

Infrastructure Manager for PRIMEFLEX V3.1.0

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 Infrastructure Manager for PRIMEFLEX (hereafter referred to as "ISM for PRIMEFLEX"), which adds functions for expanding virtualized platforms to 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.

Product Manuals

Manual Name	Description
Infrastructure Manager / Infrastructure Manager for PRIMEFLEX V3.1.0 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."
Infrastructure Manager / Infrastructure Manager for PRIMEFLEX V3.1.0 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."
Infrastructure Manager / Infrastructure Manager for PRIMEFLEX V3.1.0 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."
Infrastructure Manager / Infrastructure Manager for PRIMEFLEX V3.1.0 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."
Infrastructure Manager / Infrastructure Manager for PRIMEFLEX V3.1.0 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."
Infrastructure Manager for PRIMEFLEX V3.1.0 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."
Infrastructure Manager / Infrastructure Manager for PRIMEFLEX V3.1.0 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)."
Infrastructure Manager for PRIMEFLEX V3.1.0 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."
Infrastructure Manager / Infrastructure Manager for PRIMEFLEX V3.1.0 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."

Manual Name	Description
Infrastructure Manager / Infrastructure Manager for PRIMEFLEX V3.1.0 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. - 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 Manager - Infrastructure Manager Plug-in for VMware vRealize Orchestrator - Infrastructure Manager Plug-in for Microsoft Windows Admin Center 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 Fsas Technologies 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.

<https://support.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.



Point

Describes the content of an important point.



Note

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) 2022 Datacenter	Windows Server 2022 Datacenter	Windows Server 2022 or Windows
Microsoft(R) Windows Server(R) 2022 Standard	Windows Server 2022 Standard	
Microsoft(R) Windows Server(R) 2022 Essentials	Windows Server 2022 Essentials	
Red Hat Enterprise Linux 9.3 (for Intel64)	RHEL 9.3	Red Hat Enterprise Linux or Linux
SUSE Linux Enterprise Server 15 SP5 (for AMD64 & Intel64)	SUSE 15 SP5(AMD64) SUSE 15 SP5(Intel64) or SLES 15 SP5(AMD64) SLES 15 SP5(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 ESXi™ 8.0	VMware ESXi 8.0	VMware ESXi
VMware Virtual SAN	vSAN	
Microsoft Storage Spaces Direct	S2D	
AlmaLinux OS Foundation	AlmaLinux	

In this document, VMware by Broadcom is referred to as VMware.

Terms

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

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- Saving to a text file
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Modification History

Edition	Issue Date	Modification Overview	Section	
01	March 2025	First edition	-	-
02	May 2025	Added AlmaLinux description	Preface	Table in "Abbreviation"

Edition	Issue Date	Modification Overview	Section	
	Modification for ISM 3.1.0.010 patch application			
	May 2025 Reorganization of the manual and modification of content	Modified description due to the name change to Fsas Technologies	-	-

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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.



Point

CMS stands for cloud management software.

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	-

Setting Item		Setting Value	Modification
	Security Log (days)	7	-
	Archived Log (generations)	7	-
	Log Collection Target		
	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 "6.8.2.3 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 User	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		
	Enable Redfish/Web UI User	Enable	-
	Redfish Role	Administrator	-
	IPMI Privileges		
	LAN Channel Privilege	OEM	-
	Serial Channel Privilege	OEM	-
	Enable User Account Configuration	Enable	-
	Enable iRMC Setting Configuration	Enable	-
	AVR Permissions		
	Enable Video Redirection	Enable	-
	Enable Remote Storage	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]			
	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		

Setting Item		Setting Value	Modification
	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]: 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]			

Setting Item		Setting Value	Modification
	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 [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 [Note 6]	-
	tos maxdist [Note 7]	[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 set if you are using the PRIMERGY M4 series/PRIMERGY M5 series.

[Note 7]: 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	-

Setting Item		Setting Value	Modification
	Datastore with All Paths Down	Disable	-
	Monitor the virtual machine	Enable	-
	Monitor an application	Disable	-
	Detailed option das.registerRestartDisabledVMs	false	-
	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]*	-

Setting Item	Setting Value	Modification
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]*	-
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	-	-

Setting Item		Setting Value	Modification
	Policy Settings Traffic shaping Burst size	-	-
	Policy Settings Teaming and failover Load balancing	Route based on originating virtual port	-
	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 - 5 [Note 3]	-
	Cache	SSD	-
	Capacity	When the storage configuration is Hybrid: HDD When the storage configuration is All Flash: SSD	-

[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.

[Note 3]: The maximum number of disk groups is different for each host configuring a new cluster.

Table 1.2 Maximum number of disk groups for each host configuring a new cluster

Hosts configuring a new cluster	Maximum number of disk groups
PRIMERGY RX2530 M4	3
PRIMERGY RX2540 M4	5
PRIMERGY CX2560 M4	2
PRIMERGY RX2530 M5	3
PRIMERGY RX2540 M5	5
PRIMERGY CX2560 M5	2
PRIMERGY RX4770 M5	4
PRIMERGY RX2530 M6	4
PRIMERGY RX2540 M6	5
PRIMERGY RX2530 M7	5
PRIMERGY RX2540 M7	5

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			
	Management traffic	Check	-
	VLANID	0	-
	MTU	1500	-
	Management IP address	[Node Details] - [vDS] tab - [vDS] - [Port Group<Network Port Group for Management>] - [IPv4 Address]*	-
	subnet mask	[Node Details] - [vDS] tab - [vDS] - [Port Group<Network Port Group for Management>] - [IPv4 Subnet Mask]*	-
	Failback	True	-
	uplink1	[Node Details] - [vDS] tab - [vDS] - [Physical NIC<uplink1>] - [vmnic name<vmnic2>]* [Note 1]	-
	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]*	-

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

[Note 1]: For PRIMERGY RX4770 M5, enter a vmnic name that is appropriate for your environment.

[Note 2]: The SSD for the cache is set based on the size and number of disks:

- For two types of disk space

The smaller of the two SSDs (when the number of SSDs is the same, the smaller the disk capacity) is set up as the cache SSD.

- For a single type of disk space

One SSD is configured as the SSD for the cache.

The PRIMERGY RX2540 M6 with more than one SAS controller card is configured per SAS controller card with the above assignments.

[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			
	Management traffic	Check	-
	VLANID	0	-
	MTU	1500	-
	Management IP address	[Node Details] - [vDS] tab - [vDS] - [Port Group<Network Port Group for Management>] - [IPv4 Address]*	-
	subnet mask	[Node Details] - [vDS] tab - [vDS] - [Port Group<Network Port Group for Management>] - [IPv4 Subnet Mask]*	-
	Failback	True	-
	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]*	-
	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]*	-

Setting Item		Setting Value	Modification
	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]: The SSD for the cache is set based on the size and number of disks:

- For two types of disk space

The smaller of the two SSDs (when the number of SSDs is the same, the smaller the disk capacity) is set up as the cache SSD.

- For a single type of disk space

One SSD is configured as the SSD for the 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 1.3 Automatic setting values of vmnic name and uplink name

Setting Item	Setting Value	
	PRIMERGY RX M4 series / PRIMERGY RX M5 series / PRIMERGY RX M6 series	PRIMERGY CX M4 series / PRIMERGY CX M5 series
vmnic name	- vDS-1 (Virtual distributed switch for workload)	- vDS-1 (Virtual distributed switch for workload)

Setting Item	Setting Value	
	PRIMERGY RX M4 series / PRIMERGY RX M5 series / PRIMERGY RX M6 series	PRIMERGY CX M4 series / PRIMERGY CX M5 series
	Workload port#1: vmnic1 [Note 1] Workload port#2: vmnic3 [Note 1] [Note 2] - 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	Workload port#1: vmnic2 Workload port#2: vmnic4 [Note 2] - 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	- vDS-1 (Virtual distributed switch for workload) Workload port#1: Uplink2 Workload port#2: Uplink4 - vDS-2 (Virtual distributed switch for management) - 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	- vDS-1 (Virtual distributed switch for workload) Workload port#1: Uplink2 Workload port#2: Uplink4 - vDS-2 (Virtual distributed switch for management) - 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 RX4770 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.

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]*	Y
[Properties] tab		
Web I/F URL	https://<IP address of iRMC>/	Y
[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	Y
	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 "6.8.2.3 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 User	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			
	Enable Redfish/Web UI User	Enable	N	
	Redfish Role	Administrator	N	
	IPMI Privileges			
	LAN Channel Privilege	OEM	N	
	Serial Channel Privilege	OEM	N	
	Enable User Account Configuration	Enable	N	
	Enable iRMC Setting Configuration	Enable	N	
	AVR Permissions			
	Enable Video Redirection	Enable	N	
	Enable Remote Storage	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]		
LDAP Enabled	true	Y
LDAP SSL Enabled	false	Y
Disable Local Login	[Cluster Details] - [LDAP] tab - [Local User Login]*	Y
Always use SSL Login	[Cluster Details] - [LDAP] tab - [Always use TLS/SSL Login]*	Y
Directory Server Type	[Cluster Details] - [LDAP] tab - [Directory Server Type]*	Y
Domain name	[Cluster Details] - [LDAP] tab - [Domain Name]*	Y
Department name	[Cluster Details] - [LDAP] tab - [Division]*	Y
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]: 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]		
Enable LDAP	true	Y
Enable LDAP SSL	false	Y
Disable Local Login	[Cluster Details] - [LDAP] tab - [Local User Login]*	Y
Directory Server Type	[Cluster Details] - [LDAP] tab - [Directory Server Type]*	Y
Domain Name	[Cluster Details] - [LDAP] tab - [Domain Name]*	Y
Department Name	[Cluster Details] - [LDAP] tab - [Division]*	Y
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]: 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 [Note 8]	-
	tos maxdist [Note 9]	[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 set if you are using the PRIMERGY M2 series/PRIMERGY M4 series/PRIMERGY M5 series.

[Note 9]: 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 - 5 [Note 2]	N
	Cache	SSD	N
	Capacity	When the storage configuration is Hybrid: HDD When the storage configuration is All Flash: SSD	N

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

[Note 2]: The maximum number of disk groups is different for each host for expanding a cluster.

Table 2.2 Maximum number of disk groups for each host for expanding a cluster

Added hosts when expanding a new cluster	Maximum number of disk groups
PRIMERGY RX2530 M2	2
PRIMERGY RX2540 M2	4
PRIMERGY CX2550 M2	1
PRIMERGY RX2530 M4	3

Added hosts when expanding a new cluster	Maximum number of disk groups
PRIMERGY RX2540 M4	5
PRIMERGY CX2560 M4	2
PRIMERGY RX2530 M5	3
PRIMERGY RX2540 M5	5
PRIMERGY CX2560 M5	2
PRIMERGY RX4770 M5	4
PRIMERGY RX2530 M6	4
PRIMERGY RX2540 M6	5
PRIMERGY RX2530 M7	5
PRIMERGY RX2540 M7	5

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		
Management traffic	-	-
VLANID	-	-
MTU	-	-
Management IP address	-	-
subnet mask	-	-
Failback	-	-
uplink1	-	-
uplink2	-	-
vmk0	-	-
Virtual Distribution Switch (vDS) - Virtual switch for management		
Management traffic	Check	-
VLANID	0	-
MTU	1500	-
Management IP address	[Node Details] - [vDS] tab - [vDS] - [Port Group<Network Port Group for Management>] - [IPv4 Address]*	-
subnet mask	[Node Details] - [vDS] tab - [vDS] - [Port Group<Network Port Group for Management>] - [IPv4 Subnet Mask]*	-
Failback	True	-
uplink1	[Node Details] - [vDS] tab - [vDS] - [Physical NIC<uplink1>] - [vmnic name<vmnic0>]* [Note 1] [Note 2]	N

Setting Item		Setting Value	Modification
		[Node Details] - [vDS] tab - [vDS] - [Physical NIC<uplink1>] - [vmnic name<vmnic2>]* [Note 2] [Note 3]	
	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			
	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]	-

Setting Item		Setting Value	Modification
	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 RX4770 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:

The SSD for the cache is set based on the size and number of disks:

- For two types of disk space

The smaller of the two SSDs (when the number of SSDs is the same, the smaller the disk capacity) is set up as the cache SSD.

- For a single type of disk space

One SSD is configured as the SSD for the cache.

The PRIMERGY RX2540 M6 with more than one SAS controller card is configured per SAS controller card with the above assignments.

[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]	-
	VLANID	0 [Note 1] - [Note 2]	-
	MTU	1500 [Note 1] - [Note 2]	-
	Management IP address	[Node Details] - [vDS] tab - [vDS] - [Port Group<Network Port Group for Management>] - [IPv4 Address]* [Note 1] - [Note 2]	-

Setting Item		Setting Value	Modification
	subnet mask	[Node Details] - [vDS] tab - [vDS] - [Port Group <Network Port Group for Management>] - [IPv4 Subnet mask]* [Note 1] - [Note 2]	-
	Failback	True [Note 1] - [Note 2]	-
	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			
	Management traffic	- [Note 1] Check [Note 2]	-
	VLANID	- [Note 1] 0 [Note 2]	-
	MTU	- [Note 1] 1500 [Note 2]	-
	Management IP address	- [Note 1] [Node Details] - [vDS] tab - [vDS] - [Port Group<Network Port Group for Management>] - [IPv4 Address]* [Note 2]	-
	subnet mask	- [Note 1] [Node Details] - [vDS] tab - [vDS] - [Port Group <Network Port Group for Management>] - [IPv4 Subnet mask]* [Note 2]	-
	Failback	- [Note 1] True [Note 2]	-
	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

Setting Item		Setting Value	Modification
	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	- [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:

The SSD for the cache is set based on the size and number of disks:

- For two types of disk space

The smaller of the two SSDs (when the number of SSDs is the same, the smaller the disk capacity) is set up as the cache SSD.

- For a single type of disk space

One SSD is configured as the SSD for the cache.

The PRIMERGY RX2540 M6 with more than one SAS controller card is configured per SAS controller card with the above assignments.

[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 2.3 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 - vDS-1 (Virtual distributed switch for workload) - Workload port#1: vmnic1 - Workload port#2: vmnic3 [Note 1] - vDS-2 (Virtual distributed switch for management) - 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 If the case is PRIMEFLEX for VMware vSAN [Note 2] [PRIMERGY RX M4 series / PRIMERGY RX M5 series / PRIMERGY RX M6 series] - 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) - Network Port Group for Management - Active: vmnic2 [Note 3] - Standby: vmnic4 [Note 1] [Note 3]	If the case is PRIMEFLEX HS [PRIMERGY CX M2 series] - vDS-1 (Virtual distributed switch for management) - Network Port Group for Management - Active: vmnic0 - Active: vmnic1 - vDS-2 (Virtual distributed switch for management and workload) - Network Port Group for vMotion - Active: vmnic2 - Standby: vmnic3 - Network Port Group for vSAN - Active: vmnic3 - Standby: vmnic2 [PRIMERGY CX M4 series / PRIMERGY CX M5 series] - vDS-1 (Virtual distributed switch for management) - Network Port Group for Management - Active: vmnic1 - Active: vmnic2 - vDS-2 (Virtual distributed switch for management and workload) - 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
	- 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] [PRIMERGY CX M4 series / PRIMERGY CX M5 series] - vDS-1 (Virtual distributed switch for workload) Workload port#1: vmnic2 Workload port#2: vmnic4 [Note 1] - 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	If the case is PRIMEFLEX HS /PRIMEFLEX for VMware vSAN - vDS-1 (Virtual distributed switch for workload) Workload port#1: Uplink2 Workload port#2: Uplink4 - vDS-2 (Virtual distributed switch for management) - 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 - vDS-1 (Virtual distributed switch for management) - Network Port Group for Management Active: Uplink1 Active: Uplink2 - vDS-2 (Virtual distributed switch for management/workload) - 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 RX4770 M5, enter a vmnic name that is appropriate for your environment.

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.

Point

CMS stands for cloud management software.

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	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	Hybrid or All Flash

Setting Item	Description	Setting Value
	Default: Hybrid	
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 set when creating new Cluster Definition Parameters.

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]	- 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]	Specify whether to automatically register the host (A/PTR) records of servers for creating a new cluster. If you set it to "Enable" it will be registered automatically. - Enable - Disable Default: Disable	- 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]	Specify the communication system and the port number of the WinRM service of the DNS server. - Communication system - HTTPS - HTTP Default: HTTPS - Port Number - 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	- Communication system HTTPS or HTTP - Port Number - For HTTPS: 5986 - For HTTP: 5985

Setting Item	Description	Setting Value
	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	
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 ADVm 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 ADVm or the link with Active Directory using AD servers in your environment (clear the checkbox for [LDAP] tab - [Activate LDAP Settings]).

Setting Item	Description	Setting Value
Activate LDAP Settings [Note 1]	Specify whether to enable LDAP settings. ☒ : Enable ☐ : 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

Setting Item	Description	Setting Value
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 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 (clear the checkbox for the [LDAP] tab - [Activate LDAP Settings]). If [Activate LDAP Settings] is selected, 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	Isolation Response Address 1

Setting Item		Description	Setting Value
		Normally the IP address of the Virtual SAN Network of the first node configuring the cluster is set.	
	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			
	Add Disks to Storage	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 1] Arbitrary value [Note 2]

[Note 1]: If the Storage Configuration is "Hybrid," set this parameter.

[Note 2]: 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	Arbitrary value

Setting Item			Description	Setting Value
			Default: 30 (Management), 100 (vSAN), 70 (vMotion)	
		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 [Note 8]
		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 [Note 6]
		IPv4 Subnet Mask	IPv4 subnet mask of the VMkernel adapter	Arbitrary value [Note 6]
		Traffic	Traffic - Management	vDS-1 - -

Setting Item				Description	Setting Value
				- vSAN - vMotion	vDS-2 - 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 7]	
				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. If the existing cluster is in a PRIMEFLEX HS configuration, specify a different [Port Group Name] than the existing cluster, even if it is the same [vDS Name] as 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]: You can specify the following combinations of IP address and subnet mask ranges.

IP address	Subnet mask
10.0.0.0 - 10.255.255.255	255.0.0.0
172.16.0.0 - 172.31.255.255	255.240.0.0
192.168.0.0 - 192.168.255.255	255.255.0.0

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

[Note 8]: Specify "0" to create a cluster for PRIMERGY M7.

3.1.8 Cluster Details - [Storage Pool] tab

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

[Note]: 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]
Profile	Select the profile name managed by ISM.	Arbitrary value

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

For information on the target server model that can be selected, refer to "Support Matrix."

<https://support.ts.fujitsu.com/index.asp>

Select [Select a new Product] on the above site and enter "Infrastructure Manager" in [Product Search:].

Select [DOWNLOADS] and select the target operating system.

The reference procedures are subject to change without notice.

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]	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]	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]	Password set for the iRMC administrator user	Arbitrary value
Password (Confirmation) [Note]	Password set for the iRMC administrator user (Confirmation)	Arbitrary value

[Note]: This parameter is not included in Export/Import of Cluster Definition Parameters. You must set the item by editing Cluster Definition Parameters. For PRIMERGY RX2530 M7/PRIMERGY RX2540 M7 or later, make sure that the password to contain 12 or more characters and to contain at least 3 classes from lowercase letter, uppercase letter, number, and special character.

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]	Password set for the OS administrator user	Arbitrary value
Password (Confirmation) [Note]	Password set for the OS administrator user	Arbitrary value (Confirmation)

[Note]: 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	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 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	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]

Setting Item		Description	Setting Value
			- 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]
	Traffic [Note 1]	Traffic - Management - vSAN - vMotion	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]
	IPv4 Address [Note 2]	IPv4 address of the VMkernel adapter	Arbitrary value [Note 3]

[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]).

[Note 3]: You can specify the following IP address ranges:

10.0.0.0 - 10.255.255.255

172.16.0.0 - 172.31.255.255

192.168.0.0 - 192.168.255.255

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])	Expansion option #1	vmnic2	Uplink2
	PCI card #1	vmnic4	Uplink4
vDS-2 (Virtual distributed switch for management [Note])	Expansion option #0	vmnic1	Uplink1
	PCI card #0	vmnic3	Uplink3

[Note]: 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 RX4770 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 3.3 When creating clusters for PRIMEFLEX for VMware vSAN PRIMERGY RX M6 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 3.4 When creating clusters for PRIMEFLEX for VMware vSAN PRIMERGY RX M7 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 [Note 2]	Uplink4
vDS-2 (Virtual distributed switch for management [Note 1])	Expansion option #0	vmnic1	Uplink1
	PCI card #0	vmnic3 [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.

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. 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 3.5 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 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.
- For network configuration, if you manually increase or decrease the number of workload virtual machine port groups for vDS-1 in the real environment from the environment configured with PRIMEFLEX HS/PRIMEFLEX for VMware vSAN implementation service,

there will be differences in the display of the following items in vCenter and Cluster Definition Parameters, but the operation will not be affected.

"3. Cluster Details" screen - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-1] - [Port Group]

3.2.1 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
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.

3.2.2 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 I [Note 3] Type II [Note 4]

Setting Item	Description	Setting Value
	- Type II Default: 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.

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

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

3.2.3 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]	- 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]	Specify whether to automatically register the host (A/PTR) records of servers for expanding a cluster. If you set it to "Enable" it will be registered automatically. - Enable - Disable Default: Disable	- 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]	Specify the communication system and the port number of the WinRM service of the DNS server. - Communication system - HTTPS - HTTP Default: HTTPS - Port Number - 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	- Communication system HTTPS or HTTP - Port Number - For HTTPS: 5986 - For HTTP: 5985

Setting Item	Description	Setting Value
	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	
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.

3.2.4 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

3.2.5 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 (clear the checkbox for [LDAP] tab - [Activate LDAP Settings]).

Setting Item	Description	Setting Value
Activate LDAP Settings [Note 1]	Specify whether to enable LDAP settings. ☒ : Enable ☐ : Disable Default: Disable	Arbitrary value
Domain Name	Domain name of LDAP server	Domain name of LDAP server [Note 2]

Setting Item	Description	Setting Value
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 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 (clear the checkbox for the [LDAP] tab - [Activate LDAP Settings]). If [Activate LDAP Settings] is selected, 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.

3.2.6 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			
	Add Disks to Storage	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 1] Arbitrary value [Note 2]

[Note 1]: If the Storage Configuration is "Hybrid," set this parameter.

[Note 2]: If the Storage Configuration is "All-Flash," set this parameter.

3.2.7 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	Management, vSAN, vMotion

Setting Item				Description	Setting Value
			- 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) 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	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		

Setting Item		Description	Setting Value
			- 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 [Note 7]
	IPv4 Subnet Mask	IPv4 subnet mask of the VMkernel adapter	Arbitrary value [Note 7]
	Traffic [Note 6]	Traffic - Management - vSAN traffic - vMotion	Network Configuration: Type I - vDS-1 - - - vDS-2 - Network port group for management: Management - Network port group for vSAN: vSAN - Network port group for vMotion: vMotion Network Configuration: Type II - 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 - Uplink 1 - Uplink 2 - Uplink 3 - Uplink 4	Refer to " Setting values for vmnic name and uplink name when expanding a cluster "

Setting Item				Description	Setting Value
			Failover Priority Settings [Note 8]		
			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]: 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]: You can specify the following combinations of IP address and subnet mask ranges.

IP address	Subnet mask
10.0.0.0 - 10.255.255.255	255.0.0.0
172.16.0.0 - 172.31.255.255	255.240.0.0
192.168.0.0 - 192.168.255.255	255.255.0.0

[Note 8]: If you specify [Port Group Name], you can specify [How to Distribute] and [Priority Order] by selecting the [Set] button.

3.2.8 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

3.2.9 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]
Profile	Select the profile name managed by ISM.	Arbitrary value

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

For information on the target server model that can be selected, refer to "Support Matrix."

<https://support.ts.fujitsu.com/index.asp>

Select [Select a new Product] on the above site and enter "Infrastructure Manager" in [Product Search:].

Select [DOWNLOADS] and select the target operating system.

The reference procedures are subject to change without notice.

3.2.10 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]	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]	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]	Password set for the iRMC administrator user	Arbitrary value
	Password (Confirmation) [Note]	Password set for the iRMC administrator user (Confirmation)	Arbitrary value

[Note]: This parameter is not included in Export/Import of Cluster Definition Parameters. You must set the item by editing Cluster Definition Parameters. For PRIMERGY RX2530 M7/PRIMERGY RX2540 M7 or later, make sure that the password to contain 12 or more characters and to contain at least 3 classes from lowercase letter, uppercase letter, number, and special character.

3.2.11 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]	Password set for the OS administrator user	Arbitrary value
	Password (Confirmation) [Note]	Password set for the OS administrator user	Arbitrary value (Confirmation)

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

3.2.12 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	Setting value specified in [Cluster Details] - [Network] tab - [vSAN

Setting Item		Description	Setting Value
		- Uplink 2 - Uplink 3 - Uplink 4	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	Network Configuration: Type I - 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>] - [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 in [Cluster Details] - [Network] tab - [vSAN Distributed Switch Settings] - [vDS-2] - [Port Group<Virtual Machine port group for management>] - [Type] Network Configuration: Type II - vDS-1 - Network port group for management: Setting value specified in [Cluster Details] - [Network] tab - [vSAN

Setting Item			Description	Setting Value
				Distributed Switch Settings] - [vDS-1] - [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 - 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]
			Traffic [Note 1] Traffic - Management traffic - vMotion traffic - vSAN traffic	Network Configuration: Type I - 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

Setting Item			Description	Setting Value
				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] Network Configuration: Type II - 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] - 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 3]

[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]).

[Note 3]: You can specify the following IP address ranges:

10.0.0.0 - 10.255.255.255

172.16.0.0 - 172.31.255.255

192.168.0.0 - 192.168.255.255

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

The settings depend on the pattern of cluster expansion (the combination of the existing server series before the expansion and the additional server series).

Refer to the table below for setting values for each pattern.

Pattern	Series	
	Servers configured in the cluster	Servers for Cluster Expansion
Pattern 1	PRIMERGY CX M2	PRIMERGY CX M2
Pattern 2	PRIMERGY CX M2	PRIMERGY CX M4
	PRIMERGY CX M2	PRIMERGY CX M5
Pattern 3	PRIMERGY CX M4	PRIMERGY CX M4
	PRIMERGY CX M4	PRIMERGY CX M5
	PRIMERGY CX M5	PRIMERGY CX M5
	PRIMERGY RX M5	PRIMERGY RX M7
	PRIMERGY RX M6	PRIMERGY RX M7
	PRIMERGY RX M7	PRIMERGY RX M7
Pattern 4	PRIMERGY RX M2	PRIMERGY RX M2
	PRIMERGY RX M4	PRIMERGY RX M6
	PRIMERGY RX M5	PRIMERGY RX M6
	PRIMERGY RX M6	PRIMERGY RX M6
Pattern 5	PRIMERGY RX M2	PRIMERGY RX M4
	PRIMERGY RX M2	PRIMERGY RX M5
	PRIMERGY RX M4	PRIMERGY RX M4
	PRIMERGY RX M4	PRIMERGY RX M5
	PRIMERGY RX M5	PRIMERGY RX M5

Table 3.6 Pattern 1

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

[Note]: This is the default setting value.

Table 3.7 Pattern 2

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

[Note]: This is the default setting value.

Table 3.8 Pattern 3

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 [Note 2]	Uplink4
vDS-2 (Virtual distributed switch for management [Note 1])	Expansion option #0	vmnic1	Uplink1
	PCI card #0	vmnic3 [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 3.9 Pattern 4

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 3.10 Pattern 5

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 RX4770 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. 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 3.11 Example of vmnic numbers

Onboard	Port location	vmnic number
No onboard port	Expansion option port 0	vmnic0

Onboard	Port location	vmnic number
	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

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 select 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	☒ : Enabled
Intel Virtualization Technology	☒ : Enabled
Intel Vt-d	☒ : Enabled
Power Technology	☒ : Custom [Note 1]
Enhanced Speed Step	☒ : Disabled [Note 2]
Turbo Mode	☒ : Disabled [Note 2]

Setting Item		Setting Value
	Override OS Energy Performance	☒ : Enabled
	Energy Performance	☒ : Performance
	CPU C1E Support	☒ : Disabled [Note 2]
	CPU C6 Report	☒ : Disabled [Note 2]
	Package C State Limit	☒ : C0
Memory Configuration		
	NUMA	☒ : Enabled
	DDR Performance	☒ : Performance optimized
CSM Configuration		
	Launch CSM	☒ : Disabled
Network Stack		
	Network Stack	☒ : Enabled
	IPv4 PXE Support	☒ : Enabled
	IPv6 PXE Support	☒ : 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	☒ : <Any default language>
Power Management		
	POST Error Halt	☒ : Continue
	Power Restore Policy	☒ : Restore to powered state prior to power loss
	Power Control Mode	☒ : OS Controlled
Fan Test		
	Fan Check Time	☒ : 23:00
	Disable Fan Test	☒ : ☐ Disable Fan Test
Software Watchdog		
	Software Watchdog	☒ : Disabled
	Behavior	☒ : Continue
	Timeout	☒ : 5 Minutes

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

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 Latest Version
Management LAN network port settings		

Setting Item		Setting Value
	Network port specification	☒ Specify the network port used for Management LAN.
	Method to specify	MAC address
	MAC address	<Any MAC address>
RAID & Disk Configuration		
	RAID & Disk Setting	
	Do not use Array Controller	☒ : SATA
Basic Settings		
	Keyboard	<Any keyboard>
Network		
	VLAN ID to Use	0
Execute Script after Installation [Note]		
	Execute Script after Installation	☒ Enabled
	The directory of Script	kickstart
	Script to Execute	ESXi_Setting.sh

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

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

Setting Item		Setting Value
License Agreement		☒ Agree with VMware License
Type of Installation Media		<Any type of installation media>
Root Password		<Any root password>
Root Password (for confirmation)		<Any root password>
Network		
	DHCP	☐ Enabled
	IP Address	<Any IP address>
	Subnet mask	<Any subnet mask>
	Default Gateway	<Any default gateway>
	DNS Server	☒ : <IP address of any DNS server>
	Get Computer Name from DNS Server	☐ Enabled
	Computer Name	<Any computer name> [Note]

[Note]: Cluster Creation/Expansion will fail if a computer name is specified using only numbers.

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 select 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	☒ : Enabled
Intel Virtualization Technology	☒ : Enabled
Intel Vt-d	☒ : Enabled
Power Technology	☒ : Custom [Note 1]
Enhanced Speed Step	☒ : Disabled [Note 2]
Turbo Mode	☒ : Disabled [Note 2]
Override OS Energy Performance	☒ : Enabled
Energy Performance	☒ : Performance
CPU C1E Support	☒ : Disabled [Note 2]
CPU C6 Report	☒ : Disabled [Note 2]
Package C State Limit	☒ : C0
Memory Configuration	
NUMA	☒ : Enabled

Setting Item		Setting Value
	DDR Performance	☒ : Performance optimized
CSM Configuration		
	Launch CSM	☒ : Disabled
Network Stack		
	Network Stack	☒ : Enabled
	IPv4 PXE Support	☒ : Enabled
	IPv6 PXE Support	☒ : 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	☒ : <Any default language>
Power Management		
	POST Error Halt	☒ : Continue
	Power Restore Policy	☒ : Restore to powered state prior to power loss
	Power Control Mode	☒ : OS Controlled
Fan Test		
	Fan Check Time	☒ : 23:00
	Disable Fan Test	☒ : ☐ Disable Fan Test
Software Watchdog		
	Software Watchdog	☒ : Disabled
	Behavior	☒ : Continue
	Timeout	☒ : 5 Minutes
Boot Watchdog		
	Boot Watchdog	☒ : Disabled
	Behavior	☒ : Continue
	Timeout	☒ : 100 Minutes
Time		
	Time Mode	☒ : System RTC
	RTC Time Mode	☒ : UTC

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

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 Latest Version
Management LAN network port settings		
	Network port specification	☒ Specify the network port used for Management LAN.
	Method to specify	MAC address
	MAC address	<Any MAC address>
Boot mode specification		
	Boot mode	☒ : ☐ Specify the boot mode
RAID & Disk Configuration		
	RAID & Disk Setting	
	Do not use Array Controller	☒ : SATA [Note 1]

Setting Item		Setting Value
	Use Array Controller	☒ : 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	☒ : Enabled
	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 select).

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

Setting Item		Setting Value
License Agreement		☒ Agree with VMware License
Type of Installation Media		<Any type of installation media>
Root Password		<Any root password>
Root Password (for confirmation)		<Any root password>
Network		
	DHCP	☐ Enabled
	IP Address	<Any IP address>
	Subnet mask	<Any subnet mask>
	Default Gateway	<Any default gateway>
	DNS Server	☒ : <IP address of any DNS server>
	DNS Domain Name	☒ : ☐ Enabled
	Get Computer Name from DNS Server	☐ Enabled
	Computer Name	<Any computer name> [Note]

[Note]: Cluster Creation/Expansion will fail if a computer name is specified using only numbers.

4.3 Parameter List for Profile Settings - When Creating a Cluster of PRIMEFLEX for VMware vSAN V3

Refer to this section if you are creating a cluster of PRIMEFLEX for VMware vSAN V3 (PRIMERGY M6 series).



Note

- Do not select 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

4.3.1 General Information

Setting Item	Setting Value
Affiliation Group Path	/ProfileGroup/Administrator Forward Match
Profile Name	<Any profile name>
Category	Server-RX
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>

4.3.2 Details - [BIOS] tab

Setting Item		Setting Value
CPU Configuration		
	Hyper-Threading	☒ : Enabled
	Intel Virtualization Technology	☒ : Enabled
	Intel Vt-d	☒ : Enabled
	Power Technology	☒ : Custom [Note]
	Enhanced Speed Step	☒ : Disabled
	Turbo Mode	☒ : Disabled
	Override OS Energy Performance	☒ : Enabled
	Energy Performance	☒ : Performance
	CPU C1E Support	☒ : Disabled
	CPU C6 Report	☒ : Disabled
	Package C State Limit	☒ : C0
Memory Configuration		
	NUMA	☒ : Enabled

Setting Item		Setting Value
	DDR Performance	☒ : Performance optimized
Network Stack		
	Network Stack	☒ : Enabled
	IPv4 PXE Support	☒ : Enabled
	IPv6 PXE Support	☒ : Disabled

[Note]: 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].

4.3.3 Details - [iRMC] tab

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

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

4.3.4 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 Latest Version
Management LAN network port settings		
	Network port specification	☒ Specify the network port used for Management LAN.
	Method to specify	MAC address
	MAC address	<MAC address of the port on the PCI card>
Boot mode specification		
	Boot mode	☒ : ☐ Specify the boot mode
RAID & Disk Configuration		
	RAID & Disk Setting	
	Do not use Array Controller	☒ : SATA [Note 2]
	Use Array Controller	☒ : Use existing RAID Volume (Select it even though RAID is not used.) [Note 3]
Basic Settings		
	Keyboard	<Any keyboard>
Network		
	VLAN ID to Use	0

Setting Item		Setting Value
Execute Script after Installation [Note 1]		
	Execute Script after Installation	☒ Enabled
	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 select).

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

[Note 3]: Specifies for boot device (M.2) redundancy configuration.

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

Setting Item		Setting Value
License Agreement		☒ Agree with VMware License
Type of Installation Media		<Any type of installation media>
Root Password		<Any root password>
Root Password (for confirmation)		<Any root password>
Network		
	DHCP	☐ Enabled
	IP Address	<Any IP address>
	Subnet mask	<Any subnet mask>
	Default Gateway	<Any default gateway>
	DNS Server	☒ : <IP address of any DNS server>
	DNS Domain Name	☒ : ☐ Enabled
	Get Computer Name from DNS Server	☐ Enabled
	Computer Name	<Any computer name> [Note]

[Note]: Cluster Creation/Expansion will fail if a computer name is specified using only numbers.

4.4 Parameter List for Profile Settings - When Creating a Cluster of PRIMEFLEX for VMware vSAN V4

Refer to this section if you are creating a cluster of PRIMEFLEX for VMware vSAN V4 (PRIMERGY M7 series).



Note

- Do not select 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 Forward Match
Profile Name	<Any profile name>
Category	Server-RX
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>

4.4.2 Details - [BIOS] tab

Setting Item		Setting Value
CPU Configuration		
	Hyper-Threading	☒ : Enabled
	Intel Virtualization Technology	☒ : Enabled
	Intel Vt-d	☒ : Enabled
	Power Technology	☒ : Custom [Note]
	Enhanced Speed Step	☒ : Enabled
	Turbo Mode	☒ : Enabled
	Override OS Energy Performance	☒ : Enabled
	Energy Performance	☒ : Performance
	CPU C1E Support	☒ : Enabled
	CPU C6 Report	☒ : Enabled
	Package C State Limit	☒ : C0
Memory Configuration		
	NUMA	☒ : Enabled
	DDR Performance	☒ : Performance optimized
Network Stack		
	Network Stack	☒ : Enabled
	IPv4 PXE Support	☒ : Enabled
	IPv6 PXE Support	☒ : Disabled

[Note]: 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].

4.4.3 Details - [iRMC] tab

Setting Item		Setting Value
iRMC GUI		
	Default Language	☒ : <Any default language>
Power Management		
	POST Error Halt	☒ : Continue
	Power Restore Policy	☒ : Restore to powered state prior to power loss
	Power Control Mode	☒ : OS Controlled
Fan Test		
	Fan Check Time	☒ : 23:00
	Disable Fan Test	☒ : ☐ Disable Fan Test
Software Watchdog		
	Software Watchdog	☒ : Disabled
	Behavior	☒ : Continue
	Timeout	☒ : 5 Minutes
Boot Watchdog		
	Boot Watchdog	☒ : Disabled
	Behavior	☒ : Continue
	Timeout	☒ : 100 Minutes
Time		
	Time Mode	☒ : System RTC
	RTC Time Mode	☒ : UTC
	Time Zone	☒ : <Any time zone>
Ports and Network Services Settings		
	SSH Enabled	☒ : Enabled
	SSH Port (Default: 22)	☒ : 22
SNMP Generic Configuration		
	SNMP Enabled	☒ : Enabled
	SNMP Port (Default: 161)	☒ : 161
	SNMP Service Protocol	☒ : All(SNMPv1/v2c/v3)
	SNMPv1/v2c Community	☒ : <Any community name>
SNMP Trap Destination		
	SNMP Trap Community Name	☒ : <Any community name>

Setting Item		Setting Value
	Destination SNMP Server 1	☒ : <IP address of destination SNMP server1>
	Protocol	☒ : SNMPv1
BIOS Backup		
	Automatic BIOS Parameter Backup	☒ : ☒ Enable Parameter Backup

4.4.4 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 Latest Version
Management LAN network port settings		
	Network port specification	☒ Specify the network port used for Management LAN.
	Method to specify	MAC address
	MAC address	<MAC address of the port on the PCI card>
Boot mode specification		
	Boot mode	☒ : ☐ Specify the boot mode
RAID & Disk Configuration		
	RAID & Disk Setting	
	Do not use Array Controller	☒ : <Any boot device> [Note 2]
	Use Array Controller	☒ : Use existing RAID Volume (Select it even though RAID is not used.) [Note 3]
Basic Settings		
	Keyboard	<Any keyboard>
Network		
	VLAN ID to Use	0
Execute Script after Installation [Note 1]		
	Execute Script after Installation	☒ Enabled
	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 select).

[Note 2]: Specifies for boot device (M.2) nonredundancy configuration. Select [SATA] or [PCIeSSD] depending on the type of boot device (M.2).

[Note 3]: Specifies for boot device (M.2) redundancy configuration.

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

Setting Item		Setting Value	
License Agreement		☒ Agree with VMware License	
Type of Installation Media		<Any type of installation media>	
Root Password		<Any root password>	
Root Password (for confirmation)		<Any root password>	
Network			
	DHCP		☐ Enabled
		IP Address	<Any IP address>
		Subnet mask	<Any subnet mask>
		Default Gateway	<Any default gateway>
		DNS Server	☒ : <IP address of any DNS server>
		DNS Domain Name	☒ : ☐ Enabled
		Get Computer Name from DNS Server	☐ Enabled
		Computer Name	<Any computer name> [Note]

[Note]: Cluster Creation/Expansion will fail if a computer name is specified using only numbers.

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 select 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

Setting Item	Setting Value
OS Policy	<OS policy referred to>
Description	<Optional description>

4.5.2 Details - [BIOS] tab

Setting Item		Setting Value
CPU Configuration		
	Hyper-Threading	☒ : Enabled
	Intel Virtualization Technology	☒ : Enabled
	Intel Vt-d	☒ : Enabled
	Power Technology	☒ : Custom [Note 1]
	Enhanced Speed Step	☒ : Disabled [Note 2]
	Turbo Mode	☒ : Disabled [Note 2]
	Override OS Energy Performance	☒ : Enabled
	Energy Performance	☒ : Performance
	CPU C1E Support	☒ : Disabled [Note 2]
	CPU C6 Report	☒ : Disabled [Note 2]
	Package C State Limit	☒ : C0
Memory Configuration		
	NUMA	☒ : Enabled
	DDR Performance	☒ : Performance optimized
CSM Configuration		
	Launch CSM	☒ : Disabled
Network Stack		
	Network Stack	☒ : Enabled
	IPv4 PXE Support	☒ : Enabled
	IPv6 PXE Support	☒ : 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	☒ : <Any default language>

Setting Item		Setting Value
Power Management		
	POST Error Halt	☒ : Continue
	Power Restore Policy	☒ : Restore to powered state prior to power loss
	Power Control Mode	☒ : OS Controlled
Fan Test		
	Fan Check Time	☒ : 23:00
	Disable Fan Test	☒ : ☐ Disable Fan Test
Software Watchdog		
	Software Watchdog	☒ : Disabled
	Behavior	☒ : Continue
	Timeout	☒ : 5 Minutes
Boot Watchdog		
	Boot Watchdog	☒ : Disabled
	Behavior	☒ : Continue
	Timeout	☒ : 100 Minutes
Time		
	Time Mode	☒ : System RTC
	RTC Time Mode	☒ : UTC
	Time Zone	☒ : <Any time zone>
Ports and Network Services Settings		
	Telnet Enabled	☒ : Enabled
	Telnet Port (Default: 3172)	☒ : 3172
	SSH Enabled	☒ : Enabled
	SSH Port (Default: 22)	☒ : 22
SNMP Generic Configuration		
	SNMP Enabled	☒ : Enabled
	SNMP Port (Default: 161)	☒ : 161
	SNMP Service Protocol	☒ : All(SNMPv1/v2c/v3)
	SNMPv1/v2c Community	☒ : <Any community name>
SNMP Trap Destination		
	SNMP Trap Community Name	☒ : <Any community name>
	Destination SNMP Server 1	☒ : <IP address of destination SNMP server1>

Setting Item		Setting Value
	Protocol	☒ : 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>
	ServerView Suite DVD	Install Latest Version
Management LAN network port settings		
	Network port specification	☒ Specify the network port used for Management LAN.
	Method to specify	MAC address
	MAC address	<Any MAC address>
RAID & Disk Configuration		
	RAID & Disk Setting	
	Do not use Array Controller	☒ : SATA
Basic Settings		
	Keyboard	<Any keyboard>
Network		
	VLAN ID to Use	0
Execute Script after Installation [Note]		
	Execute Script after Installation	☒ : Enabled
	The directory of Script	kickstart
	Script to Execute	ESXi_Setting.sh

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

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

Setting Item		Setting Value
License Agreement		☒ Agree with VMware License
Type of Installation Media		<Any type of installation media>
Root Password		<Any root password>
Root Password (for confirmation)		<Any root password>
Network		
	DHCP	☐ Enabled
	IP Address	<Any IP address>
	Subnet mask	<Any subnet mask>
	Default Gateway	<Any default gateway>

Setting Item		Setting Value
	DNS Server	☒ : <IP address of any DNS server>
	Get Computer Name from DNS Server	☐ Enabled
	Computer Name	<Any computer name> [Note]

[Note]: Cluster Creation/Expansion will fail if a computer name is specified using only numbers.

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 select 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	☒ : Enabled
Intel Virtualization Technology	☒ : Enabled
Intel Vt-d	☒ : Enabled
Power Technology	☒ : Custom [Note 1]

Setting Item		Setting Value
	Enhanced Speed Step	☒ : Disabled [Note 2]
	Turbo Mode	☒ : Disabled [Note 2]
	Override OS Energy Performance	☒ : Enabled
	Energy Performance	☒ : Performance
	CPU C1E Support	☒ : Disabled [Note 2]
	CPU C6 Report	☒ : Disabled [Note 2]
	Package C State Limit	☒ : C0
Memory Configuration		
	NUMA	☒ : Enabled
	DDR Performance	☒ : Performance optimized
CSM Configuration		
	Launch CSM	☒ : Disabled
Network Stack		
	Network Stack	☒ : Enabled
	IPv4 PXE Support	☒ : Enabled
	IPv6 PXE Support	☒ : 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	☒ : <Any default language>
Power Management		
	POST Error Halt	☒ : Continue
	Power Restore Policy	☒ : Restore to powered state prior to power loss
	Power Control Mode	☒ : OS Controlled
Fan Test		
	Fan Check Time	☒ : 23:00
	Disable Fan Test	☒ : ☐ Disable Fan Test
Software Watchdog		
	Software Watchdog	☒ : Disabled

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

Setting Item		Setting Value
	Network port specification	☒ Specify the network port used for Management LAN.
	Method to specify	MAC address
	MAC address	<Any MAC address>
RAID & Disk Configuration		
	RAID & Disk Setting	
	Do not use Array Controller	☒ : SATA [Note 1]
	Use Array Controller	☒ : 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	☒ : Enabled
	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 select).

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

Setting Item		Setting Value
License Agreement		☒ Agree with VMware License
Type of Installation Media		<Any type of installation media>
Root Password		<Any root password>
Root Password (for confirmation)		<Any root password>
Network		
	DHCP	☐ Enabled
	IP Address	<Any IP address>
	Subnet mask	<Any subnet mask>
	Default Gateway	<Any default gateway>
	DNS Server	☒ : <IP address of any DNS server>
	Get Computer Name from DNS Server	☐ Enabled
	Computer Name	<Any computer name> [Note]

[Note]: Cluster Creation/Expansion will fail if a computer name is specified using only numbers.

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 select 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	☒ : Enabled
	Intel Virtualization Technology	☒ : Enabled
	Intel Vt-d	☒ : Enabled
	Power Technology	☒ : Custom [Note 1]
	Enhanced Speed Step	☒ : Disabled [Note 2]
	Turbo Mode	☒ : Disabled [Note 2]
	Override OS Energy Performance	☒ : Enabled
	Energy Performance	☒ : Performance
	CPU C1E Support	☒ : Disabled [Note 2]

Setting Item		Setting Value
	CPU C6 Report	☒ : Disabled [Note 2]
	Package C State Limit	☒ : C0
Memory Configuration		
	NUMA	☒ : Enabled
	DDR Performance	☒ : Performance optimized
CSM Configuration		
	Launch CSM	☒ : Disabled
Network Stack		
	Network Stack	☒ : Enabled
	IPv4 PXE Support	☒ : Enabled
	IPv6 PXE Support	☒ : 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	☒ : <Any default language>
Power Management		
	POST Error Halt	☒ : Continue
	Power Restore Policy	☒ : Restore to powered state prior to power loss
	Power Control Mode	☒ : OS Controlled
Fan Test		
	Fan Check Time	☒ : 23:00
	Disable Fan Test	☒ : ☐ Disable Fan Test
Software Watchdog		
	Software Watchdog	☒ : Disabled
	Behavior	☒ : Continue
	Timeout	☒ : 5 Minutes
Boot Watchdog		
	Boot Watchdog	☒ : Disabled
	Behavior	☒ : Continue

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

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 Latest Version
Management LAN network port settings		
	Network port specification	☒ Specify the network port used for Management LAN.
	Method to specify	MAC address
	MAC address	<Any MAC address>
RAID & Disk Configuration		

Setting Item		Setting Value
RAID & Disk Setting		
	Do not use Array Controller	☒ : SATA [Note 1]
	Use Array Controller	☒ : 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	☒ Enabled
	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 select).

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

Setting Item		Setting Value
License Agreement		☒ Agree with VMware License
Type of Installation Media		<Any type of installation media>
Root Password		<Any root password>
Root Password (for confirmation)		<Any root password>
Network		
	DHCP	☐ Enabled
	IP Address	<Any IP address>
	Subnet mask	<Any subnet mask>
	Default Gateway	<Any default gateway>
	DNS Server	☒ : <IP address of any DNS server>
	Get Computer Name from DNS Server	☐ Enabled
	Computer Name	<Any computer name> [Note]

[Note]: Cluster Creation/Expansion will fail if a computer name is specified using only numbers.

4.8 Parameter List for Profile Settings - When Expanding a Cluster of PRIMERGY M6 series to PRIMEFLEX for VMware vSAN V1/V2

Refer to this section if you are expanding a cluster of the successor model PRIMERGY M6 series to PRIMEFLEX for VMware vSAN V1 (PRIMERGY M4 series) and PRIMEFLEX for VMware vSAN V2 (PRIMERGY M5 series).



Note

- Do not select 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

4.8.1 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>

4.8.2 Details - [BIOS] tab

Setting Item	Setting Value
CPU Configuration	
Hyper-Threading	☒ : Enabled
Intel Virtualization Technology	☒ : Enabled
Intel Vt-d	☒ : Enabled
Power Technology	☒ : Custom [Note]
Enhanced Speed Step	☒ : Disabled
Turbo Mode	☒ : Disabled
Override OS Energy Performance	☒ : Enabled
Energy Performance	☒ : Performance
CPU C1E Support	☒ : Disabled
CPU C6 Report	☒ : Disabled
Package C State Limit	☒ : C0
Memory Configuration	
NUMA	☒ : Enabled

Setting Item		Setting Value
	DDR Performance	☒ : Performance optimized
Network Stack		
	Network Stack	☒ : Enabled
	IPv4 PXE Support	☒ : Enabled
	IPv6 PXE Support	☒ : Disabled

[Note]: 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].

4.8.3 Details - [iRMC] tab

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

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

4.8.4 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 Latest Version
Management LAN network port settings		
	Network port specification	☒ Specify the network port used for Management LAN.
	Method to specify	MAC address
	MAC address	<Any MAC address>
RAID & Disk Configuration		
	RAID & Disk Setting	
	Do not use Array Controller	☒ : SATA[Note 2]
	Use Array Controller	☒ : Use existing RAID Volume (Select it even though RAID is not used.) [Note 3]
Basic Settings		
	Keyboard	<Any keyboard>
Network		
	VLAN ID to Use	0

Setting Item		Setting Value
Execute Script after Installation [Note 1]		
	Execute Script after Installation	☒ Enabled
	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 select).

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

[Note 3]: Specifies for boot device (M.2) redundancy configuration.

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

Setting Item		Setting Value
License Agreement		☒ Agree with VMware License
Type of Installation Media		<Any type of installation media>
Root Password		<Any root password>
Root Password (for confirmation)		<Any root password>
Network		
	DHCP	☐ Enabled
	IP Address	<Any IP address>
	Subnet Mask	<Any subnet mask>
	Default Gateway	<Any default gateway>
	DNS Server	☒ : <IP address of any DNS server>
	Get Computer Name from DNS Server	☐ Enabled
	Computer Name	<Any computer name> [Note]

[Note]: Cluster Creation/Expansion will fail if a computer name is specified using only numbers.

4.9 Parameter List for Profile Settings - When Expanding a Cluster of PRIMERGY M7 series to PRIMEFLEX for VMware vSAN V2

Refer to this section if you are expanding a cluster of the successor model PRIMERGY M7 series to PRIMEFLEX for VMware vSAN V2 (PRIMERGY M5 series).



Note

- Do not select 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

4.9.1 General Information

Setting Item	Setting Value
Affiliation Group Path	/ProfileGroup/Administrator Forward Match
Profile Name	<Any profile name>
Category	Server-RX
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>

4.9.2 Details - [BIOS] tab

Setting Item		Setting Value
CPU Configuration		
	Hyper-Threading	☒ : Enabled
	Intel Virtualization Technology	☒ : Enabled
	Intel Vt-d	☒ : Enabled
	Power Technology	☒ : Custom [Note]
	Enhanced Speed Step	☒ : Enabled
	Turbo Mode	☒ : Enabled
	Override OS Energy Performance	☒ : Enabled
	Energy Performance	☒ : Performance
	CPU C1E Support	☒ : Enabled
	CPU C6 Report	☒ : Enabled
	Package C State Limit	☒ : C0
Memory Configuration		
	NUMA	☒ : Enabled
	DDR Performance	☒ : Performance optimized
Network Stack		
	Network Stack	☒ : Enabled
	IPv4 PXE Support	☒ : Enabled
	IPv6 PXE Support	☒ : Disabled

[Note]: 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].

4.9.3 Details - [iRMC] tab

Setting Item		Setting Value
iRMC GUI		
	Default Language	☒ : <Any default language>
Power Management		
	POST Error Halt	☒ : Continue
	Power Restore Policy	☒ : Restore to powered state prior to power loss
	Power Control Mode	☒ : OS Controlled
Fan Test		
	Fan Check Time	☒ : 23:00
	Disable Fan Test	☒ : ☐ Disable Fan Test
Software Watchdog		
	Software Watchdog	☒ : Disabled
	Behavior	☒ : Continue
	Timeout	☒ : 5 Minutes
Boot Watchdog		
	Boot Watchdog	☒ : Disabled
	Behavior	☒ : Continue
	Timeout	☒ : 100 Minutes
Time		
	Time Mode	☒ : System RTC
	RTC Time Mode	☒ : UTC
	Time Zone	☒ : <Any time zone>
Ports and Network Services Settings		
	Telnet Enabled	☒ : Enabled
	Telnet Port (Default: 3172)	☒ : 3172
	SSH Enabled	☒ : Enabled
	SSH Port (Default: 22)	☒ : 22
SNMP Generic Configuration		
	SNMP Enabled	☒ : Enabled
	SNMP Port (Default: 161)	☒ : 161
	SNMP Service Protocol	☒ : All(SNMPv1/v2c/v3)
	SNMPv1/v2c Community	☒ : <Any community name>

Setting Item		Setting Value
SNMP Trap Destination		
	SNMP Trap Community Name	☒ : <Any community name>
	Destination SNMP Server 1	☒ : < IP address of destination SNMP server1>
	Protocol	☒ : SNMPv1
BIOS Backup		
	Automatic BIOS Parameter Backup	☒ : ☒ Enable Parameter Backup

4.9.4 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 Latest Version
Management LAN network port settings		
	Network port specification	☒ Specify the network port used for Management LAN.
	Method to specify	Mac Address
	MAC Address	<MAC address of the port on the PCI card>
Boot mode specification		
	Boot mode	☒ : ☐ Specify the boot mode
RAID & Disk Configuration		
	RAID & Disk Setting	
	Do not use Array Controller	☒ : <Any boot device> [Note 2]
	Use Array Controller	☒ : Use existing RAID Volume (Select it even though RAID is not used.) [Note 3]
Basic Settings		
	Keyboard	<Any keyboard>
Network		
	VLAN ID to Use	0
Execute Script after Installation [Note 1]		
	Execute Script after Installation	☒ Enabled
	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 select).

[Note 2]: Specifies for boot device (M.2) nonredundancy configuration. Select [SATA] or [PCIeSSD] depending on the type of boot device (M.2).

[Note 3]: Specifies for boot device (M.2) redundancy configuration.

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

Setting Item		Setting Value	
License Agreement		☒ Agree with VMware License	
Type of Installation Media		<Any type of installation media>	
Root Password		<Any root password>	
Root Password (for confirmation)		<Any root password>	
Network			
	DHCP		☐ Enabled
		IP Address	<Any IP address>
		Subnet Mask	<Any subnet mask>
		Default Gateway	<Any default gateway>
		DNS Server	☒ : <IP address of any DNS server>
		DNS Domain Name	☒ : ☐ Enabled
		Get Computer Name from DNS Server	☐ Enabled
		Computer Name	<Any computer name> [Note]

[Note]: Cluster Creation/Expansion will fail if a computer name is specified using only numbers.

4.10 Parameter List for Profile Settings - When Expanding a Cluster of PRIMERGY M7 series to PRIMEFLEX for VMware vSAN V3

Refer to this section if you are expanding a cluster of the successor model PRIMERGY M7 series to PRIMEFLEX for VMware vSAN V3 (PRIMERGY M6 series).



Note

- Do not select 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

4.10.1 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	VMware ESXi

Setting Item	Setting Value
OS Policy	<OS policy referred to>
Description	<Optional description>

4.10.2 Details - [BIOS] tab

Setting Item		Setting Value
CPU Configuration		
	Hyper-Threading	☒ : Enabled
	Intel Virtualization Technology	☒ : Enabled
	Intel Vt-d	☒ : Enabled
	Power Technology	☒ : Custom [Note]
	Enhanced Speed Step	☒ : Enabled
	Turbo Mode	☒ : Enabled
	Override OS Energy Performance	☒ : Enabled
	Energy Performance	☒ : Performance
	CPU C1E Support	☒ : Enabled
	CPU C6 Report	☒ : Enabled
	Package C State Limit	☒ : C0
Memory Configuration		
	NUMA	☒ : Enabled
	DDR Performance	☒ : Performance optimized
Network Stack		
	Network Stack	☒ : Enabled
	IPv4 PXE Support	☒ : Enabled
	IPv6 PXE Support	☒ : Disabled

[Note]: 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].

4.10.3 Details - [iRMC] tab

Setting Item		Setting Value
iRMC GUI		
	Default Language	☒ : <Any default language>
Power Management		
	POST Error Halt	☒ : Continue

Setting Item		Setting Value
	Power Restore Policy	☒ : Restore to powered state prior to power loss
	Power Control Mode	☒ : OS Controlled
Fan Test		
	Fan Check Time	☒ : 23:00
	Disable Fan Test	☒ : ☐ Disable Fan Test
Software Watchdog		
	Software Watchdog	☒ : Disabled
	Behavior	☒ : Continue
	Timeout	☒ : 5 Minutes
Boot Watchdog		
	Boot Watchdog	☒ : Disabled
	Behavior	☒ : Continue
	Timeout	☒ : 100 Minutes
Time		
	Time Mode	☒ : System RTC
	RTC Time Mode	☒ : UTC
	Time Zone	☒ : <Any time zone>
Ports and Network Services Settings		
	Telnet Enabled	☒ Enabled
	Telnet Port (Default: 3172)	☒ : 3172
	SSH Enabled	☒ : Enabled
	SSH Port (Default: 22)	☒ : 22
SNMP Generic Configuration		
	SNMP Enabled	☒ : Enabled
	SNMP Port (Default: 161)	☒ : 161
	SNMP Service Protocol	☒ : All(SNMPv1/v2c/v3)
	SNMPv1/v2c Community	☒ : <Any community name>
SNMP Trap Destination		
	SNMP Trap Community Name	☒ : <Any community name>
	Destination SNMP Server 1	☒ : <IP address of ISM-VA>
	Protocol	☒ : SNMPv1
BIOS Backup		

Setting Item	Setting Value
Automatic BIOS Parameter Backup	☒ : ☒ Enable Parameter Backup

4.10.4 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 Latest Version
Management LAN network port settings	
Network port specification	☒ Specify the network port used for Management LAN.
Method to specify	Mac Address
MAC Address	<MAC address of the port on the PCI card>
Boot mode specification	
Boot mode	☒ : ☐ Specify the boot mode
RAID & Disk Configuration	
RAID & Disk Setting	
Do not use Array Controller	☒ : <Any boot device> [Note 2]
Use Array Controller	☒ : Use existing RAID Volume (Select it even though RAID is not used.) [Note 3]
Basic Settings	
Keyboard	<Any keyboard>
Network	
VLAN ID to Use	0
Execute Script after Installation [Note 1]	
Execute Script after Installation	☒ Enabled
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 select).

[Note 2]: Specifies for boot device (M.2) nonredundancy configuration. Select [SATA] or [PCIeSSD] depending on the type of boot device (M.2).

[Note 3]: Specifies for boot device (M.2) redundancy configuration.

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

Setting Item	Setting Value
License Agreement	☒ Agree with VMware License
Type of Installation Media	<Any type of installation media>

Setting Item			Setting Value
Root Password			<Any root password>
Root Password (for confirmation)			<Any root password>
Network			
	DHCP		☐ Enabled
		IP Address	<Any IP address>
		Subnet Mask	<Any subnet mask>
		Default Gateway	<Any default gateway>
		DNS Server	☒ : <IP address of any DNS server>
		DNS Domain Name	☒ : ☐ Enabled
		Get Computer Name from DNS Server	☐ Enabled
		Computer Name	<Any computer name> [Note]

[Note]: Cluster Creation/Expansion will fail if a computer name is specified using only numbers.