) , Arabian figures (0-9), hyphen (-), colon (:) and dot (.).</p>
ConfBMCSnmpTrapDestName2	string	<p>Specifies DNS name or IP address of a server that belongs to a community to be configured as "trap transmission destination."</p> <p>If none are set, specifies null.</p> <p>The number of characters specifiable is 64 at a maximum.</p> <p>Characters and symbols specifiable are half-width alphabets of (a-z, A-Z) , Arabian figures (0-9), hyphen (-), colon (:) and dot (.).</p>
ConfBMCSnmpTrapDestName3	string	<p>Specifies DNS name or IP address of a server that belongs to a community to be configured as "trap transmission destination."</p> <p>If none are set, specifies null.</p> <p>The number of characters specifiable is 64 at a maximum.</p> <p>Characters and symbols specifiable are half-width alphabets of (a-z, A-Z) , Arabian figures (0-9), hyphen (-), colon (:) and dot (.).</p>

Parameter	Type	Description
ConfBMCSnmpTrapDestName4	string	<p>Specifies DNS name or IP address of a server that belongs to a community to be configured as "trap transmission destination."</p> <p>If none are set, specifies null.</p> <p>The number of characters specifiable is 64 at a maximum.</p> <p>Characters and symbols specifiable are half-width alphabets of (a-z, A-Z) , Arabian figures (0-9), hyphen (-), colon (:) and dot (.).</p>
ConfBMCSnmpTrapDestName5	string	<p>Specifies DNS name or IP address of a server that belongs to a community to be configured as "trap transmission destination."</p> <p>If none are set, specifies null.</p> <p>The number of characters specifiable is 64 at a maximum.</p> <p>Characters and symbols specifiable are half-width alphabets of (a-z, A-Z) , Arabian figures (0-9), hyphen (-), colon (:) and dot (.).</p>
ConfBMCSnmpTrapDestName6	string	<p>Specifies DNS name or IP address of a server that belongs to a community to be configured as "trap transmission destination."</p> <p>If none are set, specifies null.</p> <p>The number of characters specifiable is 64 at a maximum.</p> <p>Characters and symbols specifiable are half-width alphabets of (a-z, A-Z) , Arabian figures (0-9), hyphen (-), colon (:) and dot (.).</p>
ConfBMCSnmpTrapDestName7	string	<p>Specifies DNS name or IP address of a server that belongs to a community to be configured as "trap transmission destination."</p> <p>If none are set, specifies null.</p> <p>The number of characters specifiable is 64 at a maximum.</p> <p>Characters and symbols specifiable are half-width alphabets of (a-z, A-Z) , Arabian figures (0-9), hyphen (-), colon (:) and dot (.).</p>
ConfBMCSnmpProtocol1	string	<p>Specifies the version of SNMP protocol used for receiving a trap.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - SNMPv1: SNMP Protocol Version 1 - SNMPv2c: SNMP Protocol Version 2c - SNMPv3: SNMP Protocol Version 3
ConfBMCSnmpProtocol2	string	<p>Specifies the version of SNMP protocol used in reception of trap.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - SNMPv1: SNMP Protocol Version 1 - SNMPv2c: SNMP Protocol Version 2c - SNMPv3: SNMP Protocol Version 3
ConfBMCSnmpProtocol3	string	<p>Specifies the version of SNMP protocol used for receiving a trap.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - SNMPv1: SNMP Protocol Version 1 - SNMPv2c: SNMP Protocol Version 2c - SNMPv3: SNMP Protocol Version 3
ConfBMCSnmpProtocol4	string	<p>Specifies the version of SNMP protocol used for receiving a trap.</p> <p>If none are set, specifies null.</p>

Parameter		Type	Description
			<ul style="list-style-type: none"> - SNMPv1: SNMP Protocol Version 1 - SNMPv2c: SNMP Protocol Version 2c - SNMPv3: SNMP Protocol Version 3
	ConfBMCSnmpProtocol5	string	Specifies the version of SNMP protocol used for receiving a trap. If none are set, specifies null. <ul style="list-style-type: none"> - SNMPv1: SNMP Protocol Version 1 - SNMPv2c: SNMP Protocol Version 2c - SNMPv3: SNMP Protocol Version 3
	ConfBMCSnmpProtocol6	string	Specifies the version of SNMP protocol used for receiving a trap. If none are set, specifies null. <ul style="list-style-type: none"> - SNMPv1: SNMP Protocol Version 1 - SNMPv2c: SNMP Protocol Version 2c - SNMPv3: SNMP Protocol Version 3
	ConfBMCSnmpProtocol7	string	Specifies the version of SNMP protocol used for receiving a trap. If none are set, specifies null. <ul style="list-style-type: none"> - SNMPv1: SNMP Protocol Version 1 - SNMPv2c: SNMP Protocol Version 2c - SNMPv3: SNMP Protocol Version 3

D.3 IOVirtualization

Parameter		Type	Description
IOVirtualization		object	Settings of Virtual IO
	AdapterConfigIrmc	object	Settings of Virtual IO
	UseVirtualAddresses	string	Specifies if Virtual Address should be used in profile. <ul style="list-style-type: none"> - true: Uses a virtual address. By turning UseVirtualAddresses of the port to false, only virtual address of specific port can be turned to invalid. - false: Does not use a virtual address. Do not specify all of VirtualAddresses of this profile.
	BootMenuEnable	string	Specifies if the Boot Menu should be enabled. <ul style="list-style-type: none"> - true: Enables the boot menu. - false: Disables the boot menu.
	SmuxSetting	string	Specifies Settings of SMUX. SMUX means a function to change connection between LAN card and Fabric. Omit this settings for any platform not supported for SMUX setup. Becomes equivalent with a state specified for Fabric4 when omitted. <ul style="list-style-type: none"> - Fabric3: Uses Fabric3. - Fabric4: Uses Fabric4.

Parameter			Type	Description				
				- Fabric3+4: LAN1 uses Fabric3 and LAN2 uses Fabric4.				
		SRIOV	string	Specifies if SR-IOV should be used. - true: Enables SR-IOV. By turning SRIOV of the port to false, only virtual address of specific port can turned to invalid. - false:Disables SR-IOV.				
		BootMode	string	Specifies a boot mode for use when there is IO channel to be defined as a boot device. - LegacyFirst: Prioritizes Legacy Boot (BIOS). Uses UEFI Boot as well. - LegacyOnly: Uses only Legacy Boot (BIOS). - UEFIFirst: Prioritizes UEFI Boot. Uses Legacy Boot (BIOS) as well. - UEFIOOnly: Uses only UEFI Boot.				
	Slots		object	Settings of Slot				
		Slot	array	Settings of Slot				
			OnboardControllers	object	Specifies settings of onboard. Omits if there is no need to configure onboard.			
				OnboardController	array	Specifies settings of onboard. Specifies either CNAAdapter, LANAdapter, FCAdapter.		
					CNAAdapter	object	CNA Adapter Settings Omit if there is no need to configure the CNA adapter. For details, refer to " D.3.1 CNAAdapter. "	
						LANAdapter	object	LAN Adapter Settings For details, refer to " D.3.2 LANAdapter. "
						FCAdapter	object	FC Adapter Settings For details, refer to " D.3.3 FCAdapter. "
					AddOnCards		object	Specifies settings of PCI card. Omit if there is no need to configure the PCI card.
			AddOnCard	array	Specifies settings of PCI card. Specifies either CNAAdapter, LANAdapter, FCAdapter.			
			@AddOnCardIdx	integer	Specifies a number the PCI card will attach. The value starts from 1.			
				CNAAdapter	object	CNA Adapter Settings Omit if there is no need to configure the CNA adapter. For details, refer to " D.3.1 CNAAdapter. "		
					LANAdapter	object	LAN Adapter Settings For details, refer to " D.3.2 LANAdapter. "	
	FCAdapter				object	FC Adapter Settings For details, refer to " D.3.3 FCAdapter. "		
	DaughterCards			object	Specifies settings of an expansion card.			

Parameter					Type	Description
						Omit if there is no need to configure an expansion card.
					DaughterCard	array Specifies settings of an expansion card. Specifies either CNAAdapter, LANAdapter, FCAdapter.
					@DaughterCardIdx	integer Specifies a number an expansion card belongs to. The value starts from 1.
					CNAAdapter	object CNA Adapter Settings Omit if there is no need to configure the CNA adapter. For details, refer to " D.3.1 CNAAdapter ."
					LANAdapter	object LAN Adapter Settings For details, refer to " D.3.2 LANAdapter ."
					FCAdapter	object FC Adapter Settings For details, refer to " D.3.3 FCAdapter ."

D.3.1 CNAAdapter

Parameter					Type	Description
CNAAdapter					object	CNA Adapter Settings Omit if there is no need to configure the CNA adapter.
					Ports	object Port Settings
					Port	array Port Settings
					@PortIdx	integer Specifies a number of a port. The value starts from 1.
					PortEnable	string Setting of Port Validity - true: Enables a port. - false: Does not enable a port.
					Functions	object CNA Function Specifies either LANFunction, FCoEFunction, or ISCSIFunction.
					Function	array CNA Function
					@FunctionIdx	integer Specifies a number of Function. The value starts from 1.
					LANFunction	object LAN Function
					FunctionEnable	string Setting of Function Validity - true: Enables Function. - false: Does not enable Function.
					VLANId	integer Specifies the VLAN ID.
					Bandwidth	integer Specifies settings of bandwidth. Specifies respective IO channels so that the total is 100. If the total bandwidth of respective channels is not 100, the bandwidth value is adjusted internally accordingly.

Parameter						Type	Description
						RateLimit	integer Maximum Share Percent of Bandwidth Available in This Function It should be exceeding the value of Bandwidth of this Function.
						SRIOV	string Settings to Enable SR-IOV - true: Enables SR-IOV. - false: Disables SR-IOV.
						UseVirtualAddresses	string Settings of the Use of Virtual Address - true: Uses a virtual address. - false: Does not use virtual address.
						VirtualAddress	object Specifies a virtual address. It is not required when a virtual address is not used. It is required that the Virtual MAC address, WWPN and IQN are unique across the system. Except for the same card, it is required that the WWNN is unique across the system. There is a risk that the volume is damaged if overlapping IQN, WWPN or WWNN access the same volume at the same time. Network communication is not possible if virtual MAC addresses overlap. Multicast MAC addresses cannot be used as virtual MAC addresses. If you set virtual IP addresses arbitrarily there is a risk that they might overlap with the factory shipping values of other cards. It is recommended that you set the virtual address within the following range. MAC Address (00:19:99:3E:D2:A1 - 00:19:99:3F:CC:A1) WWN (50:01:99:93:ED:2A:10:00 - 50:01:99:93:FC:C9:FF:FF)
						MAC	string Specifies a virtual MAC address. 2-digit half-width alphabetical characters delimited by a colon(:) or hyphen(-). When specifying a virtual address automatically, specify null.
						BootProtocol	string Settings of Boot Methods - None: Does not specify how to boot. - PXE: Uses PXE.
						BootPriority	integer Sequence of booting should be specified by values 1 to 4. Any redundant value in a profile cannot be used.
						PXEBootEnvironment	object Settings of PXE Boot
						IPUsage	string Specifies the IP protocol to use in PXE boot. - IP4first: Uses the IPv4 first. - IP4only: Uses IPv4 only. - IP6first: Uses the IPv6 first.

Parameter				Type	Description
					- IP6only: Uses IPv6 only.
			FCoEFunction	object	FCoE Function
			FunctionEnable	string	Settings of Function Validity - true: Enables Function. - false: Does not enable Function.
			Bandwidth	integer	Specifies settings of bandwidth. Specifies respective IO channels so that the total is 100. If the total bandwidth of respective channels is not 100, the bandwidth value is adjusted internally accordingly.
			RateLimit	integer	Maximum Share Percent of Bandwidth Available at This Function It should be exceeding the value of Bandwidth of this Function.
			SRIOV	string	Settings to Enable SR-IOV - true: Enables SR-IOV. - false: Disables SR-IOV.
			UseVirtualAddresses	string	Settings of the Use of Virtual Address - true: Uses a virtual address. - false: Does not use virtual address.
			VirtualAddress	object	Virtual Address It is not required when a virtual address is not used. It is required that the Virtual MAC address, WWPN and IQN are unique across the system. Except for the same card, it is required that the WWNN is unique across the system. There is a risk that the volume is damaged if overlapping IQN, WWPN or WWNN access the same volume at the same time. Network communication is not possible if virtual MAC addresses overlap. Multicast MAC addresses cannot be used as virtual MAC addresses. If you set virtual IP addresses arbitrarily there is a risk that they might overlap with the factory shipping values of other cards. It is recommended that you set the virtual address within the following range. MAC Address (00:19:99:3E:D2:A1 - 00:19:99:3F:CC:A1) WWN (50:01:99:93:ED:2A:10:00 - 50:01:99:93:FC:C9:FF:FF)
			WWNN	string	Specifies a virtual WWNN. 2 digit half-width alphabetical characters delimited by a colon (:). When specifying a virtual address automatically, specify null.
			WWPN	string	Specifies a virtual WWPN. 2 digit half-width alphabetical characters delimited by a colon (:).

Parameter				Type	Description
					WWPN, including other profiles, should be unique as a whole. When specifying a virtual address automatically, specify null.
			MAC	string	Specifies a virtual MAC address. 2-digit half-width alphabetical characters delimited by a colon (:) or hyphen (-). When specifying a virtual address automatically, specify null.
			BootProtocol	string	Settings of Boot Methods - None: Does not specify how to boot. - FC: Uses FC.
			BootPriority	integer	Sequence of booting should be specified by values 1 to 4. Any redundant value in a profile cannot be used.
			FCBootEnvironment	object	FC Boot Settings
			FCTargets	object	FC Target Settings
			FCTarget	array	FC Target Settings Specifies information of the first and second storages that start up by SAN boot.
			@FCTargetId x	integer	Specifies information of the first and second storages that start up by SAN boot.
			TargetWWPN	string	Specifies WWPN of storage that starts up by SAN boot.
			TargetLUN	integer	Specifies LUN of storage that starts up by SAN boot.
			FCLinkSpeed	string	Specifies speed of connection. - auto: Automatic - 1: 1 Gbit/s - 2: 2 Gbit/s - 4: 4 Gbit/s - 8: 8 Gbit/s - 16: 16 Gbit/s When the connection speed that you want to set is not in the alternatives, specify "auto."
			FCTopology	string	Specifies a form of connection. - auto_loop: Automatic (It tries to connect by Arbitrated loop at first) - PtP: Point-to-Point - auto_PtP: Automatic (It tries to connect by Point-to-Point at first) - loop: Arbitrated loop
			ISCSIFunction	object	iSCSI Function
			FunctionEnable	string	Settings of Function Validity - true: Enables Function. - false: Does not enable Function.

Parameter					Type	Description
					VLANId	integer VLAN ID
					Bandwidth	integer Specifies settings of bandwidth. Settings respective IO channels so that the total is 100. If the total bandwidth of respective channels is not 100, the bandwidth value is adjusted internally accordingly.
					RateLimit	integer Maximum Share Percent of Bandwidth Available at This Function It should be exceeding the value of Bandwidth of this Function.
					SRIOV	string Settings to Enable SR-IOV - true: Enables SR-IOV. - false: Disables SR-IOV.
					UseVirtualAddresses	string Settings of the Use of Virtual Address - true: Uses a virtual address. - false: Does not use virtual address.
					VirtualAddress	object Specifies a virtual address. It is not required when a virtual address is not used. It is required that the Virtual MAC address, WWPN and IQN are unique across the system. Except for the same card, it is required that the WWNN is unique across the system. There is a risk that the volume is damaged if overlapping IQN, WWPN or WWNN access the same volume at the same time. Network communication is not possible if virtual MAC addresses overlap. Multicast MAC addresses cannot be used as virtual MAC addresses. If you set virtual IP addresses arbitrarily there is a risk that they might overlap with the factory shipping values of other cards. It is recommended that you set the virtual address within the following range. MAC Address (00:19:99:3E:D2:A1 - 00:19:99:3F:CC:A1) WWN (50:01:99:93:ED:2A:10:00 - 50:01:99:93:FC:C9:FF:FF)
				MAC	string	Virtual MAC Address 2-digit half-width alphabetical characters delimited by a colon (:) or hyphen (-). When specifying a virtual address automatically, specify null.
					BootProtocol	string Settings of Boot Methods - None: Does not specify how to boot. - ISCSI: Uses iSCSI.
					BootPriority	integer Sequence of booting should be specified by values 1 to 4. Any redundant value in a profile cannot be used.
					ISCSIBootEnvironment	object Setting of iSCSI Boot

Parameter										Type	Description	
										ISCSIIInitiator	object	Setting of iSCSI Initiator
										DHCPUsage	string	Settings of Acquiring Method of IP Address for Initiator - true: Retrieves an address from DHCP server dynamically. - false: Sets up an address statically.
										Name	string	Initiator IQN A string within 223 characters should be specified with its head and tail expressed in alphanumerical and the rest consisting of alphanumerical and symbols (period ".", colon ":" and hyphen "-")
										IPv4Address	string	IP Address for Initiator Specifies a string consisting half-width digits (0-255) and period ("."). Specifies when DHCPUsage is false.
										SubnetMask	string	Subnet Mask Specifies a string consisting half-width digits (0-255) and period ("."). Specifies when DHCPUsage is false.
										GatewayIPv4Address	string	Gateway Address Specifies a string consisting half-width digits (0-255) and period ("."). Specifies when DHCPUsage is false.
										VLANId	integer	VLAN ID used to send requirements of HBA
										ISCSITarget	object	Setting of iSCSI Target
										DHCPUsage	string	Setting of How to Retrieve IP Address of a Target - true: Retrieves an address from DHCP server dynamically. - false: Sets up an address statically.
										Name	string	Target IQN A string within 223 characters should be specified with its head and tail expressed in alphanumerical and the rest consisting of alphanumerical and symbols (period ".", colon ":" and hyphen "-") It is possible to omit when the DHCPUsage of the ISCSITarget is true.
										IPv4Address	string	Target IP Address Specifies a string consisting half-width digits (0-255) and period ("."). Specifies when DHCPUsage is false.
										PortNumber	integer	Target Port Number Specifies when DHCPUsage is false. It can be omitted even when DHCPUsage is false. If omitted, set to 3260.
										BootLUN	integer	Specifies LUN number (0-255) of the target. Specifies when DHCPUsage is false.

Parameter										Type	Description
										AuthenticationMethod	string Setting of Authentication Methods - None: No Authentication - CHAP: CHAP Authentication - MutualCHAP: Mutual CHAP Authentication
										ChapUserName	string Authentication User Name Specifies a string with less than 127 characters consisting of alphabetic characters and symbols. Specifies when AuthenticationMethod is anything besides None. You may not use symbols by type of hardware. It is recommended to use only alphabetic characters.
										ChapSecret	string Secret of CHAP Authentication Set the password encrypted with AES256+Base64. For a secret before encryption, use a string with over 12 and less than 16 characters consisting of alphanumeric characters and symbols. Specifies when AuthenticationMethod is anything besides None. You may not use symbols by type of hardware. It is recommended to use only alphabetic characters.
										MutualChapSecret	string Secret of Mutual CHAP Authentication Set the password encrypted with AES256+Base64. For a secret before encryption, use a string with over 12 and less than 16 characters consisting of alphanumeric characters and symbols. Specifies when AuthenticationMethod is anything besides None. You may not use symbols by type of hardware. It is recommended to use only alphabetic characters.

D.3.2 LANAdapter

Parameter			Type	Description
LANAdapter			object	LAN Adapter Settings
	Ports		object	Port Settings
		Port	array	Port Settings
		@PortIdx	integer	Specifies a number of a port. The value starts from 1.
		PortEnable	string	Setting of Port Validity - true: Enables a port. - false: Does not enable a port.
		SRIOV	string	Settings to Enable SR-IOV - true: Enables SR-IOV. - false: Disables SR-IOV.

Parameter				Type	Description
				UseVirtualAddresses	string Settings of the Use of Virtual Address - true: Uses a virtual address. - false: Does not use virtual address.
				VirtualAddress	object Specifies a virtual address. It is not required when a virtual address is not used. It is required that the Virtual MAC address, WWPN and IQN are unique across the system. Except for the same card, it is required that the WWNN is unique across the system. There is a risk that the volume is damaged if overlapping IQN, WWPN or WWNN access the same volume at the same time. Network communication is not possible if virtual MAC addresses overlap. Multicast MAC addresses cannot be used as virtual MAC addresses. If you set virtual IP addresses arbitrarily there is a risk that they might overlap with the factory shipping values of other cards. It is recommended that you set the virtual address within the following range. MAC Address (00:19:99:3E:D2:A1 - 00:19:99:3F:CC:A1) WWN (50:01:99:93:ED:2A:10:00 - 50:01:99:93:FC:C9:FF:FF)
				MAC	string Virtual MAC Address Divide into 2-digit half-width English characters using a colon(:) or hyphen(-). When specifying a virtual address automatically, specify null.
				BootProtocol	string Settings of Boot Methods - None: Does not specify how to boot. - PXE: Uses PXE. - iSCSI: Uses iSCSI.
				BootPriority	integer Sequence of booting should be specified by values 1 to 4. Any redundant value in a profile cannot be used.
				ISCSIBootEnvironment	object Settings of iSCSI Boot
				ISCSIInitiator	object Settings of iSCSI Initiator
				DHCPUsage	string Settings of Acquiring Method of IP Address for Initiator - true: Retrieves an address from DHCP server dynamically. - false: Sets up an address statically.
				Name	string Initiator IQN A string within 223 characters should be specified with its head and tail expressed in alphanumerical and the rest consisting of alphanumerical and symbols (period ".", colon ":" and hyphen "-").
				IPv4Address	string IP Address for Initiator Specifies a string consisting half-width digits (0-255) and period (".").

Parameter					Type	Description
						Specifies when DHCPUsage is false.
					SubnetMask	string Subnet Mask Specifies a string consisting half-width digits (0-255) and period ("."). Specifies when DHCPUsage is false.
					GatewayIPv4Address	string Gateway Address Specifies a string consisting half-width digits (0-255) and period ("."). Specifies when DHCPUsage is false.
					VLANId	integer VLAN ID used to send requirements of HBA
					ISCSITarget	object Setting of iSCSI Target
					DHCPUsage	string Setting of How to Retrieve IP Address of a Target - true: Retrieves an address from DHCP server dynamically. - false: Sets up an address statically.
					Name	string Target IQN A string within 223 characters should be specified with its head and tail expressed in alphanumerical and the rest consisting of alphanumerical and symbols (period ".", colon ":" and hyphen "-") It is possible to omit when the DHCPUsage of the ISCSITarget is true.
					IPv4Address	string Target IP Address Specifies a string consisting half-width digits (0-255) and period ("."). Specifies when DHCPUsage is false.
					PortNumber	integer Target Port Number Specifies when DHCPUsage is false. It can be omitted even when DHCPUsage is false. If omitted, set to 3260.
					BootLUN	integer Specifies LUN number (0-255) of the target. Specifies when DHCPUsage is false.
					AuthenticationMethod	string Setting of Authentication Methods None: No Authentication CHAP: CHAP Authentication MutualCHAP: Mutual CHAP Authentication
					ChapUserName	string Authentication User Name Specifies a string with less than 127 characters consisting of alphanumerical characters and symbols. Specifies when AuthenticationMethod is anything besides None. You may not use symbols by type of hardware. It is recommended to use only alphanumerical characters.
					ChapSecret	string Secret of CHAP Authentication Set the password encrypted with AES256+Base64. For a secret before encryption, use a string with over 12 and less than 16 characters consisting of alphanumerical characters and symbols. Specifies when AuthenticationMethod is anything besides None. You may not use symbols by type of hardware.

Parameter					Type	Description
						It is recommended to use only alphametric characters.
					MutualChapSecret	string
						Secret of Mutual CHAP Authentication Set the password encrypted with AES256+Base64. For a secret before encryption, use a string with over 12 and less than 16 characters consisting of alphanumeric characters and symbols. Specifies when AuthenticationMethod is anything besides None. You may not use symbols by type of hardware. It is recommended to use only alphametric characters.
					PXEBootEnvironment	object
				IPUsage	string	Settings of the IP Protocol to Use in PXE Boot. <ul style="list-style-type: none"> - IP4first: Uses the IPv4 first. - IP4only: Uses IPv4 only. - IP6first: Uses the IPv6 first. - IP6only: Uses IPv6 only.

D.3.3 FCAdapter

Parameter					Type	Description
FCAdapter					object	FC Adapter Settings
				Ports	object	Port Settings
				Port	array	Port Settings
				@PortIdx	integer	Specifies a number of a port. The value starts from 1.
				PortEnable	string	Setting of Port Validity <ul style="list-style-type: none"> - true: Enables a port. - false: Does not enable a port.
				SRIOV	string	Settings to Enable SR-IOV <ul style="list-style-type: none"> - true: Enables SR-IOV. - false: Disables SR-IOV.
				UseVirtualAddresses	string	Settings of the Use of Virtual Address <ul style="list-style-type: none"> - true: Uses a virtual address. - false: Does not use virtual address.
				VirtualAddress	object	Specifies a virtual address. It is not required when a virtual address is not used. It is required that the Virtual MAC address, WWPN and IQN are unique across the system. Except for the same card, it is required that the WWNN is unique across the system. There is a risk that the volume is damaged if overlapping IQN, WWPN or WWNN access the same volume at the same time.

Parameter				Type	Description
					<p>Network communication is not possible if virtual MAC addresses overlap.</p> <p>Multicast MAC addresses cannot be used as virtual MAC addresses.</p> <p>If you set virtual IP addresses arbitrarily there is a risk that they might overlap with the factory shipping values of other cards.</p> <p>It is recommended that you set the virtual address within the following range.</p> <p>MAC Address (00:19:99:3E:D2:A1 - 00:19:99:3F:CC:A1)</p> <p>WWN (50:01:99:93:ED:2A:10:00 - 50:01:99:93:FC:C9:FF:FF)</p>
			WWNN	string	<p>Specifies a virtual WWNN.</p> <p>2-digit half-width alphabetical characters delimited by a colon (:).</p> <p>When specifying a virtual address automatically, specify null.</p>
			WWPN	string	<p>Specifies a virtual WWPN.</p> <p>2 digit half-width alphabetical characters delimited by a colon (:).</p> <p>WWPN, including other profiles, should be unique as a whole.</p> <p>When specifying a virtual address automatically, specify null.</p>
			BootProtocol	string	<p>Settings of Boot Methods</p> <ul style="list-style-type: none"> - None: Does not specify how to boot. - FC: Uses the FC. <p>Set as None or FC when FCAdapter.</p>
			BootPriority	integer	<p>Sequence of booting should be specified by values 1 to 4.</p> <p>Any redundant value in a profile cannot be used.</p>
			FCBootEnvironment	object	FC Boot Settings
			FCTargets	object	FC Target Settings
			FCTarget	array	<p>FC Target Settings</p> <p>Specifies information of the first and second storages that start up by SAN boot.</p>
			@FCTargetIdx	integer	Specifies information of the first and second storages that start up by SAN boot.
			TargetWWPN	string	Specifies WWPN of storage that starts up by SAN boot.
			TargetLUN	integer	Specifies LUN of storage that starts up by SAN boot.
			FCLinkSpeed	string	<p>Setting of Connection Speed</p> <ul style="list-style-type: none"> - auto: Automatic - 1: 1 Gbit/s - 2: 2 Gbit/s - 4: 4 Gbit/s - 8: 8 Gbit/s - 16: 16 Gbit/s <p>When the connection speed that you want to set is not in the alternatives, specify "auto."</p>
			FCTopology	string	Setting of Form of Connection

Parameter					Type	Description
						<ul style="list-style-type: none"> - auto_loop: Automatic (It tries to connect by Arbitrated loop at first) - PtP: Point-to-Point - auto_PtP: Automatic (It tries to connect by Point-to-Point at first) - loop: Arbitrated loop

D.4 OSInstallation

Parameter					Type	Description
OSInstallation					object	Settings of OS Installation
Linux					object	Settings of Linux
OsType					object	OS Classification
Type					string	Type of Imported OS Media <ul style="list-style-type: none"> - Red Hat Enterprise Linux 7.5 (x86_64) - Red Hat Enterprise Linux 7.4 (x86_64) - Red Hat Enterprise Linux 7.3 (x86_64) - Red Hat Enterprise Linux 7.2 (x86_64) - Red Hat Enterprise Linux 7.1 (x86_64) - Red Hat Enterprise Linux 6.10 (x86_64) (ISM 2.3.0.b or later) - Red Hat Enterprise Linux 6.10 (x86) (ISM 2.3.0.b or later) - Red Hat Enterprise Linux 6.9 (x86_64) - Red Hat Enterprise Linux 6.9 (x86) - Red Hat Enterprise Linux 6.8 (x86_64) - Red Hat Enterprise Linux 6.8 (x86) - Red Hat Enterprise Linux 6.7 (x86_64) - Red Hat Enterprise Linux 6.7 (x86) - Red Hat Enterprise Linux 6.6 (x86_64) - Red Hat Enterprise Linux 6.6 (x86) - SUSE Linux Enterprise Server 15 (x86_64) (ISM 2.3.0.b or later) - SUSE Linux Enterprise Server 12 SP3 (x86_64) - SUSE Linux Enterprise Server 12 SP2 (x86_64) - SUSE Linux Enterprise Server 12 SP1 (x86_64) - SUSE Linux Enterprise Server 12 (x86_64) - SUSE Linux Enterprise Server 11 SP4 (x86_64) - SUSE Linux Enterprise Server 11 SP4 (x86)
ServerViewSuiteDVD					object	Settings of ServerView Suite DVD
Version					string	Version Number of DVD to Use at Installation When omitting settings of ServerView Suite DVD, use the newest version from the versions imported.

Parameter		Type	Description
	PostScript	object	Settings of Optional Script for Execution after Installation
	FolderPath	string	FTP Directory that Saved a Script for Execution and the Name of the Script File for Execution
	ScriptName	string	Name of Script File for Execution
	RaidConfig	object	Setting of Array Controller
	LogicalDiskType	string	Type of Disk Drive <ul style="list-style-type: none"> - RAID: RAID - SATA: SATA - SAS: SAS - FC: FC - ISCSIHBA: iSCSI HBA - PCIeSSD: PCIeSSD - USBSTOR: USBSTOR When using a card which has both SAS controller function and SAS array controller function as the SAS controller card, select "RAID."
	RAIDController	string	Types of Array Controllers <ul style="list-style-type: none"> - Disabled: Uses the existing array configuration. (Select also when do not use RAID.) - OnBoard: Uses onboard array controller. - SasRaid01: Uses array controller enabled for SAS RAID0/1. - SasRaid0156: Uses array controller enabled for SAS RAID0/1/5/6. When configuring a new array, select the type of the array controller. When using the existing array configuration, select "Disabled."
	RAIDLevel	string	RAID Level of Disk Array to be Built <ul style="list-style-type: none"> - RAID0: RAID level 0 - RAID1: RAID level 1 - RAID1E: RAID level 1E - RAID5: RAID level 5 - RAID6: RAID level 6 - RAID10: RAID level 1+0
	RAIDDisk	integer	The Number of Disks to be Built in RAID
	ManagementLanInfo	object	Information of LAN to be Used as Management LAN If omitted, use the lead port onboard.
	AdapterInfo	object	Information of an Adapter to be Used as Management LAN Specifies either MACAddress or AdapterInfo.
	AdapterType	string	Types of Adapters <ul style="list-style-type: none"> - Onboard: Onboard - AddOnCard: PCI card

Parameter				Type	Description
				SlotIndex	Slot Number Specifies when AdapterType is AddOnCard.
				PortIndex	Port Number
				MACAddress	MAC Address to be Used as Management LAN Specifies either MAC Address or Adapter.
				PxeBootInfo	Settings of PXE Boot
				BootType	Class of Boot <ul style="list-style-type: none"> - Legacy: Legacy - UEFI: UEFI (Unified Extensible Firmware Interface) Specified operation varies by model. There are platforms that execute PXE boot by prioritizing the classification of boot order as specified by respective BIOS, in spite of this configuration. When unspecified, it will turn out to the following specified states. <ul style="list-style-type: none"> - For PRIMERGY RX/CX M4 or later and PRIMEQUEST 3000B/3000E: UEFI - For other than the above models: Legacy
				Volumes	Specification of a mount point
				boot	Settings of /boot
				CreatePartition	Creation of Partitions <ul style="list-style-type: none"> - Enabled: Creates partition. - Disabled: Does not create partition.
				FileSystem	Types of File System <ul style="list-style-type: none"> - ext2: ext2 - ext3: ext3 - ext4: ext4 - xfs: XFS - vfat: vfat xfs cannot be specified in Red Hat Enterprise Linux 6 series.
				PartitionSize	Capacity of Partitions (MB) When specifying the use up to the maximum acceptable amount, it can be omitted.
				FillToMaximumAllowableSize	Usable or Not of up to the Maximum Allowable Value <ul style="list-style-type: none"> - Enabled: Uses up to max capacity of the partition. - Disabled: Does not use up to max capacity of the partition.
				swap	Settings of /swap
				CreatePartition	Creation of Partitions <ul style="list-style-type: none"> - Enabled: Creates partition. - Disabled: Does not create partition.

Parameter				Type	Description
				FileSystem	Types of File System - swap: Swap
				PartitionSize	Capacity of Partitions (MB) When specifying the use up to the maximum acceptable amount, it can be omitted.
				FillToMaximumAllowableSize	Usable or Not of up to the Maximum Allowable Value - Enabled: Uses up to max capacity of the partition. - Disabled: Does not use up to max capacity of the partition.
			root		object Settings of /root
				CreatePartition	Creation of Partitions - Enabled: Creates partition. - Disabled: Does not create partition.
				FileSystem	Types of File Systems - ext2: ext2 - ext3: ext3 - ext4: ext4 - xfs: XFS - vfat: vfat xfs cannot be specified in Red Hat Enterprise Linux 6 series.
				PartitionSize	Capacity of Partitions (MB) When specifying the use up to the maximum acceptable amount, it can be omitted.
				FillToMaximumAllowableSize	Usable or not of up to the maximum allowable value - Enabled: Uses up to the partition's max capacity. - Disabled: Does not use up to max capacity of the partition.
			home		object Settings of /home
				CreatePartition	Creation of Partitions - Enabled: Creates partition. - Disabled: Does not create partition.
				FileSystem	Types of File System - ext2: ext2 - ext3: ext3 - ext4: ext4 - xfs: XFS - vfat: vfat xfs cannot be specified in Red Hat Enterprise Linux 6 series.
				PartitionSize	Capacity of Partitions (MB) When specifying the use up to the maximum acceptable amount, it can be omitted.

Parameter				Type	Description
				FillToMaximumAllowableSize	string Usable or Not of up to the Maximum Allowable Value - Enabled: Uses up to the partition's max capacity. - Disabled: Does not use up to max capacity of the partition.
				var	object Settings of /var
				CreatePartition	string Creation of Partitions - Enabled: Creates partition. - Disabled: Does not create partition.
				FileSystem	string Types of File System - ext2: ext2 - ext3: ext3 - ext4: ext4 - xfs: XFS - vfat: vfat xfs cannot be specified in Red Hat Enterprise Linux 6 series.
				PartitionSize	integer Capacity of partitions (MB) When specifying the use up to the maximum acceptable amount, it can be omitted.
				FillToMaximumAllowableSize	string Usable or Not of up to the Maximum Allowable Value - Enabled: Uses up to the partition's max capacity. - Disabled: Does not use up to max capacity of the partition.
				user	object Settings of /user
				CreatePartition	string Creation of Partitions - Enabled: Creates partition. - Disabled: Does not create partition.
				FileSystem	string Types of File System - ext2:ext2 - ext3:ext3 - ext4:ext4 - xfs:XFS - vfat:vfat xfs cannot be specified in Red Hat Enterprise Linux 6 series.
				PartitionSize	integer Capacity of partitions (MB) When specifying the use up to the maximum acceptable amount, it can be omitted.
				FillToMaximumAllowableSize	string Usable or Not of up to the Maximum Allowable Value - Enabled: Uses up to the partition's max capacity. - Disabled: Does not use up to the partition's max capacity.
				opt	object Settings of /opt

Parameter				Type	Description
			CreatePartition	string	Creation of Partitions
					- Enabled: Creates partition.
					- Disabled: Does not create partition.
			FileSystem	string	Types of File System
					- ext2: ext2
					- ext3: ext3
					- ext4: ext4
			- xfs: XFS		
			- vfat: vfat		
			xfs cannot be specified in Red Hat Enterprise Linux 6 series.		
			PartitionSize	integer	Capacity of partitions (MB)
					When specifying the use up to the maximum acceptable amount, it can be omitted.
			FillToMaximumAllowableSize	string	Usable or not of up to the maximum allowable value
- Enabled: Uses up to the partition's max capacity.					
- Disabled: Does not use up to the partition's max capacity.					
tmp		object	Settings of /tmp		
CreatePartition	string	Creation of Partitions			
		- Enabled: Creates partition.			
		- Disabled: Does not create partition.			
FileSystem	string	Types of File System			
		- ext2: ext2			
		- ext3: ext3			
		- ext4: ext4			
- xfs: XFS					
- vfat: vfat					
xfs cannot be specified in Red Hat Enterprise Linux 6 series.					
PartitionSize	integer	Capacity of Partitions (MB)			
		When specifying the use up to the maximum acceptable amount, it can be omitted.			
FillToMaximumAllowableSize	string	Usable or Not of up to the Maximum Allowable Value			
		- Enabled: Uses up to the partition's max capacity.			
		- Disabled: Does not use up to the partition's max capacity.			
AdditionalVolumes		array	Specification of a Mount Point		
Volume	object	Specification of a Mount Point			
MountPoint	string	Name of a Mount Point to Create			
CreatePartition	string	Creation of Partitions			
		- Enabled: Creates partition.			

Parameter				Type	Description
					- Disabled: Does not create partition.
			FileSystem	string	Types of File System <ul style="list-style-type: none">- ext2: ext2- ext3: ext3- ext4: ext4- xfs: XFS- vfat: vfat xfs cannot be specified in Red Hat Enterprise Linux 6 series.
			PartitionSize	integer	Capacity of Partitions (MB) When specifying the use up to the maximum acceptable amount, it can be omitted.
			FillToMaximumAllowableSize	string	Usable or Not of up to the Maximum Allowable Value <ul style="list-style-type: none">- Enabled: Uses up to the partition's max capacity.- Disabled: Does not use up to the partition's max capacity.
	BasicSettings			object	Basic Settings
			Language	string	Specifying Language <ul style="list-style-type: none">- English- German- Japanese
			Keyboard	string	Type of Keyboard <ul style="list-style-type: none">- United States - English: English Keyboard- German: German Keyboard- Japanese: Japanese Keyboard
			TimeZone	string	Specification of Time Zone <ul style="list-style-type: none">- GMT Standard Time- Pacific Standard Time- Mountain Standard Time- Central Standard Time- Eastern Standard Time- W. Europe Standard Time- Tokyo Standard Time
			SystemClockUsesUTC	string	Use of UTC at the System Clock <ul style="list-style-type: none">- Enabled: Uses UTC in system clock.- Disabled: Does not use UTC in system clock.
	PackageSettings			object	Settings of Packages to Install
			SelectPackages	object	Selection of Package Groups
			SelectPackageList	array(string)	Package Groups to Install <ul style="list-style-type: none">- 32 bit

Parameter					Type	Description
						<ul style="list-style-type: none"> - additional-devel - apparmor - backup-client - backup-server - base - basic-desktop - Basis-Devel - cifs-file-server - compat-libraries - console-internet - core - debugging - desktop-debugging - desktop-platform - desktop-platform-devel - development - dhcp_dns_server - dial-up - directory_server - directory-client - directory-server - documentation - Dom0 - eclipse - emacs - file_server - file-server - fonts - ftp-server - gateway_server - general-desktop - german-support - gnome - gnome-basic - gnome-desktop - graphical-admin-tools - graphics

Parameter					Type	Description
						<ul style="list-style-type: none"> - hardware-monitoring - identity-management-server - infiniband - input-methods - internet-browser - japanese-support - java-platform - kde - kde-desktop - kvm_server - kvm_tools - lamp_server - large-systems - legacy-unix - legacy-x - load-balancer - mail_server - mail-server - mainframe-access - mariadb - mariadb-client - mysql - mysql-client - network-file-system-client - network-server - network-tools - nfs-file-server - ofed - oracle_server - performance - perl-runtime - php - platform-devel - postgresql - postgresql-client - print_server - print-client

Parameter				Type	Description
					<ul style="list-style-type: none"> - printing - print-server - remote-desktop-clients - remote-system-management - ruby-runtime - sap_server - scientific - security-tools - server-platform - server-platform-devel - smart-card - storage-client-fcoe - storage-client-iscsi - storage-client-multipath - storage-server - system-admin-tools - system-management - system-management-messaging-client - system-management-snmpp - system-management-wbem - technical-writing - tex - turbogears - virtualization - virtualization-client - virtualization-hypervisor - virtualization-platform - virtualization-tools - WBEM - web-server - web-servlet - x11 - xen_server - xen_tools
			SinglePackages	object	Selection of Specific Package
			SinglePackageList	array(string)	Names of Packages to install
			SystemSettings	object	System Settings

Parameter				Type	Description
			ConfigureXWindowsSystem	string	<p>X Windows System Settings</p> <ul style="list-style-type: none"> - Enabled: Uses X Window System. - Disabled: Does not use X Window System. <p>For SUSE Linux Enterprise Server, it can be omitted.</p>
			DisplayResolution	string	<p>Specification of Screen Resolution</p> <ul style="list-style-type: none"> - 640x480 - 800x600 - 1024x768 - 1152x864 - 1280x800 - 1280x1024 - 1400x1050 - 1600x1200 - 1920x1440 - 2048x1536 <p>For SUSE Linux Enterprise Server, it can be omitted.</p>
			ColorDepth	string	<p>Specification of the Number of Colors on the Screen</p> <ul style="list-style-type: none"> - 8 - 16 - 24 - 32 <p>For SUSE Linux Enterprise Server, it can be omitted.</p>
			DefaultDesktop	string	<p>Type of Desktop to Use in Default</p> <ul style="list-style-type: none"> - GNOME: Uses the GNOME. - KDE: Uses KDE. - None: Does not specify. <p>For SUSE Linux Enterprise Server, it can be omitted.</p>
			StartXWindowsSystemOnBoot	string	<p>X Window System Starts up at the System Boot</p> <ul style="list-style-type: none"> - Enabled: Starts up X Window System. - Disabled: Does not startup X Window System. <p>For SUSE Linux Enterprise Server, it can be omitted.</p>
			InstallBootloader	string	<p>Installation of a Boot Loader</p> <ul style="list-style-type: none"> - Enabled: Installs boot loader. - Disabled: Does not install boot loader.
			BootloaderLocation	string	<p>Destination of Installation of a Boot Loader</p> <ul style="list-style-type: none"> - MBR: Master Boot Record
			KernelParameters	string	Kernel Parameter

Parameter			Type	Description
		SELinux	string	Setting for Using SE Linux <ul style="list-style-type: none"> - Enforcing: Uses enforcing mode. - Disabled: Does use in disabled mode. - Permissive: Uses at the mode is permissive.
		UseShadowPasswords	string	Setting for the Use of Shadow Password <ul style="list-style-type: none"> - Enabled: Uses shadow password. - Disabled: Does not use shadow password.
		UseMD5	string	Settings of MD5 for Encryption of Password <ul style="list-style-type: none"> - Enabled: Uses MD5 for password encryption. - Disabled: Does not use MD5 for password encryption.
		EnableNSCD	string	Settings for Using Name Switch Cache <ul style="list-style-type: none"> - Enabled: Uses Name Switch Cache. - Disabled: Does not use Name Switch Cache.
	AdditionalParameters		object	Applications Automatically Installed after OS Install.
		SelectApplicationList	array(string)	Applications to Install <ul style="list-style-type: none"> - ServerView Agentless Service - ServerView CIM Provider - ServerView RAID Manager - AIS Connect - ServerView Operations Manager - Java Runtime - SV Agent - SV Agent SLES - SV Update Agent - SV Update Agent SLES - DSNAP - Software Support Guide - Dynamic Reconfiguration utility PQ2 - REMCS Option PQ2 - HBA blockage PQ2 - SIRMS PQ2 - ServerView Mission Critical Option PQ2
		OsIndividualConfig	object	Individual Settings of OS
		BasicSettings	object	Basic Setting by Individual OS
		RootPassword	string	root Password
		NetworkSettings	object	Network Setting by Individual OS
		GetComputerNameViaDNS	string	Setting of How to Use a Host Name for Acquiring DNS <ul style="list-style-type: none"> - Enabled: Uses DNS retrieved host name.

Parameter					Type	Description		
						- Disabled: Does not use DNS retrieved host name.		
				ComputerName	string	Unspecified Host Name Used when Host Name cannot be Retrieved from DNS Host.		
				DhcpEnable	string	Setting of the Use of DHCP - Enabled: Uses DHCP. - Disabled: Does not use DHCP.		
				NetworkInterface	object	Network Interface Settings		
				IPv4	object	IPv4 Settings		
					Address	string	IP Address	
						SubnetMask	string	Subnet Mask
						DefaultGateWay	string	Default Gateway
						DnsServer	string	IP Address of DNS Server This setting can be omitted even when setting the IP address, subnet mask and default gateway without using DHCP.
				AdditionalSettings	object	Settings to Add		
				WaitTimeForFinishOsInstallation	integer	Wait time (minutes) when OS Installation Completed Effective at SUSE Linux Enterprise Server. Use the default value (12 minuets) when omitted.		
					Windows		object	Settings of Windows
						OsType	object	OS Classification
Type	string	Type of Imported OS Media - Windows Server 2016 Datacenter (Fujitsu Media) - Windows Server 2016 Standard (Fujitsu Media) - Windows Server 2016 (Microsoft Media) - Windows Server 2016 (Microsoft VL Media) - Windows Server 2012 R2 Datacenter (Fujitsu Media) - Windows Server 2012 R2 Standard (Fujitsu Media) - Windows Server 2012 R2 (Microsoft Media) - Windows Server 2012 R2 (Microsoft VL Media) - Windows Server 2012 Datacenter (Fujitsu Media) - Windows Server 2012 Standard (Fujitsu Media) - Windows Server 2012 (Microsoft Media) - Windows Server 2012 (Microsoft VL Media) - Windows Server 2008 R2 Datacenter + SP1 (Fujitsu Media) - Windows Server 2008 R2 Enterprise + SP1 (Fujitsu Media) - Windows Server 2008 R2 Standard + SP1 (Fujitsu Media) - Windows Server 2008 R2 + SP1 (Microsoft Media) - Windows Server 2008 R2 + SP1 (Microsoft VL Media)						
	CoreVersion	string	Core Version					

Parameter				Type	Description
					<ul style="list-style-type: none"> - Full: Full installation - Core: Core install
				Edition	Edition <ul style="list-style-type: none"> - Standard - Datacenter - Enterprise
			ServerViewSuiteDVD		Settings of ServerView Suite DVD
				Version	Version Number of DVD to Use at Installation When omitting settings of ServerView Suite DVD, use the newest version from versions imported.
				PostScript	Optional Script for Execution after Installation
				FolderPath	FTP Directory that Saved a Script for Execution and the Name of the Script File for Execution
				ScriptName	Name of Script File for Execution
			RaidConfig		Setting of Array Controller
				LogicalDiskType	Type of Disk Drive <ul style="list-style-type: none"> - RAID: RAID - SATA: SATA - SAS: SAS - FC: FC - ISCSIHBA: iSCSI HBA - PCIeSSD: PCIeSSD - USBSTOR: USBSTOR When using a card which has both SAS controller function and SAS array controller function as the SAS controller card, select "RAID."
				RAIDController	Types of Array Controllers <ul style="list-style-type: none"> - Disabled: Uses the existing array configuration. (Select also when do not use RAID.) - OnBoard: Uses onboard array controller. - SasRaid01: Uses array controller enabled for SAS RAID0/1. - SasRaid0156: Uses array controller enabled for SAS RAID0/1/5/6. When configuring a new array, select a type of the array controller. When using the existing array configuration, select "Disabled."
				RAIDLevel	RAID Level of Disk Array to be Built <ul style="list-style-type: none"> - RAID0: RAID level 0 - RAID1: RAID level 1 - RAID1E: RAID level 1E - RAID5: RAID level 5 - RAID6: RAID level 6

Parameter		Type	Description
			- RAID10: RAID level 1+0
		RAIDDisk	integer The Number of Disks to be Built in RAID
		ManagementLanInfo	object Information of LAN to be Used as Management LAN If omitted, use the lead port on board.
		AdapterInfo	object Information of an Adapter to be Used as Management LAN Specifies either MACAddress (MAC Address) or AdapterInfo (Adapter).
		AdapterType	string Types of Adapters - Onboard: OnBoard - AddOnCard: PCI card
		SlotIndex	integer Slot Number Specifies AdapterType in the case of the AddOnCard.
		PortIndex	integer Port Number
		MACAddress	string MAC Address to be Used as Management LAN Specifies either MAC Address or Adapter.
		PxeBootInfo	object Settings of PXE Boot
		BootType	string Class of Boot - Legacy: Legacy - UEFI: UEFI (Unified Extensible Firmware Interface) Specified operation varies by model. There are platforms that execute PXE boot by prioritizing the classification of boot order as specified by respective BIOS, in spite of this configuration. When unspecified, it will turn out to the following specified states. - For PRIMERGY RX/CX M4 or later and PRIMEQUEST 3000B/3000E: UEFI - For other than the above models: Legacy
		Volumes	array Volume List
		Volume	object Information of Volume
		Label	string Volume Name
		FileSystem	string Type of File System
		SpecifyPartitionSize	string Selection of Automatic Setting/Specification of Partition Size - NTFS:NT File System
		PartitionSize	integer Partition Size
		QuickFormat	string Settings for the use of quick format of partition - Enabled: Uses quick format. - Disabled: Does not use quick format.
		BasicSettings	object Basic Settings
		TimeZone	string Time Zone - GMT Standard Time

Parameter				Type	Description
					<ul style="list-style-type: none"> - Pacific Standard Time - Mountain Standard Time - Central Standard Time - Eastern Standard Time - W. Europe Standard Time - Tokyo Standard Time
				Language	string Region and Language <ul style="list-style-type: none"> - English - German - Japanese
				Keyboard	string Language and Type of Keyboard <ul style="list-style-type: none"> - United States - English: English Keyboard - United States - International: English international keyboard - German: German Keyboard - Japanese: Japanese Keyboard
				ProductID	string Product Key
				SystemSettings	object System Settings
				DisplayResolution	string Screen Resolution <ul style="list-style-type: none"> - 640x480 - 800x600 - 1024x768 - 1152x864 - 1280x1024 - 1600x1200
				RefreshRate	string Refresh Rate <ul style="list-style-type: none"> - 60 - 70 - 72 - 75 - 80 - 85 - 100
				ColorDepth	string The Number of Colors Displayed on the Screen <ul style="list-style-type: none"> - 1 - 4 - 8 - 15

Parameter			Type	Description
				<ul style="list-style-type: none"> - 16 - 24 - 32
			Service	Service
			Snmp	SNMP Settings
			Setup	SNMP Service Installation Settings <ul style="list-style-type: none"> - true: Installs SNMP service. - false: Does not install SNMP service.
			TrapConfigurations	List of SNMP Trap Settings
			TrapConfiguration	Trap Settings
			CommunityName	Community Name
			TrapDestination	IP Address of Trap Transmission Destination
			Securities	SNMP Security Settings List
			Security	Security Settings
			CommunityName	Community Name to Accept
			Privilege	Community Right <ul style="list-style-type: none"> - None - Read Create - Read Write - Read Only - Notify
			SnmpAgent	SNMP Agent Settings
			ContactName	Contact Information (name of administrator)
			Location	Location (physical position)
			SnmpMisc	SNMP Misc Settings
			AuthenticationTrap	Settings for Transmission of Authentication Trap <ul style="list-style-type: none"> - Enabled: Sends certification trap. - Disabled: Does not send certification trap.
			AcceptSnmpPacketsFromLocalhost	Settings for Receiving Localhost SNMP Packet <ul style="list-style-type: none"> - Enabled: Receives SNMP packet of Localhost. - Disabled: Does not receive SNMP packet of Localhost.
			AcceptHostName	Host Name that Receives the SNMP Packet
			ServiceApp	Settings of Application Services <ul style="list-style-type: none"> - Enabled: Uses application service. - Disabled: Does not use application service.
			ServiceEndToEnd	Settings of End-To-End Service <ul style="list-style-type: none"> - Enabled: Uses End-To-End service. - Disabled: Does not use End-To-End service.

Parameter				Type	Description
			Service	ServiceInternet	Settings of Internet Service - Enabled: Uses Internet service. - Disabled: Does not use Internet service.
				ServiceDataLink	Settings of Data Link Service - Enabled: Uses data link service. - Disabled: Does not use data link service.
				ServicePhysical	Settings of Physical Service - Enabled: Uses physical service. - Disabled: Does not use physical service.
			AdditionalParameter		Settings of Remote Assistance
			Remote	RemoteDesktop	Settings for the Use of Remote Desktop - Enabled: Uses remote desktop. - Disabled: Does not remote desktop.
				RemoteAssistance	Settings of the Use of Remote Assistance - Enabled: Uses remote assistance. - Disabled: Does not use remote assistance.
				FullRemoteControl	Settings of Remote Control - Enabled: Uses remote control. - Disabled: Does not remote control.
				ExpiredHours	Maximum time to Active an Invitation
				ScvmmFirewallException	Settings of Firewall Needed to Register in SCVMM. - Enabled: Sets up required firewall to register for SCVMM. - Disabled: Does not set required firewall for to register for SCVMM.
			AddOnConfig		Settings of Applications to Add
			Java	JavaRuntime	Java Runtime Environment (JRE) Installation settings - Enabled: Installs Java Runtime Environment (JRE). - Disabled: Does not install Java Runtime Environment (JRE). Cannot install if CoreVersion is Core.
				SVAgent	Settings of ServerView Agent Installation - Enabled: Installs ServerView agent. - Disabled: Does not install ServerView agent.
				SVUpdateAgent	Settings of ServerView Update Agent Installation - Enabled: Installs ServerView update agent. - Disabled: Does not install ServerView update agent. Installing ServerView update agent calls for installation of ServerView agent.
				DSNAP	Setting of Installation of DSNAP

Parameter				Type	Description	
					<div>- Enabled: Installs DSNAP.</div> <div>- Disabled: Does not install DSNAP.</div>	
			SoftwareSupportGuide	string	Settings of Installation of Software Support Guide. <div>- Enabled: Installs software support guide.</div> <div>- Disabled: Does not install software support guide.</div>	
			RAIDManager	string	Settings of Server View RAID Manager Installation <div>- Enabled: Installs Server View RAID Manager.</div> <div>- Disabled: Does not install Server View RAID Manager.</div>	
	OsIndividualConfig			object	Specific Information	
		BasicSettings		object	Basic Settings	
			AdministratorPassword	string	Administrator Password	
			UserName	string	Name of a User	
			Organization	string	Organization Name	
			ComputerName	string	Computer Name	
		SystemSettings		object	System Settings	
			DomainOrWorkgroup	string	Settings for Participating in Work Group Domain <div>- Workgroup: work group</div> <div>- Domain: Domain</div>	
			WorkGroupName	string	Work Group Name	
			DomainName	string	Domain Name	
			DomainUser	string	Domain User Name	
			DomainPassword	string	Domain Password	
		NetworkInterface		object	Network Settings	
			IPv4	object	IPv4 Address Settings	
				DhcpEnable	string	Setting of DHCP Validity <div>- Enabled: Enables DHCP.</div> <div>- Disabled: Does not enable DHCP.</div>
				Address	string	IP Address
				SubnetMask	string	Subnet Mask
				DefaultGateWay	string	Gateway
				DnsDomainName	string	DNS Domain Name <div>This setting can be omitted even when setting IP address, subnet mask and default gateway without using DHCP.</div>
				DnsServer	string	IP Address of DNS Server <div>This setting can be omitted even when setting IP address, subnet mask and default gateway without using DHCP.</div>
				DnsServer2	string	IP Address of DNS Server <div>Specify the settings when you want to set multiple DNS servers.</div> <div>This setting can be omitted even when setting the IP address, subnet mask and default gateway without using DHCP.</div>

Parameter		Type	Description
	Vmware	object	Settings of VMware ESXi
	OsType	object	OS Classification
	Type	string	Type of Imported OS Media <ul style="list-style-type: none"> - VMware ESXi 6.7 (Fujitsu Media) - VMware ESXi 6.5 Update 2 (Fujitsu Media) (ISM 2.3.0.b or later) - VMware ESXi 6.5 Update 1 (Fujitsu Media) - VMware ESXi 6.5 (Fujitsu Media) - VMware ESXi 6.0 Update 3 (Fujitsu Media) - VMware ESXi 6.0 Update 2 (Fujitsu Media) - VMware ESXi 6.0 Update 1 (Fujitsu Media) - VMware ESXi 5.5 Update 3 (Fujitsu Media)
	ServerViewSuiteDVD	object	Settings of ServerView Suite DVD
	Version	string	Version Number of DVD to Use at Installation When omitting settings of ServerView Suite DVD, use the newest version from the versions imported.
	PostScript	object	Optional Script for Execution after Installation
	FolderPath	string	FTP Directory that Saved a Script for Execution and the Name of the Script File for Execution
	ScriptName	string	Name of Script File for Execution
	RaidConfig	object	Setting of Array Controller
	LogicalDiskType	string	Type of Disk Drive <ul style="list-style-type: none"> - RAID: RAID - SATA: SATA - SAS: SAS - FC:FC - iSCSIHBA:iSCSI HBA - PCIeSSD: PCIeSSD - USBSTOR: USBSTOR When using a card which has both SAS controller function and SAS array controller function as the SAS controller card, select "RAID."
	RAIDController	string	Types of Array Controllers <ul style="list-style-type: none"> - Disabled: Uses the existing array configuration. (Select also when do not use RAID.) - OnBoard: Uses onboard array controller. - SasRaid01: Uses array controller enabled for SAS RAID0/1. - SasRaid0156: Uses array controller enabled for SAS RAID0/1/5/6. When configuring a new array, select a type of the array controller. When using the existing array configuration, select "Disabled."
	RAIDLevel	string	RAID Level of Disk Array to be Built

Parameter			Type	Description
				<ul style="list-style-type: none"> - RAID0: RAID level 0 - RAID1: RAID level 1 - RAID1E: RAID level 1E - RAID5: RAID level 5 - RAID6: RAID level 6 - RAID10: RAID level 1+0
		RAIDDisk	integer	The Number of Disks to be Built in RAID
	ManagementLanInfo		object	Information of LAN to be Used as Management LAN If omitted, use the lead port on board.
		AdapterInfo	object	Information of an Adapter to be Used as Management LAN Specifies either MACAddress (MAC Address) or AdapterInfo (Adapter).
		AdapterType	string	Types of Adapters <ul style="list-style-type: none"> - Onboard: Onboard - AddOnCard: PCI card
		SlotIndex	integer	Slot Number Specifies AdapterType in the case of the AddOnCard.
		PortIndex	integer	Port Number
		MACAddress	string	MAC Address to be Used as Management LAN Specifies either MAC Address or Adapter.
	PxeBootInfo		object	Settings of PXE Boot
		BootType	string	Class of Boot <ul style="list-style-type: none"> - Legacy: Legacy - UEFI: UEFI (Unified Extensible Firmware Interface) Specified operation varies by model. There are platforms that execute PXE boot by prioritizing the classification of boot order as specified by respective BIOS, in spite of this configuration. When unspecified, it will turn out to the following specified states. <ul style="list-style-type: none"> - For PRIMERGY RX/CX M4 or later and PRIMEQUEST 3000B/3000E: UEFI - For other than the above models: Legacy
		BasicSettings		Basic Settings
		LicenseAgreement	string	Setting of Acknowledgment of a License Agreement <ul style="list-style-type: none"> - Enabled: Agrees to the license agreement terms. - Disabled: Does not agree to the license agreement terms.
		Keyboard	string	Language and Type of Keyboard <ul style="list-style-type: none"> - United States - English: English Keyboard - German: German Keyboard

Parameter		Type	Description
			- Japanese: Japanese Keyboard
	NetworkSettings	object	Network Settings
	SetupStandardNetworkForVM	string	Configurations for Setting up VM Standard Network - Enabled: Sets up VM standard network. - Disabled: Does not setup VM standard network.
	VlanId	integer	VLAN ID
	AdditionalParameters	object	Parameters to Add
	Cms	object	Information of Cloud Management Software
	AddVmHostAfterInstallation	string	Settings of Registration of Cloud Management Software after Installation - Enabled: Registers cloud management software. - Disabled: Does not register cloud management software. For registration, disable DHCP at the network settings and input an IP address.
	CmsName	string	Cloud Management Software Name of Cloud Management Software Registered in ServerView Infrastructure Manager
	AddLocation	string	Specify a folder name or cluster name of registration destination of a host. When folders are created hierarchically, specify a name of the bottom folder. When there are folders of the identical name, it may be possible that it will not be registered at an intended place.
	OsIndividualConfig	object	Settings of Specific Information
	BasicSettings	object	Basic Settings
	RootPassword	string	Root Password
	NetworkSettings	object	Network Settings
	GetComputerNameViaDNS	string	Setting of How to Use a Host Name for Acquiring DNS - Enabled: Uses DNS retrieved host name. - Disabled: Does not install DNSAP.
	ComputerName	string	Host Name
	DhcpEnable	string	Setting of the Use of DHCP - Enabled: Uses DHCP. - Disabled: Does not use DHCP.
	NetworkInterface	object	Settings of Network Interface
	IPv4	object	Settings of Network Interface
	Address	string	Fixed IP Address
	SubnetMask	string	Subnet Mask
	DefaultGateWay	string	Gateway
	DnsDomainName	string	DNS Domain Name This setting can be omitted even when setting the IP address, subnet mask and default gateway without using DHCP.

Parameter							Type	Description
						DnsServer	string	IP Address of DNS Server This setting can be omitted even when setting the IP address, subnet mask and default gateway without using DHCP.

D.5 MMB

Parameter							Type	Description
MMB							object	Partition Settings of MMB (Management Board)
	ConfRetryCounterMax						integer	Specifies the number of retrying to restart OS when the OS is shut down due to watchdog or hardware error. If none are set, specifies null. Specify 0 when not to restart. Specify the number of restarts (1-10) when trying to restart.
	ConfRetryZeroAction						string	Specifies the action when exceeding the number of re-trying. If none are set, specifies null. <ul style="list-style-type: none"> - Stop rebooting and Power off: Stops reboot and turns the power of the partitions OFF. - Stop rebooting: Stops reboot and stops partitions. - Diagnostic Interrupt assert: Stops reboot and asserts NMI interruption for the partitions.
	ConfSoftWatchdogEnable						string	Specifies whether to use Software Watchdog to execute periodic communication confirmations while an OS is running. If none are set, specifies null. <ul style="list-style-type: none"> - Enabled: Communication monitored. - Disabled: Communication not monitored.
	ConfSoftWatchdogBehavior						string	Specifies an operation when the OS does not communicate due to Software Watchdog. Specifies when ConfSoftWatchdogEnable is Enabled. If none are set, specifies null. <ul style="list-style-type: none"> - Continue: Continue processing. - Reset: Server rebooted. - Power Cycle: Powered ON after powering OFF the server once. - NMI: Make NMI occur.
	ConfSoftWatchdogTime						integer	Specifies a value from 1-6000 seconds for monitoring time by the Software Watchdog. Specifies when ConfSoftWatchdogEnable is Enabled. It is judged as abnormality when unable to communicate after a specified time here. If none are set, specifies null.
	ConfBootWatchdogEnable						string	Specifies the monitoring the period between POST completion and OS start, with use of Boot Watchdog.

Parameter		Type	Description
			<p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Enabled: Period monitored. - Disabled: Period not monitored.
	ConfBootWatchdogBehavior	string	<p>Specifies behavior for the case when an OS does not start within the specified time in Boot Watchdog.</p> <p>Specifies when ConfBootWatchdogEnable is Enabled.</p> <p>If none are set, specifies null.</p> <ul style="list-style-type: none"> - Continue: Continue processing. - Reset: Server rebooted. - Power Cycle: Powered ON after powering OFF the server once.
	ConfBootWatchdogTime	integer	<p>Specifies a value from 1-6000 seconds for the Boot watchdog monitoring time.</p> <p>Specifies when ConfBootWatchdogEnable is Enabled.</p> <p>It is judged as abnormality when OS cannot start after a specified time here.</p> <p>If none are set, specifies null.</p>

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