

FUJITSU Software

Infrastructure Manager for PRIMEFLEX V2.5

A decorative horizontal band with a dark red background and glowing, swirling white and light red lines that create a sense of motion and depth.

Cluster Creation and Cluster Expansion Parameter List

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Preface

Purpose

This manual describes of the parameters to be set for each function of FUJITSU Software Infrastructure Manager for PRIMEFLEX (hereafter referred to as "ISM for PRIMEFLEX"), which adds functions for expanding virtualized platforms to FUJITSU Software Infrastructure Manager (hereafter referred to as "ISM"). ISM manages and operates ICT devices such as servers, storages, and switches, as well as facility devices such as PDUs, in an integrated way.



Note

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

Product Manuals

Manual Name	Description
FUJITSU Software Infrastructure Manager V2.5 Infrastructure Manager for PRIMEFLEX V2.5 First Step Guide	This manual is for those using this product for the first time. This manual summarizes the procedures for the use of this product, the product system, and licensing. In this manual, it is referred to as "First Step Guide."
FUJITSU Software Infrastructure Manager V2.5 Infrastructure Manager for PRIMEFLEX V2.5 User's Guide	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 this manual, it is referred to as "User's Guide."
FUJITSU Software Infrastructure Manager V2.5 Infrastructure Manager for PRIMEFLEX V2.5 Operating Procedures	This manual describes the installation procedure and usages for the operations of this product. In this manual, it is referred to as "Operating Procedures."
FUJITSU Software Infrastructure Manager V2.5 Infrastructure Manager for PRIMEFLEX V2.5 REST API Reference Manual	This manual describes how to use the required APIs and provides samples and parameter information for using user-created applications that integrate with this product. In this manual, it is referred to as "REST API Reference Manual."
FUJITSU Software Infrastructure Manager V2.5 Infrastructure Manager for PRIMEFLEX V2.5 Messages	This manual describes the messages that are output when using ISM or ISM for PRIMEFLEX and the actions to take for these messages. In this manual, it is referred to as "ISM Messages."
FUJITSU Software Infrastructure Manager for PRIMEFLEX V2.5 Messages	This manual describes the messages that are output when using ISM for PRIMEFLEX and the actions to take for these messages. In this manual, it is referred to as "ISM for PRIMEFLEX Messages."
FUJITSU Software Infrastructure Manager V2.5 Infrastructure Manager for PRIMEFLEX V2.5 Items for Profile Settings (for Profile Management)	This manual describes detailed information for the items set when creating profiles for managed devices. In this manual, it is referred to as "Items for Profile Settings (for Profile Management)."
FUJITSU Software Infrastructure Manager for PRIMEFLEX V2.5 Cluster Creation and Cluster Expansion Parameter List	This manual describes Cluster Definition Parameters that are used for the automatic settings in Cluster Creation and Cluster Expansion when using ISM for PRIMEFLEX. In this manual, it is referred to as "ISM for PRIMEFLEX Parameter List."

Manual Name	Description
FUJITSU Software Infrastructure Manager V2.5 Infrastructure Manager for PRIMEFLEX V2.5 Glossary	This document defines the terms that you need to understand in order to use this product. In this manual, it is referred to as "Glossary."
FUJITSU Software Infrastructure Manager V2.5 Infrastructure Manager for PRIMEFLEX V2.5 Plug-in and Management Pack Setup Guide	This manual describes the procedures, from installation to operation as well as precautions and reference information, for the following features of Infrastructure Manager Plug-in. <ul style="list-style-type: none"> - Infrastructure Manager Plug-in for Microsoft System Center Operations Manager - Infrastructure Manager Plug-in for Microsoft System Center Virtual Machine Manager - Infrastructure Manager Plug-in for VMware vCenter Server - Infrastructure Manager Plug-in for VMware vCenter Server Appliance - Infrastructure Manager Management Pack for VMware vRealize Operations - Infrastructure Manager Plug-in for VMware vRealize Orchestrator In this manual, it is referred to as "ISM Plug-in/MP Setup Guide."

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 information about managed hardware products, 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 readers who consider using the product for comprehensive management and operation of such ICT devices and possess basic knowledge about hardware, operating systems, 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 the key labeled "Enter." [Ctrl]+[B] means hold down the key labeled "Ctrl" or "Control" and then press the B key.

Symbols

Items that require particular attention are indicated by the following symbols.



.....
 Describes the content of an important point.



.....
 Describes an item that requires your attention.

Variables: <xxx>

Represents variables that require replacement by numerical values or text strings in accordance with your usage environment.

Example: <IP address>

Abbreviation

This document may use the abbreviation for OS as shown in the following examples.

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	
Red Hat Enterprise Linux 8.0 (for Intel64)	RHEL 8.0	Red Hat Enterprise Linux Or Linux
SUSE Linux Enterprise Server 15 SP1 (for AMD64 & Intel64)	SUSE 15 SP1(AMD64) SUSE 15 SP1(Intel64) or SLES 15 SP1(AMD64) SLES 15 SP1(Intel64)	SUSE Linux Enterprise Server Or Linux
SUSE Linux Enterprise Server 15 (for AMD64 & Intel64)	SUSE 15(AMD64) SUSE 15(Intel64) or SLES 15(AMD64) SLES 15(Intel64)	
VMware(R) vSphere(TM) ESXi 6.7	VMware ESXi 6.7	VMware ESXi
VMware Virtual SAN	vSAN	
Microsoft Storage Spaces Direct	S2D	

Terms

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

Using PDF applications (Adobe Reader, etc.)

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- Saving to a text file
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Modification History

Edition	Issue Date	Section		Modification Overview
01	July 2019	-	-	First edition
02	August 2019	Related sections throughout the manual	-	Added the product name "PRIMEFLEX for Microsoft Azure Stack HCI"

Edition	Issue Date	Section		Modification Overview
		4.2 Parameter List for Profile Settings - PRIMEFLEX for Microsoft Storage Spaces Direct/ PRIMEFLEX for Microsoft Azure Stack HCI	Details - [BIOS] tab	Added the profile setting values
			Details - [iRMC] tab	
03	September 2019	Related sections throughout the manual	-	Added the section number to each parameter list
		3.1.3 Cluster Details - [DNS] tab	Note	Added notes to the Cluster Definition Parameter setting values
		3.1.5 Cluster Details - [LDAP] tab	Note	Added notes to the Cluster Definition Parameter setting values
		3.1.6 Cluster Details - [Function] tab	-	Modified the Cluster Definition Parameter setting values
		3.2.1 CMS Information	Note	Added notes to the Cluster Definition Parameter setting values
		3.2.4 Cluster Details - [LDAP] tab	Note	Added notes to the Cluster Definition Parameter setting values
		3.3.3 Cluster Details - [DNS] tab	Note	Added notes to the Cluster Definition Parameter setting values
		3.3.5 Cluster Details - [LDAP] tab	Note	Added notes to the Cluster Definition Parameter setting values
		3.3.6 Cluster Details - [Function] tab	-	Modified the Cluster Definition Parameter setting values
		3.4.3 Cluster Details - [LDAP] tab	Note	Added notes to the Cluster Definition Parameter setting values
		4.2.5 Details - [OS (for each node)] tab	Note	Added notes to the profile setting values
04	November 2019	1.1.9 Setting for Hosts for Creating a New Cluster vCSA in the Configuration of PRIMERGY RX Series	Note	Added notes to the automatic setting values
		1.1.10 Setting for Hosts for Creating a New Cluster vCSA in the Configuration of PRIMERGY CX Series	Note	Added notes to the automatic setting values of vmnic name and uplink name
		1.2.8 Settings for Windows Server of Servers for a New Cluster	-	Modified the Cluster Definition Parameter setting values
			Note	Added notes to the Cluster Definition Parameter setting values
		2.1.10 Setting for Hosts for Expanding a Cluster vCSA in the Configuration of PRIMERGY RX Series	Note	Added notes to the automatic setting values
		2.1.11 Setting for Hosts for Expanding a Cluster vCSA in the Configuration of PRIMERGY CX Series	Note	Added notes to the automatic setting values of vmnic name and uplink name

Edition	Issue Date	Section		Modification Overview
		2.2.5 Settings for Windows Server of Servers for Expanding a Cluster	-	Modified the Cluster Definition Parameter setting values
			Note	Added notes to the Cluster Definition Parameter setting values
		3.1.2 Basic Information	-	Modified the Cluster Definition Parameter setting values
		3.1.5 Cluster Details - [LDAP] tab	Note	Added notes to the Cluster Definition Parameter setting values
		3.1.12 Node Details - [vDS] tab	Note	Added notes to the Cluster Definition Parameter setting values
			-	Added notes to the setting values for vmnic name and uplink name when creating a cluster
			-	Modify vmnic number example
		3.2.2 Basic Information	-	Modified the Cluster Definition Parameter setting values
		3.2.4 Cluster Details - [LDAP] tab	Note	Added notes to the Cluster Definition Parameter setting values
		3.2.5 Cluster Details - [Network] tab	Note	Added notes to the Cluster Definition Parameter setting values
		3.2.6 Cluster Details - [Storage Pool] tab	-	Modified the Cluster Definition Parameter setting values
			Note	Added notes to the Cluster Definition Parameter setting values
		3.3.1 Basic Information for PRIMERGY RX Series Configuration	-	Modified the Cluster Definition Parameter setting values
		3.3.5 Cluster Details - [LDAP] tab	Note	Added notes to the Cluster Definition Parameter setting values
		3.3.12 Node Details - [vDS] tab	Note	Added notes to the setting values for vmnic name and uplink name when expanding a cluster
			-	Modify vmnic number example
		3.4.1 Basic Information	-	Modified the Cluster Definition Parameter setting values
		3.4.3 Cluster Details - [LDAP] tab	Note	Added notes to the Cluster Definition Parameter setting values
		3.4.5 Cluster Details - [Storage Pool] tab	-	Modified the Cluster Definition Parameter setting values
			Note	Added notes to the Cluster Definition Parameter setting values
		3.4.9 Node Details - [Virtual Switch] tab	Note	Added notes to the Cluster Definition Parameter setting values
		Chapter 4 Parameter List for Profile Settings	-	Modified the profile setting values for each version of PRIMEFLEX for Cluster Creation and successor Cluster Expansion

Edition	Issue Date	Section		Modification Overview
05	January 2020	3.2.10 Node Details - [Virtual Switch] tab	-	Modify the default values for Cluster Definition Parameter settings
		3.4.9 Node Details - [Virtual Switch] tab	-	Modify the default values for Cluster Definition Parameter settings
		4.1 Parameter List for Profile Settings - When Creating a Cluster of PRIMEFLEX for VMware vSAN V1	Note	Modified the note for setting values not mentioned
		4.1.2 Details - [BIOS] tab	-	Modified the profile setting values
				Modified setting item names
		4.1.3 Details - [iRMC] tab	-	Modified the default values for the profile settings
		4.2 Parameter List for Profile Settings - When Creating a Cluster of PRIMEFLEX for VMware vSAN V2	Note	Modified the note for setting values not mentioned
		4.2.2 Details - [BIOS] tab	-	Modified the profile setting values
				Modified setting item names
		4.2.3 Details - [iRMC] tab	-	Modified the default values for the profile settings
		4.3 Parameter List for Profile Settings - When Creating a Cluster of PRIMEFLEX for Microsoft Storage Spaces Direct V1	Note	Modified the note for setting values not mentioned
		4.3.2 Details - [BIOS] tab	-	Modified the profile setting values
				Modified setting item names
		4.3.3 Details - [iRMC] tab	-	Modified the default values for the profile settings
		4.4 Parameter List for Profile Settings - When Creating a Cluster of PRIMEFLEX for Microsoft Azure Stack HCI V1	Note	Modified the note for setting values not mentioned
		4.4.2 Details - [BIOS] tab	-	Modified the profile setting values
				Modified setting item names
		4.4.3 Details - [iRMC] tab	-	Modified the default values for the profile settings
		4.5 Parameter List for Profile Settings - When Expanding a Cluster of PRIMERGY M4 series to PRIMEFLEX HS	Note	Modified the note for setting values not mentioned
		4.5.2 Details - [BIOS] tab	-	Modified the profile setting values
		Modified setting item names		
4.5.3 Details - [iRMC] tab	-	Modified the default values for the profile settings		
4.6 Parameter List for Profile Settings - When Expanding a	Note	Modified the note for setting values not mentioned		

Edition	Issue Date	Section		Modification Overview
		Cluster of PRIMERGY M4 series to PRIMEFLEX HS		
		4.6.2 Details - [BIOS] tab	-	Modified the profile setting values Modified setting item names
		4.6.3 Details - [iRMC] tab	-	Modified the default values for the profile settings
		4.7 Parameter List for Profile Settings - When Expanding a Cluster of PRIMERGY M5 series to PRIMEFLEX for VMware vSAN V1	Note	Modified the note for setting values not mentioned
		4.7.2 Details - [BIOS] tab	-	Modified the profile setting values Modified setting item names
		4.7.3 Details - [iRMC] tab	-	Modified the default values for the profile settings
		4.8 Parameter List for Profile Settings - When Expanding a Cluster of PRIMERGY M5 series to PRIMEFLEX for Microsoft Storage Spaces Direct V1	Note	Modified the note for setting values not mentioned
		4.8.2 Details - [BIOS] tab	-	Modified the profile setting values Modified setting item names
		4.8.3 Details - [iRMC] tab	-	Modified the profile setting values Modified the default values for the profile settings
		4.8.4 Details - [OS] tab	-	Modified the profile setting values

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Chapter 1 Parameter List for Automatic Settings for Cluster Creation

This chapter describes the setting values automatically set by executing the Cluster Creation.

1.1 Parameter List for Automatic Settings - PRIMEFLEX for VMware vSAN

This section describes the automatic setting values for PRIMEFLEX for VMware vSAN.

The notation in the "Modification" column of the following table shows whether Cluster Creation can be executed if the setting values of the existing cluster have been changed from the settings of the PRIMEFLEX configuration.

Table 1.1 Statement of "Modification"

Modification	Meaning	Description
Y	Changeable	Can be changed because the settings do not affect Cluster Creation
N	Not changeable	Cannot be changed because the settings affect Cluster Creation If you change the settings, Cluster Creation will not work properly.
-	Not applicable	Not subject to change because: - The set value overwrites the stated value regardless of the existing setting by Cluster Creation - The set value is constructed with the values described by Cluster Creation

Note

- Description of "Setting Value"
 - For setting values followed by *, the value is set by the value entered in the "Create Cluster" wizard.
 - In some "Setting Value," not values but setting locations are described. For actual values, check the relevant setting locations.

1.1.1 ISM-[Management]-[Nodes]-[<Node Name for Creating a New Cluster>]-[Node List]

Setting Item	Setting Value	Modification
[Communication methods] of [Edit] Wizard		
Password	[Node Details] - [iRMC] tab - [Local User Settings] - ['admin' user] - [New Password]*	-
[Properties] tab		
Web I/F URL	https://<IP address of iRMC>/	-
[Log Collection Settings] tab		
Retention Period		
Event Log (days)	7	-
Operation Log (days)	7	-
Security Log (days)	7	-
Archived Log (generations)	7	-
Log Collection Target		

Setting Item	Setting Value	Modification
Hardware Log	Enable	-
Operating System Log	Enable	-
Schedule		
Schedule	Enable	-
Schedule Type	Specify by Day of the Week	-
Day of the week	Weekly	-
Day of the week	Saturday	-
Time	0:00	-

1.1.2 ISM-[Management]-[Cluster]

Setting Item	Setting Value	Modification
Virtual Resource		
VMware Virtual SAN	Add information of the created cluster	-
Other		
Cluster Information	Add information of the created cluster	-

1.1.3 ISM-[Structuring]-[Profiles]-[Profile Settings]-[<Node Name for Creating a New Cluster>]

Setting Item	Setting Value	Modification
[OS] tab		
Execute Script after Installation		
Execute Script after Installation	Enable	-
The directory of Script	kickstart	-
Script to Execute	ESXi_Setting.sh	-

1.1.4 ADVM of PRIMEFLEX for VMware vSAN Configuration

Setting Item	Setting Value	Modification
[DNS Manager]-[<Domain name>]		
Host record for forward lookup zones [Note 1]	[Cluster Nodes Selection] - [Target nodes selection] - [Node Name]*	-
Host code for reverse lookup zones [Note 1]	ESXi IP address of servers for creating a new cluster [Note 2]	-

[Note 1]: It is not registered if not using an ADVM configured for PRIMEFLEX. When using an Active Directory currently configured in your environment, register it in "6.7.1.3 Register host records in DNS" in "Operating Procedures."

[Note 2]: For ESXi IP address of servers for creating a new cluster, the value which is specified in the "Node List" screen - [<Name of node configuring a new cluster>] - [OS] tab - [Basic Info] - [Registered IP Address] is set.

1.1.5 iRMC S5 Web Server of Servers for Creating a New Cluster - [Settings]-[User Management]

Setting Item	Setting Value	Modification
[iRMC Local User Accounts]-[User with administrator privileges]		
User Information		
Enable	Enable	-
Name	[Node Details] - [iRMC] tab - [Local User Settings] - [Administrator User] - [User Name]*	-
Password	[Node Details] - [iRMC] tab - [Local User Settings] - [Administrator User] - [Password]*	-
Access Configuration		
Redfish/WebUI Permissions		
Redfish / Web UI User Enabled	Enable	-
Role	Administrator	-
IPMI Privileges		
LAN Channel Privilege	OEM	-
Serial Channel Privilege	OEM	-
Configure User Accounts	Enable	-
Configure iRMC Settings	Enable	-
AVR Permissions		
Video Redirection	Enable	-
Remote Storage Enabled	Enable	-
Other		
User Shell (Text Access)	Remote Manager	-
[iRMC Local User Accounts]-['admin' user]		
User Information		
Password	[Node Details] - [iRMC] tab - [Local User Settings] - ['admin' User] - [New Password]*	-

1.1.6 LDAP for iRMC S5 Web Server of Servers for Creating a New Cluster

Setting Item	Setting Value	Modification
[User Management]-[LDAP] [Note 1]		
Enable LDAP	true	-
Enable LDAP SSL	false	-
Disable Local Login	[Cluster Details] - [LDAP] tab - [Local User Login]*	-
Directory Server Type	[Cluster Details] - [LDAP] tab - [Directory Server Type]*	-
Domain Name	[Cluster Details] - [LDAP] tab - [Domain Name]*	-
Department Name	[Cluster Details] - [LDAP] tab - [Division]*	-
Primary LDAP Server		
Server	[Cluster Details] - [LDAP] tab - [Host Name or IP Address (Primary Host)]*	-
Network Port	[Cluster Details] - [LDAP] tab - [Port (Primary Host)]*	-
SSL Network Port	[Cluster Details] - [LDAP] tab - [TLS/SSL Port (Primary Host)]*	-

Setting Item	Setting Value	Modification
Backup LDAP Server		
Server	[Cluster Details] - [LDAP] tab - [Host Name or IP Address (Backup Host)]*	-
Network Port	[Cluster Details] - [LDAP] tab - [Port (Backup Host)]*	-
SSL Network Port	[Cluster Details] - [LDAP] tab - [TLS/SSL Port (Backup Host)]*	-

[Note 1]: Not set if the check was removed for [Cluster Details] - [LDAP] tab - [Activate LDAP Settings] of Cluster Definition Parameters.

1.1.7 Setting for ESXi of Servers for Creating a New Cluster

Setting Item	Setting Value	Modification
OS		
VMware ESXi	Install	-
ESXi Patch	Apply if a file is uploaded to ISM	-
SMI-S Provider		
VMware SMIS Provider	Apply if a file is uploaded to ISM [Note 1]	-
Driver		
ixgben driver	Enable	-
[Host Client]-[Management]-[System]-[Date and Time]		
Current date and time	UTC (Coordinated Universal Time)	-
NTP server	[Cluster Details] - [NTP] tab - [NTP Server1 (Host Name or Host IP Address)]* [Cluster Details] - [NTP] tab - [NTP Server2 (Host Name or Host IP Address)]*	-
[Host Client]-[Management]-[Service]		
TSM	Start / Stop [Note 2]	-
TSM-SSH	Start / Stop [Note 2]	-
lwsmd	Start [Note 3]	-
ntpd	Start	-
[Host Client]-[Management]-[Security and user]		
User Name	[Node Details] - [OS] tab - [Local User Settings] - [Administrator User ID]*	-
Password	[Node Details] - [OS] tab - [Local User Settings] - [Password]*	-
Authentication	Enable	-
Join domain [Note 4]		
[Host Client]-[Manage]-[Hardware]-[Power Management]		
Active Policy	High performance	-
[Host Client]-[Storage]-[Datastore]		
Renaming the local datastore	LacalDatastore_<Host Name> [Note 5]	-
[Host Client]-[Network]-[TCP/IP stack]-[Default TCP/IP stack]-[DNS Configuration]		
Addresses	IP Address of DNS server specified in the ISM profile	-

Setting Item	Setting Value	Modification
	[Cluster Details] - [DNS] tab - [IP Address (Secondary DNS Server)]*	
Search Domains	[Cluster Details] - [DNS] tab - [Domain Name]*	-
[Host Client]-[Network]-[Firewall rules]		
NTP Client	Start	-
[Host Client]-[Host]-[Action]-[Privilege]-[Addition of user]		
Role settings	Adding Admin privilege for host/virtual machine	-
Other		
FQDN settings	[Cluster Nodes Selection] - [Target nodes selection] - [Node Name]. [Cluster Details] - [DNS] tab - [Domain Name]*	-
IPv6	Disable	-
Existing VM Network port group	Delete	-
SSL v3	Enable	-
tos maxdist [Note 6]	[Cluster Details] - [NTP] tab - [Max Interval between NTP Peer]*	-

[Note 1]: Setting value set if you are using VMware ESXi 6.5.0.5310538.

[Note 2]: Set to "Start" during the execution of Cluster Creation.

[Note 3]: Not started if the check was removed for [Cluster Details] - [LDAP] tab - [Activate LDAP Settings] of Cluster Definition Parameters.

[Note 4]: Not set if the check was removed for [Cluster Details] - [LDAP] tab - [Activate LDAP Settings] of Cluster Definition Parameters.

[Note 5]: Rename from datastore1. For <Host name>, the value which is specified in the "Node List" screen - [<Name of node configuring a new cluster>] - [OS] tab - [Information from OS] - [Host Name] is set.

[Note 6]: Setting value to be set in "tos maxdist" in the "/etc/ntp.conf" file.

1.1.8 Setting for the Cluster vCSA

Setting Item	Setting Value	Modification
Clusters		
Data Center Name	[Basic Information] - [Data Center Name]*	-
Cluster Name	[Basic Information] - [Cluster Name]*	-
vSphere DRS	Disable	-
VMware EVC	Disable	-
vSphere Availability		
vSphere HA	Enable	-
Host failure	Restart the virtual machine	-
Host Isolation	Power off the virtual machine then restart it	-
Datastore with Permanent Device Loss	Disable	-
Datastore with All Paths Down	Disable	-
Monitor the virtual machine	Enable	-
Monitor an application	Disable	-
Detailed option das.registerRestartDisabledVMs	false	-

Setting Item		Setting Value	Modification
Detailed option das.useDefaultIsolationAddress	false	-	
Detailed option das.isolationAddress0	[Cluster Details] - [Function] tab - [vSphere HA Settings] - [Isolation Response Address 1]*	-	
Detailed option das.isolationAddress1	[Cluster Details] - [Function] tab - [vSphere HA Settings] - [Isolation Response Address 2]*	-	
vSAN			
vSAN	Enable	-	
Add disk to storage	[Cluster Details] - [Function] tab - [vSAN Settings] - [Add Disks to Storage]*	-	
Deduplication or compression	[Cluster Details] - [Function] tab - [vSAN Settings] - [Deduplication and Compression]*	-	
vDS Settings [Note 1]			
Number of vDS	Number of vDS specified in [Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings]*	-	
vDS Name	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-1 or vDS-2] - [vDS Name]*	-	
Version	6.5.0	-	
Network I/O Control	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-1 or vDS-2] - [NIOC]*	-	
MTU	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-1 or vDS-2] - [MTU]*	-	
Multicast filtering mode	Basic	-	
Switch Discovery protocol Type	LLDP	-	
Switch Discovery protocol Operation	Listen	-	
Number of uplink	Number of uplink names specified in [Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-1 or vDS-2] - [Uplink Settings] - [Uplink Name]*	-	
Uplink name	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-1 or vDS-2] - [Uplink Settings] - [Uplink Name]*	-	
vDS Settings - Port Group [Note 1]			
Number of port groups	Number of port groups specified in [Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-1 or vDS-2] - [Port Group]*	-	
Port Group Name	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-1 or vDS-2] - [Port Group] - [Port Group Name]*	-	
Type	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-1 or vDS-2] - [Port Group] - [Type]*	-	
Port bindings	Static binding	-	
Port allocation	Elastic	-	
Number of Ports	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-1 or vDS-2] - [Port Group] - [Number of Ports]*	-	

Setting Item	Setting Value	Modification
Network resource pools	Default	-
VLAN Type	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-1 or vDS-2] - [Port Group] - [VLAN Type]*	-
VLAN ID	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-1 or vDS-2] - [Port Group] - [VLAN ID]*	-
Traffic Type	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-1 or vDS-2] - [NIOC Settings] - [Traffic]*	-
Shares Value	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-1 or vDS-2] - [NIOC Settings] - [<Traffic>] - [Shares]*	-
Reservation	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-1 or vDS-2] - [NIOC Settings] - [<Traffic>] - [Reservation]*	-
Limit	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-1 or vDS-2] - [NIOC Settings] - [<Traffic>] - [Limit]*	-
Failover Priority Uplink Name	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-1 or vDS-2] - [Uplink Settings] - [Uplink Name]*	-
Failover Priority How to Distribute	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-1 or vDS-2] - [Uplink Settings] - [Failover Priority] - [How to Distribute]*	-
Failover Priority	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-1 or vDS-2] - [Uplink Settings] - [Failover Priority Settings] - [Priority Order]*	-
Policy Settings Security Promiscuous mode	Reject	-
Policy Settings Security MAC address change	Reject	-
Policy Settings Security Forged Transmits	Reject	-
Policy Settings Traffic shaping Status	Disable	-
Policy Settings Traffic shaping Average Bandwidth	-	-
Policy Settings Traffic shaping Peak Bandwidth	-	-
Policy Settings Traffic shaping Burst size	-	-
Policy Settings Teaming and failover Load balancing	Route based on originating virtual port	-

Setting Item		Setting Value	Modification
	Policy Settings Teaming and failover Network failure detection	Link status only	-
	Policy Settings Teaming and failover Notify switches	Yes	-
	Policy Settings Teaming and failover Failback	Enable	-
Datastore			
	Name	[Cluster Details] - [Storage Pool] tab - [Storage Pool Name]*	-
	Type	vsan	-
	Default Storage Policy	Virtual SAN Default Storage Policy	-
Disk Management			
	Disk Groups [Note 2]		
	Number of Disk Groups	1	-
	Cache	SSD	-
	Capacity	HDD	-

[Note 1]: Not set if vDS of the existing cluster was set.

[Note 2]: Set a disk group for each host configuring a new cluster.

1.1.9 Setting for Hosts for Creating a New Cluster vCSA in the Configuration of PRIMERGY RX Series

Setting Item		Setting Value	Modification
Virtual Standard Switch (vSS) - vSwitch0 (Built-in Virtual Switch)			
	vSwitch0	Delete	-
	All vmnic	Delete	-
	Management Network	Delete	-
Virtual Distribution Switch (vDS) - Virtual switch for workload			
	Management traffic	-	-
	VLANID	-	-
	MTU	-	-
	Management IP address	-	-
	subnet mask	-	-
	Failback	-	-
	uplink1	-	-
	uplink2	-	-
	vmk0	-	-
	Virtual Distribution Switch (vDS) - Virtual switch for management		
	uplink1	[Node Details] - [vDS] tab - [vDS] - [Physical NIC<uplink1>] - [vmnic name<vmnic2>]* [Note 1]	-

Setting Item		Setting Value	Modification
	uplink2	[Node Details] - [vDS] tab - [vDS] - [Physical NIC<uplink2>]- [vmnic name<vmnic4>]* [Note 1]	-
	vmk0	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings]-[vDS-2] - [Port Group<Network Port Group for Management>] - [Port Group Name]*	-
	vmk1	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Network Port Group for vSAN>] - [Port Group Name]*	-
	vmk2	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group< Network Port Group for vMotion >] - [Port Group Name]*	-
	IP address of vSAN network	[Node Details] - [vDS] tab - [vDS] - [Port Group<Network Port Group for vSAN>] - [IPv4 Address]*	-
	Subnet mask of vSAN network	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Network Port Group for vSAN>] - [IPv4 Subnet Mask]*	-
	IP address of vMotion network	[Node Details] - [vDS] tab - [vDS] - [Port Group<Network Port Group for vMotion>] - [IPv4 Address]*	-
	Subnet mask of vMotion network	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Network Port Group for vMotion>] - [IPv4 Subnet Mask]*	-
[Network] - [Distributed Switch] - [<Virtual switch for management>] - [Settings] - [System traffic] - [Management traffic]			
	Share	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [NIOC Settings] - [Management] - [Shares]*	-
	Reserve	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [NIOC Settings] - [Management] - [Reservation]*	-
Disk			
	Hard disk Mark as local	true	-
	SSD Mark as SSD capacity other than for cache (When using an All Flash configuration)	True [Note 2]	-
Datacenter			
	Add nodes for creating a new cluster to the virtual network <Name of the virtual distributed switch for workload>	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-1] -[vDS Name]*	-
	Add nodes for creating a new cluster to the virtual network <Name of the virtual distributed switch for management>	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [vDS Name]*	-
	Add hosts for creating a new cluster to datacenter	[Basic Information] - [Data Center Name]*	-
Cluster			
	Fault domain or stretch cluster	fd_<Host Name> [Note 3]	-

Setting Item	Setting Value	Modification
Add nodes for creating a new cluster to the cluster	[Basic Information] - [Cluster Name]*	-

[Note 1]: For PRIMERGY RX 4770 M5, enter a vmnic name that is appropriate for your environment.

[Note 2]: Among the two types of SSD, the one with fewer number of units (if the number of units of SSD is the same, it is the one with less capacity) will be set as the SSD for cache.

[Note 3]: For <Host name>, the value which is specified in the "Node List" screen - [<Name of node configuring a new cluster>] - [OS] tab - [Information from OS] - [Host Name] is set.

1.1.10 Setting for Hosts for Creating a New Cluster vCSA in the Configuration of PRIMERGY CX Series

Setting Item	Setting Value	Modification
Virtual Standard Switch (vSS) - vSwitch0 (Built-in Virtual Switch)		
vSwitch0	Delete	-
All vmnic	Delete	-
Management Network	Delete	-
Virtual Distribution Switch (vDS) - Virtual switch for workload		
Management traffic	-	-
VLANID	-	-
MTU	-	-
Management IP address	-	-
subnet mask	-	-
Failback	-	-
uplink1	-	-
uplink2	-	-
vmk0	-	-
Virtual Distribution Switch (vDS) - Virtual switch for management		
uplink1	[Node Details] - [vDS] tab - [vDS] - [Physical NIC<uplink1>] - [vmnic name<vmnic1>]*	-
uplink2	[Node Details] - [vDS] tab - [vDS] - [Physical NIC<uplink2>] - [vmnic name<vmnic3>]*	-
vmk0	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Network Port Group for Management>] - [Port Group Name]*	-
vmk1	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Network Port Group for vSAN>] - [Port Group Name]*	-
vmk2	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Network Port Group for vMotion>] - [Port Group Name]*	-
IP address of vSAN network	[Node Details] - [vDS] tab - [vDS] - [Port Group<Network Port Group for vSAN>] - [IPv4 Address]*	-

Setting Item		Setting Value	Modification
	Subnet mask of vSAN network	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Network Port Group for vSAN>] - [IPv4 Subnet Mask]*	-
	IP address of vMotion network	[Node Details] - [vDS] tab - [vDS] - [Port Group<Network Port Group for vMotion>] - [IPv4 Address]*	-
	Subnet mask of vMotion network	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Network Port Group for vMotion>] - [IPv4 Subnet Mask]*	-
[Network] - [Distributed Switch] - [<Virtual switch for management>] - [Settings] - [System traffic] - [Management traffic]			
	Share	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [NIOC Settings] - [Management] - [Shares]*	-
	Reserve	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [NIOC Settings] - [Management] - [Reservation]*	-
Disk			
	Hard disk Mark as local	true	-
	SSD Mark as SSD capacity other than for cache (When using an All Flash configuration)	True [Note 1]	-
Datacenter			
	Add nodes for creating a new cluster to the virtual network <Name of the virtual distributed switch for workload>	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-1] - [vDS Name]*	-
	Add nodes for creating a new cluster to the virtual network <Name of the virtual distributed switch for management>	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [vDS Name]*	-
	Add hosts for creating a new cluster to the cluster	[Basic Information] - [Data Center Name]*	-
Cluster			
	Fault domain or stretch cluster	fd_<Host Name> [Note 2]	-
	Add nodes for creating a new cluster to the cluster	[Basic Information] - [Cluster Name]*	-

[Note 1]: Among the two types of SSD, the one with fewer number of units (if the number of units of SSD is the same, it is the one with less capacity) will be set as the SSD for cache.

[Note 2]: For <Host name>, the value which is specified in the "Node List" screen - [<Name of node configuring a new cluster>] - [OS] tab - [Information from OS] - [Host Name] is set.

Table 1.2 Automatic setting values of vmnic name and uplink name

Setting Item	Setting Value	
	PRIMERGY RX M4 series / PRIMERGY RX M5 series	PRIMERGY CX M4 series / PRIMERGY CX M5 series
vmnic name	- vDS-1 (Virtual distributed switch for workload) Workload port#1: vmnic1 [Note 1] Workload port#2: vmnic3 [Note 1] [Note 2]	- vDS-1 (Virtual distributed switch for workload) Workload port#1: vmnic2 Workload port#2: vmnic4 [Note 2]

Setting Item	Setting Value	
	PRIMERGY RX M4 series / PRIMERGY RX M5 series	PRIMERGY CX M4 series / PRIMERGY CX M5 series
	<ul style="list-style-type: none"> - vDS-2 (Virtual distributed switch for management) - Network Port Group for Management Active: vmnic2 [Note 1] Standby: vmnic4 [Note 1] [Note 2] - Network Port Group for vMotion Active: vmnic2 [Note 1] Standby: vmnic4 [Note 1] [Note 2] - Network Port Group for vSAN [Note 1] Active: vmnic4 [Note 1] [Note 2] Standby: vmnic2 	<ul style="list-style-type: none"> - vDS-2 (Virtual distributed switch for management) - Network Port Group for Management Active: vmnic1 Standby: vmnic3 - Network Port Group for vMotion Active: vmnic1 Standby: vmnic3 - Network Port Group for vSAN Active: vmnic3 Standby: vmnic1
Uplink name	<ul style="list-style-type: none"> - vDS-1 (Virtual distributed switch for workload) Workload port#1: Uplink2 Workload port#2: Uplink4 - vDS-2 (Virtual distributed switch for management) <ul style="list-style-type: none"> - Network Port Group for Management Active: Uplink1 Standby: Uplink3 - Network Port Group for vMotion Active: Uplink1 Standby: Uplink3 - Network Port Group for vSAN Active: Uplink3 Standby: Uplink1 	<ul style="list-style-type: none"> - vDS-1 (Virtual distributed switch for workload) Workload port#1: Uplink2 Workload port#2: Uplink4 - vDS-2 (Virtual distributed switch for management) <ul style="list-style-type: none"> - Network Port Group for Management Active: Uplink1 Standby: Uplink3 - Network Port Group for vMotion Active: Uplink1 Standby: Uplink3 - Network Port Group for vSAN Active: Uplink3 Standby: Uplink1

[Note 1]: For PRIMERGY RX 4770 M5, enter a vmnic name that is appropriate for your environment.

[Note 2]: If you purchased multiple expansion cards, enter a vmnic name that is appropriate for your environment for the second expansion card.

1.2 Parameter List for Automatic Settings - PRIMEFLEX for Microsoft Storage Spaces Direct/PRIMEFLEX for Microsoft Azure Stack HCI

This section describes the automatic setting values for PRIMEFLEX for Microsoft Storage Spaces Direct/PRIMEFLEX for Microsoft Azure Stack HCI.

The notation in the "Modification" column of the following table shows whether Cluster Creation can be executed if the setting values of the existing cluster have been changed from the settings of the PRIMEFLEX configuration.

Table 1.3 Statement of "Modification"

Modification	Meaning	Description
Y	Changeable	Can be changed because the settings do not affect Cluster Creation
N	Not changeable	Cannot be changed because the settings affect Cluster Creation If you change the settings, Cluster Creation will not work properly.
-	Not applicable	Not subject to change because: <ul style="list-style-type: none"> - The set value overwrites the stated value regardless of the existing setting by Cluster Creation - The set value is constructed with the values described by Cluster Creation



Note

Description of "Setting Value"

- For setting values followed by *, the value is set by the value entered in the "Create Cluster" wizard.
- In some "Setting Value," not values but setting locations are described. For actual values, check the relevant setting locations.

1.2.1 ISM-[Management]-[Nodes]-[<Node Name for Creating a New Cluster>]-[Node List]

Setting Item	Setting Value	Modification
[Communication methods] of [Edit] Wizard		
Password	[Node Details] - [iRMC] tab - [Local User Settings] - ['admin' User] - [New Password]*	-
[Properties] tab		
Web I/F URL	https://<IP address of iRMC>/	-
[OS] tab		
Account	pflocaladmin	-
[Log Collection Settings] tab		
Retention Period		
Event Log (days)	7	-
Operation Log (days)	7	-
Security Log (days)	7	-
Archived Log (generations)	7	-
Log Collection Target		
Hardware Log	Disable [Note 1] Enable [Note 2]	-
Operating System Log	Enable	-
ServerView Suite Log	Enable [Note 2]	-
Schedule		
Schedule	Enable	-
Schedule Type	Specify by Day of the Week	-
Day of the week	Weekly	-
Day of the week	Saturday	-
Time	0:00	-

[Note 1]: Setting value set if you are using PRIMERGY M4 series.

[Note 2]: Setting value set if you are using PRIMERGY M5 series.

1.2.2 ISM-[Management]-[Cluster]

Setting Item	Setting Value	Modification
Virtual Resource		

Setting Item	Setting Value	Modification
Microsoft Failover Cluster	Add information of the created cluster	-
Other		
Cluster Information	Add information of the created cluster	-

1.2.3 ISM-[Settings]-[General]

Setting Item	Setting Value	Modification
Cloud Management Software		
Cloud Management Software Name	[CMS Information] - [Cloud Management Software Name]*	-
IP Address	[CMS Information] - [IPv4 IP Address]*	-
Type	Microsoft Failover Cluster (Windows Server 2016) or Microsoft Failover Cluster (Windows Server 2019) [Note 1]	-
Domain Name	[CMS Information] - [Domain Name]*	-
Account Name	[CMS Information] - [User Name]*	-
Password	[CMS Information] - [Password]*	-
Port Number	[CMS Information] - [WinRM Service (SSL) Port]*	-
User Group Name	pfadministrators or pfadministrator [Note 2]	-

[Note 1]: Set the installation media for the OS that is specified in the ISM profile.

[Note 2]: Set "pfadministrators" or "pfadministrator" that is registered in the ISM user group. If both are registered, set "pfadministrators."

1.2.4 ISM-[Structuring]-[Profiles]-[Profile Settings]-[<Node Name for Creating a New Cluster>]

Setting Item	Setting Value	Modification
[OS] tab		
Execute Script after Installation		
Execute Script after Installation	Enable	-
Directory Forwarded to the OS	postscript_ClusterOperation	-
Script to Execute	WinSvr_Setting.bat	-

1.2.5 iRMC S5 Web Server of Servers for Creating a New Cluster - [Settings]-[User Management]

Setting Item	Setting Value	Modification
[iRMC Local User Accounts]-[User with administrator privileges]		
User Information		
Enable	Enable	-
Name	[Node Details] - [iRMC] tab - [Local User Settings] - [Administrator User] - [User Name]*	-
Password	[Node Details] - [iRMC] tab - [Local User Settings] - [Administrator User] - [Password]*	-
Access Configuration		

Setting Item	Setting Value	Modification
Redfish/WebUI Permissions		
Redfish / Web UI User Enabled	Enable	-
Role	Administrator	-
IPMI Privileges		
LAN Channel Privilege	OEM	-
Serial Channel Privilege	OEM	-
Configure User Accounts	Enable	-
Configure iRMC Settings	Enable	-
AVR Permissions		
Video Redirection	Enable	-
Remote Storage Enabled	Enable	-
Other		
User Shell (Text Access)	Remote Manager	-
[iRMC Local User Accounts]-['admin' user]		
User Information		
Password	[Node Details] - [iRMC] tab - [Local User Settings] - ['admin' User] - [New Password]*	-

1.2.6 LDAP for iRMC S5 Web Server of Servers for Creating a New Cluster

Setting Item	Setting Value	Modification
[User Management]-[LDAP] [Note 1]		
Enable LDAP	true	-
Enable LDAP SSL	false	-
Disable Local Login	[Cluster Details] - [LDAP] tab - [Local User Login]*	-
Directory Server Type	[Cluster Details] - [LDAP] tab - [Directory Server Type]*	-
Domain Name	[Cluster Details] - [LDAP] tab - [Domain Name]*	-
Department Name	[Cluster Details] - [LDAP] tab - [Division]*	-
Primary LDAP Server		
Server	[Cluster Details] - [LDAP] tab - [Host Name or IP Address (Primary Host)]*	-
Network Port	[Cluster Details] - [LDAP] tab - [Port (Primary Host)]*	-
SSL Network Port	[Cluster Details] - [LDAP] tab - [TLS/SSL Port (Primary Host)]*	-
Backup LDAP Server		
Server	[Cluster Details] - [LDAP] tab - [Host Name or IP Address (Backup Host)]*	-
Network Port	[Cluster Details] - [LDAP] tab - [Port (Backup Host)]*	-
SSL Network Port	[Cluster Details] - [LDAP] tab - [TLS/SSL Port (Backup Host)]*	-

[Note 1]: Not set if the check was removed for [Cluster Details] - [LDAP] tab - [Activate LDAP Settings] of Cluster Definition Parameters.

1.2.7 Settings for Windows Server Failover Cluster

Setting Item	Setting Value	Modification
Create Cluster		
Cluster Name	[Basic Information] - [Cluster Name]*	-
Create Cluster Network		
Number of cluster networks to create	Number of network names specified in [Cluster Details] - [Network] tab - [Management Virtual Switch]*	-
Network Name	[Cluster Details] - [Network] tab - [Management Virtual Switch] - [Network Name]* [Note 1]	-
Role Settings	[Cluster Details] - [Network] tab - [Management Virtual Switch] - [Role Settings]*	-
IP Address	[Cluster Details] - [Network] tab - [Management Virtual Switch] - [IPv4 Network Address]*	-
Subnet Mask	[Cluster Details] - [Network] tab - [Management Virtual Switch] - [IPv4 Subnet Mask]*	-
Networks for Live Migration		
Priority Order	Setting value specified in [Cluster Details] - [Network] tab - [Management Virtual Switch] - [Network Name]*	-
Storage Pool		
Friendly Name of Storage Pool	S2D on <Cluster Name>	-
Journal Settings		
Media Type	[Cluster Details] - [Storage Pool] tab - [Journal Settings] - [Media Type]*	-
Bus Type	[Cluster Details] - [Storage Pool] tab - [Journal Settings] - [Bus Type]*	-
Storage Tier Settings		
Storage Tier Name	[Cluster Details] - [Storage Pool] tab - [Storage Tier Settings] - [Storage Tier Name]*	-
Media Type	[Cluster Details] - [Storage Pool] tab - [Storage Tier Settings] - [Media Type]*	-
Recovery	[Cluster Details] - [Storage Pool] tab - [Storage Tier Settings] - [Recovery]*	-
Redundancy	[Cluster Details] - [Storage Pool] tab - [Storage Tier Settings] - [Redundancy]*	-
Number of data copies	[Cluster Details] - [Storage Pool] tab - [Storage Tier Settings] - [Number of data copies]*	-

[Note 1]: For PRIMERGY M5 series, change [Cluster Details] - [Network] tab - [Management Virtual Switch <Name of network adapter 2 for live migration, Microsoft Storage Spaces Direct>] to "Storage."

1.2.8 Settings for Windows Server of Servers for a New Cluster

Setting Item	Setting Value	Modification
WinRM		
Basic authentication	true	-
Enable service		

Setting Item	Setting Value	Modification
CredSSP	Enable	-
CredSSP		
Server roll	Enable	-
Client roll	Enable	-
Certificate		
<File in ISM>.cer	Register	-
<File in ISM>.pfx	Register	-
Firewall		
5986	Open	-
HTTPS		
Listener	Create	-
Hyper-V Host		
MAC address range	1st to 3rd octet: Vendor ID (0x00155D) fixed 4th octet: 3rd octet of the IPv4 IP address of [Cluster Nodes Selection] - [Target nodes selection] - [Node Name]* 5th octet: 4th octet of the IPv4 IP address of [Cluster Nodes Selection] - [Target nodes selection] - [Node Name]* 6th octet: 0x00-0xFF	-
Live Migration		
Performance option	Default [Note 1] SMB [Note 2]	-
Creation of local user		
User Name	[Node Details] - [OS] tab - [Local User Settings] - [Administrator User ID]*	-
Password	[Node Details] - [OS] tab - [Local User Settings] - [Password]*	-
Add functions and roles		
Hyper-V management tool	Install	-
Windows Server back up	Install	-
Management of failover cluster	Install	-
Data Center Bridging	Install [Note 2] [Note 4]	-
Data Deduplication	Install [Note 2]	-
System Insights	Install [Note 2]	-
Creating virtual switch		
Virtual switch name	[Node Details] - [Virtual Switch] tab - [Workload Virtual Switch or Management Virtual Switch] - [Virtual Switch Settings] - [Virtual Switch Name]*	-
Teaming	[Node Details] - [Virtual Switch] tab - [Workload Virtual Switch or Management Virtual Switch] - [Virtual Switch Settings] - [Embedded Teaming]*	-
Load balancing algorithm [Note 2]	HyperVPort	-
VM net adapter - Setting network name		

Setting Item	Setting Value	Modification
Network name	[Node Details] - [Virtual Switch] tab - [Management Virtual Switch] - [Virtual Network Adapter <Name of network adapter for management or Name of network adapter 1 for live migration, Microsoft Storage Spaces Direct or Name of network adapter 2 for live migration, Microsoft Storage Spaces Direct>] - [Adapter Name]*	-
VM network settings - Network 1 for live migration, Microsoft Storage Spaces Direct		
VLANID	[Cluster Details] - [Network] tab - [Management Virtual Switch <Name of network adapter 1 for live migration, Microsoft Storage Spaces Direct>] - [VLAN ID]*	-
IP Address	[Node Details] - [Virtual Switch] tab - [Management Virtual Switch] - [Virtual Network Adapter <Name of network adapter 1 for live migration, Microsoft Storage Spaces Direct>] - [IPv4 Address]*	-
Length of subnet mask	[Node Details] - [Virtual Switch] tab - [Management Virtual Switch] - [Virtual Network Adapter <Name of network adapter 1 for live migration, Microsoft Storage Spaces Direct>] - [IPv4 Subnet Mask]*	-
Type of IP address	IPv4	-
Virtual Machine Queue	[Node Details] - [Virtual Switch] tab - [Virtual Machine Queue]*	-
NetAdapterRSS	[Node Details] - [Virtual Switch] tab - [vRSS]*	-
RDMA	Disable [Note 1] Enable [Note 2]	-
VM network settings - Network 2 for live migration, Microsoft Storage Spaces Direct		
VLANID	[Cluster Details] - [Network] tab - [Management Virtual Switch <Name of network adapter 2 for live migration, Microsoft Storage Spaces Direct>] - [VLAN ID]*	-
IP Address	[Node Details] - [Virtual Switch] tab - [Management Virtual Switch] - [Virtual Network Adapter <Name of network adapter 2 for live migration, Microsoft Storage Spaces Direct>] - [IPv4 Address]*	-
Length of subnet mask	[Node Details] - [Virtual Switch] tab - [Management Virtual Switch] - [Virtual Network Adapter <Name of network adapter 2 for live migration, Microsoft Storage Spaces Direct>] - [IPv4 Subnet Mask]*	-
Type of IP address	IPv4	-
Virtual Machine Queue	[Node Details] - [Virtual Switch] tab - [Virtual Machine Queue]*	-
NetAdapterRSS	[Node Details] - [Virtual Switch] tab - [vRSS]*	-
RDMA	Disable [Note 1] Enable [Note 2]	-
Network settings		
IPv6	Disable [Note 1] Enable (Prefer IPv4 over IPv6) [Note 2]	-
Network settings - IPv4		
IP Address	IPv4 IP address of [Cluster Nodes Selection] - [Target nodes selection] - [Node Name]*	-

Setting Item	Setting Value	Modification
Length of subnet mask	IPv4 Length of subnet mask of [Cluster Nodes Selection] - [Target nodes selection] - [Node Name]*	-
Type of IP address	IPv4	-
Default Gateway	Default Gateway of Network at OS Individual specified in the ISM profile	-
IP Address	IPv4 IP address of [Cluster Nodes Selection] - [Target nodes selection] - [Node Name]*	-
Network settings - Prioritized DNS server		
DNS name	Mgmt	-
IP Address	IP address of the DNS server specified in the ISM profile	-
Primary DNS suffix	register=primary	-
Authentication of DNS server settings	validate=no	-
Network settings - Alternative DNS server		
DNS name	Mgmt	-
IP Address	[Cluster Details] - [DNS] tab - [IP Address (Secondary DNS Server)]*	-
Order	index=2	-
Authentication of DNS server settings	validate=no	-
Network settings - Virtual Machine Queue for Management Port		
Enable	[Node Details] - [Virtual Switch] tab - [Virtual Machine Queue]*	-
MaxProcessors	$(X - 1) / M$ [Note 3]	-
BaseProcessorNumber	$(1 + ((X - 1) / M) * (N - 1)) * Y$ [Note 3]	-
MaxProcessorNumber	$((X - 1) / M) * N * Y$ [Note 3]	-
Network settings - Virtual Machine Queue for Workload Port		
Enable	[Node Details] - [Virtual Switch] tab - [Virtual Machine Queue]*	-
MaxProcessors	$(X - 1) / M$ [Note 3]	-
BaseProcessorNumber	$(1 + ((X - 1) / M) * (N - 1)) * Y$ [Note 3]	-
MaxProcessorNumber	$((X - 1) / M) * N * Y$ [Note 3]	-
Network settings - LAN driver (common)		
Virtual Machine Queue	[Node Details] - [Virtual Switch] tab - [Virtual Machine Queue]*	-
SR-IOV	[Node Details] - [Virtual Switch] tab - [SR/IOV]*	-
QoS(Workload port)	Disable	-
QoS(Management port)	Disable [Note 5] Enable [Note 4]	-
Network settings - LAN driver (For Cavium LAN card only) [Note 2]		
Network Direct Functionality	Enable	-
NetworkDirect Technology	iWARP	-

[Note 1]: Setting value set if you are using PRIMERGY M4 series.

[Note 2]: Setting value set if you are using PRIMERGY M5 series.

[Note 3]: Each symbol represents the following value.

X : Number of processor cores

Y : Number of logical processors per core

M : Number of physical network ports for setting virtual machine queue

N : Sequence number (1 to M) of physical network ports for setting virtual machine queue

[Note 4]: Setting value set if you are using PRIMEFLEX for Microsoft Azure Stack HCI when the storage configuration is All Flash.

[Note 5]: Setting value set if you are using PRIMEFLEX for Microsoft Storage Spaces Direct or PRIMEFLEX for Microsoft Azure Stack HCI when the storage configuration is Hybrid.

Chapter 2 Parameter List for Automatic Settings for Cluster Expansion

This section describes the setting values automatically set by executing the Cluster Expansion.

2.1 Parameter List for Automatic Settings - PRIMEFLEX HS/ PRIMEFLEX for VMware vSAN

This section describes the automatic setting values for PRIMEFLEX HS/PRIMEFLEX for VMware vSAN.

The notation in the "Modification" column of the following table shows whether Cluster Expansion can be executed if the setting values of the existing cluster have been changed from the settings of PRIMEFLEX configuration.

Table 2.1 Statement of "Modification"

Modification	Meaning	Description
Y	Changeable	Can be changed because the settings do not affect Cluster Expansion
N	Not changeable	Cannot be changed because the settings affect Cluster Expansion If you change the settings, Cluster Expansion will not work properly.
-	Not applicable	Not subject to change because: - The set value overwrites the stated value regardless of the existing setting by Cluster Expansion - The set value is constructed with the values described by Cluster Expansion



Note

- Description of "Setting Value"
 - For setting values followed by *, the value is set by the value entered in the "Expand Cluster" wizard.
 - In some "Setting Value," not values but setting locations are described. For actual values, check the relevant setting locations.

2.1.1 ISM - [Management] - [Nodes] - [<Node Name for Expanding a Cluster>] - [Node List]

Setting Item	Setting Value	Modification
[Communication methods] of [Edit] Wizard		
Password	[Node Details] - [iRMC] tab - [Local User Settings] - ['admin' user] - [New Password]*	N
[Properties] tab		
Web I/F URL	https://<IP address of iRMC>/	N
[Log Collection Settings] tab		
Retention Period		
Event Log (days)	7	Y
Operation Log (days)	7	Y
Security Log (days)	7	Y
Archived Log (generations)	7	Y

Setting Item	Setting Value	Modification
Log Collection Target		
Hardware Log	Enable	Y
Operating System Log	Enable	Y
Schedule		
Schedule	Enable	N
Schedule Type	Specify by Day of the Week	Y
Day of the week	Weekly	Y
Day of the week	Saturday	Y
Time	0:00	Y

2.1.2 ISM-[Structuring]-[Profiles]-[Profile Settings]-[<Node Name for Expanding a Cluster>]

Setting Item	Setting Value	Modification
[OS] tab		
Execute Script after Installation		
Execute Script after Installation	Enable	-
The directory of Script	kickstart	-
Script to Execute	ESXi_Setting.sh	-

2.1.3 ADVM of PRIMEFLEX HS/PRIMEFLEX for VMware vSAN Configuration

Setting Item	Setting Value	Modification
[DNS Manager]-[<Domain name>]		
Host record for forward lookup zones [Note 1]	[Cluster Nodes Selection] - [Target nodes selection] - [Node Name]*	N
Host code for reverse lookup zones [Note 1]	ESXi IP address of servers for expanding a cluster [Note 2]	N

[Note 1]: It is not registered if not using an ADVM configured for PRIMEFLEX. If not using an ADVM configured for PRIMEFLEX, register it in "6.7.1.3 Register host records in DNS" in "Operating Procedures."

[Note 2] For ESXi IP address of servers for expanding a cluster, the value which is specified in the "Node List" screen - [<Node name for expanding a cluster>] - [OS] tab - [Basic Info] - [Registered IP Address] is set.

2.1.4 User Management for iRMC S4 Web Server of Servers for Expanding a Cluster

Setting Item	Setting Value	Modification
[iRMC S4 User]-[New User Configuration]		
Name	[Node Details] - [iRMC] tab - [Local User Settings] - [Administrator User] - [User Name]*	Y
Password	[Node Details] - [iRMC] tab - [Local User Settings] - [Administrator User] - [Password]*	Y
IPMI User Enabled	true	N

Setting Item	Setting Value	Modification
LAN Channel Privilege	OEM	N
Serial Channel Privilege	OEM	N
Configure User Accounts	true	N
Configure iRMC S4 Settings	true	N
Video Redirection Enabled	true	N
Remote Storage Enabled	true	N
User Shell (Text Access)	Remote Manager	N
[iRMC S4 User]-['admin' user]		
Password	[Node Details] - [iRMC] tab - [Local User Settings] - ['admin' user] - [New Password]	N

2.1.5 iRMC S5 Web Server of Servers for Expanding a Cluster - [Settings]-[User Management]

Setting Item	Setting Value	Modification
[iRMC Local User Accounts]-[User with administrator privileges]		
User Information		
Enable	Enable	N
Name	[Node Details] - [iRMC] tab - [Local User Settings] - [Administrator User] - [User Name]*	Y
Password	[Node Details] - [iRMC] tab - [Local User Settings] - [Administrator User] - [Password]*	Y
Access Configuration		
Redfish/WebUI Permissions		
Redfish / Web UI User Enabled	Enable	N
Role	Administrator	N
IPMI Privileges		
LAN Channel Privilege	OEM	N
Serial Channel Privilege	OEM	N
Configure User Accounts	Enable	N
Configure iRMC Settings	Enable	N
AVR Permissions		
Video Redirection	Enable	N
Remote Storage Enabled	Enable	N
Other		
User Shell (Text Access)	Remote Manager	N
[iRMC Local User Accounts]-['admin' user]		
User Information		
Password	[Node Details] - [iRMC] tab - [Local User Settings] - ['admin' User] - [New Password]*	N

2.1.6 LDAP Configuration for iRMC S4 Web Server of Servers for Expanding a Cluster

Setting Item	Setting Value	Modification
[User Management]-[LDAP Configuration] [Note 1]		
LDAP Enabled	true	N
LDAP SSL Enabled	false	N
Disable Local Login	[Cluster Details] - [LDAP] tab - [Local User Login]*	N
Always use SSL Login	[Cluster Details] - [LDAP] tab - [Always use TLS/SSL Login]*	N
Directory Server Type	[Cluster Details] - [LDAP] tab - [Directory Server Type]*	N
Domain name	[Cluster Details] - [LDAP] tab - [Domain Name]*	N
Department name	[Cluster Details] - [LDAP] tab - [Division]*	N
Primary LDAP Server		
LDAP Server	[Cluster Details] - [LDAP] tab - [Host Name or IP Address (Primary Host)]*	Y
LDAP Port	[Cluster Details] - [LDAP] tab - [Port (Primary Host)]*	Y
LDAP SSL Port	[Cluster Details] - [LDAP] tab - [TLS/SSL Port (Primary Host)]*	Y
Backup LDAP Server		
LDAP Server	[Cluster Details] - [LDAP] tab - [Host Name or IP Address (Backup Host)]*	Y
LDAP Port	[Cluster Details] - [LDAP] tab - [Port (Backup Host)]*	Y
LDAP SSL Port	[Cluster Details] - [LDAP] tab - [TLS/SSL Port (Backup Host)]*	Y

[Note 1]: Not set if the check was removed for [Cluster Details] - [LDAP] tab - [Activate LDAP Settings] of Cluster Definition Parameters.

2.1.7 LDAP for iRMC S5 Web Server of Servers for Expanding a Cluster

Setting Item	Setting Value	Modification
[User Management]-[LDAP] [Note 1]		
Enable LDAP	true	N
Enable LDAP SSL	false	N
Disable Local Login	[Cluster Details] - [LDAP] tab - [Local User Login]*	N
Directory Server Type	[Cluster Details] - [LDAP] tab - [Directory Server Type]*	N
Domain Name	[Cluster Details] - [LDAP] tab - [Domain Name]*	N
Department Name	[Cluster Details] - [LDAP] tab - [Division]*	N
Primary LDAP Server		
Server	[Cluster Details] - [LDAP] tab - [Host Name or IP Address (Primary Host)]*	Y
Network Port	[Cluster Details] - [LDAP] tab - [Port (Primary Host)]*	Y
SSL Network Port	[Cluster Details] - [LDAP] tab - [TLS/SSL Port (Primary Host)]*	Y
Backup LDAP Server		
Server	[Cluster Details] - [LDAP] tab - [Host Name or IP Address (Backup Host)]*	Y
Network Port	[Cluster Details] - [LDAP] tab - [Port (Backup Host)]*	Y

Setting Item	Setting Value	Modification
SSL Network Port	[Cluster Details] - [LDAP] tab - [TLS/SSL Port (Backup Host)]*	Y

[Note 1]: Not set if the check was removed for [Cluster Details] - [LDAP] tab - [Activate LDAP Settings] of Cluster Definition Parameters.

2.1.8 Setting for ESXi of Servers for Expanding a Cluster

Setting Item	Setting Value	Modification
OS		
VMware ESXi	Install	-
ESXi Patch	Apply if a file is uploaded to ISM	-
SMI-S Provider		
VMware SMIS Provider	Apply if a file is uploaded to ISM [Note 1] [Note 2] - [Note 1] [Note 3]	-
Driver		
ixgben driver	Enable [Note 1]	-
[Host Client]-[Management]-[System]-[Date and Time]		
Current date and time	UTC (Coordinated Universal Time)	-
NTP server	[Cluster Details] - [NTP] tab - [NTP Server1 (Host Name or Host IP Address)]* [Cluster Details] - [NTP] tab - [NTP Server2 (Host Name or Host IP Address)]*	-
[Host Client]-[Management]-[Service]		
TSM	Start / Stop [Note 4]	-
TSM-SSH	Start / Stop [Note 4]	-
lwsmd	Start [Note 5]	-
ntpd	Start	-
[Host Client]-[Management]-[Security and user]		
User Name	[Node Details] - [OS] tab - [Local User Settings] - [Administrator User ID]*	-
Password	[Node Details] - [OS] tab - [Local User Settings] - [Password]*	-
Authentication	Enable	-
Join domain [Note 6]		
[Host Client]-[Manage]-[Hardware]-[Power Management]		
Active Policy	High performance	-
[Host Client]-[Storage]-[Datastore]		
Renaming the local datastore	LocalDatastore_<Host name> [Note 7]	-
[Host Client]-[Network]-[TCP/IP stack]-[Default TCP/IP stack]-[DNS Configuration]		
Addresses	IP Address of DNS server specified in the ISM profile [Cluster Details] - [DNS] tab - [IP Address (Secondary DNS server)]*	-
Search Domains	[Cluster Details] - [DNS] tab - [Domain Name]*	-
[Host Client]-[Network]-[Firewall rules]		

Setting Item	Setting Value	Modification
NTP Client	Start	-
[Host Client]-[Host]-[Action]-[Privilege]-[Addition of user]		
Role settings	Adding Admin privilege for host/virtual machine	-
Other		
FQDN settings	[Cluster Nodes Selection] - [Target nodes selection] - [Node Name]. [Cluster Details] - [DNS] tab - [Domain Name]*	-
IPv6	Disable	-
Existing VM Network port group	Delete	-
SSL v3	Enable	-
tos maxdist [Note 8]	[Cluster Details] - [NTP] tab - [Max Interval between NTP Peer]*	-

[Note 1]: Setting value set if you are using PRIMEFLEX for VMware vSAN.

[Note 2]: Setting value set if you are using VMware ESXi 6.5.0.5310538.

[Note 3]: Setting value set if you are using VMware ESXi 6.5 Update 1.

[Note 4]: Set to "Start" during the execution of Cluster Expansion.

[Note 5]: Not started if the check was removed for [Cluster Details] - [LDAP] tab - [Activate LDAP Settings] of Cluster Definition Parameters.

[Note 6]: Not set if the check was removed for [Cluster Details] - [LDAP] tab - [Activate LDAP Settings] of Cluster Definition Parameters.

[Note 7]: Rename from datastore1. For <Host name>, the value which is specified in the "Node List" screen - [<Node name for expanding a cluster>] - [OS] tab - [Information from OS] - [Host Name] is set.

[Note 8]: Setting value to be set in "tos maxdist" in the "/etc/ntp.conf" file.

2.1.9 Setting for the Cluster vCSA

If the setting for [Add disks to Storage] of the cluster vCSA is "Manual," set this parameter.

Setting Item	Setting Value	Modification
Disk Management		
Disk Groups [Note 1]		
Number of Disk Groups	1	N
Cache	SSD	N
Capacity	HDD	N

[Note 1]: Set a disk group for each host for expanding a cluster.

2.1.10 Setting for Hosts for Expanding a Cluster vCSA in the Configuration of PRIMERGY RX Series

Setting Item	Setting Value	Modification
Virtual Standard Switch (vSS) - vSwitch0 (Built-in Virtual Switch)		
vSwitch0	Delete	N
All vmnic	Delete	N
Management Network	Delete	N
Virtual Distribution Switch (vDS) - Virtual switch for workload		

Setting Item	Setting Value	Modification
Management traffic	-	-
VLANID	-	-
MTU	-	-
Management IP address	-	-
subnet mask	-	-
Failback	-	-
uplink1	-	-
uplink2	-	-
vmk0	-	-
Virtual Distribution Switch (vDS) - Virtual switch for management		
uplink1	[Node Details] - [vDS] tab - [vDS] - [Physical NIC<uplink1>] - [vmnic name<vmnic0>]* [Note 1] [Note 2] [Node Details] - [vDS] tab - [vDS] - [Physical NIC<uplink1>] - [vmnic name<vmnic2>]* [Note 2] [Note 3]	N
uplink2	[Node Details] - [vDS] tab - [vDS] - [Physical NIC<uplink2>] - [vmnic name<vmnic2>]* [Note 1] [Note 2] [Node Details] - [vDS] tab - [vDS] - [Physical NIC<uplink2>] - [vmnic name<vmnic4>]* [Note 2] [Note 3]	N
vmk0	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings]-[vDS-2] - [Port Group<Network Port Group for Management>] - [Port Group Name]*	N
vmk1	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Network Port Group for vSAN>] - [Port Group Name]*	N
vmk2	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Network Port Group for vMotion>] - [Port Group Name]*	N
IP address of vSAN network	[Node Details] - [vDS] tab - [vDS] - [Port Group<Network Port Group for vSAN>] - [IPv4 Address]*	Y
Subnet mask of vSAN network	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Network Port Group for vSAN>] - [IPv4 Subnet Mask]*	Y
IP address of vMotion network	[Node Details] - [vDS] tab - [vDS] - [Port Group<Network Port Group for vMotion>] - [IPv4 Address]*	Y
Subnet mask of vMotion network	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Network Port Group for vMotion>] - [IPv4 Subnet Mask]*	Y
[Network] - [Distributed Switch] - [<Virtual switch for management>] - [Settings] - [System traffic] - [Management traffic]		
Share	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [NIOC Settings] - [Management] - [Shares]*	Y
Reserve	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [NIOC Settings] - [Management] - [Reservation]*	Y
Disk		

Setting Item		Setting Value	Modification
	Hard disk Mark as local	true	-
	SSD Mark as SSD capacity other than for cache (When using an All Flash configuration)	True [Note 4]	-
Datacenter			
	Add hosts for expanding a cluster to the virtual network	-	-
	Add hosts for expanding a cluster to datacenter	[Basic Information]- [Data Center Name]*	Y
Cluster			
	Fault domain or stretch cluster	fd_<Host Name> [Note 5]	-
	Add nodes for expanding a cluster to the cluster	Selected cluster name	Y

[Note 1]: Setting value set if you are using PRIMEFLEX HS.

[Note 2]: For PRIMERGY RX 4770 M5, enter a vmnic name that is appropriate for your environment.

[Note 3]: Setting value set if you are using PRIMEFLEX for VMware vSAN.

[Note 4]: SSDs that meet the following conditions are set as the SSD for cache.

PRIMEFLEX HS: The capacity is 160 - 210 GB, 320 - 420 GB

PRIMEFLEX for VMware vSAN: Among the two types of SSD, the one with fewer number of units (if the number of units of SSD is the same, it is the one with less capacity)

[Note 5]: For <Host name>, the value which is specified in the "Node List" screen - [<Node name for expanding a cluster>] - [OS] tab - [Information from OS] - [Host Name] is set.

2.1.11 Setting for Hosts for Expanding a Cluster vCSA in the Configuration of PRIMERGY CX Series

Setting Item		Setting Value	Modification
Virtual Standard Switch (vSS) - vSwitch0 (Built-in Virtual Switch)			
	vSwitch0	- [Note 1] Delete [Note 2]	N
	All vmnic	- [Note 1] Delete [Note 2]	N
	Management Network	- [Note 1] Delete [Note 2]	N
Virtual Distribution Switch (vDS) - Virtual switch for workload			
	Management traffic	Check [Note 1] - [Note 2]	N
	VLANID	0 [Note 1] - [Note 2]	N
	MTU	1500 [Note 1]	N

Setting Item	Setting Value	Modification
	- [Note 2]	
Management IP address	[Node Details] - [vDS] tab - [vDS] - [Port Group<Network Port Group for Management>] - [IPv4 Address]* [Note 1] - [Note 2]	N
subnet mask	[Node Details] - [vDS] tab - [vDS] - [Port Group <Network Port Group for Management>] - [IPv4 Subnet mask]* [Note 1] - [Note 2]	N
Failback	True [Note 1] - [Note 2]	N
uplink1	[Node Details] - [vDS] tab - [vDS] - [Physical NIC<uplink1>] - [vmnic name<vmnic0>]* [Note 1] - [Note 2]	N
uplink2	[Node Details] - [vDS] tab - [vDS] - [Physical NIC<uplink2>] - [vmnic name<vmnic1>]* [Note 1] - [Note 2]	N
vmk0	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings]- [vDS-2] - [Port Group<Network Port Group for Management>] - [Port Group Name]* [Note 1] [Note 3] - [Note 2]	N
Virtual Distribution Switch (vDS) - Virtual switch for management		
uplink1	[Node Details] - [vDS] tab - [vDS] - [Physical NIC<uplink1>] - [vmnic name<vmnic2>]* [Note 1] [Node Details] - [vDS] tab - [vDS] - [Physical NIC<uplink1>] - [vmnic name<vmnic1>]* [Note 2]	N
uplink2	[Node Details] - [vDS] tab - [vDS] - [Physical NIC<uplink2>] - [vmnic name<vmnic3>]* [Note 1] [Node Details] - [vDS] tab - [vDS] - [Physical NIC<uplink2>] - [vmnic name<vmnic3>]* [Note 2]	N
vmk0	- [Note 1] [Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Network Port Group for Management>] - [Port Group Name]* [Note 2]	N
vmk1	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Network Port Group for vSAN>] - [Port Group Name]*	N
vmk2	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Network Port Group for vMotion>] - [Port Group Name]*	N
IP address of vSAN network	[Node Details] - [vDS] tab - [vDS] - [Port Group<Network Port Group for vSAN>] - [IPv4 Address]*	Y
Subnet mask of vSAN network	[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Network Port Group for vSAN>] - [IPv4 Subnet Mask]*	Y
IP address of vMotion network	[Node Details] - [vDS] tab - [vDS] - [Port Group<Network Port Group for vMotion>] - [IPv4 Address]*	Y

Setting Item		Setting Value	Modification
Subnet mask of vMotion network		[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Network Port Group for vMotion>] - [IPv4 Subnet Mask]*	Y
[Network] - [Distributed Switch] - [<Virtual switch for management>] - [Settings] - [System traffic] - [Management traffic]			
Share		- [Note 1] [Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [NIOC Settings] - [Management] - [Shares]* [Note 2]	Y
Reserve		- [Note 1] [Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [NIOC Settings] - [Management] - [Reservation]* [Note 2]	Y
Disk			
Hard disk Mark as local		true	-
SSD Mark as SSD capacity other than for cache (When using an All Flash configuration)		True [Note 4]	-
Datacenter			
Add hosts for expanding a cluster to the virtual network		[Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-1] - [vDS Name]* [Note 1] - [Note 2]	N
Add hosts for expanding a cluster to datacenter		[Basic Information] - [Data Center Name]*	Y
Cluster			
Fault domain or stretch cluster		fd_<Host Name> [Note 5]	-
Add nodes for expanding a cluster to the cluster		Selected cluster name	Y

[Note 1]: Setting value set if you are using PRIMEFLEX HS.

[Note 2]: Setting value set if you are using PRIMEFLEX for VMware vSAN.

[Note 3]: Transfer from vSS to vDS.

[Note 4]: SSDs that meet the following conditions are set as the SSD for cache.

PRIMEFLEX HS: The capacity is 160 - 210 GB, 320 - 420 GB

PRIMEFLEX for VMware vSAN: Among the two types of SSD, the one with fewer number of units (if the number of units of SSD is the same, it is the one with less capacity)

[Note 5]: For <Host name>, the value which is specified in the "Node List" screen - [<Node name for expanding a cluster>] - [OS] tab - [Information from OS] - [Host Name] is set.

Table 2.2 Automatic setting values of vmnic name and uplink name

Setting Item	Setting Value	
	If PRIMERGY CX M2 series are not included in the current cluster	If PRIMERGY CX M2 series are included in the current cluster
vmnic name	If the case is PRIMEFLEX HS	If the case is PRIMEFLEX HS

Setting Item	Setting Value	
	If PRIMERGY CX M2 series are not included in the current cluster	If PRIMERGY CX M2 series are included in the current cluster
	<ul style="list-style-type: none"> - vDS-1 (Virtual distributed switch for workload) Workload port#1: vmnic1 Workload port#2: vmnic3 [Note 1] - vDS-2 (Virtual distributed switch for management) <ul style="list-style-type: none"> - Network Port Group for Management Active: vmnic0 Standby: vmnic2 [Note 1] - Network Port Group for vMotion Active: vmnic0 Standby: vmnic2 [Note 1] - Network Port Group for vSAN Active: vmnic2 [Note 1] Standby: vmnic0 <p>If the case is PRIMEFLEX for VMware vSAN [Note 2]</p> <p>[PRIMERGY RX M4 series / PRIMERGY RX M5 series]</p> <ul style="list-style-type: none"> - vDS-1 (Virtual distributed switch for workload) Workload port#1: vmnic1 [Note 3] Workload port#2: vmnic3 [Note 1] [Note 3] - vDS-2 (Virtual distributed switch for management) <ul style="list-style-type: none"> - Network Port Group for Management Active: vmnic2 [Note 3] Standby: vmnic4 [Note 1] [Note 3] - Network Port Group for vMotion Active: vmnic2 [Note 3] Standby: vmnic4 [Note 1] [Note 3] - Network Port Group for vSAN Active: vmnic4 [Note 1] [Note 3] Standby: vmnic2 [Note 3] <p>[PRIMERGY CX M4 series / PRIMERGY CX M5 series]</p> <ul style="list-style-type: none"> - vDS-1 (Virtual distributed switch for workload) Workload port#1: vmnic2 Workload port#2: vmnic4 [Note 1] - vDS-2 (Virtual distributed switch for management) <ul style="list-style-type: none"> - Network Port Group for Management Active: vmnic1 Standby: vmnic3 	<p>[PRIMERGY CX M2 series]</p> <ul style="list-style-type: none"> - vDS-1 (Virtual distributed switch for management) <ul style="list-style-type: none"> - Network Port Group for Management Active: vmnic0 Active: vmnic1 - vDS-2 (Virtual distributed switch for management and workload) <ul style="list-style-type: none"> - Network Port Group for vMotion Active: vmnic2 Standby: vmnic3 - Network Port Group for vSAN Active: vmnic3 Standby: vmnic2 <p>[PRIMERGY CX M4 series / PRIMERGY CX M5 series]</p> <ul style="list-style-type: none"> - vDS-1 (Virtual distributed switch for management) <ul style="list-style-type: none"> - Network Port Group for Management Active: vmnic1 Active: vmnic2 - vDS-2 (Virtual distributed switch for management and workload) <ul style="list-style-type: none"> - Network Port Group for vMotion Active: vmnic3 Standby: vmnic4 - Network Port Group for vSAN Active: vmnic3 Standby: vmnic4

Setting Item	Setting Value	
	If PRIMERGY CX M2 series are not included in the current cluster	If PRIMERGY CX M2 series are included in the current cluster
	<ul style="list-style-type: none"> - Network Port Group for vMotion Active: vmnic1 Standby: vmnic3 - Network Port Group for vSAN Active: vmnic3 Standby: vmnic1 	
Uplink name	If the case is PRIMEFLEX HS /PRIMEFLEX for VMware vSAN <ul style="list-style-type: none"> - vDS-1 (Virtual distributed switch for workload) Workload port#1: Uplink2 Workload port#2: Uplink4 - vDS-2 (Virtual distributed switch for management) <ul style="list-style-type: none"> - Network Port Group for Management Active: Uplink1 Standby: Uplink3 - Network Port Group for vMotion Active: Uplink1 Standby: Uplink3 - Network Port Group for vSAN Active: Uplink3 Standby: Uplink1 	If the case is PRIMEFLEX HS <ul style="list-style-type: none"> - vDS-1 (Virtual distributed switch for management) <ul style="list-style-type: none"> - Network Port Group for Management Active: Uplink1 Active: Uplink2 - vDS-2 (Virtual distributed switch for management/workload) <ul style="list-style-type: none"> - Network Port Group for vMotion Active: Uplink3 Standby: Uplink4 - Network Port Group for vSAN Active: Uplink4 Standby: Uplink3

[Note 1]: If you purchased multiple expansion cards, enter a vmnic name that is appropriate for your environment for the second expansion card.

[Note 2]: The same as if expanding PRIMERGY M4 series / PRIMERGY M5 series in PRIMEFLEX HS.

[Note 3] :For PRIMERGY RX 4770 M5, enter a vmnic name that is appropriate for your environment.

2.2 Parameter List for Automatic Settings - PRIMEFLEX for Microsoft Storage Spaces Direct/PRIMEFLEX for Microsoft Azure Stack HCI

This section describes the automatic setting values for PRIMEFLEX for Microsoft Storage Spaces Direct/PRIMEFLEX for Microsoft Azure Stack HCI.

The notation in the "Modification" column of the following table shows whether Cluster Expansion can be executed if the setting values of the existing cluster have been changed from the settings of the PRIMEFLEX configuration.

Table 2.3 Statement of "Modification"

Modification	Meaning	Description
Y	Changeable	Can be changed because the settings do not affect Cluster Expansion
N	Not changeable	Cannot be changed because the settings affect Cluster Expansion If you change the settings, Cluster Expansion will not work properly.
-	Not applicable	Not subject to change because: <ul style="list-style-type: none"> - The set value overwrites the stated value regardless of the existing setting by Cluster Expansion

Modification	Meaning	Description
		- The set value is constructed with the values described by Cluster Expansion

 **Note**

Description of "Setting Value"

- For setting values followed by *, the value is set by the value entered in the "Expand Cluster" wizard.
- In some "Setting Value," not values but setting locations are described. For actual values, check the relevant setting locations.

2.2.1 ISM - [Management] - [Nodes] - [<Node Name for Expanding a Cluster>] - [Node List]

Setting Item	Setting Value	Modification
[Communication methods] of [Edit] Wizard		
Password	[Node Details] - [iRMC] tab - [Local User Settings] - ['admin' user] - [New Password]*	N
[Properties] tab		
Web I/F URL	https://<IP address of iRMC>/	N
[OS] tab		
Account	pflocaladmin	N
[Log Collection Settings] tab		
Retention Period		
Event Log (days)	7	Y
Operation Log (days)	7	Y
Security Log (days)	7	Y
Archived Log (generations)	7	Y
Log Collection Target		
Hardware Log	Disable [Note 1] Enable [Note 2]	Y
Operating System Log	Enable	Y
ServerView Suite Log	Enable [Note 2]	Y
Schedule		
Schedule	Enable	N
Schedule Type	Specify by Day of the Week	Y
Day of the week	Weekly	Y
Day of the week	Saturday	Y
Time	0:00	Y

[Note 1]: Setting value set if you are using PRIMERGY M4 series.

[Note 2]: Setting value set if you are using PRIMERGY M5 series.

2.2.2 ISM-[Structuring]-[Profiles]-[Profile Settings]-[<Node Name for Expanding a Cluster>]

Setting Item	Setting Value	Modification
[OS] tab		
Execute Script after Installation		
Execute Script after Installation	Enable	-
Directory Forwarded to the OS	postscript_ClusterOperation	-
Script to Execute	WinSvr_Setting.bat	-

2.2.3 iRMC S5 Web Server of Servers for Expanding a Cluster - [Settings]-[User Management]

Setting Item	Setting Value	Modification
[iRMC Local User Accounts]-[User with administrator privileges]		
User Information		
Enable	Enable	N
Name	[Node Details] - [iRMC] tab - [Local User Settings] - [Administrator User] - [User Name]*	Y
Password	[Node Details] - [iRMC] tab - [Local User Settings] - [Administrator User] - [Password]*	Y
Access Configuration		
Redfish/WebUI Permissions		
Redfish / Web UI User Enabled	Enable	N
Role	Administrator	N
IPMI Privileges		
LAN Channel Privilege	OEM	N
Serial Channel Privilege	OEM	N
Configure User Accounts	Enable	N
Configure iRMC Settings	Enable	N
AVR Permissions		
Video Redirection	Enable	N
Remote Storage Enabled	Enable	N
Other		
User Shell (Text Access)	Remote Manager	N
[iRMC Local User Accounts]-['admin' user]		
User Information		
Password	[Node Details] - [iRMC] tab - [Local User Settings] - ['admin' User] - [New Password]*	N

2.2.4 LDAP for iRMC S5 Web Server of Servers for Expanding a Cluster

Setting Item	Setting Value	Modification
[User Management]-[LDAP] [Note 1]		
Enable LDAP	true	N
Enable LDAP SSL	false	N
Disable Local Login	[Cluster Details] - [LDAP] tab - [Local user login]*	N
Directory Server Type	[Cluster Details] - [LDAP] tab - [Directory Server Type]*	N
Domain Name	[Cluster Details] - [LDAP] tab - [Domain Name]*	N
Department Name	[Cluster Details] - [LDAP] tab - [Division]*	N
Primary LDAP Server		
Server	[Cluster Details] - [LDAP] tab - [Host Name or IP Address (Primary Host)]*	Y
Network Port	[Cluster Details] - [LDAP] tab - [Port (Primary Host)]*	Y
SSL Network Port	[Cluster Details] - [LDAP] tab - [TLS/SSL Port (Primary Host)]*	Y
Backup LDAP Server		
Server	[Cluster Details] - [LDAP] tab - [Host Name or IP Address (Backup Host)]*	Y
Network Port	[Cluster Details] - [LDAP] tab - [Port (Backup Host)]*	Y
SSL Network Port	[Cluster Details] - [LDAP] tab - [TLS/SSL Port (Backup Host)]*	Y

[Note 1]: Not set if the check was removed for [Cluster Details] - [LDAP] tab - [Activate LDAP Settings] of Cluster Definition Parameters.

2.2.5 Settings for Windows Server of Servers for Expanding a Cluster

Setting Item	Setting Value	Modification
WinRM		
Basic authentication	true	-
Enable service		
CredSSP	Enable	-
CredSSP		
Server roll	Enable	-
Client roll	Enable	-
Certificate		
<File in ISM>.cer	Register	-
<File in ISM>.pfx	Register	-
Firewall		
5986	Open	-
HTTPS		
Listener	Create	-
Hyper-V Host		
MAC address range	1st to 3rd octet: Vendor ID (0x00155D) fixed 4th octet: 3rd octet of the IPv4 IP address of [Cluster Nodes Selection] - [Target nodes selection] - [Node Name]*	-

Setting Item		Setting Value	Modification
		5th octet: 4th octet of the IPv4 IP address of [Cluster Nodes Selection] - [Target nodes selection] - [Node Name]* 6th octet: 0x00-0xFF	
Live Migration			
	Performance option	Default [Note 1] SMB [Note 2]	-
Creation of local user			
	User Name	[Node Details] - [OS] tab - [Local User Settings] - [Administrator User ID]*	-
	Password	[Node Details] - [OS] tab - [Local User Settings] - [Password]*	-
Add functions and roles			
	Hyper-V management tool	Install	-
	Windows Server back up	Install	-
	Management of failover cluster	Install	-
	Data Center Bridging	Install [Note 2] [Note 4]	-
	Data Deduplication	Install [Note 2]	-
	System Insights	Install [Note 2]	-
Creating virtual switch			
	Virtual switch name	[Node Details] - [Virtual Switch] tab - [Workload Virtual Switch or Management Virtual Switch] - [Virtual Switch Settings] - [Virtual Switch Name]*	N
	Teaming	[Node Details] - [Virtual Switch] tab - [Workload Virtual Switch or Management Virtual Switch] - [Virtual Switch Settings] - [Embedded Teaming]*	-
	Load balancing algorithm [Note 2]	HyperVPort	-
VM net adapter - Setting network name			
	Network name	[Node Details] - [Virtual Switch] tab - [Workload Virtual Switch or Management Virtual Switch] - [Virtual Network Adapter <Name of network adapter for management or Name of network adapter 1 for live migration, Microsoft Storage Spaces Direct or Name of network adapter 2 for live migration, Microsoft Storage Spaces Direct>] - [Adapter Name]*	N
VM network settings - Network 1 for live migration, Microsoft Storage Spaces Direct			
	VLANID	The VLAN ID set for live migration, Microsoft Storage Spaces Direct network 1 for the current servers configured in the cluster	Y
	IP Address	[Node Details] - [Virtual Switch] tab - [Management Virtual Switch] - [Virtual Network Adapter <Name of network adapter 1 for live migration, Microsoft Storage Spaces Direct>] - [IPv4 Address]*	Y
	Length of subnet mask	[Node Details] - [Virtual Switch] tab - [Management Virtual Switch] - [Virtual Network Adapter <Name of network adapter 1 for live migration, Microsoft Storage Spaces Direct>] - [IPv4 Subnet Mask]*	Y
	Type of IP address	IPv4	N
	Virtual Machine Queue	[Node Details] - [Virtual Switch] tab - [Virtual Machine Queue]*	Y

Setting Item		Setting Value	Modification
	NetAdapterRSS	[Node Details] - [Virtual Switch] tab - [vRSS]*	Y
	RDMA	Disable [Note 1] Enable [Note 2]	Y
VM network settings - Network 2 for live migration, Microsoft Storage Spaces Direct			
	VLANID	The VLAN ID set for live migration, Microsoft Storage Spaces Direct network 2 for the current servers configured in the cluster	Y
	IP Address	[Node Details] - [Virtual Switch] tab - [Management Virtual Switch] - [Virtual Network Adapter <Name of network adapter 2 for live migration, Microsoft Storage Spaces Direct>] - [IPv4 Address]*	Y
	Length of subnet mask	[Node Details] - [Virtual Switch] tab - [Management Virtual Switch] - [Virtual Network Adapter <Name of network adapter 2 for live migration, Microsoft Storage Spaces Direct>] - [IPv4 Subnet Mask]*	Y
	Type of IP address	IPv4	N
	Virtual Machine Queue	[Node Details] - [Virtual Switch] tab - [Virtual Machine Queue]*	Y
	NetAdapterRSS	[Node Details] - [Virtual Switch] tab - [vRSS]*	Y
	RDMA	Disable [Note 1] Enable [Note 2]	Y
Network settings			
	IPv6	Disable [Note 1] Enable (Prefer IPv4 over IPv6) [Note 2]	-
Network settings - IPv4			
	IP Address	IPv4 IP address of [Cluster Nodes Selection] - [Target nodes selection] - [Node Name]*	Y
	Length of subnet mask	IPv4 Length of subnet mask of [Cluster Nodes Selection] - [Target nodes selection] - [Node Name]*	Y
	Type of IP address	IPv4	N
	Default Gateway	Default Gateway of Network at OS Individual specified in the ISM profile	Y
	IP Address	IPv4 IP address of [Cluster Nodes Selection] - [Target nodes selection] - [Node Name]*	Y
Network settings - Prioritized DNS server			
	DNS name	Mgmt	N
	IP Address	IP address of the DNS server specified in the ISM profile	Y
	Primary DNS suffix	register=primary	-
	Authentication of DNS server settings	validate=no	-
Network settings - Alternative DNS server			
	DNS name	Mgmt	N
	IP Address	[Cluster Details] - [DNS] tab - [IP Address (Secondary DNS server)]*	Y
	Order	index=2	-
	Authentication of DNS server settings	validate=no	-

Setting Item	Setting Value	Modification
Network settings - Virtual Machine Queue for Management Port		
Enable	[Node Details] - [Virtual Switch] tab - [Virtual Machine Queue]*	-
MaxProcessors	$(X - 1) / M$ [Note 3]	-
BaseProcessorNumber	$(1 + ((X - 1) / M) * (N - 1)) * Y$ [Note 3]	-
MaxProcessorNumber	$((X - 1) / M) * N * Y$ [Note 3]	-
Network settings - Virtual Machine Queue for Workload Port		
Enable	[Node Details] - [Virtual Switch] tab - [Virtual Machine Queue]*	-
MaxProcessors	$(X - 1) / M$ [Note 3]	-
BaseProcessorNumber	$(1 + ((X - 1) / M) * (N - 1)) * Y$ [Note 3]	-
MaxProcessorNumber	$((X - 1) / M) * N * Y$ [Note 3]	-
Network settings - LAN driver (common)		
Virtual Machine Queue	[Node Details] - [Virtual Switch] tab - [Virtual Machine Queue]*	-
SR-IOV	[Node Details] - [Virtual Switch] tab - [SR/IOV]*	-
QoS(Workload port)	Disable	-
QoS(Management port)	Disable [Note 5] Enable [Note 4]	-
Network settings - LAN driver (For Cavium LAN card only) [Note 2]		
Network Direct Functionality	Enable	-
NetworkDirect Technology	iWARP	-

[Note 1]: Setting value set if you are using PRIMERGY M4 series.

[Note 2]: Setting value set if you are using PRIMERGY M5 series.

[Note 3]: Each symbol represents the following value.

X : Number of processor cores

Y : Number of logical processors per core

M : Number of physical network ports for setting virtual machine queue

N : Sequence number (1 to M) of physical network ports for setting virtual machine queue

[Note 4]: Setting value set if you are using PRIMEFLEX for Microsoft Azure Stack HCI when the storage configuration is All Flash.

[Note 5]: Setting value set if you are using PRIMEFLEX for Microsoft Storage Spaces Direct or PRIMEFLEX for Microsoft Azure Stack HCI when the storage configuration is Hybrid.

Chapter 3 Parameter List for Cluster Definition Parameters Settings

This chapter describes the setting items for Cluster Definition Parameters when executing Cluster Creation and Cluster Expansion.

3.1 Parameter List for Cluster Definition Parameters Settings - PRIMEFLEX for VMware vSAN (Cluster Creation)

This section describes the Cluster Definition Parameter setting values of the Cluster Creation of PRIMEFLEX HS/PRIMEFLEX for VMware vSAN.



Note

- If you are using Cluster Creation of PRIMEFLEX HS/PRIMEFLEX for VMware vSAN, set the following Cluster Definition Parameter setting values with the "Create Cluster" wizard.
- When using Export/Import of Cluster Definition Parameters, edit Cluster Definition Parameters to set them appropriately according to your environment.

3.1.1 CMS Information

This item is required to be specified when you create Cluster Definition Parameters. This parameter is not displayed when editing Cluster Definition Parameters.

Setting Item	Description	Setting Value
Cluster Type	Cluster Type - VMware vSAN Cluster - Microsoft Failover Cluster	VMware vSAN Cluster
Cloud Management Software Name	Cloud Management Software Name	Arbitrary value

3.1.2 Basic Information

Setting Item	Description	Setting Value
Cloud Management Software Name [Note 1]	Cloud Management Software Name	Setting value specified in [CMS Information] - [Cloud Management Software Name]
Type [Note 1]	Cluster Type	VMware vSAN Cluster Setting value specified in [CMS Information] - [Cluster Type]
Data Center Name	Name of the datacenter that the cluster belongs to	Name of the datacenter that the cluster belongs to
Cluster Name	Cluster Name	Name of the cluster that the cluster creates
Storage Configuration	Storage Configuration - Hybrid - All Flash Default: Hybrid	Hybrid or All Flash
Network Configuration	Type of network configuration	Type I

Setting Item	Description	Setting Value
	- Type I	

[Note 1]: This parameter can not be set.

3.1.3 Cluster Details - [DNS] tab

Setting Item	Description	Setting Value
Domain Name	DNS domain name	DNS domain name [Note 1]
IP Address (Secondary DNS Server)	IP address of secondary DNS server [Note 2]	<ul style="list-style-type: none"> - If you are using the Active Directory currently configured in your environment: IP address of the customers' AD2 - If you are using the ADVM configured as dedicated to PRIMEFLEX HS/ PRIMEFLEX for VMware vSAN: IP address of ADVM2
DNS Record Registration [Note 3]	<p>Specify whether to automatically register the host (A/PTR) records of servers for creating a new cluster.</p> <p>If you set it to "Enable" it will be registered automatically.</p> <ul style="list-style-type: none"> - Enable - Disable <p>Default: Disable</p>	<ul style="list-style-type: none"> - If you are using the Active Directory currently configured in your environment or using the configuration without AD links: Disable - If you are using the ADVM configured as dedicated to PRIMEFLEX HS/ PRIMEFLEX for VMware vSAN: Enable
WinRM Service Port [Note 3]	<p>Specify the communication system and the port number of the WinRM service of the DNS server.</p> <ul style="list-style-type: none"> - Communication system <ul style="list-style-type: none"> - HTTPS - HTTP <p>Default: HTTPS</p> <ul style="list-style-type: none"> - Port Number <ul style="list-style-type: none"> - For HTTPS Port number of the WinRM service (SSL) of the DNS server If you specified this item, communication with the DNS server will be encrypted (SSL). It is required to register a TLS/SSL communication authentication certificate in the DNS server in advance. Default: 5986 - For HTTP Port number of the WinRM service (non SSL) of the DNS server Specify if communicating with the 	<ul style="list-style-type: none"> - Communication system HTTPS or HTTP - Port Number <ul style="list-style-type: none"> - For HTTPS: 5986 - For HTTP: 5985

Setting Item	Description	Setting Value
	DNS server in plain text. Default: 5985	
User Name [Note 3]	User name used when connecting to the DNS server	pfadmin
Password [Note 3] [Note 4]	Password used when connecting to the DNS server	Password of pfadmin
Password (Confirmation) [Note 3] [Note 4]	Password used when connecting to the DNS server (Confirmation)	Password of pfadmin

[Note 1]: Specify the domain name in UPN (User Principal Name) format.

[Note 2]: The IP address of the primary DNS server is specified in the ISM profile.

[Note 3]: DNS server is only enabled when using Windows Server. If you are not using the PRIMEFLEX configuration ADVN or the link with Active Directory using AD servers in your environment, set [DNS Record Registration] to "Disable." In addition, [WinRM Service Port], [WinRM Service (SSL) Port], [User Name] and [Password] are not required to be specified.

[Note 4]: This parameter is not included in Export/Import of Cluster Definition Parameters. You must set the item by editing Cluster Definition Parameters.

3.1.4 Cluster Details - [NTP] tab

Setting Item	Description	Setting Value
NTP Server1 (Host Name or IP Address)	Host name or IP address of NTP server1	Host name or IP address of NTP server1
NTP Server2 (Host Name or IP Address)	Host name or IP address of NTP server2	Host name or IP address of NTP server2
Max Interval between NTP Peer	Maximum interval to peer for NTP time source setting (Seconds) Default: 30 (Seconds)	30

3.1.5 Cluster Details - [LDAP] tab

This setting is not required if you are not using the PRIMEFLEX configuration ADVN or the link with Active Directory using AD servers in your environment (uncheck the check for [LDAP] tab - [Activate LDAP Settings]).

Setting Item	Description	Setting Value
Activate LDAP Settings [Note 1]	Specify whether to enable LDAP settings. <input checked="" type="checkbox"/> : Enable <input type="checkbox"/> : Disable Default: Disable	Arbitrary value
Domain Name	Domain name of LDAP server	Domain name of LDAP server [Note 2]
User Name	User name used when connecting to the LDAP server	pfadmin
Password [Note 3]	Password used when connecting to the LDAP server	Password of pfadmin
Password (Confirmation) [Note 3]	Password used when connecting to the LDAP server (Confirmation)	Password of pfadmin
Directory Server Type	The type of the directory server - Active Directory	Active Directory

Setting Item	Description	Setting Value
Host Name or IP Address (Primary Host)	Host name or IP address of the primary LDAP server	Host name or IP address of the primary LDAP server
Port (Primary Host)	Port number of the LDAP service (non TLS/SSL) of the primary LDAP server Default: 389	389
TLS/SSL Port (Primary Host)	Port number of the LDAP service (TLS/SSL) of the primary LDAP server Default: 636	636
Host Name or IP Address (Backup Host)	Host name or IP address of the backup LDAP server	Host name or IP address of the backup LDAP server
Port (Backup Host)	Port number of the LDAP service (non TLS/SSL) of the backup LDAP server Default: 389	389
TLS/SSL Port (Backup Host)	Port number of the LDAP service (TLS/SSL) of the backup LDAP server Default: 636	636
Division	LDAP division name	PF_Dept_1
Local User Login	Specify whether to enable log in for local users. - Enable - Disable Default: Disable	Enable
Always use TLS/SSL Login	Specify whether to always use TLS/SSL for login. - Yes - No Default: No	No

[Note 1]: This parameter is not required if link with Active Directory is not used (uncheck the check for the [LDAP] tab - [Activate LDAP Settings]). If [Activate LDAP Settings] is checked, configure the LDAP settings for iRMC and ESXi.

[Note 2]: Specify the domain name in UPN (User Principal Name) format.

[Note 3]: This parameter is not included in Export/Import of Cluster Definition Parameters. You must set the item by editing Cluster Definition Parameters.

3.1.6 Cluster Details - [Function] tab

Setting Item	Description	Setting Value
vSphere HA Settings		
Isolation Response Address 1	Isolation Response Address (IP Address) 1 Normally the IP address of the Virtual SAN Network of the first node configuring the cluster is set.	Isolation Response Address 1
Isolation Response Address 2	Isolation Response Address (IP Address) 2	Isolation Response Address 2

Setting Item	Description	Setting Value
	Normally the IP address of the Virtual SAN Network of the second node configuring the cluster is set.	
vSAN Settings		
Add Disks to Storage [Note 1]	Specify whether to add disks to the storage automatically. - Manual	Manual
Deduplication and Compression	Specify whether to enable deduplication and compression. - Enable - Disable Default: Disable	Disable [Note 2] Arbitrary value [Note 3]

[Note 1]: This parameter cannot be specified in ISM 2.5.0.010 or later.

[Note 2]: If the Storage Configuration is "Hybrid," set this parameter. This cannot be specified in ISM 2.5.0.010 or later.

[Note 3]: If the Storage Configuration is "All-Flash," set this parameter.

3.1.7 Cluster Details - [Network] tab

Setting Item	Description	Setting Value
Default Gateway	IPv4 address of the default gateway	Arbitrary value
vSAN Distributed Switch Settings		
vDS-1 or vDS-2		
vDS Name [Note 1]	Name of the vDS (vSphere Distributed Switch)	Arbitrary value - Name of the virtual distributed switch for workload - Name of the virtual distributed switch for management * vDS setting information lists are two
NIOC	Specify whether to enable NIOC. - Enable - Disable Default: Enable	vDS-1: Disable (can not be set) vDS-2: Enable or Disable
NIOC Settings (multiple can be set) [Note 2]		
Traffic [Note 3]	System Traffic Type - Management - vSAN - vMotion	Management, vSAN, vMotion
Shares	Relative priority of System Traffic Types 1-100 Default: 30 (Management), 100 (vSAN), 70 (vMotion)	Arbitrary value

Setting Item	Description	Setting Value
Reservation (Mbps) [Note 4]	Minimum band width required to be maintained on a single physical adapter (Mbps) Default: 500 (Management), 1000 (vSAN), 500 (vMotion)	Arbitrary value
Limit (Mbps) [Note 4]	Maximum bandwidth that can be used by system traffic on a single physical adapter (Mbps) Default: 0	Arbitrary value
MTU	Size of the Maximum Transfer Unit (MTU) (Number of bytes) Default: 1500 Maximum: 9000	Arbitrary value
Port Group (multiple can be set)		
Port Group Name [Note 5]	Name of the vDS port group (network label)	Arbitrary value
Type	Type of the vDS port group - VMkernel - Virtual Machine	vDS-1 - Virtual Machine port group for workload: Virtual Machine vDS-2 - Network port group for management: VMkernel - Network port group for vSAN:VMkernel - Network port group for vMotion:VMkernel - Virtual Machine port group for management: Virtual Machine
Number of Ports	Port number of the distributed port group Default: 8 Maximum: 8192	Arbitrary value
VLAN Type	The type of the VLAN - None (Do not use VLAN) - VLAN Default: VLAN	Arbitrary value
VLAN ID	VLAN ID to use for vDS port group Default: No setting	Arbitrary value
IPv4 Network Address	IPv4 Network address of the VMkernel adapter	Arbitrary value
IPv4 Subnet Mask	IPv4 subnet mask of the VMkernel adapter	Arbitrary value
Traffic	Traffic - Management - vSAN	vDS-1 - - vDS-2

Setting Item	Description	Setting Value
	- vMotion	- Network port group for management: Management - Network port group for vSAN: vSAN - Network port group for vMotion: vMotion
Uplink Settings (multiple can be set)		
Uplink Name	Distinguished name of uplink - Uplink 1 - Uplink 2 - Uplink 3 - Uplink 4	Refer to " Setting values for vmnic name and uplink name when creating a cluster "
Failover Priority Settings [Note 6]		
How to Distribute	Distribution method for uplink workload - Active - Stand-by	Arbitrary value
Priority Order	Specify the uplink priority with a decimal number starting with 0.	Arbitrary value

[Note 1]: If you specify the same [vDS Name] as that of the existing cluster, it will be set to the existing cluster. The same [vDS Name] as that of the existing cluster specify the vDS name created for PRIMEFLEX for VMware vSAN. If you specify a [vDS Name] different from the existing cluster, a new vDS will be created.

[Note 2]: If you specify "Enabled" in [NIOC], you can specify [Traffic], [Shares], [Reservation] and [Limit] by selecting the [Set] button.

[Note 3]: This parameter can not be set.

[Note 4]: For the value to be specified in [Limit], specify the value as same as or larger than the value specified in [Reservation].

[Note 5]: If you specify the [Port Group Name] of the same [vDS Name] as of the existing cluster, it will be set to the [Port Group Name] of the existing cluster.

- When using the existing vDS

If you specify the same [Port Group Name] as that of the existing cluster, the Port Group of the existing vDS will be used.

If you specify the different [Port Group Name] as that of the existing cluster, a new Port Group will be created.

- When creating a new vDS

A new Port Group will be created. Specify a name different from the [Port Group Name] of the existing cluster.

[Note 6]: If you specify [Port Group Name], you can specify [How to Distribute] and [Priority Order] by selecting the [Set] button.

3.1.8 Cluster Details - [Storage Pool] tab

Setting Item	Description	Setting Value
Storage Pool Name	vSAN data store name	Arbitrary value [Note 1]

[Note 1]: Specify a storage pool name different from that of the existing cluster.

3.1.9 Cluster Nodes Selection

Setting Item	Description	Setting Value
Target nodes selection (multiple can be set)		
Node Name	Select the node name managed by ISM.	Node name managed by ISM [Note 1]
Profile	Select the profile name managed by ISM.	Arbitrary value

[Note 1]: Specify the node name that is the server for creating a new cluster.

3.1.10 Node Details - [iRMC] tab

Specify it for each node configured in the selected cluster.

Setting Item	Description	Setting Value
Local User Settings		
'admin' User		
New Password [Note 1]	New password to be set for the iRMC admin user When doing cluster creation, update it along with the password set for the admin user registered in ISM.	Arbitrary value
New Password (Confirmation) [Note 1]	New password to be set for the iRMC admin user (Confirmation)	Arbitrary value
Administrator User		
User Name	Administrator user name created in iRMC	pflocaladmin
Password [Note 1]	Password set for the iRMC administrator user	Arbitrary value
Password (Confirmation) [Note 1]	Password set for the iRMC administrator user (Confirmation)	Arbitrary value

[Note 1]: This parameter is not included in Export/Import of Cluster Definition Parameters. You must set the item by editing Cluster Definition Parameters.

3.1.11 Node Details - [OS] tab

Specify it for each node configured in the selected cluster.

Setting Item	Description	Setting Value
Local User Settings		
Administrator User Name	Administrator user name created in the OS	Arbitrary value Example: pflocaladmin
Password [Note 1]	Password set for the OS administrator user	Arbitrary value
Password (Confirmation) [Note 1]	Password set for the OS administrator user	Arbitrary value (Confirmation)

[Note 1]: This parameter is not included in Export/Import of Cluster Definition Parameters. You must set the item by editing Cluster Definition Parameters.

3.1.12 Node Details - [vDS] tab

Specify it for each node configured in the selected cluster.

Setting Item	Description	Setting Value
vDS-1 or vDS-2		
Physical NIC (multiple can be set)		
vmnic Name [Note 1]	Name of the physical network adapter Example: vmnic2 * Only specify numbers that start with "vmnic."	Refer to " Setting values for vmnic name and uplink name when creating a cluster "
Uplink Name [Note 2]	Distinguished name of uplink - Uplink 1 - Uplink 2 - Uplink 3 - Uplink 4	Setting value specified in [Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-1 or vDS-2] - [Uplink Settings] - [Uplink Name]
Port Group (multiple can be set)		
Port Group Name [Note 2]	Name of the vDS port group (network label)	Setting value specified in [Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-1 or vDS-2] - [Port Group] - [Port Group Name]
Type [Note 2]	Type of the vDS port group - VMkernel - Virtual Machine	vDS-1 - Virtual Machine port group for workload: Setting value specified in [Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-1] - [Port Group<Virtual Machine port group for workload>] - [Type] vDS-2 - Network port group for management: Setting value specified in [Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Network port group for management>] - [Type] - Network port group for vSAN: Setting value specified in [Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Network port group for vSAN>] - [Type] - Network port group for vMotion: Setting value specified in [Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Network port group for vMotion>] - [Type] - Virtual Machine port group for management: Setting value specified

Setting Item	Description	Setting Value
		in [Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Virtual Machine port group for management>] - [Type]
Traffic [Note 2]	Traffic <ul style="list-style-type: none"> - Management - vSAN - vMotion 	vDS-1 <ul style="list-style-type: none"> - - vDS-2 <ul style="list-style-type: none"> - Network port group for management: Setting value specified in [Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Network port group for management>] - [Traffic] - Network port group for vSAN: Setting value specified in [Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Network port group for vSAN>] - [Traffic] - Network port group for vMotion: Setting value specified in [Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Network port group for vMotion>] - [Traffic]
IPv4 Address [Note 3]	IPv4 address of the VMkernel adapter	Arbitrary value

[Note 1]: Specify the physical NIC set in the profile settings ([Details] - [OS] tab - [Management network port settings] - [Network port specification]) first.

[Note 2]: This parameter can not be set.

[Note 3]: Specify the same IPv4 address for the management network port group as the profile setting ([Details] - [OS (for each node)] tab - [Network] - [DHCP] - [IP address]).

Setting values for vmnic name and uplink name when creating a cluster

Table 3.1 When creating clusters for PRIMEFLEX for VMware vSAN PRIMERGY CX M4 series/PRIMERGY CX M5 series

Setting Item	Setting Value		
	Physical port	vmnic name	uplink name
vDS-1 (Virtual distributed switch for workload [Note 1])	Expansion option #1	vmnic2	Uplink2
	PCI card #1	vmnic4	Uplink4
vDS-2 (Virtual distributed switch for management [Note 1])	Expansion option #0	vmnic1	Uplink1
	PCI card #0	vmnic3	Uplink3

[Note 1]: This is the default setting value.

Table 3.2 When creating clusters for PRIMEFLEX for VMware vSAN PRIMERGY RX M4 series/PRIMERGY RX M5 series

Setting Item	Setting Value		
	Physical port	vmnic name	uplink name
vDS-1 (Virtual distributed switch for workload [Note 1])	Expansion option #1	vmnic3 [Note 2]	Uplink2
	PCI card #1	vmnic5 [Note 2] [Note 3]	Uplink4
vDS-2 (Virtual distributed switch for management [Note 1])	Expansion option #0	vmnic2 [Note 2]	Uplink1
	PCI card #0	vmnic4 [Note 2] [Note 3]	Uplink3

[Note 1]: This is the default setting value.

[Note 2]: For PRIMERGY RX 4770 M5, enter a vmnic name that is appropriate for your environment.

[Note 2]: If you purchased multiple expansion cards, enter a vmnic name that is appropriate for your environment for the second expansion card.



Note

"Setting values for vmnic name and uplink name when creating a cluster" is only set if expansion cards are used for this product. If you are using the PRIMERGY RX series servers, and purchased multiple expansion cards, enter a vmnic name that is appropriate for your environment for the part in [Note 2]. The vmnic number is allocated from onboard to the PCI slots in ascending order.

If you purchased two expansion cards and installed them in PCI slots 2 and 3 (PCI slot 1 is the SAS array controller card), the vmnic number is allocated as follows. Refer to the system configuration diagram of the target server for the PCI slot location.

Table 3.3 Example of vmnic numbers

Onboard	Port location	vmnic number
No onboard port	Expansion option port 0	vmnic0
	Expansion option port 1	vmnic1
	Port 0 on PCI slot 2	vmnic2
	Port 1 on PCI slot 2	vmnic3
	Port 0 on PCI slot 3	vmnic4
	Port 1 on PCI slot 3	vmnic5
Has onboard ports	Onboard port 0	vmnic0
	Onboard port 1	vmnic1
	Expansion option port 0	vmnic2
	Expansion option port 1	vmnic3
	Port 0 on PCI slot 2	vmnic4
	Port 1 on PCI slot 2	vmnic5
	Port 0 on PCI slot 3	vmnic6
	Port 1 on PCI slot 3	vmnic7

3.2 Parameter List for Cluster Definition Parameters Settings - PRIMEFLEX for Microsoft Storage Spaces Direct/PRIMEFLEX for Microsoft Azure Stack HCI (Cluster Creation)

This section describes the Cluster Definition Parameter setting values of the Cluster Creation of PRIMEFLEX for Microsoft Storage Spaces Direct/PRIMEFLEX for Microsoft Azure Stack HCI.

Note

- If you are using Cluster Creation of PRIMEFLEX for Microsoft Storage Spaces Direct/PRIMEFLEX for Microsoft Azure Stack HCI, set the following Cluster Definition Parameter setting values with the "Create Cluster" wizard.
- When using Export/Import of Cluster Definition Parameters, edit Cluster Definition Parameters to set them appropriately according to your environment.

3.2.1 CMS Information

Setting Item	Description	Setting Value
Cluster Type	Cluster Type - VMware vSAN Cluster - Microsoft Failover Cluster	Microsoft Failover Cluster
Cloud Management Software Name [Note 1]	Cloud Management Software Name	Arbitrary value
IPv4 IP Address [Note 1]	IPv4 IP address of the CMS	IPv4 IP address of the CMS
Domain Name	Domain name of the CMS	Domain name of the CMS [Note 2]
User Name	User name used when connecting to the CMS	pfadmin
Password [Note 3]	Password used when connecting to the CMS	Password of pfadmin
Password (Confirmation) [Note 3]	Password used when connecting to the CMS (Confirmation)	Password of pfadmin
WinRM Service (SSL) Port [Note 4]	WinRM service port number of the CMS	5986

[Note 1]: Specify a setting value different from the value of the existing cluster.

[Note 2]: Specify the domain name in UPN (User Principal Name) format.

[Note 3]: This parameter is not included in Export/Import of Cluster Definition Parameters. You must set the item by editing Cluster Definition Parameters.

[Note 4]: This parameter can not be set.

3.2.2 Basic Information

Setting Item	Description	Setting Value
Cloud Management Software Name [Note 1]	Name of the cloud management software	Arbitrary value
Type [Note 1]	Cluster Type - VMware vSAN Cluster - Microsoft Failover Cluster	Microsoft Failover Cluster
Cluster Name	Cluster Name	Name of the cluster to be created
Number of Nodes configuring the Cluster	The number of nodes configuring the cluster	Arbitrary value

Setting Item	Description	Setting Value
	<ul style="list-style-type: none"> - 2 - 3 or more Default: 3 or more	
Storage Configuration	Storage Configuration <ul style="list-style-type: none"> - Hybrid - All Flash (NVMe+SSD) - All Flash (All SSD) Default: Hybrid	Hybrid, All Flash (NVMe+SSD), or All Flash (All SSD)

[Note 1]: This parameter can not be set.

3.2.3 Cluster Details - [DNS] tab

Setting Item	Description	Setting Value
IP Address (Secondary DNS Server)	IP address of secondary DNS server [Note 1]	<ul style="list-style-type: none"> - If you are using the Active Directory currently configured in your environment: IP address of the customers' AD2 - If you are using an ADVM configured as dedicated to PRIMEFLEX for Microsoft Storage Spaces Direct/ PRIMEFLEX for Microsoft Azure Stack HCI: IP address of ADVM2

[Note 1]: The IP address of the primary DNS server is specified in the ISM profile.

3.2.4 Cluster Details - [LDAP] tab

Setting Item	Description	Setting Value
Activate LDAP Settings [Note 1]	Specify whether to enable LDAP settings. <input checked="" type="checkbox"/> : Enable <input type="checkbox"/> : Disable Default: Disable	Arbitrary value
Domain Name	Domain name of LDAP server	Domain name of LDAP server [Note 2]
User Name	User name used when connecting to the LDAP server	pfadmin
Password [Note 3]	Password used when connecting to the LDAP server	Password used when connecting to the LDAP server (Password of pfadmin)
Password (Confirmation) [Note 3]	Password used when connecting to the LDAP server (Confirmation)	Password used when connecting to the LDAP server (Password of pfadmin)
Directory Server Type	The type of the directory server <ul style="list-style-type: none"> - Active Directory 	Active Directory
Host Name or IP Address (Primary Host)	Host name or IP address of the primary LDAP server	Host name or IP address of the primary LDAP server

Setting Item	Description	Setting Value
Port (Primary Host)	Port number of the LDAP service (non TLS/SSL) of the primary LDAP server Default: 389	389
TLS/SSL Port (Primary Host)	Port number of the LDAP service (TLS/SSL) of the primary LDAP server Default: 636	636
Host Name or IP Address (Backup Host)	Host name or IP address of the backup LDAP server	Host name or IP address of the backup LDAP server
Port (Backup Host)	Port number of the LDAP service (non TLS/SSL) of the backup LDAP server Default: 389	389
TLS/SSL Port (Backup Host)	Port number of the LDAP service (TLS/SSL) of the backup LDAP server Default: 636	636
Division	LDAP division name	PF_Dept_1
Local User Login	Specify whether to enable log in for local users. - Enable - Disable Default: Disable	Enable
Always use TLS/SSL Login	Specify whether to always use TLS/SSL for login. - Yes - No Default: No	No

[Note 1]: This parameter is not required if link with Active Directory of iRMC is not used (uncheck the check for the [LDAP] tab - [Activate LDAP Settings]). If [Activate LDAP Settings] is checked, configure the LDAP settings for iRMC. LDAP settings are configured for the OS regardless of whether [Activate LDAP Settings] is checked or not.

[Note 2]: Specify the domain name in UPN (User Principal Name) format.

[Note 3]: This parameter is not included in Export/Import of Cluster Definition Parameters. You must set the item by editing Cluster Definition Parameters.

3.2.5 Cluster Details - [Network] tab

Setting Item	Description	Setting Value
Default Gateway	IPv4 address of the default gateway	Arbitrary value
Workload Virtual Switch		
Virtual Switch Name	Name of the virtual switch	Name of Workload Virtual Switch
Embedded Teaming	Specify whether to enable embedded teaming. - Enable - Disable	Enable

Setting Item	Description	Setting Value
	Default: Disable	
Management Virtual Switch (multiple can be set)		
Virtual Switch Name	Name of the virtual switch	Name of Management Virtual Switch
Embedded Teaming	Specify whether to enable embedded teaming. <ul style="list-style-type: none"> - Enable - Disable Default: Disable	Enable
Network Name [Note 1] [Note 2]	Name of the virtual network	The three of the following <ul style="list-style-type: none"> - Name of network adapter 1 for live migration, Microsoft Storage Spaces Direct - Name of network adapter 2 for live migration, Microsoft Storage Spaces Direct - Name of network adapter for management
Role Settings	Values to be set to Role <ul style="list-style-type: none"> - Do not allow cluster network communication - Allow only cluster network communication - Allow both cluster network communication and connections between the clients Default: <ul style="list-style-type: none"> - For network adapter for management: Allow both cluster network communication and connections between the clients - For network adapter 1 for live migration, Microsoft Storage Spaces Direct or network adapter 2 for live migration, Microsoft Storage Spaces Direct : Allow only cluster network communication 	Arbitrary value
VLAN Type	The type of the VLAN <ul style="list-style-type: none"> - None (Do not use VLAN) - VLAN Default: VLAN	Arbitrary value
VLAN ID [Note 2]	VLAN ID to use for vDS port group Default: No setting	Arbitrary value

Setting Item	Description	Setting Value
IPv4 Network Address [Note 2]	IPv4 Network address of the cluster network	Arbitrary value
IPv4 Subnet Mask [Note 2]	IPv4 subnet mask of the cluster network	Arbitrary value

[Note 1]: This parameter sets the priority of the network for live migration in the order specified by "Name of network adapter 1 for live migration, Microsoft Storage Spaces Direct" and "Name of network adapter 2 for live migration, Microsoft Storage Spaces Direct."

[Note 2]: For PRIMERGY M5 series, when [Network Name] is "Name of network adapter 1 for live migration, Microsoft Storage Spaces Direct" and "Name of network adapter 2 for live migration, Microsoft Storage Spaces Direct," specify the same value for [VLAN ID], [Network Address], and [Subnet Mask].

3.2.6 Cluster Details - [Storage Pool] tab

Setting Item	Description	Setting Value
Journal Settings		
Media Type [Note 1]	Media Type of disks used for Journal <ul style="list-style-type: none"> - SSD - - Default: <ul style="list-style-type: none"> - When the storage configuration is Hybrid or All Flash (NVMe+SSD): SSD - When the storage configuration is All Flash (All SSD): - 	SSD or -
Bus Type [Note 1]	Bus Type of disks used for Journal <ul style="list-style-type: none"> - SAS - NVMe - - Default: <ul style="list-style-type: none"> - When the storage configuration is Hybrid: SAS - When the storage configuration is All Flash (NVMe+SSD): NVMe - When the storage configuration is All Flash (All SSD): - 	SAS, NVMe, or -
Storage Tier Settings		
Storage Tier Name	Friendly Name of Storage Tier	Arbitrary value
Media Type [Note 1]	Media Type of Storage Tier <ul style="list-style-type: none"> - HDD - SSD 	HDD or SSD

Setting Item	Description	Setting Value
	Default: - When the storage configuration is Hybrid: HDD - When the storage configuration is All Flash (NVMe+SSD) or All Flash (All SSD): SSD	
Recovery [Note 1]	Type of Recovery method (allocation method) - 2-Way or 3-Way Mirror Storage	2-Way or 3-Way Mirror Storage
Redundancy [Note 1]	Redundancy of disks - 2 - 3 or more Default: The number of nodes specified in [Basic Information]-[Number of Nodes configuring the Cluster]	"2" or "3 or more"
Number of data copies [Note 1]	Number of data copies - 2-way Mirror - 3-way Mirror Default: - When Redundancy is 2 nodes: 2-way Mirror - When Redundancy is 3 or more: 3-way Mirror	"2-way Mirror" or "3-way Mirror"

[Note 1]: This parameter can not be set.

3.2.7 Cluster Nodes Selection

Setting Item	Description	Setting Value
Target nodes selection (multiple can be set) [Note 1]		
Node Name	Select the node name managed by ISM.	Node name managed by ISM [Note 2]
Profile	Select the profile name managed by ISM.	Arbitrary value

[Note 1]: Specify the number of nodes set in [Basic Information]-[Number of Nodes configuring the Cluster]

[Note 2]: Specify the Node Name of the server configuring the new cluster.

3.2.8 Node Details - [iRMC] tab

Specify it for each node configured in the selected cluster.

Setting Item	Description	Setting Value
Local User Settings		

Setting Item	Description	Setting Value
'admin' User		
New Password [Note 1]	New password to be set for the iRMC admin user When doing cluster creation, update it along with the password set for the admin user registered in ISM.	Arbitrary value
New Password (Confirmation) [Note 1]	New password to be set for the iRMC admin user (Confirmation)	Arbitrary value
Administrator User		
User Name	Administrator user name created in iRMC	pflocaladmin
Password [Note 1]	Password set for the iRMC administrator user	Arbitrary value
Password (Confirmation) [Note 1]	Password set for the iRMC administrator user (Confirmation)	Arbitrary value

[Note 1]: This parameter is not included in Export/Import of Cluster Definition Parameters. You must set the item by editing Cluster Definition Parameters.

3.2.9 Node Details - [OS] tab

Specify it for each node configured in the selected cluster.

Setting Item	Description	Setting Value
Local User Settings		
Administrator User Name	Administrator user name created in the OS	Arbitrary value Example: pflocaladmin
Password [Note 1]	Password set for the OS administrator user	Arbitrary value
Password (Confirmation) [Note 1]	Password set for the OS administrator user	Arbitrary value (Confirmation)

[Note 1]: This parameter is not included in Export/Import of Cluster Definition Parameters. You must set the item by editing Cluster Definition Parameters.

3.2.10 Node Details - [Virtual Switch] tab

Specify it for each node configured in the selected cluster.

Setting Item	Description	Setting Value
Slot Number Settings		
Slot Numbers (multiple can be set)	Number of the PCI slot where the physical network adapter binding the virtual switch is installed. Example: 2	Number of the PCI slot where the physical network adapter binding the virtual switch is installed.
Workload Virtual Switch		
Virtual Switch Settings		
Virtual Switch Name	Name of the virtual switch	Name of Workload Virtual Switch
Slot Number - Port Number (multiple can be set)	Number of the PCI slot and port where the physical network adapter binding the virtual switch is installed	Number of the PCI slot and port where the physical network adapter binding the virtual switch is installed

Setting Item		Description	Setting Value
		Example: 2-1	* Slot Number is the value set in [Slot Number Settings] - [Slot Number] and Port Number is "1."
	Embedded Teaming	Specify whether to enable embedded teaming. - Enable - Disable Default: Enable	Enable
Management Virtual Switch			
Virtual Switch Settings			
	Virtual Switch Name	Name of the virtual switch	Name of Management Virtual Switch
	Slot Number - Port Number (multiple can be set)	Number of the PCI slot and port where the physical network adapter binding the virtual switch is installed Example: 2-0	Number of the PCI slot and port where the physical network adapter binding the virtual switch is installed * Slot Number is the value set in [Slot Number Settings] - [Slot Number] and Port Number is "0."
	Embedded Teaming	Specify whether to enable embedded teaming. - Enable - Disable Default: Enable	Enable
Virtual Network Adapter (multiple can be set)			
	Adapter Name	Name of the virtual network adapter	The three of the following - Name of network adapter for management - Name of network adapter 1 for live migration, Microsoft Storage Spaces Direct - Name of network adapter 2 for live migration, Microsoft Storage Spaces Direct
	Management OS	Specify whether it is the virtual network adapter for the management OS. - Yes - No Default: Yes	Specify the following - Name of network adapter for management: Yes - Name of network adapter 1 for live migration, Microsoft Storage Spaces Direct: Yes - Name of network adapter 2 for live migration, Microsoft Storage Spaces Direct: Yes
	IPv4 Address [Note 1]	IPv4 Address	Arbitrary value
Physical Network Adapter (multiple can be set)			

Setting Item	Description	Setting Value
Slot Number	Number of the PCI slot where the physical network adapter binding the virtual switch is installed Example: 2	Number of the PCI slot where the physical network adapter binding the virtual switch is installed
Virtual Machine Queue	Specify whether to enable virtual machine queue. - Enable - Disable Default: Enable	PCI adapter: Enable
SR/IOV	Specify whether to enable SR/IOV. - Enable - Disable Default: Disable	PCI adapter: Disable
vRSS	Specify whether to enable vRSS. - Enable - Disable Default: Disable	PCI adapter: Enable

[Note 1]: Specify the same IPv4 address for the management network adapter as the profile setting ([Details] - [OS (for each node)] tab - [Network] - [DHCP] - [IP address]).

3.3 Parameter List for Cluster Definition Parameters Settings - PRIMEFLEX HS/PRIMEFLEX for VMware vSAN (Cluster Expansion)

This section describes the Cluster Definition Parameter setting values of the Cluster Expansion of PRIMEFLEX HS/PRIMEFLEX for VMware vSAN.



Note

- If you are using Cluster Expansion of PRIMEFLEX HS/PRIMEFLEX for VMware vSAN, set the following Cluster Definition Parameter setting values with the "Expand Cluster" wizard.
- When using Export/Import of Cluster Definition Parameters, edit Cluster Definition Parameters to set them appropriately according to your environment.

3.3.1 Basic Information for PRIMERGY RX Series Configuration

This item is required to be specified when you create and edit Cluster Definition Parameters.

Setting Item	Description	Setting Value
Cloud Management Software Name [Note 1]	Name of the cloud management software	Arbitrary value
Type [Note 1]	Cluster Type	VMware vSAN Cluster
Data Center Name	Name of the datacenter that the cluster belongs to	Name of the datacenter that the cluster belongs to

Setting Item	Description	Setting Value
Cluster Name [Note 1]	Cluster Name	Name of the cluster that the cluster expands
Storage Configuration	Storage Configuration - Hybrid - All Flash Default: Hybrid	Hybrid or All Flash
Network Configuration [Note 2]	Type of network configuration - Type I - Type II Default: Type I	Type I

[Note 1]: This parameter can not be set.

[Note 2]: This item is required to be specified when you create Cluster Definition Parameters. This parameter is not displayed when editing Cluster Definition Parameters.

3.3.2 Basic Information for PRIMERGY CX Series Configuration

This item is required to be specified when you create and edit Cluster Definition Parameters.

Setting Item	Description	Setting Value
Cloud Management Software Name [Note 1]	Name of the cloud management software	Arbitrary value
Type [Note 1]	Cluster Type	VMware vSAN Cluster
Data Center Name	Name of the datacenter that the cluster belongs to	Name of the datacenter that the cluster belongs to
Cluster Name [Note 1]	Cluster Name	Name of the cluster that the cluster expands
Storage Configuration	Storage Configuration - Hybrid - All Flash Default: Hybrid	Hybrid or All Flash [Note 3] Hybrid [Note 4]
Network Configuration [Note 2]	Type of network configuration - Type I - Type II Default: Type I	Type I [Note 3] Type II [Note 4]

[Note 1]: This parameter can not be set.

[Note 2]: This item is required to be specified when you create Cluster Definition Parameters. This parameter is not displayed when editing Cluster Definition Parameters.

[Note 3]: Specify the type for PRIMERGY CX M4 series/PRIMERGY CX M5 series.

[Note 4]: Specify the type for PRIMERGY CX M2 series.

3.3.3 Cluster Details - [DNS] tab

This item is required to be specified when you create and edit Cluster Definition Parameters.

Setting Item	Description	Setting Value
Domain Name	DNS domain name	DNS domain name [Note 1]
IP Address (Secondary DNS server)	IP address of secondary DNS server [Note 2]	<ul style="list-style-type: none"> - If you are using the Active Directory currently configured in your environment: IP address of the customers' AD2 - If you are using the ADVM configured as dedicated to PRIMEFLEX HS/ PRIMEFLEX for VMware vSAN: IP address of ADVM2
DNS Record Registration [Note 3]	<p>Specify whether to automatically register the host (A/PTR) records of servers for expanding a cluster.</p> <p>If you set it to "Enable" it will be registered automatically.</p> <ul style="list-style-type: none"> - Enable - Disable <p>Default: Disable</p>	<ul style="list-style-type: none"> - If you are using the Active Directory currently configured in your environment or using the configuration without AD links: Disable - If you are using the ADVM configured as dedicated to PRIMEFLEX HS/ PRIMEFLEX for VMware vSAN: Enable
WinRM Service Port [Note 3]	<p>Specify the communication system and the port number of the WinRM service of the DNS server.</p> <ul style="list-style-type: none"> - Communication system <ul style="list-style-type: none"> - HTTPS - HTTP <p>Default: HTTPS</p> <ul style="list-style-type: none"> - Port Number <ul style="list-style-type: none"> - For HTTPS Port number of the WinRM service (SSL) of the DNS server If you specified this item, communication with the DNS server will be encrypted (SSL). It is required to register a TLS/ SSL communication authentication certificate in the DNS server in advance. Default: 5986 - For HTTP Port number of the WinRM service (non SSL) of the DNS server Specify if communicating with the DNS server in plain text. Default: 5985 	<ul style="list-style-type: none"> - Communication system HTTPS or HTTP - Port Number <ul style="list-style-type: none"> - For HTTPS: 5986 - For HTTP: 5985
User Name [Note 3]	User name used when connecting to the DNS server	pfadmin
Password [Note 3] [Note 4]	Password used when connecting to the DNS server	Password of pfadmin

Setting Item	Description	Setting Value
Password (Confirmation) [Note 3] [Note 4]	Password used when connecting to the DNS server (Confirmation)	Password of pfadmin

[Note 1]: Specify the domain name in UPN (User Principal Name) format.

[Note 2]: The IP address of the primary DNS server is specified in the ISM profile.

[Note 3]: DNS server is only enabled when using Windows Server. If you are not using the PRIMEFLEX configuration ADVN or the link with Active Directory using AD servers in your environment, set [DNS Record Registration] to "Disable." In addition, [WinRM Service Port], [WinRM Service (SSL) Port], [User Name] and [Password] are not required to be specified.

[Note 4]: This parameter is not included in Export/Import of Cluster Definition Parameters. You must set the item by editing Cluster Definition Parameters.

3.3.4 Cluster Details - [NTP] tab

This item is required to be specified when you create and edit Cluster Definition Parameters.

Setting Item	Description	Setting Value
NTP Server1 (Host Name or IP Address)	Host name or IP address of NTP server1	Host name or IP address of NTP server1
NTP Server2 (Host Name or IP Address)	Host name or IP address of NTP server2	Host name or IP address of NTP server2
Max Interval between NTP Peer	Maximum interval to peer for NTP time source setting (Seconds) Default: 30 (Seconds)	30

3.3.5 Cluster Details - [LDAP] tab

This item is required to be specified when you create and edit Cluster Definition Parameters.

This setting is not required if you are not using the PRIMEFLEX configuration ADVN or the link with Active Directory using AD servers in your environment (uncheck the check for [LDAP] tab - [Activate LDAP Settings]).

Setting Item	Description	Setting Value
Activate LDAP Settings [Note 1]	Specify whether to enable LDAP settings. <input checked="" type="checkbox"/> : Enable <input type="checkbox"/> : Disable Default: Disable	Arbitrary value
Domain Name	Domain name of LDAP server	Domain name of LDAP server [Note 2]
User Name	User name used when connecting to the LDAP server	pfadmin
Password [Note 3]	Password used when connecting to the LDAP server	Password of pfadmin
Password (Confirmation) [Note 3]	Password used when connecting to the LDAP server (Confirmation)	Password of pfadmin
Directory Server Type	The type of the directory server - Active Directory	Active Directory
Host Name or IP Address (Primary Host)	Host name or IP address of the primary LDAP server	Host name or IP address of the primary LDAP server
Port (Primary Host)	Port number of the LDAP service (non TLS/SSL) of the primary LDAP server	389

Setting Item	Description	Setting Value
	Default: 389	
TLS/SSL Port (Primary Host)	Port number of the LDAP service (TLS/SSL) of the primary LDAP server Default: 636	636
Host Name or IP Address (Backup Host)	Host name or IP address of the backup LDAP server	Host name or IP address of the backup LDAP server
Port (Backup Host)	Port number of the LDAP service (non TLS/SSL) of the backup LDAP server Default: 389	389
TLS/SSL Port (Backup Host)	Port number of the LDAP service (TLS/SSL) of the backup LDAP server Default: 636	636
Division	LDAP division name	PF_Dept_1
Local User Login	Specify whether to enable log in for local users. - Enable - Disable Default: Disable	Enable
Always use TLS/SSL Login	Specify whether to always use TLS/SSL for login. - Yes - No Default: No	No

[Note 1]: This parameter is not required if link with Active Directory is not used (uncheck the check for the [LDAP] tab - [Activate LDAP Settings]). If [Activate LDAP Settings] is checked, configure the LDAP settings for iRMC and ESXi.

[Note 2]: Specify the domain name in UPN (User Principal Name) format.

[Note 3]: This parameter is not included in Export/Import of Cluster Definition Parameters. You must set the item by editing Cluster Definition Parameters.

3.3.6 Cluster Details - [Function] tab

This item is required to be specified when you create and edit Cluster Definition Parameters.

Setting Item	Description	Setting Value
vSphere HA Settings		
Isolation Response Address 1	Isolation Response Address (IP Address) 1 Normally the IP address of the Virtual SAN Network of the first node configuring the cluster is set.	Isolation Response Address 1
Isolation Response Address 2	Isolation Response Address (IP Address) 2 Normally the IP address of the Virtual SAN Network of the second node configuring the cluster is set.	Isolation Response Address 2
vSAN Settings		

Setting Item	Description	Setting Value
Add Disks to Storage [Note 1]	Specify whether to add disks to the storage automatically. - Manual	Manual
Deduplication and Compression	Specify whether to enable deduplication and compression. - Enable - Disable Default: Disable	Disable [Note 2] Arbitrary value [Note 3]

[Note 1]: This parameter cannot be specified in ISM 2.5.0.010 or later.

[Note 2]: If the Storage Configuration is "Hybrid," set this parameter. This cannot be specified in ISM 2.5.0.010 or later.

[Note 3]: If the Storage Configuration is "All-Flash," set this parameter.

3.3.7 Cluster Details - [Network] tab

This item is required to be specified when you create and edit Cluster Definition Parameters.

Setting Item	Description	Setting Value
Default Gateway	IPv4 address of the default gateway	Arbitrary value
vSAN Distributed Switch Settings		
vDS-1 or vDS-2		
vDS Name [Note 1]	Name of the vDS (vSphere Distributed Switch)	Arbitrary value - Name of the virtual distributed switch for workload - Name of the virtual distributed switch for management * vDS setting information lists are two
NIOC	Specify whether to enable NIOC. - Enable - Disable Default: Enable	vDS-1: Disable (can not be set) vDS-2: Enable or Disable
NIOC Settings (multiple can be set) [Note 2]		
Traffic [Note 3]	System Traffic Type - Management - vSAN - vMotion	Management, vSAN, vMotion
Shares	Relative priority of System Traffic Types 1-100 Default: 30 (Management), 100 (vSAN), 70 (vMotion)	Arbitrary value
Reservation (Mbps) [Note 4]	Minimum band width required to be maintained on a single physical adapter (Mbps)	Arbitrary value

Setting Item	Description	Setting Value
	Default: 500 (Management), 1000 (vSAN), 500 (vMotion)	
Limit (Mbps) [Note 4]	Maximum bandwidth that can be used by system traffic on a single physical adapter (Mbps) Default: 0	Arbitrary value
MTU	Size of the Maximum Transfer Unit (MTU) (Number of bytes) Default: 1500 Maximum: 9000	Arbitrary value
Port Group (multiple can be set)		
Port Group Name [Note 5]	Name of the vDS port group (network label)	Arbitrary value
Type	Type of the vDS port group - VMkernel - Virtual Machine	Network Configuration: Type I - vDS-1 - Virtual machine port group for workload: Virtual Machine - vDS-2 - Network port group for management: VMkernel - Network port group for vSAN: VMkernel - Network port group for vMotion: VMkernel - Virtual machine port group for management: Virtual Machine Network Configuration: Type II - vDS-1 - Network port group for management: VMkernel - Virtual machine port group for workload: Virtual Machine - vDS-2 - Network port group for vSAN: VMkernel - Network port group for vMotion: VMkernel - Virtual machine port group for management: Virtual Machine
Number of Ports	Port number of the distributed port group Default: 8 Maximum: 8192	Arbitrary value
VLAN Type	The type of the VLAN - None (Do not use VLAN)	Arbitrary value

Setting Item	Description	Setting Value
	- VLAN Default: VLAN	
VLAN ID	VLAN ID to use for vDS port group Default: No setting	Arbitrary value
IPv4 Network Address	IPv4 Network address of the VMkernel adapter	Arbitrary value
IPv4 Subnet Mask	IPv4 subnet mask of the VMkernel adapter	Arbitrary value
Traffic [Note 6]	Traffic <ul style="list-style-type: none"> - Management - vSAN traffic - vMotion 	<p>Network Configuration: Type I</p> <ul style="list-style-type: none"> - vDS-1 - - - vDS-2 - Network port group for management: Management - Network port group for vSAN: vSAN - Network port group for vMotion: vMotion <p>Network Configuration: Type II</p> <ul style="list-style-type: none"> - vDS-1 - Network port group for management: Management - vDS-2 - Network port group for vSAN: vSAN - Network port group for vMotion: vMotion
Uplink Settings (multiple can be set)		
Uplink Name	Distinguished name of uplink <ul style="list-style-type: none"> - Uplink 1 - Uplink 2 - Uplink 3 - Uplink 4 	Refer to " Setting values for vmnic name and uplink name when expanding a cluster "
Failover Priority Settings [Note 7]		
How to Distribute	Distribution method for uplink workload <ul style="list-style-type: none"> - Active - Stand-by 	Arbitrary value
Priority Order	Specify the uplink priority with a decimal number starting with 0.	Arbitrary value

[Note 1]: For vDS names, specify the adequate vDS name according to your environment.

[Note 2]: If you select the [Set] button, you can specify [Traffic], [Shares], [Reservation] and [Limit].

[Note 3]: This parameter can not be set.

[Note 4]: For the value to be specified in [Limit], specify the value as same as or larger than the value specified in [Reservation].

[Note 5]: For vDS port group names, specify the adequate port group name according to your environment.

[Note 6]: This is only enabled when the vDS port group is a "VMkernel" type.

[Note 7]: If you specify [Port Group Name], you can specify [How to Distribute] and [Priority Order] by selecting the [Set] button.

3.3.8 Cluster Details - [Storage Pool] tab

This item is required to be specified when you create and edit Cluster Definition Parameters.

Setting Item	Description	Setting Value
Storage Pool Name	vSAN data store name	Arbitrary value

3.3.9 Cluster Nodes Selection

Setting Item	Description	Setting Value
Target nodes selection (multiple can be set)		
Node Name	Select the node name managed by ISM.	Node name managed by ISM [Note 1]
Profile	Select the profile name managed by ISM.	Arbitrary value

[Note 1]: Specify the node name that is the server for expanding a cluster when doing cluster expansion.

3.3.10 Node Details - [iRMC] tab

Specify it for each node configured in the selected cluster.

Setting Item	Description	Setting Value
Local User Settings		
'admin' user		
New Password [Note 1]	New password to be set for the iRMC admin user When doing cluster expansion, update it along with the password set for the admin user registered in ISM.	Arbitrary value
New Password (Confirmation) [Note 1]	New password to be set for the iRMC admin user (Confirmation)	Arbitrary value
Administrator user		
User Name	Administrator user name created in iRMC	pflocaladmin
Password [Note 1]	Password set for the iRMC administrator user	Arbitrary value
Password (Confirmation) [Note 1]	Password set for the iRMC administrator user (Confirmation)	Arbitrary value

[Note 1]: This parameter is not included in Export/Import of Cluster Definition Parameters. You must set the item by editing Cluster Definition Parameters.

3.3.11 Node Details - [OS] tab

Specify it for each node configured in the selected cluster.

Setting Item	Description	Setting Value
Local User Settings		
Administrator User Name	Administrator user name created in the OS	Arbitrary value Example: pflocaladmin
Password [Note 1]	Password set for the OS administrator user	Arbitrary value
Password (Confirmation) [Note 1]	Password set for the OS administrator user	Arbitrary value (Confirmation)

[Note 1]: This parameter is not included in Export/Import of Cluster Definition Parameters. You must set the item by editing Cluster Definition Parameters.

3.3.12 Node Details - [vDS] tab

Specify it for each node configured in the selected cluster.

Setting Item	Description	Setting Value
vDS-1 or vDS-2		
Physical NIC (multiple can be set)		
vmnic Name	Name of the physical network adapter Example: vmnic2 * Only specify numbers that start with "vmnic."	Refer to " Setting values for vmnic name and uplink name when expanding a cluster "
Uplink Name [Note 1]	Distinguished name of uplink - Uplink 1 - Uplink 2 - Uplink 3 - Uplink 4	Setting value specified in [Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-1 or vDS-2] - [Uplink Settings] - [Uplink Name]
Port Group (multiple can be set)		
Port Group Name [Note 1]	Name of the vDS port group (network label)	Setting value specified in [Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-1 or vDS-2] - [Port Group] - [Port Group Name]
Type [Note 1]	Type of the vDS port group - VMkernel - Virtual Machine	Network Configuration: Type I - vDS-1 - Virtual Machine port group for workload: Setting value specified in [Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-1] - [Port Group<Virtual Machine port group for workload>] - [Type] - vDS-2 - Network port group for management: Setting value specified in [Cluster Details] - [Network] tab - [vSAN

Setting Item	Description	Setting Value
		<p>Distributed Switch Settings] - [vDS-2] - [Port Group<Network port group for management>] - [Type]</p> <ul style="list-style-type: none"> - Network port group for vSAN: Setting value specified in [Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Network port group for vSAN>] - [Type] - Network port group for vMotion: Setting value specified in [Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Network port group for vMotion>] - [Type] - Virtual Machine port group for management: Setting value specified in [Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Virtual Machine port group for management>] - [Type] <p>Network Configuration: Type II</p> <ul style="list-style-type: none"> - vDS-1 <ul style="list-style-type: none"> - Network port group for management: Setting value specified in [Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Network port group for management>] - [Type] - Virtual Machine port group for workload: Setting value specified in [Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-1] - [Port Group<Virtual Machine port group for workload>] - [Type] - vDS-2 <ul style="list-style-type: none"> - Network port group for vSAN: Setting value specified in [Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Network port group for vSAN>] - [Type]

Setting Item	Description	Setting Value
		<ul style="list-style-type: none"> - Network port group for vMotion: Setting value specified in [Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Network port group for vMotion>] - [Type] - Virtual Machine port group for management: Setting value specified in [Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Virtual Machine port group for management>] - [Type]
	<p>Traffic [Note 1]</p> <p>Traffic</p> <ul style="list-style-type: none"> - Management traffic - vMotion traffic - vSAN traffic 	<p>Network Configuration: Type I</p> <ul style="list-style-type: none"> - vDS-1 - - - vDS-2 - Network port group for management: Setting value specified in [Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Network port group for management>] - [Traffic] - Network port group for vSAN: Setting value specified in [Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Network port group for vSAN>] - [Traffic] - Network port group for vMotion: Setting value specified in [Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Network port group for vMotion>] - [Traffic] <p>Network Configuration: Type II</p> <ul style="list-style-type: none"> - vDS-1 - Network port group for management: Setting value specified in [Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Network port group for management>] - [Traffic]

Setting Item	Description	Setting Value
		<ul style="list-style-type: none"> - vDS-2 - Network port group for vSAN: Setting value specified in [Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Network port group for vSAN>] - [Traffic] - Network port group for vMotion: Setting value specified in [Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Network port group for vMotion>] - [Traffic]
IPv4 Address [Note 2]	IPv4 address of the VMkernel adapter	Arbitrary value

[Note 1]: This parameter can not be set.

[Note 2]: Specify the same IPv4 address for the management network port group as the profile setting ([Details] - [OS (for each node)] tab - [Network] - [DHCP] - [IP address]).

Setting values for vmnic name and uplink name when expanding a cluster

Table 3.4 When adding PRIMERGY CX M2 series to PRIMEFLEX HS PRIMERGY CX M2 series

Setting Item	Setting Value		
	Physical port	vmnic name	uplink name
vDS-1 (Virtual distributed switch for management [Note 1])	Expansion option #0	vmnic0	Uplink1
	Expansion option #1	vmnic1	Uplink2
vDS-2 (Virtual distributed switch for management and workload [Note 1])	PCI card #0	vmnic2	Uplink3
	PCI card #1	vmnic3	Uplink4

[Note 1]: This is the default setting value.

Table 3.5 When adding PRIMERGY RX M2 series to PRIMEFLEX HS PRIMERGY RX M2 series

Setting Item	Setting Value		
	Physical port	vmnic name	uplink name
vDS-1 (Virtual distributed switch for workload [Note 1])	Expansion option #1	vmnic1	Uplink2
	PCI card #1	vmnic3 [Note 2]	Uplink4
vDS-2 (Virtual distributed switch for management [Note 1])	Expansion option #0	vmnic0	Uplink1
	PCI card #0	vmnic2 [Note 2]	Uplink3

[Note 1]: This is the default setting value.

[Note 2]: If you purchased multiple expansion cards, enter a vmnic name that is appropriate for your environment for the second expansion card.

Table 3.6 When adding PRIMERGY CX M4 series/PRIMERGY CX M5 series to PRIMEFLEX HS PRIMERGY CX M2 series

Setting Item	Setting Value		
	Physical port	vmnic name	uplink name
vDS-1 (Virtual distributed switch for management [Note 1])	Expansion option #0	vmnic1	Uplink1
	Expansion option #1	vmnic2	Uplink2
vDS-2 (Virtual distributed switch for management and workload [Note 1])	PCI card #0	vmnic3	Uplink3
	PCI card #1	vmnic4	Uplink4

[Note 1]: This is the default setting value.

Table 3.7 When adding PRIMERGY RX M4 series/PRIMERGY RX M5 series to PRIMEFLEX HS PRIMERGY RX M2 series

Setting Item	Setting Value		
	Physical port	vmnic name	uplink name
vDS-1 (Virtual distributed switch for workload [Note 1])	Expansion option #1	vmnic3 [Note 2]	Uplink2
	PCI card #1	vmnic5 [Note 2] [Note 3]	Uplink4
vDS-2 (Virtual distributed switch for management [Note 1])	Expansion option #0	vmnic2 [Note 2]	Uplink1
	PCI card #0	vmnic4 [Note 2] [Note 3]	Uplink3

[Note 1]: This is the default setting value.

[Note 2]: For PRIMERGY RX 4770 M5, enter a vmnic name that is appropriate for your environment.

[Note 3]: If you purchased multiple expansion cards, enter a vmnic name that is appropriate for your environment for the second expansion card.

Table 3.8 When adding PRIMERGY CX M4 series/PRIMERGY CX M5 series to PRIMEFLEX for VMware vSAN PRIMERGY CX M4 series

Setting Item	Setting Value		
	Physical port	vmnic name	uplink name
vDS-1 (Virtual distributed switch for workload [Note 1])	Expansion option #1	vmnic2	Uplink2
	PCI card #1	vmnic4	Uplink4
vDS-2 (Virtual distributed switch for management [Note 1])	Expansion option #0	vmnic1	Uplink1
	PCI card #0	vmnic3	Uplink3

[Note 1]: This is the default setting value.

Table 3.9 When adding PRIMERGY RX M4 series/PRIMERGY RX M5 series to PRIMEFLEX for VMware vSAN PRIMERGY RX M4 series

Setting Item	Setting Value		
	Physical port	vmnic name	uplink name
vDS-1 (Virtual distributed switch for workload [Note 1])	Expansion option #1	vmnic3 [Note 2]	Uplink2
	PCI card #1	vmnic5 [Note 2] [Note 3]	Uplink4
vDS-2 (Virtual distributed switch for management [Note 1])	Expansion option #0	vmnic2 [Note 2]	Uplink1
	PCI card #0	vmnic4 [Note 2] [Note 3]	Uplink3

[Note 1]: This is the default setting value.

[Note 2]: For PRIMERGY RX 4770 M5, enter a vmnic name that is appropriate for your environment.

[Note 3]: If you purchased multiple expansion cards, enter a vmnic name that is appropriate for your environment for the second expansion card.

Table 3.10 When adding PRIMERGY CX M5 series to PRIMEFLEX for VMware vSAN PRIMERGY CX M5 series

Setting Item	Setting Value		
	Physical port	vmnic name	uplink name
vDS-1 (Virtual distributed switch for workload [Note 1])	Expansion option #1	vmnic2	Uplink2
	PCI card #1	vmnic4	Uplink4
vDS-2 (Virtual distributed switch for management [Note 1])	Expansion option #0	vmnic1	Uplink1
	PCI card #0	vmnic3	Uplink3

[Note 1]: This is the default setting value.

Table 3.11 When adding PRIMERGY RX M5 series to PRIMEFLEX for VMware vSAN PRIMERGY RX M5 series

Setting Item	Setting Value		
	Physical port	vmnic name	uplink name
vDS-1 (Virtual distributed switch for workload [Note 1])	Expansion option #1	vmnic3 [Note 2]	Uplink2
	PCI card #1	vmnic5 [Note 2] [Note 3]	Uplink4
vDS-2 (Virtual distributed switch for management [Note 1])	Expansion option #0	vmnic2 [Note 2]	Uplink1
	PCI card #0	vmnic4 [Note 2] [Note 3]	Uplink3

[Note 1]: This is the default setting value.

[Note 2]: For PRIMERGY RX 4770 M5, enter a vmnic name that is appropriate for your environment.

[Note 3]: If you purchased multiple expansion cards, enter a vmnic name that is appropriate for your environment for the second expansion card.

 **Note**

"Setting values for vmnic name and uplink name when expanding a cluster" is only set if expansion cards are used for this product. If you are using the PRIMERGY RX series servers, and purchased multiple expansion cards, enter a vmnic name that is appropriate for your environment for the part in [Note 2]. The vmnic number is allocated from onboard to the PCI slots in ascending order.

If you purchased two expansion cards and installed them in PCI slots 2 and 3 (PCI slot 1 is the SAS array controller card), the vmnic number is allocated as follows. Refer to the system configuration diagram of the target server for the PCI slot location.

Table 3.12 Example of vmnic numbers

Onboard	Port location	vmnic number
No onboard port	Expansion option port 0	vmnic0
	Expansion option port 1	vmnic1
	Port 0 on PCI slot 2	vmnic2
	Port 1 on PCI slot 2	vmnic3
	Port 0 on PCI slot 3	vmnic4
	Port 1 on PCI slot 3	vmnic5
Has onboard ports	Onboard port 0	vmnic0

Onboard	Port location	vmnic number
	Onboard port 1	vmnic1
	Expansion option port 0	vmnic2
	Expansion option port 1	vmnic3
	Port 0 on PCI slot 2	vmnic4
	Port 1 on PCI slot 2	vmnic5
	Port 0 on PCI slot 3	vmnic6
	Port 1 on PCI slot 3	vmnic7

3.4 Parameter List for Cluster Definition Parameters Settings - PRIMEFLEX for Microsoft Storage Spaces Direct/PRIMEFLEX for Microsoft Azure Stack HCI (Cluster Expansion)

This section describes the Cluster Definition Parameter setting values of the Cluster Expansion of PRIMEFLEX for Microsoft Storage Spaces Direct/PRIMEFLEX for Microsoft Azure Stack HCI.



Note

- If you are using Cluster Expansion of PRIMEFLEX for Microsoft Storage Spaces Direct/PRIMEFLEX for Microsoft Azure Stack HCI, set the following Cluster Definition Parameter setting values with the "Expand Cluster" wizard.
- When using Export/Import of Cluster Definition Parameters, edit Cluster Definition Parameters to set them appropriately according to your environment.

3.4.1 Basic Information

This item is required to be specified when you create and edit Cluster Definition Parameters.

Setting Item	Description	Setting Value
Cloud Management Software Name [Note 1]	Name of the cloud management software	Arbitrary value
Type [Note 1]	Cluster Type	Microsoft Failover Cluster
Cluster Name [Note 1]	Cluster Name	Name of the cluster to be expanded
Number of Nodes configuring the Cluster [Note 1]	The number of nodes configuring the cluster	Arbitrary value
Storage Configuration	Storage Configuration <ul style="list-style-type: none"> - Hybrid - All Flash (NVMe+SSD) - All Flash (All SSD) Default: Hybrid	Hybrid, All Flash (NVMe+SSD), or All Flash (All SSD)

[Note 1]: This parameter can not be set.

3.4.2 Cluster Details - [DNS] tab

This item is required to be specified when you create and edit Cluster Definition Parameters.

Setting Item	Description	Setting Value
IP Address (Secondary DNS server)	IP address of secondary DNS server [Note 1]	<ul style="list-style-type: none"> - If you are using the Active Directory currently configured in your environment: IP address of the customers' AD2 - If you are using an ADVM configured as dedicated to PRIMEFLEX for Microsoft Storage Spaces Direct/ PRIMEFLEX for Microsoft Azure Stack HCI: IP address of ADVM2

[Note 1]: The IP address of the primary DNS server is specified in the ISM profile.

3.4.3 Cluster Details - [LDAP] tab

This item is required to be specified when you create and edit Cluster Definition Parameters.

Setting Item	Description	Setting Value
Activate LDAP Settings [Note 1]	Specify whether to enable LDAP settings. <input checked="" type="checkbox"/> : Enable <input type="checkbox"/> : Disable Default: Disable	Arbitrary value
Domain Name	Domain name of LDAP server	Domain name of LDAP server [Note 2]
User Name	User name used when connecting to the LDAP server	pfadmin
Password [Note 3]	Password used when connecting to the LDAP server	Password of pfadmin
Password (Confirmation) [Note 3]	Password used when connecting to the LDAP server (Confirmation)	Password of pfadmin
Directory Server Type	The type of the directory server - Active Directory	Active Directory
Host Name or IP Address (Primary Host)	Host name or IP address of the primary LDAP server	Host name or IP address of the primary LDAP server
Port (Primary Host)	Port number of the LDAP service (non TLS/SSL) of the primary LDAP server Default: 389	389
TLS/SSL Port (Primary Host)	Port number of the LDAP service (TLS/SSL) of the primary LDAP server Default: 636	636
Host Name or IP Address (Backup Host)	Host name or IP address of the backup LDAP server	Host name or IP address of the backup LDAP server
Port (Backup Host)	Port number of the LDAP service (non TLS/SSL) of the backup LDAP server Default: 389	389
TLS/SSL Port (Backup Host)	Port number of the LDAP service (TLS/SSL) of the backup LDAP server	636

Setting Item	Description	Setting Value
	Default: 636	
Division	LDAP division name	PF_Dept_1
Local User Login	Specify whether to enable log in for local users. - Enable - Disable Default: Disable	Enable
Always use TLS/SSL Login	Specify whether to always use TLS/SSL for login. - Yes - No Default: No	No

[Note 1]: This parameter is not required if link with Active Directory of iRMC is not used (uncheck the check for the [LDAP] tab - [Activate LDAP Settings]). If [Activate LDAP Settings] is checked, configure the LDAP settings for iRMC.

LDAP settings are configured for the OS regardless of whether [Activate LDAP Settings] is checked or not.

[Note 2]: Specify the domain name in UPN (User Principal Name) format.

[Note 3]: This parameter is not included in Export/Import of Cluster Definition Parameters. You must set the item by editing Cluster Definition Parameters.

3.4.4 Cluster Details - [Network] tab

This item is required to be specified when you create and edit Cluster Definition Parameters.

Setting Item	Description	Setting Value
Default Gateway	IPv4 address of the default gateway	Arbitrary value
Workload Virtual Switch (multiple can be set)		
Virtual Switch Name	Name of the virtual switch	Name of Workload Virtual Switch
Embedded Teaming	Specify whether to enable embedded teaming. - Enable - Disable Default: Enable	Enable
Management Virtual Switch		
Virtual Switch Name	Name of the virtual switch	Name of Management Virtual Switch
Embedded Teaming	Specify whether to enable embedded teaming. - Enable - Disable Default: Enable	Enable
Network Name [Note 1]	Name of the virtual network	The three of the following - Name of network adapter 1 for live migration, Microsoft Storage Spaces Direct

Setting Item	Description	Setting Value
		<ul style="list-style-type: none"> - Name of network adapter 2 for live migration, Microsoft Storage Spaces Direct - Name of network adapter for management
Role Settings	<p>The value to be set to Role</p> <ul style="list-style-type: none"> - Do not allow cluster network communication - Allow only cluster network communication - Allow both cluster network communication and connections between the clients <p>Default:</p> <ul style="list-style-type: none"> - For network adapter for Management: Allow both cluster network communication and connections between the clients - For network adapter 1 for live migration, Microsoft Storage Spaces Direct or network adapter 2 for live migration, Microsoft Storage Spaces Direct: Allow only cluster network communication 	Arbitrary value
VLAN Type	<p>The type of the VLAN</p> <ul style="list-style-type: none"> - None (Do not use VLAN) - VLAN <p>Default: VLAN</p>	Arbitrary value
VLAN ID [Note 1]	<p>VLAN ID to use for vDS port group</p> <p>Default: No setting</p>	Arbitrary value
IPv4 Network Address [Note 1]	IPv4 Network address of the cluster network	Arbitrary value
IPv4 Subnet Mask [Note 1]	IPv4 subnet mask of the cluster network	Arbitrary value

[Note 1]: For PRIMERGY M5 series, when [Network Name] is "Name of network adapter 1 for live migration, Microsoft Storage Spaces Direct" and "Name of network adapter 2 for live migration, Microsoft Storage Spaces Direct," specify the same value for [VLAN ID], [Network Address], and [Subnet Mask].

3.4.5 Cluster Details - [Storage Pool] tab

This item is required to be specified when you create and edit Cluster Definition Parameters.

Setting Item	Description	Setting Value
Journal Settings		
Media Type [Note 1]	<p>Media Type of disks used for Journal</p> <ul style="list-style-type: none"> - SSD 	SSD or -

Setting Item	Description	Setting Value
	<p>- -</p> <p>Default:</p> <ul style="list-style-type: none"> - When the storage configuration is Hybrid or All Flash (NVMe+SSD): SSD - When the storage configuration is All Flash (All SSD): - 	
Bus Type [Note 1]	<p>Bus Type of disks used for Journal</p> <ul style="list-style-type: none"> - SAS - NVMe - - <p>Default:</p> <ul style="list-style-type: none"> - When the storage configuration is Hybrid: SAS - When the storage configuration is All Flash (NVMe+SSD): NVMe - When the storage configuration is All Flash (All SSD): - 	SAS, NVMe, or -
Storage Tier Settings		
Storage Tier Name	Friendly Name of Storage Tier	Arbitrary value
Media Type [Note 1]	<p>Media Type of Storage Tier</p> <ul style="list-style-type: none"> - HDD - SSD <p>Default:</p> <ul style="list-style-type: none"> - When the storage configuration is Hybrid: HDD - When the storage configuration is All Flash (NVMe+SSD) or All Flash (All SSD): SSD 	HDD or SSD
Recovery [Note 1]	<p>Type of Recovery method (allocation method)</p> <p>Default: 2-Way or 3-Way Mirror Storage</p>	2-Way or 3-Way Mirror Storage
Redundancy [Note 1]	<p>Redundancy of disks</p> <ul style="list-style-type: none"> - 2 - 3 or more 	"2" or "3 or more"

Setting Item	Description	Setting Value
	Default: The number of nodes specified in [Basic Information]-[Number of Nodes configuring the Cluster]	
Number of data copies [Note 1]	Number of data copies - 2-way Mirror - 3-way Mirror Default: - When Redundancy is 2 nodes: 2-way Mirror - When Redundancy is 3 or more: 3-way Mirror	"2-way Mirror" or "3-way Mirror"

[Note 1]: This parameter can not be set.

3.4.6 Cluster Nodes Selection

Setting Item	Description	Setting Value
Target nodes selection (multiple can be set)		
Node Name	Select the node name managed by ISM.	Node name managed by ISM [Note 1]
Profile	Select the profile name managed by ISM.	Arbitrary value

[Note 1]: Specify the node name that is the server for expanding a cluster when doing cluster expansion.

3.4.7 Node Details - [iRMC] tab

Specify it for each node configured in the selected cluster.

Setting Item	Description	Setting Value
Local User Settings		
'admin' User		
New Password [Note 1]	New password to be set for the iRMC admin user When doing cluster expansion, update it along with the password set for the admin user registered in ISM.	Arbitrary value
New Password (Confirmation) [Note 1]	New password to be set for the iRMC admin user (Confirmation)	Arbitrary value
Administrator User		
User Name	Administrator user name created in iRMC	pflocaladmin
Password [Note 1]	Password set for the iRMC administrator user	Arbitrary value
Password (Confirmation) [Note 1]	Password set for the iRMC administrator user (Confirmation)	Arbitrary value

[Note 1]: This parameter is not included in Export/Import of Cluster Definition Parameters. You must set the item by editing Cluster Definition Parameters.

3.4.8 Node Details - [OS] tab

Specify it for each node configured in the selected cluster.

Setting Item	Description	Setting Value
Local User Settings		
Administrator User Name	Administrator user name created in the OS	Arbitrary value Example: pflocaladmin
Password [Note 1]	Password set for the OS administrator user	Arbitrary value
Password (Confirmation) [Note 1]	Password set for the OS administrator user	Arbitrary value (Confirmation)

[Note 1]: This parameter is not included in Export/Import of Cluster Definition Parameters. You must set the item by editing Cluster Definition Parameters.

3.4.9 Node Details - [Virtual Switch] tab

Specify it for each node configured in the selected cluster.

Setting Item	Description	Setting Value
Slot Number Settings		
Slot Numbers (multiple can be set)	Number of the PCI slot where the physical network adapter binding the virtual switch is installed. Example: 2	Number of the PCI slot where the physical network adapter binding the virtual switch is installed.
Workload Virtual Switch		
Virtual Switch Settings		
Virtual Switch Name	Name of the virtual switch	Name of Workload Virtual Switch
Slot Number - Port Number (multiple can be set)	Number of the PCI slot and port where the physical network adapter binding the virtual switch is installed Example: 2-1	Number of the PCI slot and port where the physical network adapter binding the virtual switch is installed * Slot Number is the value set in [Slot Number Settings] - [Slot Number] and Port Number is "1."
Embedded Teaming	Specify whether to enable embedded teaming. - Enable - Disable Default: Enable	Enable
Management Virtual Switch		
Virtual Switch Settings		
Virtual Switch Name	Name of the virtual switch	Name of Management Virtual Switch
Slot Number - Port Number (multiple can be set)	Number of the PCI slot and port where the physical network adapter binding the virtual switch is installed Example: 2-0	Number of the PCI slot and port where the physical network adapter binding the virtual switch is installed * Slot Number is the value set in [Slot Number Settings] - [Slot Number] and Port Number is "0."

Setting Item	Description	Setting Value
Embedded Teaming	Specify whether to enable embedded teaming. - Enable - Disable Default: Enable	Enable
Virtual Network Adapter (multiple can be set)		
Adapter Name [Note 1]	Name of the virtual network adapter	The three of the following - Name of network adapter for management - Name of network adapter 1 for live migration, Microsoft Storage Spaces Direct - Name of network adapter 2 for live migration, Microsoft Storage Spaces Direct
Management OS	Specify whether it is the virtual network adapter for the management OS. - Yes - No Default: Yes	Specify the following - Name of network adapter for management: Yes - Name of network adapter 1 for live migration, Microsoft Storage Spaces Direct: Yes - Name of network adapter 2 for live migration, Microsoft Storage Spaces Direct: Yes
IPv4 Address [Note 2] [Note 3]	IPv4 Address	Arbitrary value
Physical Network Adapter (multiple can be set)		
Slot Number	Number of the PCI slot where the physical network adapter binding the virtual switch is installed Example: 2	Number of the PCI slot where the physical network adapter binding the virtual switch is installed
Virtual Machine Queue	Specify whether to enable virtual machine queue. - Enable - Disable Default: Enable	PCI adapter: Enable
SR/IOV	Specify whether to enable SR/IOV. - Enable - Disable Default: Disable	PCI adapter: Disable
vRSS	Specify whether to enable vRSS. - Enable - Disable	PCI adapter: Enable

Setting Item	Description	Setting Value
	Default: Disable	

[Note 1]: If a virtual network adapter with the name specified for the servers currently configured in the cluster does not exist, Cluster Expansion ends with an error.

[Note 2]: Specify the same IP address as of the virtual network adapter with the same name on the server currently configured in the cluster.

[Note 3]: Specify the same IPv4 address for the management network adapter as the profile setting ([Details] - [OS (for each node)] tab - [Network] - [DHCP] - [IP address]).

Chapter 4 Parameter List for Profile Settings

This chapter describes the profile setting values.

If you want to create a cluster or extend a server of the same generation as an existing cluster, refer to the configuration document for ISM for PRIMEFLEX delivery.

4.1 Parameter List for Profile Settings - When Creating a Cluster of PRIMEFLEX for VMware vSAN V1

Refer to this section if you are creating a cluster of PRIMEFLEX for VMware vSAN V1 (PRIMERGY M4 series).



Note

- Do not check the checkboxes for setting values not shown in the following tables.
- Set the setting items for each policy below.
 - BIOS Policy
 - iRMC Policy
 - OS Policy

4.1.1 General Information

Setting Item	Setting Value
Affiliation Group Path	/ProfileGroup/Administrator Forward Match
Profile Name	<Any profile name>
Category	Server-RX or Server-CX
BIOS Policy	<BIOS policy referred to>
iRMC Policy	<iRMC policy referred to>
OS Type	VMware ESXi
OS Policy	<OS policy referred to>
Description	<Optional description>

4.1.2 Details - [BIOS] tab

Setting Item	Setting Value
CPU Configuration	
Hyper-Threading	<input checked="" type="checkbox"/> : Enabled
Intel Virtualization Technology	<input checked="" type="checkbox"/> : Enabled
Intel Vt-d	<input checked="" type="checkbox"/> : Enabled
Power Technology	<input checked="" type="checkbox"/> : Custom [Note 1]
Enhanced Speed Step	<input checked="" type="checkbox"/> : Disabled [Note 2]
Turbo Mode	<input checked="" type="checkbox"/> : Disabled [Note 2]

Setting Item		Setting Value
	Override OS Energy Performance	<input checked="" type="checkbox"/> : Enabled
	Energy Performance	<input checked="" type="checkbox"/> : Performance
	CPU C1E Support	<input checked="" type="checkbox"/> : Disabled [Note 2]
	CPU C6 Report	<input checked="" type="checkbox"/> : Disabled [Note 2]
	Package C State limit	<input checked="" type="checkbox"/> : C0
Memory Configuration		
	NUMA	<input checked="" type="checkbox"/> : Enabled
	DDR Performance	<input checked="" type="checkbox"/> : Performance optimized
CSM Configuration		
	Launch CSM	<input checked="" type="checkbox"/> : Disabled
Network Stack		
	Network Stack	<input checked="" type="checkbox"/> : Enabled
	IPv4 PXE Support	<input checked="" type="checkbox"/> : Enabled
	IPv6 PXE Support	<input checked="" type="checkbox"/> : Disabled

[Note 1]: In a PRIMERGY RX series configuration, this parameter is not displayed on the "BIOS Settings" screen. However, it is required to be set for setting of [Override OS Energy Performance] and [Energy Performance].

[Note 2]: Setting value set if you are using the configuration of PRIMERGY CX series.

4.1.3 Details - [iRMC] tab

Setting Item		Setting Value
iRMC GUI		
	Default Language	<input checked="" type="checkbox"/> : <Any default language>
Power Management		
	POST Error Halt	<input checked="" type="checkbox"/> : Continue
	Power Restore Policy	<input checked="" type="checkbox"/> : Restore to powered state prior to power loss
	Power Control Mode	<input checked="" type="checkbox"/> : OS Controlled
Fan Test		
	Fan Check Time	<input checked="" type="checkbox"/> : 23:00
	Disable Fan Test	<input checked="" type="checkbox"/> : <input type="checkbox"/>
Software Watchdog		
	Software Watchdog	<input checked="" type="checkbox"/> : Disabled
	Behavior	<input checked="" type="checkbox"/> : Continue
	Timeout	<input checked="" type="checkbox"/> : 5 Minutes

Setting Item		Setting Value
Boot Watchdog		
Boot Watchdog		<input checked="" type="checkbox"/> : Disabled
Behavior		<input checked="" type="checkbox"/> : Continue
Timeout		<input checked="" type="checkbox"/> : 100 Minutes
Time		
Time Mode		<input checked="" type="checkbox"/> : System RTC
RTC Time Mode		<input checked="" type="checkbox"/> : UTC
Time Zone		<input checked="" type="checkbox"/> : <Any time zone>
Ports and Network Services Settings		
Telnet Enabled		<input checked="" type="checkbox"/> : Enabled
Telnet Port (Default: 3172)		<input checked="" type="checkbox"/> : 3172
SSH Enabled		<input checked="" type="checkbox"/> : Enabled
SSH Port (Default: 22)		<input checked="" type="checkbox"/> : 22
SNMP Generic Configuration		
SNMP Enabled		<input checked="" type="checkbox"/> : Enabled
SNMP Port (Default: 161)		<input checked="" type="checkbox"/> : 161
SNMP Service Protocol		<input checked="" type="checkbox"/> : All(SNMPv1/v2c/v3)
SNMPv1/v2c Community		<input checked="" type="checkbox"/> : <Any community name>
SNMP Trap Destination		
SNMP Trap Community Name		<input checked="" type="checkbox"/> : <Any community name>
Destination SNMP Server 1		<input checked="" type="checkbox"/> : <IP address of destination SNMP server1>
Protocol		<input checked="" type="checkbox"/> : SNMPv1
BIOS Backup		
Automatic BIOS Parameter Backup		<input checked="" type="checkbox"/> : <input checked="" type="checkbox"/>

4.1.4 Details - [OS] tab

Setting Item		Setting Value
Installation Form		
Installation Method		PXE
Installation Image		
Type of Installation Media		<Select the type of OS installation media from the list>
ServerView Suite DVD		Install with Latest Version
Management LAN network port settings		

Setting Item		Setting Value
Network port specification		<input checked="" type="checkbox"/>
Method to specify		MAC address
MAC address		Any MAC address
RAID & Disk Configuration		
RAID & Disk Setting		
Do not use Array Controller		<input checked="" type="checkbox"/> : SATA
Basic Settings		
Keyboard		<Any keyboard>
Network		
VLAN ID to Use		0
Execute Script after Installation [Note 1]		
Execute Script after Installation		<input checked="" type="checkbox"/>
The directory of Script		kickstart
Script to Execute		ESXi_Setting.sh

[Note 1]: This setting item is automatically set by Cluster Creation. Do not set this manually (do not check).

4.1.5 Details - [OS (for each node)] tab

Setting Item		Setting Value
License Agreement		<input checked="" type="checkbox"/>
Type of Installation Media		<Any type of installation media>
Root Password		<Any root password>
Root Password (for confirmation)		<Any root password>
Network		
DHCP		
Enable		<input type="checkbox"/>
IP Address		<Any IP address>
Subnet mask		<Any subnet mask>
Default Gateway		<Any default gateway>
DNS Server		<input checked="" type="checkbox"/> : <IP address of any DNS server>
Get Computer Name from DNS Server		<input type="checkbox"/>
Computer Name		<Any computer name>

4.2 Parameter List for Profile Settings - When Creating a Cluster of PRIMEFLEX for VMware vSAN V2

Refer to this section if you are creating a cluster of PRIMEFLEX for VMware vSAN V2 (PRIMERGY M5 series).

Note

- Do not check the checkboxes for setting values not shown in the following tables.
- Set the setting items for each policy below.
 - BIOS Policy
 - iRMC Policy
 - OS Policy

4.2.1 General Information

Setting Item	Setting Value
Affiliation Group Path	/ProfileGroup/Administrator Forward Match
Profile Name	<Any profile name>
Category	Server-RX or Server-CX
BIOS Policy	<BIOS policy referred to>
iRMC Policy	<iRMC policy referred to>
OS Type	VMware ESXi
OS Policy	<OS policy referred to>
Description	<Optional description>

4.2.2 Details - [BIOS] tab

Setting Item	Setting Value
CPU Configuration	
Hyper-Threading	<input checked="" type="checkbox"/> : Enabled
Intel Virtualization Technology	<input checked="" type="checkbox"/> : Enabled
Intel Vt-d	<input checked="" type="checkbox"/> : Enabled
Power Technology	<input checked="" type="checkbox"/> : Custom [Note 1]
Enhanced Speed Step	<input checked="" type="checkbox"/> : Disabled [Note 2]
Turbo Mode	<input checked="" type="checkbox"/> : Disabled [Note 2]
Override OS Energy Performance	<input checked="" type="checkbox"/> : Enabled
Energy Performance	<input checked="" type="checkbox"/> : Performance
CPU C1E Support	<input checked="" type="checkbox"/> : Disabled [Note 2]
CPU C6 Report	<input checked="" type="checkbox"/> : Disabled [Note 2]
Package C State limit	<input checked="" type="checkbox"/> : C0
Memory Configuration	
NUMA	<input checked="" type="checkbox"/> : Enabled

Setting Item		Setting Value
	DDR Performance	<input checked="" type="checkbox"/> : Performance optimized
CSM Configuration		
	Launch CSM	<input checked="" type="checkbox"/> : Disabled
Network Stack		
	Network Stack	<input checked="" type="checkbox"/> : Enabled
	IPv4 PXE Support	<input checked="" type="checkbox"/> : Enabled
	IPv6 PXE Support	<input checked="" type="checkbox"/> : Disabled

[Note 1]: In a PRIMERGY RX series configuration, this parameter is not displayed on the "BIOS Settings" screen. However, it is required to be set for setting of [Override OS Energy Performance] and [Energy Performance].

[Note 2]: Setting value set if you are using the configuration of PRIMERGY CX series.

4.2.3 Details - [iRMC] tab

Setting Item		Setting Value
iRMC GUI		
	Default Language	<input checked="" type="checkbox"/> : <Any default language>
Power Management		
	POST Error Halt	<input checked="" type="checkbox"/> : Continue
	Power Restore Policy	<input checked="" type="checkbox"/> : Restore to powered state prior to power loss
	Power Control Mode	<input checked="" type="checkbox"/> : OS Controlled
Fan Test		
	Fan Check Time	<input checked="" type="checkbox"/> : 23:00
	Disable Fan Test	<input checked="" type="checkbox"/> : <input type="checkbox"/>
Software Watchdog		
	Software Watchdog	<input checked="" type="checkbox"/> : Disabled
	Behavior	<input checked="" type="checkbox"/> : Continue
	Timeout	<input checked="" type="checkbox"/> : 5 Minutes
Boot Watchdog		
	Boot Watchdog	<input checked="" type="checkbox"/> : Disabled
	Behavior	<input checked="" type="checkbox"/> : Continue
	Timeout	<input checked="" type="checkbox"/> : 100 Minutes
Time		
	Time Mode	<input checked="" type="checkbox"/> : System RTC
	RTC Time Mode	<input checked="" type="checkbox"/> : UTC

Setting Item		Setting Value
	Time Zone	<input checked="" type="checkbox"/> : <Any time zone>
Ports and Network Services Settings		
	Telnet Enabled	<input checked="" type="checkbox"/> : Enabled
	Telnet Port (Default: 3172)	<input checked="" type="checkbox"/> : 3172
	SSH Enabled	<input checked="" type="checkbox"/> : Enabled
	SSH Port (Default: 22)	<input checked="" type="checkbox"/> : 22
SNMP Generic Configuration		
	SNMP Enabled	<input checked="" type="checkbox"/> : Enabled
	SNMP Port (Default: 161)	<input checked="" type="checkbox"/> : 161
	SNMP Service Protocol	<input checked="" type="checkbox"/> : All(SNMPv1/v2c/v3)
	SNMPv1/v2c Community	<input checked="" type="checkbox"/> : <Any community name>
SNMP Trap Destination		
	SNMP Trap Community Name	<input checked="" type="checkbox"/> : <Any community name>
	Destination SNMP Server 1	<input checked="" type="checkbox"/> : <IP address of destination SNMP server1>
	Protocol	<input checked="" type="checkbox"/> : SNMPv1
BIOS Backup		
	Automatic BIOS Parameter Backup	<input checked="" type="checkbox"/> : <input checked="" type="checkbox"/>

4.2.4 Details - [OS] tab

Setting Item		Setting Value
Installation Form		
	Installation Method	PXE
Installation Image		
	Type of Installation Media	<Select the type of OS installation media from the list>
	ServerView Suite DVD	Install with Latest Version
Management LAN network port settings		
	Network port specification	<input checked="" type="checkbox"/>
	Method to specify	MAC address
	MAC address	Any MAC address
RAID & Disk Configuration		
RAID & Disk Setting		
	Do not use Array Controller	<input checked="" type="checkbox"/> : SATA [Note 1]
	Use Array Controller	<input checked="" type="checkbox"/> : Use existing RAID Volume (Select it even though RAID is not used.) [Note 2]
Basic Settings		

Setting Item		Setting Value
	Keyboard	<Any keyboard>
Network		
	VLAN ID to Use	0
Execute Script after Installation [Note 3]		
	Execute Script after Installation	<input checked="" type="checkbox"/>
	The directory of Script	kickstart
	Script to Execute	ESXi_Setting.sh

[Note 1]: Specifies for boot device (M.2) nonredundancy configuration.

[Note 2]: Specifies for boot device (M.2) redundancy configuration.

[Note 3]: This setting item is automatically set by Cluster Creation. Do not set this manually (do not check).

4.2.5 Details - [OS (for each node)] tab

Setting Item		Setting Value
	License Agreement	<input checked="" type="checkbox"/>
	Type of Installation Media	<Any type of installation media>
	Root Password	<Any root password>
	Root Password (for confirmation)	<Any root password>
Network		
	DHCP	
	Enable	<input type="checkbox"/>
	IP Address	<Any IP address>
	Subnet mask	<Any subnet mask>
	Default Gateway	<Any default gateway>
	DNS Server	<input checked="" type="checkbox"/> : <IP address of any DNS server>
	Get Computer Name from DNS Server	<input type="checkbox"/>
	Computer Name	<Any computer name>

4.3 Parameter List for Profile Settings - When Creating a Cluster of PRIMEFLEX for Microsoft Storage Spaces Direct V1

Refer to this section if you are creating a cluster of PRIMEFLEX for Microsoft Storage Spaces Direct V1 (PRIMERGY M4 series).

Note

- Do not check the checkboxes for setting values not shown in the following tables.
- Set the setting items for each policy below.
 - BIOS Policy
 - iRMC Policy

4.3.1 General Information

Setting Item	Setting Value
Affiliation Group Path	/ProfileGroup/Administrator
Profile Name	<Any profile name>
Category	Server-RX
BIOS Policy	<BIOS policy referred to>
iRMC Policy	<iRMC policy referred to>
OS Type	Windows Server
Description	<Optional description>

4.3.2 Details - [BIOS] tab

Setting Item	Setting Value
CPU Configuration	
Hyper-Threading	<input checked="" type="checkbox"/> : Enabled
Intel Virtualization Technology	<input checked="" type="checkbox"/> : Enabled
Intel Vt-d	<input checked="" type="checkbox"/> : Enabled
Power Technology	<input checked="" type="checkbox"/> : Custom
Override OS Energy Performance	<input checked="" type="checkbox"/> : Enabled
Energy Performance	<input checked="" type="checkbox"/> : Performance
Package C State limit	<input checked="" type="checkbox"/> : C0
Memory Configuration	
NUMA	<input checked="" type="checkbox"/> : Enabled
CSM Configuration	
Launch CSM	<input checked="" type="checkbox"/> : Disabled
Network Stack	
Network Stack	<input checked="" type="checkbox"/> : Enabled
IPv4 PXE Support	<input checked="" type="checkbox"/> : Enabled
IPv6 PXE Support	<input checked="" type="checkbox"/> : Disabled

4.3.3 Details - [iRMC] tab

Setting Item	Setting Value
iRMC GUI	
Default Language	<input checked="" type="checkbox"/> : <Any default language>
Power Management	
POST Error Halt	<input checked="" type="checkbox"/> : Continue

Setting Item		Setting Value
	Power Restore Policy	<input checked="" type="checkbox"/> : Restore to powered state prior to power loss
	Power Control Mode	<input checked="" type="checkbox"/> : OS Controlled
Fan Test		
	Fan Check Time	<input checked="" type="checkbox"/> : 23:00
	Disable Fan Test	<input checked="" type="checkbox"/> : <input checked="" type="checkbox"/>
Software Watchdog		
	Software Watchdog	<input checked="" type="checkbox"/> : Disabled
	Behavior	<input checked="" type="checkbox"/> : Continue
	Timeout	<input checked="" type="checkbox"/> : 5 Minutes
Time		
	Time Mode	<input checked="" type="checkbox"/> : System RTC
	RTC Time Mode	<input checked="" type="checkbox"/> : Local Time
	Time Zone	<input checked="" type="checkbox"/> : <Any time zone>
Ports and Network Services Settings		
	Telnet Enabled	<input checked="" type="checkbox"/> : Enabled
	Telnet Port (Default: 3172)	<input checked="" type="checkbox"/> : 3172
	SSH Enabled	<input checked="" type="checkbox"/> : Enabled
	SSH Port (Default: 22)	<input checked="" type="checkbox"/> : 22
SNMP Generic Configuration		
	SNMP Enabled	<input checked="" type="checkbox"/> : Enabled
	SNMP Port (Default: 161)	<input checked="" type="checkbox"/> : 161
	SNMP Service Protocol	<input checked="" type="checkbox"/> : All(SNMPv1/v2c/v3)
	SNMPv1/v2c Community	<input checked="" type="checkbox"/> : <Any community name>
SNMP Trap Destination		
	SNMP Trap Community Name	<input checked="" type="checkbox"/> : <Any community name>
	Destination SNMP Server 1	<input checked="" type="checkbox"/> : <IP address of ISM-VA>
	Protocol	<input checked="" type="checkbox"/> : SNMPv1

4.3.4 Details - [OS] tab

Setting Item		Setting Value
Installation Form		
	Installation Method	PXE
Installation Image		

Setting Item		Setting Value
Type of Installation		Full
Type of Installation Media		<Select the type of OS installation media from the list>
ServerView Suite DVD		Install with Latest Version
Management LAN network port settings		
Network port specification		<input checked="" type="checkbox"/>
Method to specify		Port Number
Network Card		PCI card: <Any slot number>
Port Number		0
RAID & Disk Configuration		
Use Array Controller		<input checked="" type="checkbox"/> : Use existing RAID Volume
Volume1		
Volume Label		system
File System		NTFS
Partition Size (Automatic/Manual)		Automatic
Quick Format		Yes
Usage		Boot,OS
Basic Settings		
Time Zone		<Any time zone>
Region and Language		<Any region and language>
Keyboard		<Any keyboard>
System Settings		
Display Resolution [px]		1024x768
Refresh Rate [Hz]		75
# of Colors [bit]		24
Adding Role and Features		
Install SNMP Service		Install
SNMP Trap Setting		
Community Name		<Any community name>
Trap Destination		<IP address of ISM-VA>
Send Authentication Trap		Send
Acception of SNMP Packets		Accept SNMP Packets from Default Host (LocalHost)
Service		<input checked="" type="checkbox"/> : Application <input checked="" type="checkbox"/> : End-To-End <input checked="" type="checkbox"/> : Ethernet <input type="checkbox"/> : Data Link <input type="checkbox"/> : Physical
Remote Desktop		<input checked="" type="checkbox"/> : Enable

Setting Item		Setting Value
	Remote Assistance	<input type="checkbox"/> : Allow Remote Assistance Connections to This Computer
	Firewall Settings	<input type="checkbox"/> : Assign Firewall setting necessary to SCVMM registration
	Additional Application	<input checked="" type="checkbox"/> : Java Runtime Environment [Note 1] <input checked="" type="checkbox"/> : Software Support Guide <input checked="" type="checkbox"/> : ServerViewRAIDManager
Execute Script after Installation [Note 2]		
	Execute Script after Installation	<input checked="" type="checkbox"/>
	Directory Forwarded to the OS	postscript_ClusterOperation
	Script to Execute	WinSvr_Setting.bat

[Note 1]: If using SVIM V13.18.12 or later, Java can't be installed. Uncheck the check for "Java Runtime Environment."

[Note 2]: This setting item is automatically set by Cluster Creation. Do not set this manually (do not check).

4.3.5 Details - [OS (for each node)] tab

Setting Item		Setting Value
	Type of Installation Media	* The same items as [OS] - [Installation specifications] - [Installation media] displays automatically
	User Name	PRIMEFLEX
	Organization	FUJITSU
	Computer Name	<Any computer name>
	Administrator Password	<Any password>
	Administrator Password (for confirmation)	<Any password>
Work Group / Domain		
	Work Group / Domain Name	<Domain that it currently belongs to> [Note 1]
	Domain User	<User of the domain it currently belongs to>
	Domain Password	<Password of the user of the domain it currently belongs to>
	Domain Password (for confirmation)	<Password of the user of the domain it currently belongs to>
Network - DHCP		
	Enable	<input type="checkbox"/>
	IP Address	<Any IP address>
	Subnet mask	<Any subnet mask>
	Default Gateway	<Any default gateway>
	DNS Server1	<input checked="" type="checkbox"/> : <Any DNS server IP address>
	DNS Domain Name	<input checked="" type="checkbox"/> : <Domain name of DNS> [Note 1]

[Note 1]: Specify the domain name in UPN (User Principal Name) format.

4.4 Parameter List for Profile Settings - When Creating a Cluster of PRIMEFLEX for Microsoft Azure Stack HCI V1

Refer to this section if you are creating a cluster of PRIMEFLEX for Microsoft Azure Stack HCI V1 (PRIMERGY M5 series).

Note

- Do not check the checkboxes for setting values not shown in the following tables.
- Set the setting items for each policy below.
 - BIOS Policy
 - iRMC Policy
 - OS Policy

4.4.1 General Information

Setting Item	Setting Value
Affiliation Group Path	/ProfileGroup/Administrator
Profile Name	<Any profile name>
Category	Server-RX
BIOS Policy	<BIOS policy referred to>
iRMC Policy	<iRMC policy referred to>
OS Type	Windows Server
OS Policy	<OS policy referred to>
Description	<Optional description>

4.4.2 Details - [BIOS] tab

Setting Item	Setting Value
CPU Configuration	
Hyper-Threading	<input checked="" type="checkbox"/> : Enabled
Intel Virtualization Technology	<input checked="" type="checkbox"/> : Enabled
Intel Vt-d	<input checked="" type="checkbox"/> : Enabled
Power Technology	<input checked="" type="checkbox"/> : Custom
Override OS Energy Performance	<input checked="" type="checkbox"/> : Enabled
Energy Performance	<input checked="" type="checkbox"/> : Performance
Package C State limit	<input checked="" type="checkbox"/> : C0
Memory Configuration	
NUMA	<input checked="" type="checkbox"/> : Enabled
Option ROM Configuration (Exclude slot numbers that do not exist on the servers.)	
Launch Slot 1 OpROM	<input checked="" type="checkbox"/> : Enabled [Note 1] [Note 2]

Setting Item		Setting Value
	Launch Slot 2 OpROM	<input checked="" type="checkbox"/> : Enabled [Note 1] [Note 2]
	Launch Slot 3 OpROM	<input checked="" type="checkbox"/> : Enabled [Note 1] [Note 2]
	Launch Slot 4 OpROM	<input checked="" type="checkbox"/> : Enabled [Note 1]
	Launch Slot 7 OpROM	<input checked="" type="checkbox"/> : Enabled [Note 2]
	Launch Slot 8 OpROM	<input checked="" type="checkbox"/> : Enabled [Note 2]
	Launch Slot 9 OpROM	<input checked="" type="checkbox"/> : Enabled [Note 2]
CSM Configuration		
	Launch CSM	<input checked="" type="checkbox"/> : Disabled
Network Stack		
	Network Stack	<input checked="" type="checkbox"/> : Enabled
	IPv4 PXE Support	<input checked="" type="checkbox"/> : Enabled
	IPv6 PXE Support	<input checked="" type="checkbox"/> : Disabled

[Note 1]: Specify this item for PRIMERGY RX2530 M5.

[Note 2]: Specify this item for PRIMERGY RX2540 M5.

4.4.3 Details - [iRMC] tab

Setting Item		Setting Value
iRMC GUI		
	Default Language	<input checked="" type="checkbox"/> : <Any default language>
Power Management		
	POST Error Halt	<input checked="" type="checkbox"/> : Continue
	Power Restore Policy	<input checked="" type="checkbox"/> : Restore to powered state prior to power loss
	Power Control Mode	<input checked="" type="checkbox"/> : OS Controlled
Fan Test		
	Fan Check Time	<input checked="" type="checkbox"/> : 23:00
	Disable Fan Test	<input checked="" type="checkbox"/> : <input checked="" type="checkbox"/>
Software Watchdog		
	Software Watchdog	<input checked="" type="checkbox"/> : Disabled
	Behavior	<input checked="" type="checkbox"/> : Continue
	Timeout	<input checked="" type="checkbox"/> : 5 Minutes
Time		
	Time Mode	<input checked="" type="checkbox"/> : System RTC
	RTC Time Mode	<input checked="" type="checkbox"/> : Local Time

Setting Item		Setting Value
	Time Zone	<input checked="" type="checkbox"/> : <Any time zone>
Ports and Network Services Settings		
	Telnet Enabled	<input type="checkbox"/>
	Telnet Port (Default: 3172)	<input type="checkbox"/>
	SSH Enabled	<input checked="" type="checkbox"/> : Enabled
	SSH Port (Default: 22)	<input checked="" type="checkbox"/> : 22
SNMP Generic Configuration		
	SNMP Enabled	<input checked="" type="checkbox"/> : Enabled
	SNMP Port (Default: 161)	<input checked="" type="checkbox"/> : 161
	SNMP Service Protocol	<input checked="" type="checkbox"/> : All(SNMPv1/v2c/v3)
	SNMPv1/v2c Community	<input checked="" type="checkbox"/> : <Any community name>
SNMP Trap Destination		
	SNMP Trap Community Name	<input checked="" type="checkbox"/> : <Any community name>
	Destination SNMP Server 1	<input checked="" type="checkbox"/> : <IP address of ISM-VA>
	Protocol	<input checked="" type="checkbox"/> : SNMPv1
Central Authentication Service (CAS)		
	CAS Support	<input checked="" type="checkbox"/> : <input checked="" type="checkbox"/>
CAS Server		
	Server	<input checked="" type="checkbox"/> : <IP address of ISM-VA>
	Network Port	<input checked="" type="checkbox"/> : 25593
	Login Page Display	<input checked="" type="checkbox"/> : <input checked="" type="checkbox"/>
	Login URL	<input checked="" type="checkbox"/> : /cas/login
	Logout URL	<input checked="" type="checkbox"/> : /cas/logout
	Validate URL	<input checked="" type="checkbox"/> : /cas/validate
User Access Configuration		
	Privilege Level	<input checked="" type="checkbox"/> : OEM
	Redfish Role	<input checked="" type="checkbox"/> : Administrator
	User Account Configuration	<input checked="" type="checkbox"/> : <input checked="" type="checkbox"/>
	iRMC Settings Configuration	<input checked="" type="checkbox"/> : <input checked="" type="checkbox"/>
	Video Redirection Usage	<input checked="" type="checkbox"/> : <input checked="" type="checkbox"/>
	Remote Storage Usage	<input checked="" type="checkbox"/> : <input checked="" type="checkbox"/>
BIOS Backup		

Setting Item	Setting Value
Automatic BIOS Parameter Backup	<input checked="" type="checkbox"/> : <input checked="" type="checkbox"/>

4.4.4 Details - [OS] tab

Setting Item	Setting Value
Installation Form	
Installation Method	PXE
Installation Image	
Type of Installation	Full
Type of Installation Media	<Select the type of OS installation media from the list>
ServerView Suite DVD	Install with Latest Version
Management LAN network port settings	
Network port specification	<input checked="" type="checkbox"/>
Method to specify	Port Number
Network Card	PCI card: <Any slot number>
Port Number	0
RAID & Disk Configuration	
Use Array Controller	<input checked="" type="checkbox"/> : Use existing RAID Volume
Volume1	
Volume Label	system
File System	NTFS
Partition Size (Automatic/Manual)	Automatic
Quick Format	Yes
Usage	Boot,OS
Basic Settings	
Time Zone	<Any time zone>
Region and Language	<Any region and language>
Keyboard	<Any keyboard>
System Settings	
Display Resolution [px]	1024x768
Refresh Rate [Hz]	75
# of Colors [bit]	24
Adding Role and Features	
Install SNMP Service	Install
SNMP Trap Setting	
Community Name	<Any community name>
Trap Destination	<IP address of ISM-VA>
Send Authentication Trap	Send
Acception of SNMP Packets	Accept SNMP Packets from Default Host (LocalHost)

Setting Item		Setting Value
	Service	<input checked="" type="checkbox"/> : Application <input checked="" type="checkbox"/> : End-To-End <input checked="" type="checkbox"/> : Ethernet <input type="checkbox"/> : Data Link <input type="checkbox"/> : Physical
	Remote Desktop	<input checked="" type="checkbox"/> : Enable
	Remote Assistance	<input type="checkbox"/> : Allow Remote Assistance Connections to This Computer
	Firewall Settings	<input type="checkbox"/> : Assign Firewall setting necessary to SCVMM registration
	Additional Application	<input checked="" type="checkbox"/> : ServerView Agents <input checked="" type="checkbox"/> : Java Runtime Environment [Note 1] <input checked="" type="checkbox"/> : Software Support Guide <input checked="" type="checkbox"/> : ServerViewRAIDManager
Execute Script after Installation [Note 2]		
	Execute Script after Installation	<input checked="" type="checkbox"/>
	Directory Forwarded to the OS	postscript_ClusterOperation
	Script to Execute	WinSvr_Setting.bat

[Note 1]: If using SVIM V13.18.12 or later, Java can't be installed. Uncheck the check for "Java Runtime Environment."

[Note 2]: This setting item is automatically set by Cluster Creation. Do not set this manually (do not check).

4.4.5 Details - [OS (for each node)] tab

Setting Item		Setting Value
	Type of Installation Media	* The same items as [OS] - [Installation specifications] - [Installation media] displays automatically
	User Name	PRIMEFLEX
	Organization	FUJITSU
	Computer Name	<Any computer name>
	Administrator Password	<Any password>
	Administrator Password (for confirmation)	<Any password>
Work Group / Domain		
	Work Group / Domain Name	<Domain that it currently belongs to> [Note 1]
	Domain User	<User of the domain it currently belongs to>
	Domain Password	<Password of the user of the domain it currently belongs to>
	Domain Password (for confirmation)	<Password of the user of the domain it currently belongs to>
Network - DHCP		
	Enable	<input type="checkbox"/>

Setting Item	Setting Value
IP Address	<Any IP address>
Subnet mask	<Any subnet mask>
Default Gateway	<Any default gateway>
DNS Server1	<input checked="" type="checkbox"/> : <Any DNS server IP address>
DNS Domain Name	<input checked="" type="checkbox"/> : <Domain name of DNS> [Note 1]

[Note 1]: Specify the domain name in UPN (User Principal Name) format.

4.5 Parameter List for Profile Settings - When Expanding a Cluster of PRIMERGY M4 series to PRIMEFLEX HS

Refer to this section if you are expanding a cluster of the successor model PRIMERGY M4 series to PRIMEFLEX HS (PRIMERGY M2 series).

Note

- Do not check the checkboxes for setting values not shown in the following tables.
- Set the setting items for each policy below.
 - BIOS Policy
 - iRMC Policy
 - OS Policy

4.5.1 General Information

Setting Item	Setting Value
Affiliation Group Path	/ProfileGroup/Administrator Forward Match
Profile Name	<Any profile name>
Category	Server-RX or Server-CX
BIOS Policy	<BIOS policy referred to>
iRMC Policy	<iRMC policy referred to>
OS Type	VMware ESXi
OS Policy	<OS policy referred to>
Description	<Optional description>

4.5.2 Details - [BIOS] tab

Setting Item	Setting Value
CPU Configuration	
Hyper-Threading	<input checked="" type="checkbox"/> : Enabled
Intel Virtualization Technology	<input checked="" type="checkbox"/> : Enabled

Setting Item		Setting Value
	Intel Vt-d	<input checked="" type="checkbox"/> : Enabled
	Power Technology	<input checked="" type="checkbox"/> : Custom [Note 1]
	Enhanced Speed Step	<input checked="" type="checkbox"/> : Disabled [Note 2]
	Turbo Mode	<input checked="" type="checkbox"/> : Disabled [Note 2]
	Override OS Energy Performance	<input checked="" type="checkbox"/> : Enabled
	Energy Performance	<input checked="" type="checkbox"/> : Performance
	CPU C1E Support	<input checked="" type="checkbox"/> : Disabled [Note 2]
	CPU C6 Report	<input checked="" type="checkbox"/> : Disabled [Note 2]
	Package C State limit	<input checked="" type="checkbox"/> : C0
Memory Configuration		
	NUMA	<input checked="" type="checkbox"/> : Enabled
	DDR Performance	<input checked="" type="checkbox"/> : Performance optimized
CSM Configuration		
	Launch CSM	<input checked="" type="checkbox"/> : Disabled
Network Stack		
	Network Stack	<input checked="" type="checkbox"/> : Enabled
	IPv4 PXE Support	<input checked="" type="checkbox"/> : Enabled
	IPv6 PXE Support	<input checked="" type="checkbox"/> : Disabled

[Note 1]: In a PRIMERGY RX series configuration, this parameter is not displayed on the "BIOS Settings" screen. However, it is required to be set for setting of [Override OS Energy Performance] and [Energy Performance].

[Note 2]: Setting value set if you are using the configuration of PRIMERGY CX series.

4.5.3 Details - [iRMC] tab

Setting Item		Setting Value
iRMC GUI		
	Default Language	<input checked="" type="checkbox"/> : <Any default language>
Power Management		
	POST Error Halt	<input checked="" type="checkbox"/> : Continue
	Power Restore Policy	<input checked="" type="checkbox"/> : Restore to powered state prior to power loss
	Power Control Mode	<input checked="" type="checkbox"/> : OS Controlled
Fan Test		
	Fan Check Time	<input checked="" type="checkbox"/> : 23:00
	Disable Fan Test	<input checked="" type="checkbox"/> : <input type="checkbox"/>

Setting Item		Setting Value
Software Watchdog		
Software Watchdog		<input checked="" type="checkbox"/> : Disabled
Behavior		<input checked="" type="checkbox"/> : Continue
Timeout		<input checked="" type="checkbox"/> : 5 Minutes
Boot Watchdog		
Boot Watchdog		<input checked="" type="checkbox"/> : Disabled
Behavior		<input checked="" type="checkbox"/> : Continue
Timeout		<input checked="" type="checkbox"/> : 100 Minutes
Time		
Time Mode		<input checked="" type="checkbox"/> : System RTC
RTC Time Mode		<input checked="" type="checkbox"/> : UTC
Time Zone		<input checked="" type="checkbox"/> : <Any time zone>
Ports and Network Services Settings		
Telnet Enabled		<input checked="" type="checkbox"/> : Enabled
Telnet Port (Default: 3172)		<input checked="" type="checkbox"/> : 3172
SSH Enabled		<input checked="" type="checkbox"/> : Enabled
SSH Port (Default: 22)		<input checked="" type="checkbox"/> : 22
SNMP Generic Configuration		
SNMP Enabled		<input checked="" type="checkbox"/> : Enabled
SNMP Port (Default: 161)		<input checked="" type="checkbox"/> : 161
SNMP Service Protocol		<input checked="" type="checkbox"/> : All(SNMPv1/v2c/v3)
SNMPv1/v2c Community		<input checked="" type="checkbox"/> : <Any community name>
SNMP Trap Destination		
SNMP Trap Community Name		<input checked="" type="checkbox"/> : <Any community name>
Destination SNMP Server 1		<input checked="" type="checkbox"/> : <IP address of destination SNMP server1>
Protocol		<input checked="" type="checkbox"/> : SNMPv1

4.5.4 Details - [OS] tab

Setting Item		Setting Value
Installation Form		
Installation Method		PXE
Installation Image		
Type of Installation Media		<Select the type of OS installation media from the list>

Setting Item		Setting Value
ServerView Suite DVD		Install with Latest Version
Management LAN network port settings		
Network port specification		<input checked="" type="checkbox"/>
Method to specify		MAC address
MAC address		Any MAC address
RAID & Disk Configuration		
RAID & Disk Setting		
Do not use Array Controller		<input checked="" type="checkbox"/> : SATA
Basic Settings		
Keyboard		<Any keyboard>
Network		
VLAN ID to Use		0
Execute Script after Installation [Note 1]		
Execute Script after Installation		<input checked="" type="checkbox"/>
The directory of Script		kickstart
Script to Execute		ESXi_Setting.sh

[Note 1]: This setting item is automatically set by Cluster Expansion. Do not set this manually (do not check).

4.5.5 Details - [OS (for each node)] tab

Setting Item		Setting Value
License Agreement		<input checked="" type="checkbox"/>
Type of Installation Media		<Any type of installation media>
Root Password		<Any root password>
Root Password (for confirmation)		<Any root password>
Network		
DHCP		
Enable		<input type="checkbox"/>
IP Address		<Any IP address>
Subnet mask		<Any subnet mask>
Default Gateway		<Any default gateway>
DNS Server		<input checked="" type="checkbox"/> : <IP address of any DNS server>
Get Computer Name from DNS Server		<input type="checkbox"/>
Computer Name		<Any computer name>

4.6 Parameter List for Profile Settings - When Expanding a Cluster of PRIMERGY M4 series to PRIMEFLEX HS

Refer to this section if you are expanding a cluster of the successor model PRIMERGY M5 series to PRIMEFLEX HS (PRIMERGY M2 series).

Note

- Do not check the checkboxes for setting values not shown in the following tables.
- Set the setting items for each policy below.
 - BIOS Policy
 - iRMC Policy
 - OS Policy

4.6.1 General Information

Setting Item	Setting Value
Affiliation Group Path	/ProfileGroup/Administrator Forward Match
Profile Name	<Any profile name>
Category	Server-RX or Server-CX
BIOS Policy	<BIOS policy referred to>
iRMC Policy	<iRMC policy referred to>
OS Type	VMware ESXi
OS Policy	<OS policy referred to>
Description	<Optional description>

4.6.2 Details - [BIOS] tab

Setting Item	Setting Value
CPU Configuration	
Hyper-Threading	<input checked="" type="checkbox"/> : Enabled
Intel Virtualization Technology	<input checked="" type="checkbox"/> : Enabled
Intel Vt-d	<input checked="" type="checkbox"/> : Enabled
Power Technology	<input checked="" type="checkbox"/> : Custom [Note 1]
Enhanced Speed Step	<input checked="" type="checkbox"/> : Disabled [Note 2]
Turbo Mode	<input checked="" type="checkbox"/> : Disabled [Note 2]
Override OS Energy Performance	<input checked="" type="checkbox"/> : Enabled
Energy Performance	<input checked="" type="checkbox"/> : Performance
CPU C1E Support	<input checked="" type="checkbox"/> : Disabled [Note 2]

Setting Item		Setting Value
	CPU C6 Report	<input checked="" type="checkbox"/> : Disabled [Note 2]
	Package C State limit	<input checked="" type="checkbox"/> : C0
Memory Configuration		
	NUMA	<input checked="" type="checkbox"/> : Enabled
	DDR Performance	<input checked="" type="checkbox"/> : Performance optimized
CSM Configuration		
	Launch CSM	<input checked="" type="checkbox"/> : Disabled
Network Stack		
	Network Stack	<input checked="" type="checkbox"/> : Enabled
	IPv4 PXE Support	<input checked="" type="checkbox"/> : Enabled
	IPv6 PXE Support	<input checked="" type="checkbox"/> : Disabled

[Note 1]: In a PRIMERGY RX series configuration, this parameter is not displayed on the "BIOS Settings" screen. However, it is required to be set for setting of [Override OS Energy Performance] and [Energy Performance].

[Note 2]: Setting value set if you are using the configuration of PRIMERGY CX series.

4.6.3 Details - [iRMC] tab

Setting Item		Setting Value
iRMC GUI		
	Default Language	<input checked="" type="checkbox"/> : <Any default language>
Power Management		
	POST Error Halt	<input checked="" type="checkbox"/> : Continue
	Power Restore Policy	<input checked="" type="checkbox"/> : Restore to powered state prior to power loss
	Power Control Mode	<input checked="" type="checkbox"/> : OS Controlled
Fan Test		
	Fan Check Time	<input checked="" type="checkbox"/> : 23:00
	Disable Fan Test	<input checked="" type="checkbox"/> : <input type="checkbox"/>
Software Watchdog		
	Software Watchdog	<input checked="" type="checkbox"/> : Disabled
	Behavior	<input checked="" type="checkbox"/> : Continue
	Timeout	<input checked="" type="checkbox"/> : 5 Minutes
Boot Watchdog		
	Boot Watchdog	<input checked="" type="checkbox"/> : Disabled
	Behavior	<input checked="" type="checkbox"/> : Continue

Setting Item		Setting Value
	Timeout	<input checked="" type="checkbox"/> : 100 Minutes
Time		
	Time Mode	<input checked="" type="checkbox"/> : System RTC
	RTC Time Mode	<input checked="" type="checkbox"/> : UTC
	Time Zone	<input checked="" type="checkbox"/> : <Any time zone>
Ports and Network Services Settings		
	Telnet Enabled	<input checked="" type="checkbox"/> : Enabled
	Telnet Port (Default: 3172)	<input checked="" type="checkbox"/> : 3172
	SSH Enabled	<input checked="" type="checkbox"/> : Enabled
	SSH Port (Default: 22)	<input checked="" type="checkbox"/> : 22
SNMP Generic Configuration		
	SNMP Enabled	<input checked="" type="checkbox"/> : Enabled
	SNMP Port (Default: 161)	<input checked="" type="checkbox"/> : 161
	SNMP Service Protocol	<input checked="" type="checkbox"/> : All(SNMPv1/v2c/v3)
	SNMPv1/v2c Community	<input checked="" type="checkbox"/> : <Any community name>
SNMP Trap Destination		
	SNMP Trap Community Name	<input checked="" type="checkbox"/> : <Any community name>
	Destination SNMP Server 1	<input checked="" type="checkbox"/> : <IP address of destination SNMP server1>
	Protocol	<input checked="" type="checkbox"/> : SNMPv1

4.6.4 Details - [OS] tab

Setting Item		Setting Value
Installation Form		
	Installation Method	PXE
Installation Image		
	Type of Installation Media	<Select the type of OS installation media from the list>
	ServerView Suite DVD	Install with Latest Version
Management LAN network port settings		
	Network port specification	<input checked="" type="checkbox"/>
	Method to specify	MAC address
	MAC address	Any MAC address
RAID & Disk Configuration		
	RAID & Disk Setting	
	Do not use Array Controller	<input checked="" type="checkbox"/> : SATA [Note 1]

Setting Item		Setting Value
	Use Array Controller	<input checked="" type="checkbox"/> : Use existing RAID Volume (Select it even though RAID is not used.) [Note 2]
Basic Settings		
	Keyboard	<Any keyboard>
Network		
	VLAN ID to Use	0
Execute Script after Installation [Note 3]		
	Execute Script after Installation	<input checked="" type="checkbox"/>
	The directory of Script	kickstart
	Script to Execute	ESXi_Setting.sh

[Note 1]: Specifies for boot device (M.2) nonredundancy configuration.

[Note 2]: Specifies for boot device (M.2) redundancy configuration.

[Note 3]: This setting item is automatically set by Cluster Expansion. Do not set this manually (do not check).

4.6.5 Details - [OS (for each node)] tab

Setting Item		Setting Value
	License Agreement	<input checked="" type="checkbox"/>
	Type of Installation Media	<Any type of installation media>
	Root Password	<Any root password>
	Root Password (for confirmation)	<Any root password>
Network		
	DHCP	
	Enable	<input type="checkbox"/>
	IP Address	<Any IP address>
	Subnet mask	<Any subnet mask>
	Default Gateway	<Any default gateway>
	DNS Server	<input checked="" type="checkbox"/> : <IP address of any DNS server>
	Get Computer Name from DNS Server	<input type="checkbox"/>
	Computer Name	<Any computer name>

4.7 Parameter List for Profile Settings - When Expanding a Cluster of PRIMERGY M5 series to PRIMEFLEX for VMware vSAN V1

Refer to this section if you are expanding a cluster of the successor model PRIMERGY M5 series to PRIMEFLEX for VMware vSAN V1 (PRIMERGY M4 series).

Note

- Do not check the checkboxes for setting values not shown in the following tables.

- Set the setting items for each policy below.
- BIOS Policy
- iRMC Policy
- OS Policy

4.7.1 General Information

Setting Item	Setting Value
Affiliation Group Path	/ProfileGroup/Administrator Forward Match
Profile Name	<Any profile name>
Category	Server-RX or Server-CX
BIOS Policy	<BIOS policy referred to>
iRMC Policy	<iRMC policy referred to>
OS Type	VMware ESXi
OS Policy	<OS policy referred to>
Description	<Optional description>

4.7.2 Details - [BIOS] tab

Setting Item	Setting Value
CPU Configuration	
Hyper-Threading	<input checked="" type="checkbox"/> : Enabled
Intel Virtualization Technology	<input checked="" type="checkbox"/> : Enabled
Intel Vt-d	<input checked="" type="checkbox"/> : Enabled
Power Technology	<input checked="" type="checkbox"/> : Custom [Note 1]
Enhanced Speed Step	<input checked="" type="checkbox"/> : Disabled [Note 2]
Turbo Mode	<input checked="" type="checkbox"/> : Disabled [Note 2]
Override OS Energy Performance	<input checked="" type="checkbox"/> : Enabled
Energy Performance	<input checked="" type="checkbox"/> : Performance
CPU C1E Support	<input checked="" type="checkbox"/> : Disabled [Note 2]
CPU C6 Report	<input checked="" type="checkbox"/> : Disabled [Note 2]
Package C State limit	<input checked="" type="checkbox"/> : C0
Memory Configuration	
NUMA	<input checked="" type="checkbox"/> : Enabled
DDR Performance	<input checked="" type="checkbox"/> : Performance optimized
CSM Configuration	

Setting Item		Setting Value
	Launch CSM	<input checked="" type="checkbox"/> : Disabled
Network Stack		
	Network Stack	<input checked="" type="checkbox"/> : Enabled
	IPv4 PXE Support	<input checked="" type="checkbox"/> : Enabled
	IPv6 PXE Support	<input checked="" type="checkbox"/> : Disabled

[Note 1]: In a PRIMERGY RX series configuration, this parameter is not displayed on the "BIOS Settings" screen. However, it is required to be set for setting of [Override OS Energy Performance] and [Energy Performance].

[Note 2]: Setting value set if you are using the configuration of PRIMERGY CX series.

4.7.3 Details - [iRMC] tab

Setting Item		Setting Value
iRMC GUI		
	Default Language	<input checked="" type="checkbox"/> : <Any default language>
Power Management		
	POST Error Halt	<input checked="" type="checkbox"/> : Continue
	Power Restore Policy	<input checked="" type="checkbox"/> : Restore to powered state prior to power loss
	Power Control Mode	<input checked="" type="checkbox"/> : OS Controlled
Fan Test		
	Fan Check Time	<input checked="" type="checkbox"/> : 23:00
	Disable Fan Test	<input checked="" type="checkbox"/> : <input type="checkbox"/>
Software Watchdog		
	Software Watchdog	<input checked="" type="checkbox"/> : Disabled
	Behavior	<input checked="" type="checkbox"/> : Continue
	Timeout	<input checked="" type="checkbox"/> : 5 Minutes
Boot Watchdog		
	Boot Watchdog	<input checked="" type="checkbox"/> : Disabled
	Behavior	<input checked="" type="checkbox"/> : Continue
	Timeout	<input checked="" type="checkbox"/> : 100 Minutes
Time		
	Time Mode	<input checked="" type="checkbox"/> : System RTC
	RTC Time Mode	<input checked="" type="checkbox"/> : UTC
	Time Zone	<input checked="" type="checkbox"/> : <Any time zone>
Ports and Network Services Settings		

Setting Item		Setting Value
	Telnet Enabled	<input checked="" type="checkbox"/> : Enabled
	Telnet Port (Default: 3172)	<input checked="" type="checkbox"/> : 3172
	SSH Enabled	<input checked="" type="checkbox"/> : Enabled
	SSH Port (Default: 22)	<input checked="" type="checkbox"/> : 22
SNMP Generic Configuration		
	SNMP Enabled	<input checked="" type="checkbox"/> : Enabled
	SNMP Port (Default: 161)	<input checked="" type="checkbox"/> : 161
	SNMP Service Protocol	<input checked="" type="checkbox"/> : All(SNMPv1/v2c/v3)
	SNMPv1/v2c Community	<input checked="" type="checkbox"/> : <Any community name>
SNMP Trap Destination		
	SNMP Trap Community Name	<input checked="" type="checkbox"/> : <Any community name>
	Destination SNMP Server 1	<input checked="" type="checkbox"/> : <IP address of destination SNMP server1>
	Protocol	<input checked="" type="checkbox"/> : SNMPv1
BIOS Backup		
	Automatic BIOS Parameter Backup	<input checked="" type="checkbox"/> : <input checked="" type="checkbox"/>

4.7.4 Details - [OS] tab

Setting Item		Setting Value
Installation Form		
	Installation Method	PXE
Installation Image		
	Type of Installation Media	<Select the type of OS installation media from the list>
	ServerView Suite DVD	Install with Latest Version
Management LAN network port settings		
	Network port specification	<input checked="" type="checkbox"/>
	Method to specify	MAC address
	MAC address	Any MAC address
RAID & Disk Configuration		
	RAID & Disk Setting	
	Do not use Array Controller	<input checked="" type="checkbox"/> : SATA [Note 1]
	Use Array Controller	<input checked="" type="checkbox"/> : Use existing RAID Volume (Select it even though RAID is not used.) [Note 2]
Basic Settings		
	Keyboard	<Any keyboard>
Network		

Setting Item		Setting Value
VLAN ID to Use		0
Execute Script after Installation [Note 3]		
Execute Script after Installation		<input checked="" type="checkbox"/>
The directory of Script		kickstart
Script to Execute		ESXi_Setting.sh

[Note 1]: Specifies for boot device (M.2) nonredundancy configuration.

[Note 2]: Specifies for boot device (M.2) redundancy configuration.

[Note 3]: This setting item is automatically set by Cluster Expansion. Do not set this manually (do not check).

4.7.5 Details - [OS (for each node)] tab

Setting Item		Setting Value
License Agreement		<input checked="" type="checkbox"/>
Type of Installation Media		<Any type of installation media>
Root Password		<Any root password>
Root Password (for confirmation)		<Any root password>
Network		
DHCP		
Enable		<input type="checkbox"/>
IP Address		<Any IP address>
Subnet mask		<Any subnet mask>
Default Gateway		<Any default gateway>
DNS Server		<input checked="" type="checkbox"/> : <IP address of any DNS server>
Get Computer Name from DNS Server		<input type="checkbox"/>
Computer Name		<Any computer name>

4.8 Parameter List for Profile Settings - When Expanding a Cluster of PRIMERGY M5 series to PRIMEFLEX for Microsoft Storage Spaces Direct V1

Refer to this section if you are expanding a cluster of the successor model PRIMERGY M5 series to PRIMEFLEX for Microsoft Storage Spaces Direct (PRIMERGY M4 series).



Note

- Do not check the checkboxes for setting values not shown in the following tables.
- Set the setting items for each policy below.
 - BIOS Policy
 - iRMC Policy

4.8.1 General Information

Setting Item	Setting Value
Affiliation Group Path	/ProfileGroup/Administrator
Profile Name	<Any profile name>
Category	Server-RX
BIOS Policy	<BIOS policy referred to>
iRMC Policy	<iRMC policy referred to>
OS Type	Windows Server
OS Policy	<OS policy referred to>
Description	<Optional description>

4.8.2 Details - [BIOS] tab

Setting Item	Setting Value
CPU Configuration	
Hyper-Threading	<input checked="" type="checkbox"/> : Enabled
Intel Virtualization Technology	<input checked="" type="checkbox"/> : Enabled
Intel Vt-d	<input checked="" type="checkbox"/> : Enabled
Power Technology	<input checked="" type="checkbox"/> : Custom
Override OS Energy Performance	<input checked="" type="checkbox"/> : Enabled
Energy Performance	<input checked="" type="checkbox"/> : Performance
Package C State limit	<input checked="" type="checkbox"/> : C0
Memory Configuration	
NUMA	<input checked="" type="checkbox"/> : Enabled
Option ROM Configuration (Exclude slot numbers that do not exist on the servers.)	
Launch Slot 1 OpROM	<input checked="" type="checkbox"/> : Enabled [Note 1] [Note 2]
Launch Slot 2 OpROM	<input checked="" type="checkbox"/> : Enabled [Note 1] [Note 2]
Launch Slot 3 OpROM	<input checked="" type="checkbox"/> : Enabled [Note 1] [Note 2]
Launch Slot 4 OpROM	<input checked="" type="checkbox"/> : Enabled [Note 1]
Launch Slot 7 OpROM	<input checked="" type="checkbox"/> : Enabled [Note 2]
Launch Slot 8 OpROM	<input checked="" type="checkbox"/> : Enabled [Note 2]
Launch Slot 9 OpROM	<input checked="" type="checkbox"/> : Enabled [Note 2]
CSM Configuration	
Launch CSM	<input checked="" type="checkbox"/> : Disabled

Setting Item		Setting Value
Network Stack		
	Network Stack	<input checked="" type="checkbox"/> : Enabled
	IPv4 PXE Support	<input checked="" type="checkbox"/> : Enabled
	IPv6 PXE Support	<input checked="" type="checkbox"/> : Disabled

[Note 1]: Specify this item for PRIMERGY RX2530 M5.

[Note 2]: Specify this item for PRIMERGY RX2540 M5.

4.8.3 Details - [iRMC] tab

Setting Item		Setting Value
iRMC GUI		
	Default Language	<input checked="" type="checkbox"/> : <Any default language>
Power Management		
	POST Error Halt	<input checked="" type="checkbox"/> : Continue
	Power Restore Policy	<input checked="" type="checkbox"/> : Restore to powered state prior to power loss
	Power Control Mode	<input checked="" type="checkbox"/> : OS Controlled
Fan Test		
	Fan Check Time	<input checked="" type="checkbox"/> : 23:00
	Disable Fan Test	<input checked="" type="checkbox"/> : <input checked="" type="checkbox"/>
Software Watchdog		
	Software Watchdog	<input checked="" type="checkbox"/> : Disabled
	Behavior	<input checked="" type="checkbox"/> : Continue
	Timeout	<input checked="" type="checkbox"/> : 5 Minutes
Time		
	Time Mode	<input checked="" type="checkbox"/> : System RTC
	RTC Time Mode	<input checked="" type="checkbox"/> : Local Time
	Time Zone	<input checked="" type="checkbox"/> : <Any time zone>
Ports and Network Services Settings		
	Telnet Enabled	<input checked="" type="checkbox"/> : Enabled
	Telnet Port (Default: 3172)	<input checked="" type="checkbox"/> : 3172
	SSH Enabled	<input checked="" type="checkbox"/> : Enabled
	SSH Port (Default: 22)	<input checked="" type="checkbox"/> : 22
SNMP Generic Configuration		
	SNMP Enabled	<input checked="" type="checkbox"/> : Enabled

Setting Item		Setting Value
	SNMP Port (Default: 161)	<input checked="" type="checkbox"/> : 161
	SNMP Service Protocol	<input checked="" type="checkbox"/> : All(SNMPv1/v2c/v3)
	SNMPv1/v2c Community	<input checked="" type="checkbox"/> : <Any community name>
SNMP Trap Destination		
	SNMP Trap Community Name	<input checked="" type="checkbox"/> : <Any community name>
	Destination SNMP Server 1	<input checked="" type="checkbox"/> : <IP address of ISM-VA>
	Protocol	<input checked="" type="checkbox"/> : SNMPv1

4.8.4 Details - [OS] tab

Setting Item		Setting Value
Installation Form		
	Installation Method	PXE
Installation Image		
	Type of Installation	Full
	Type of Installation Media	<Select the type of OS installation media from the list>
	ServerView Suite DVD	Install with Latest Version
Management LAN network port settings		
	Network port specification	<input checked="" type="checkbox"/>
	Method to specify	Port Number
	Network Card	PCI card: <Any slot number>
	Port Number	0
RAID & Disk Configuration		
	Use Array Controller	<input checked="" type="checkbox"/> : Use existing RAID Volume
Volume1		
	Volume Label	system
	File System	NTFS
	Partition Size (Automatic/Manual)	Automatic
	Quick Format	Yes
	Usage	Boot,OS
Basic Settings		
	Time Zone	<Any time zone>
	Region and Language	<Any region and language>
	Keyboard	<Any keyboard>
System Settings		
	Display Resolution [px]	1024x768
	Refresh Rate [Hz]	75
	# of Colors [bit]	24

Setting Item	Setting Value
Adding Role and Features	
Install SNMP Service	Install
SNMP Trap Setting	
Community Name	<Any community name>
Trap Destination	<IP address of ISM-VA >
Send Authentication Trap	Send
Acception of SNMP Packets	Accept SNMP Packets from Default Host (LocalHost)
Service	<input checked="" type="checkbox"/> : Application <input checked="" type="checkbox"/> : End-To-End <input checked="" type="checkbox"/> : Ethernet <input type="checkbox"/> : Data Link <input type="checkbox"/> : Physical
Remote Desktop	<input checked="" type="checkbox"/> : Enable
Remote Assistance	<input type="checkbox"/> : Allow Remote Assistance Connections to This Computer
Firewall Settings	<input type="checkbox"/> : Assign Firewall setting necessary to SCVMM registration
Additional Application	<input checked="" type="checkbox"/> : Java Runtime Environment [Note 1] <input checked="" type="checkbox"/> : Software Support Guide <input checked="" type="checkbox"/> : ServerViewRAIDManager
Execute Script after Installation [Note 2]	
Execute Script after Installation	<input checked="" type="checkbox"/> :
Directory Forwarded to the OS	postscript_ClusterOperation
Script to Execute	WinSvr_Setting.bat

[Note 1]: If using SVIM V13.18.12 or later, Java can't be installed. Uncheck the check for "Java Runtime Environment."

[Note 2]: This setting item is automatically set by Cluster Expansion. Do not set this manually (do not check).

4.8.5 Details - [OS (for each node)] tab

Setting Item	Setting Value
Type of Installation Media	* The same items as [OS] - [Installation specifications] - [Installation media] displays automatically
User Name	PRIMEFLEX
Organization	FUJITSU
Computer Name	<Any computer name>
Administrator Password	<Any password>
Administrator Password (for confirmation)	<Any password>
Work Group / Domain	
Work Group / Domain Name	<Domain that it currently belongs to> [Note 1]

Setting Item		Setting Value
	Domain User	<User of the domain it currently belongs to>
	Domain Password	<Password of the user of the domain it currently belongs to>
	Domain Password (for confirmation)	<Password of the user of the domain it currently belongs to>
Network - DHCP		
	Enable	<input type="checkbox"/>
	IP Address	<Any IP address>
	Subnet mask	<Any subnet mask>
	Default Gateway	<Any default gateway>
	DNS Server1	<input checked="" type="checkbox"/> : <Any DNS server IP address>
	DNS Domain Name	<input checked="" type="checkbox"/> : <Domain name of DNS> [Note 1]

[Note 1]: Specify the domain name in UPN (User Principal Name) format.