

# FUJITSU VMware ESXi 7.0 Customized Image

Last updated: February 18<sup>th</sup>, 2025

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## Contents

This document provides the latest information about the FUJITSU VMware ESXi 7.0 Customized ISO Image, FUJITSU ESXi 7.0 Customized Offline Bundle and FUJITSU ESXi 7.0 Addon.

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In this documentation, each server name will be described as below.

Example

PRIMERGY RX2530 M5->RX2530 M5

## ***Changes and Supplements***

### ***ESXi 7.0***

**Readme\_70.pdf (May 29<sup>th</sup>, 2020) Revision: 1**

- FUJITSU Customized Image v500-1, Build 15843807
- First edition.

**Readme\_70.pdf (October 12<sup>th</sup>, 2020) Revision: 2**

- FUJITSU Customized Image v501-1, Build 16324942
- Update vib in Customized Image.
- This Customized Image supports to upgrade from 6.x

### ***ESXi 7.0 U1***

**Readme\_70.pdf (November 11<sup>th</sup>, 2020) Revision: 3**

- FUJITSU Customized Image v510-1, Build 16850804
- Update vib in Customized Image.

**Readme\_70.pdf (December 16<sup>th</sup>, 2020) Revision: 4**

- Change "Controller related issues" .  
PRAID EP5xx are not supported.

**Readme\_70.pdf (February 12<sup>th</sup>, 2021) Revision: 5**

- Support PRIMEQUEST 2800E2

**Readme\_70.pdf (March 5<sup>th</sup>, 2021) Revision: 6**

- Support Dual MicroSD 64GB Enterprise device

**Readme\_70.pdf (March 26<sup>th</sup>, 2021) Revision: 7**

- Support PRIMEQUEST 2800E

### ***ESXi 7.0 U2***

**Readme\_70.pdf (May 19<sup>th</sup>, 2021) Revision: 8**

- FUJITSU Customized Image v520-1, Build 17867351
- Update vib in Customized Image.

**Readme\_70.pdf (September 2<sup>nd</sup>, 2021) Revision: 9**

- FUJITSU Customized Image v521-1, Build 17867351  
This image is only for BX2560 M2, BX2580 M2
- Update vib in Customized Image.

**Readme\_70.pdf (October 25<sup>th</sup>, 2021) Revision: 10**

- Update "Applying patch"

**Readme\_70.pdf (February 4<sup>th</sup>, 2022) Revision: 11**

- Update “Installation nmlx5\_driver to support Mellanox devices” and “Warning message when assigning an Image profile to Auto deploy Host”

### **ESXi 7.0 U3**

#### **Readme\_70.pdf (March 1<sup>st</sup>, 2022) Revision: 12**

- FUJITSU Customized Image v530-1, Build 19193900
- Update vib in Customized Image.

#### **Readme\_70.pdf (August 9<sup>th</sup>, 2022) Revision: 13**

- Update System related issue.
- Support new controller

#### **Readme\_70.pdf (April 11<sup>th</sup>, 2023) Revision: 14**

- Add “How to build own Custom Image for VMware Cloud Foundation(VCF)”.

#### **Readme\_70.pdf (April 21<sup>st</sup>, 2023) Revision: 15**

- Add “Intel E810 LAN adapters support”.

#### **Readme\_70.pdf (June 27<sup>th</sup>, 2023) Revision: 16**

- FUJITSU Customized Image v531-1, Build 21686933
- Update vib in Customized Image.

#### **Readme\_70.pdf (September 13<sup>th</sup>, 2023) Revision: 17**

- Update supported systems

#### **Readme\_70.pdf (February 13<sup>th</sup>, 2024) Revision: 18**

- Update supported systems
- Update PSAS CP2100-8i support

#### **Readme\_70.pdf (March 27<sup>th</sup>, 2024) Revision: 19**

- FUJITSU Customized Image v532-1, Build 22348816
- Update supported systems
- Update vib in Customized Image.

#### **Readme\_70.pdf (April 15<sup>th</sup>, 2024) Revision: 20**

- Add “How to build own Custom Image for VMware Cloud Foundation(VCF)”.  
Added the description of Addon for v532-1
- Update supported systems

#### **Readme\_70.pdf (April 26<sup>th</sup>, 2024) Revision: 21**

- Update supported systems

#### **Readme\_70.pdf (May 31<sup>st</sup>, 2024) Revision: 22**

- Update supported systems

**Readme\_70.pdf (Sep 4<sup>th</sup>, 2024) Revision: 23**

- Update the URL links

**Readme\_70.pdf (Feb 18<sup>th</sup>, 2025) Revision: 24**

- Update the URL links

## Introduction

VMware vSphere is a vSphere release built exclusively on the vSphere ESXi hypervisor architecture as the host platform. ESXi is an ultra-thin hypervisor that can be placed on a part of a local disk, an UFM module, M.2 module, or a SAN disk.

System administration can be done by

- vSphere Client, the HTML5 based GUI for vCenter Server
- Host Client the GUI for ESXi
- an ESXCLI framework on the ESXi Shell or SSH Shell (formally Tech Support Mode)
- ServerView (server management and monitoring) using a FUJITSU CIM Provider
- ServerView RAID (local RAID controller) using a LSI SMIS Provider and RAID core provider
- SAM, Navisphere, etc. (external storage, like CX3, ETERNUS DX60, etc.)
- Remote Console (virtual machines)

For our Servers, the following packages are available and downloadable from Broadcom Support Portal.

Type	Description
Customized Image	ESXi installation image with the VMware base image.
Offline Bundle	A customized set of driver updates and 3rd party packages with the VMware base image.
Add-on	A customized set of driver updates and 3rd party packages only for vLCM*.

The following Broadcom Knowledge Base article provides instructions on how to download the packages from Broadcom Support Portal: <https://knowledge.broadcom.com/external/article/366685>

### Remark:

Check the support status of the ESXi and Server combination, see the "System and Operating Systems" in the Released Drivers document, which could be obtained from the following:

<https://support.ts.fujitsu.com/IndexDownload.asp?SoftwareGuid=035FBFE6-E8B2-4B4A-8448-C1749B1576FA>

Please select the FUJITSU Customized Image for ESXi7.0 U3 as follows;

Customized Image	Servers
v532-1	[PRIMERGY] RX4770 M7/M6/M5/M4, RX2540 M7/M6/M5/M4, RX2530 M7/M6/M5/M4, RX2520 M5/M4, RX1330 M5/M4, GX2560 M7, GX2570 M6 TX2550 M7/M5/M4, TX1330 M5/M4, TX1320 M5/M4 CX2560 M7/M6/M5/M4, CX2550 M7/M6 RX2450 M2/M1, RX1440 M2, GX2460 M1 [PRIMEQUEST] PQ3800B type2/type1, PQ3800E type2/type1, PQ2800E type3
v531-1	[PRIMERGY] RX4770 M3, RX2560 M2, RX2540 M2, RX2530 M2, RX2510 M2, RX1330 M3 TX2560 M2, TX1330 M3, TX1320 M3 CX2550 M2
v530-1	[PRIMERGY] BX2580 M2, BX2560 M2

vSphere 7.0 is introducing a new format called Component for the installation bundle. This new component format is built on top of the existing VIB format. It's the basic installation unit for any component in ESXi.

\* vLCM: vSphere Lifecycle Manager.

This new management tool works for component management, enabling customers to determine hardware and software compliance, available updates, and oversee the installation of patches compared to a baseline. It's a successor of VMware Update Manager (VUM), although VUM is still available in vSphere 7.0. Customers can start with a custom ESXi image, and apply Add-ons provided by us.

## Contents of the Customized Image

The FUJITSU Customized Image includes the following:

v530-1:

Image	Used profile	Description
VMware-ESXi-7.0.3.update03-19193900-Fujitsu-v530-1.iso	FJT-Addon-for-FujitsuCustomImage_7.0.3-530.1.0	ESXi 7.0 (build 19193900)

Component name	VIB name	VIB Version	VIB Description
BCM-Isiprovider	Isiprovider	700.00.V0.77-0004	LSI Provider for ESX Server
BCM-vmware-storcli64	vmware-storcli64	007.1323.0000.0000-01	Storage Command Line Tool for ESX Server
Broadcom-ELX-CIMProvider	emulex-cim-provider	12.8.351.27-01OEM.700.1.0.15843807	Broadcom Emulex Connectivity Division CIM Provider for FC adapters for ESX Server
FJT-fujitsu-conf	fujitsu-conf	7.0.3-530.1.0	Configuration VIB for a Fujitsu ESXi 7.0 Update 3 customized image
Fujitsu-raid0	raid0	9.90.02-70	Fujitsu Primergy raid provider for ESX Server
Fujitsu-svscimprovider	svscimprovider	9.80-06.70	ServerView CIM Provider for the system monitoring
Fujitsu-svshti	svshti	9.80.06-1OEM.700.1.0.15843807	Fujitsu HTI driver for vmkernel
Intel-i40en-ens	i40en-ens	1.2.7.0-1OEM.700.1.0.15843807	Native i40en_ens network driver for VMware ESXi
Intel-icen	icen	1.4.2.0-1OEM.700.1.0.15843807	Native icen network driver for VMware ESXi
Intel-igbn	igbn	1.5.1.0-1OEM.700.1.0.15843807	Native igbn network driver for VMware ESXi
Intel-ixgben	ixgben	1.8.9.0-1OEM.700.1.0.15525992	Native ixgben network driver for VMware ESXi
Mellanox-nmlx5	nmlx5-core	4.21.71.1-1OEM.702.0.0.17473468	Mellanox Technologies ConnectX4 Native Core Driver
	nmlx5-rdma	4.21.71.1-1OEM.702.0.0.17473468	Mellanox Technologies ConnectX-4 Native RDMA Driver
MRVL-adapter-provider	qlogic-adapter-provider	1.7.23-10404389	QLogic Adapter provider for ESXi7.0 Server
MRVL-E4-CNA-Driver-Bundle	qedentv	3.40.30.0-1OEM.700.1.0.15843807	VMKAPI QLogic QL45xxx network driver for VMware ESXi
	qedrntv	3.40.28.0-1OEM.700.1.0.15843807	VMKAPI QLogic QL45xxx RoCE driver for VMware ESXi
	qedf	2.2.52.1-1OEM.700.1.0.15843807	QLogic E4 FCoE driver
	qedi	2.19.51.0-1OEM.700.1.0.15843807	QLogic FastLinQ QL45xxx/QL41xxxx Series 10/25/40/50/100 GbE Controller (iSCSI)
MRVL-QLogic-FC	qlnativefc	4.1.22.0-1OEM.700.1.0.15843807	QLogic Native FC driver for vmkernel

v531-1:

Image	Used profile	Description
VMware-ESXi-7.0.3.update03-21686933-Fujitsu-v531-1.iso	FJT-Addon-for-FujitsuCustomImage_7.0.3-531.1.0	ESXi 7.0 (build 21686933)

Component name	VIB name	VIB Version	VIB Description
BCM-Isiprovider	Isiprovider	700.00.V0.77-0004	LSI Provider for ESX Server
BCM-vmware-storcli64	vmware-storcli64	007.1323.0000.0000-01	Storage Command Line Tool for ESX Server
Broadcom-ELX-CIMProvider	emulex-cim-provider	12.8.351.27-01OEM.700.1.0.15843807	Broadcom Emulex Connectivity Division CIM Provider for FC adapters for ESX Server
Broadcom-ELX-lpfc	lpfc	14.0.326.12-1OEM.700.1.0.15843807	Broadcom Emulex Connectivity Division FC and FCoE Driver
Broadcom-bnxt-Net-RoCE	Bnxtnet	222.0.118.0-1OEM.700.1.0.15843807	Broadcom NetXtreme-E VMKAPI network driver for VMware ESXi
	Bnxtroce	222.0.118.0-1OEM.700.1.0.15843807	Broadcom NetXtreme-E ROCE Driver for VMware ESXi
FJT-fujitsu-conf	fujitsu-conf	7.0.3-531.1.1	Configuration VIB for a Fujitsu ESXi 7.0 Update 3 customized image
FJT-fujitsu-upgrade	fujitsu-upgrade	7.0.3-531.1.1	Fujitsu Upgrade VIB for ESXi 7.0 Update3
Fujitsu-raid0	raid0	9.90.02-70	Fujitsu Primergy raid provider for ESX Server
Fujitsu-svscimprovider	svscimprovider	10.40-02.70	ServerView CIM Provider for the system monitoring
Fujitsu-svshti	svshti	9.80.06-1OEM.700.1.0.15843807	Fujitsu HTI driver for vmkernel
Intel-i40en	i40en	2.5.2.0-1OEM.700.1.0.15843807	Native i40en network driver for VMware ESXi
Intel-Volume-Mgmt-Device	iavmd	3.0.0.1038-1OEM.700.1.0.15843807	Intel VMD driver with VROC support
Intel-icen	icen	1.11.3.0-1OEM.702.0.0.17630552	Native icen network driver for VMware ESXi
Intel-igbn	igbn	1.11.2.0-1OEM.700.1.0.15843807	Native igbn network driver for VMware ESXi
Intel-irdman	irdman	1.4.3.0-1OEM.700.1.0.15843807	Native irdman RDMA driver for VMware ESXi
Intel-ixgben	ixgben	1.15.1.0-1OEM.700.1.0.15843807	Native ixgben network driver for VMware ESXi
Mellanox-nmlx5	nmlx5-core	4.21.71.101-1OEM.702.0.0.17630552	Mellanox Technologies ConnectX4 Native Core Driver
	nmlx5-rdma	4.21.71.101-1OEM.702.0.0.17630552	Mellanox Technologies ConnectX-4 Native RDMA Driver
Microchip-smartpqi	smartpqi	70.4380.0.108-	VMware native driver module for Microsemi

		1OEM.700.1.0.15843807	SmartPqi controllers
MRVL-adapter-provider	qlogic-adapter-provider	1.7.40-10404389	QLogic Adapter provider for ESXi7.0 Server
MRVL-E4-CNA-Driver-Bundle	qedentv	3.40.57.0-1OEM.700.1.0.15843807	VMKAPI QLogic QL45xxx network driver for VMware ESXi
	qedrntv	3.40.56.0-1OEM.700.1.0.15843807	VMKAPI QLogic QL45xxx RoCE driver for VMware ESXi
	qedf	2.2.86.0-1OEM.700.1.0.15843807	QLogic E4 FCoE driver
	qedi	2.19.87.0-1OEM.700.1.0.15843807	QLogic FastLinQ QL45xxx/QL41xxxx Series 10/25/40/50/100 GbE Controller (iSCSI)
MRVL-QLogic-FC	qlnativefc	5.3.80.0-1OEM.703.0.0.18644231	QLogic Native FC driver for vmkernel

v532-1:

Image	Used profile	Description
VMware-ESXi-7.0.3.update03-22348816-Fujitsu-v532-1.iso	FJT-Addon-for-FujitsuCustomImage_7.0.3-532.1.0	ESXi 7.0 (build 22348816)

Component name	VIB name	VIB Version	VIB Description
BCM-Isiprovider	Isiprovider	700.00.V0.77-0004	LSI Provider for ESX Server
BCM-vmware-storcli64	vmware-storcli64	007.1323.0000.0000-01	Storage Command Line Tool for ESX Server
Broadcom-ELX-CIMProvider	emulex-cim-provider	12.8.351.27-01OEM.700.1.0.15843807	Broadcom Emulex Connectivity Division CIM Provider for FC adapters for ESX Server
Broadcom-ELX-lpfc	lpfc	14.0.622.2-1OEM.700.1.0.15843807	Broadcom Emulex Connectivity Division FC and FCoE Driver
Broadcom-bnxt-Net-RoCE	Bnxtnet	222.0.118.0-1OEM.700.1.0.15843807	Broadcom NetXtreme-E VMKAPI network driver for VMware ESXi
	Bnxtroce	222.0.118.0-1OEM.700.1.0.15843807	Broadcom NetXtreme-E ROCE Driver for VMware ESXi
FJT-fujitsu-conf	fujitsu-conf	7.0.3-532.1.1	Configuration VIB for a Fujitsu ESXi 7.0 Update 3 customized image
FJT-fujitsu-upgrade	fujitsu-upgrade	7.0.3-532.1.1	Fujitsu Upgrade VIB for ESXi 7.0 Update3
Fujitsu-raid0	raid0	9.91.08-70	Fujitsu Primergy raid provider for ESX Server
Fujitsu-svscimprovider	svscimprovider	10.40-02.70	ServerView CIM Provider for the system monitoring
Fujitsu-svshti	svshti	9.80.06-1OEM.700.1.0.15843807	Fujitsu HTI driver for vmkernel
Intel-i40en	i40en	2.5.2.0-1OEM.700.1.0.15843807	Native i40en network driver for VMware ESXi
Intel-Volume-Mgmt-Device	iavmd	3.0.0.1038-1OEM.700.1.0.15843807	Intel VMD driver with VROC support
Intel-icen	icen	1.11.3.0-1OEM.702.0.0.17630552	Native icen network driver for VMware

			ESXi
Intel-igbn	igbn	1.11.2.0-1OEM.700.1.0.15843807	Native igbn network driver for VMware ESXi
Intel-irdman	irdman	1.4.3.0-1OEM.700.1.0.15843807	Native irdman RDMA driver for VMware ESXi
Intel-ixgben	ixgben	1.15.1.0-1OEM.700.1.0.15843807	Native ixgben network driver for VMware ESXi
Intel-ixgben-ens	ixgben-ens	1.9.2.0-1OEM.700.1.0.15843807	Native ixgben_ens network driver for VMware ESXi
Mellanox-nmlx5	nmlx5-core	4.21.71.101-1OEM.702.0.0.17630552	Mellanox Technologies ConnectX4 Native Core Driver
	nmlx5-rdma	4.21.71.101-1OEM.702.0.0.17630552	Mellanox Technologies ConnectX-4 Native RDMA Driver
Microchip-smartpqi	smartpqi	70.4380.0.108-1OEM.700.1.0.15843807	VMware native driver module for Microsemi SmartPqi controllers
MRVL-adapter-provider	qlogic-adapter-provider	1.7.40-10404389	QLogic Adapter provider for ESXi7.0 Server
MRVL-E4-CNA-Driver-Bundle	qedentv	3.40.57.0-1OEM.700.1.0.15843807	VMKAPI QLogic QL45xxx network driver for VMware ESXi
	qedrntv	3.40.56.0-1OEM.700.1.0.15843807	VMKAPI QLogic QL45xxx RoCE driver for VMware ESXi
	qedf	2.2.86.0-1OEM.700.1.0.15843807	QLogic E4 FCoE driver
	qedi	2.19.87.0-1OEM.700.1.0.15843807	QLogic FastLinQ QL45xxx/QL41xxxx Series 10/25/40/50/100 GbE Controller (iSCSI)
MRVL-QLogic-FC	qlnativefc	5.3.81.2-1OEM.703.0.0.18644231	QLogic Native FC driver for vmkernel

## Configuration

### **Supported installation destinations for FUJITSU Customized Image**

- We supported hard drive, Flash device, UFM, M.2 and SSD are supported for Customized Image install.  
When using SSD or Flash device with ESXi, select the device that meet the endurance described in <https://knowledge.broadcom.com/external/article/313169>
- Dual MicroSD 64GB Enterprise device is supported for Customized Image install.  
When using Dual MicroSD device, please update firmware up to version 1.9 or later.  
Please see download page.  
<https://support.ts.fujitsu.com/IndexDownload.asp?Softwareguid=83644DE0-00D0-41F3-9CFA-C1CDAFB3D293>  
Dual MicroSD 64GB Enterprise device does not support the SCSI command 0x1a. Therefore, some messages are logged to vmkernel.log. See KB for detail.  
<https://knowledge.broadcom.com/external/article/317551>

### **Server configurations prior to ESXi install**

- Except USB device, minimum size on System storage volume is 32GB(inc. SAN boot case). This requirement is applied for upgrade case too. See “ESXi System Storage Overview” section on the following. Also, this document is helpful to understand new partition layout such as ESX-OSdata.  
<https://techdocs.broadcom.com/us/en/vmware-cis/vsphere/vsphere/7-0/esxi-installation-and-setup-7-0/installing-and-setting-up-esxi-install/esxi-requirements-install/esxi-system-storage-overview-install.html>
- Insert a boot device as an installation destination.
- At least one LAN port which ESXi can recognize is mandatory to install ESXi.
- We recommends upgrading BIOS, iRMC and controller firmware to the latest version see <https://support.ts.fujitsu.com>  
**For Japan:** <https://www.fujitsu.com/jp/products/computing/servers/primergy/downloads/>
- Set the correct boot order in BIOS; boot-device at first position
- On PRIMERGY Servers, set BIOS to factory defaults and set SATA mode to AHCI to use DVD and other AHCI connected device.
- Boot Mode of PRIMERGY Servers
  - RX4770 M3 and all M2 servers and earlier servers support Legacy BIOS mode only (UEFI mode is not supported).
- Boot Mode of PRIMEQUEST Servers
  - PRIMEQUEST 2800E2/2800E server support UEFI mode only (Legacy BIOS mode is not supported).
- On PRIMEQUEST 2800E2/2800E, set PCI Address Mode to “PCI Bus Mode”.
- If you want to install the ESXi via iRMC Advanced Video Redirection (AVR), connect the LAN Management Port to the network and activate the iRMC.
- Enable the CPU virtualization capabilities in BIOS. Normally pressing F9/F3 (load defaults) performs this.
- Set the hardware clock to UTC time zone.

### **RAID Configuration**

- ESXi does not support Software RAID.
- In order to use the local disks in RX/TX systems, SAS controller needs to be installed additionally.

## **Installation**

### **VMware information upon installation**

Details for installation, setup, update and system requirements are described in the chapter "About VMware ESXi Installation and Setup" under

<https://techdocs.broadcom.com/us/en/vmware-cis/vsphere/vsphere/7-0/esxi-installation-and-setup-7-0/introduction-to-vsphere-installation-and-setup-install.html>

For more details about vSphere and setting up a virtualized environment, see the VMware webpages

<https://techdocs.broadcom.com/us/en/vmware-cis/vsphere.html>

### **Installation with FUJITSU Customized ISO Image**

Use the FUJITSU Customized ISO Image.

The installation can be done by downloading the Installation ISO from Broadcom Support Portal.

- Move the ISO Image to an accessible location
- Mount ISO Image using one of the following ways
  - iRMC S4 Advanced Video Redirection (AVR) à Media
  - iRMC S5 Advanced Video Redirection (AVR) à Start Media

If you perform a recovery installation, restore data and user configurations from the backup files after the installation is complete.

### **Install ESXi locally**

- Burn the installation ISO as a bootable CD
- Place the installation CD into the CD/DVD drive and then boot the Server.
- Follow the installation dialog.
- After all packages have been installed, eject the installation CD and reboot the server

### **Install the software image remotely using iRMC S4 Video Redirection**

- Choose tab Media and select Virtual Media Wizard ...
- Press "Browse" of the CD/DVD Media: 1 dialog box in the Virtual Media window, navigate to the installation ISO and open it.
- Press "Connect CD/DVD" for the installation ISO.
- Reboot the Server and press F12 (boot menu)
- Choose "Fujitsu Virtual CDROM0" as boot device
- Follow the installation dialog
- After all packages have been installed, disconnect the installation ISO in the Virtual Media window and reboot the server.

### **Install the software image remotely using iRMC S5 Video Redirection**

- Press "Browse File" of the CD Image, then navigate and open the installation ISO.
- Press "Start Media" for the installation ISO.
- Reboot the Server and press F12 (boot menu)
- Choose "Fujitsu Virtual CDROM0" as boot device
- Follow the installation dialog
- After all packages have been installed, disconnect the installation ISO in the Virtual Media window and reboot the server.

## **Update/upgrade**

For PRIMERGY Server the Customized Image contains patches, driver, CIM Provider and additional VIBs to support management and 3<sup>rd</sup> party controller. The included and released packages are listed in section "Content of the Customized Image". We recommend using the FUJITSU Customized Image for installation, upgrade or update of a PRIMERGY server. Before you perform this task please read this README carefully.

**Caution:**

If you use a non-FUJITSU Customized Image (e.g. a VMware GA image) for installation, upgrade or update of a PRIMERGY server there might be functionality loss. For example, it might include drivers which are not supported by specific PRIMERGY controllers. If you need to install a VMware patch which is not included in FUJITSU Customized Image, read carefully the release note of the VMware patch before applying the patch.

**Conditions for deploying and upgrading an ESXi host by using a Customized Image**

Please read the following article before deploying or upgrading ESXi with Customized Image,  
<https://knowledge.broadcom.com/external/article/341609>

**Before upgrading and updating.**

Before upgrading and updating, see the following documents and check the ESXi environment. These documents show supporting upgrade/update path and VMware product Interoperability(e.g. ESXi and vCenter server).  
<https://interopmatrix.broadcom.com/Interoperability>  
<https://knowledge.broadcom.com/external/article/312157>  
<https://knowledge.broadcom.com/external/article/312160>

**Upgrading from ESXi 6.x to ESXi 7.0GA is not supported**

Upgrading ESXi 6.x to ESXi 7.0 GA(build number: 15843807) is not supported. You must upgrade to ESXi 7.0b(build number: 16324942) or later. See KB for detail.  
<https://knowledge.broadcom.com/external/article/317896>

**Upgrading from ESXi 6.x to ESXi 7.x is not supported**

When you update from ESXi 6.x, you must not upgrade to ESXi 7.x directly but update to ESXi 6.7 U3 before upgrading ESXi 7.x because there are some ESXi bugs.

**Before upgrading ESXi 6.x to ESXi 7.0b or later by using v501-1, v510-1, v520-1, v521-1, v530-1,(except for v531-1)**

The vibs whose version include "550" must be deleted before updating ESXi 7.0b or later.

> esxcli software vib list | grep "OEM.550"

net-i40e	1.4.28-1OEM.550.0.0.1331820	Intel	VMwareCertified	2016-07-16
scsi-mpt3sas	06.00.00.00.1vmw-1OEM.550.0.0.1331820	LSI	VMwareCertified	2016-07-16

If vib is displayed, delete vibs by following command.

> esxcli software vib remove -n net-i40e

A) Update from ESXi 6.7U3 (482-1, Build number: 17700523)

Following vibs should be deleted if these exist before updating.

- vmware-storcli
- emu-esx-elxlpfcli
- emu-esx-elxmgmt
- emulex-cim-provider
- intel-nvme-vmd
- ixgben-ens
- igbn

If ESXi host server is attached lgbn devices(PY-LA274U or PY-LA264), upgrade by ISO or offline bundle instead of VUM.

B) Update from 6.x (except 482-1, Build number: 17700523)

Following vibs should be deleted if these exist before updating ESXi 7.0b or later.

- brcm-cim-provider
- emulex-cim-provider
- emulex-esx-brcmfcoecli
- emulex-esx-elxlpfcli or emu-esx-elxlpfcli
- emulex-esx-elxmgmt or emu-esx-elxmgmt

- emulex-esx-elxnetcli
- intel-nvme-vmd
- qllogic-adapter-provider (Only if update to 7.0b)
- vmware-storcli-007.0709.0000.0000 or vmware-storcli-007.0608.0000.0000
- elx-esx-libelxima-8169922.so
- ixgben-ens
- qedentv-ens
- qedf

### **Applying patch**

The following procedure show how to apply ESXi patch.

(1) Confirm profile name.

```
> esxcli software sources profile list -d <patch file directory>/<patch file path>
```

Choose one profile name.

(2) Apply ESXi patch by using the command.

```
> esxcli software profile update -d <patch file directory>/<patch file name> -p <profile name>
```

Confirm that command completed successfully.

(3) Confirm each vib which is listed "Contents of the Customized Image".

```
> esxcli software vib list | grep i40en
```

If the vib is different between listed in "Contents of the Customized Image" and installed, replace the installed vib by using the following command.

```
> esxcli software vib install -d <offline bundle directory>/ VMware-ESXi-7.0.2.update02-17867351-Fujitsu-offline_bundle.zip -n i40en
```

Confirm that command completed successfully.

### **Using offline bundle upgrade**

We recommend to use "profile update" command when using Offline bundle.

### **Recovering from a system failure**

If you suspect an error on your ESXi environment and need to reinstall the software, see chapter "Installation".

#### **Caution:**

After a reinstallation, all configured settings, user data, and license information will be lost. After reinstalling ESXi, it is necessary to restore settings and user data from backup files and reapply the licenses.

## Tips / Known Bugs / Limitations

### General issues

#### **Identifying the FUJITSU Customized Image on a running system**

There are three indicators which show the version of Customized Image and Add-on in use:

- FUJITSU Customized Image version and Add-on version:
  - vCenter Server; host → tab Summary → Image Profile
  - Command "esxcli software profile get" on the ESXi Shell direct console (DCUI)

#### **Warning message when assigning an Image profile to Auto deploy Host**

When you use an image profile to vSphere Auto Deploy Host, the following warning message appears because stateless-ready flag of each driver - Fujitsu-raid0(raid0) in ESXi 7.0 and MRVL-adapter-provider (qllogic-adapter-provider) in ESXi 7.0U1 or later – are set as "OFF".

However, there is no setting which need to be preserved for those drivers after reboot, therefore you can ignore this message.

Warning Message:

Warning: Image Profile <name-here> contains one or more software packages that are not stateless-ready. You may experience problems when using this profile with Auto Deploy.

Please see on VMware document.

<https://techdocs.broadcom.com/us/en/vmware-cis/vsphere/vsphere/7-0/esxi-installation-and-setup-7-0/installing-and-setting-up-esxi-install/installing-esxi-install/troubleshooting-auto-deploy-install/package-warning-message-when-you-assign-an-image-profile-to-auto-deploy-host-install.html>

#### **Graceful shutdown/reboot of PRIMERGY**

If the functions "Graceful shutdown" and "Graceful reboot" using the

- iRMC S4 à Power tab
- iRMC S5 à Power Control Icon
- 

don't run successfully, please use <F12> Shut Down/Restart on the ESXi Direct Console (DCUI) for these functions.

#### **Minimum requirement for ESXi install**

As written down on "Server configurations prior to ESXi install", 32GB is the minimum requirement for system volume except UFM.

#### **Quick boot support**

ESXi Quick boot is available for specific servers. See KB for detail.

<https://knowledge.broadcom.com/external/article/312153>

<https://sp.ts.fujitsu.com/dmsp/Publications/public/quickboot-fj-vmware-esxi-support-pmem-en.pdf>

#### **Suspend to Memory is not supported**

Suspend to Memory is not supported for our servers.

#### **PMEM support**

Intel Optane DC Persistent Memory Module is supported. See KB for detail.

<https://knowledge.broadcom.com/external/article/326910>

<https://sp.ts.fujitsu.com/dmsp/Publications/public/quickboot-fj-vmware-esxi-support-pmem-en.pdf>

#### **M.2 device**

M.2 can be used only for boot device. Do not use VMFS in M.2 for datastore.

See KB2145210 for required endurance.

<https://knowledge.broadcom.com/external/article/313169>

#### **Hardware status monitoring**

The "Hardware status" of the ESXi host shown in the vSphere client provides incomplete, wrong or misleading hardware status information of some components.  
It is recommended to use the FUJITSU ServerView Operation Manager or FUJITSU ServerView Plug-in for vCSA to monitor the hardware status information.

**FAN, Power Supply Unit alarm**

If redundant FAN or Power Supply Unit is not installed in the slot, the following hardware alarms might be displayed in ESXi 7.0 and ESXi 7.0b.

- Host hardware FAN status
  - Host hardware Power Supply Unit status
- Those alarms can be disabled from vCSA. See the following document.

<https://techdocs.broadcom.com/us/en/vmware-cis/vsphere/vsphere/7-0/vsphere-monitoring-and-performance-7-0/monitoring-events-and-alarms/disable-alarms-on-specific-objects.html>

**Dependent HW iSCSI boot is not supported**

See the following VMware Knowledge Base.  
<https://knowledge.broadcom.com/external/article/324895>

**Keyboard layout problem with ESXi system**

Please set the keyboard layout to "US Default" during the installation to avoid this problem in ESXi 7.0GA and ESXi7.0b. This issue is fixed in ESXi 7.0 U1 or later.

The DCUI keyboard layout will become "US Default" after rebooting even if the layout setting was other than "US Default". This issue occurs because the keyboard layout settings are not applied appropriately during system boot. Remote Console (SSH) is not affected by this issue.

When this problem occurs, you can run the following command to reset the keyboard layout from SSH.  
> esxcli system settings keyboard layout set -l "<Language>"

**Note:** View the available keyboard layout languages by running the following command:  
> esxcli system settings keyboard layout list

For example: To set the keyboard layout to German, use the command:  
> esxcli system settings keyboard layout set -l "German"

**Caution:**

The change will not persist after ESXi host reboot.

**Information of Address Range Mirror support**

The following list shows servers and minimum BIOS version to support Address Ranger Mirror function.

Series	Server	BIOS version
PRIMERGY	RX2530 M7/M6, RX2540 M7/M6, RX4770 M7, TX2550 M7	All
	RX4770 M6	R1.5.0 or later
	RX4770 M5	R1.22.0 or later
	RX2520 M5, RX2530 M5, RX2540 M5, TX2550 M5	R1.23.0 or later
	RX4770 M4	R1.35.0 or later
	RX2520 M4, RX2530 M4, RX2540 M4, TX2550 M4	R1.46.0 or later
PRIMEQUEST	3400S Lite, 3400S, 3400E, 3400L,3800E, 3800L	PA19081 or later
	3400S2 Lite, 3400S2, 3400E2, 3400L2, 3800E2, 3800L2	PB19032 or later

**Information of Software Recovery Action Required (SRAR) support**

The following list shows servers and minimum BIOS version to support Software Recovery Action Required (SRAR) function.

Series	Server	BIOS version
PRIMERGY	RX4770 M7	all

	RX4770 M6	R1.5.0 or later
	RX4770 M5	R1.23.0 or later
	RX4770 M4	R1.34.0 or later
PRIMEQUEST	3400S2 Lite, 3400S2, 3400E2, 3400L2, 3800E2, 3800L2, 3400S Lite, 3400S, 3400E, 3400L, 3800E, 3800L, 2400S3 Lite, 2400S3, 2400E3, 2400L3, 2800E3, 2800L3	All
	2800E2	BB15067 or later

**VMware patch for vulnerabilities**

A) L1TF Speculative-Execution

VMware patch for the following vulnerabilities is included in the Customized image.

Refer to the following URL for more details.

<https://knowledge.broadcom.com/external/article/302535>

<https://support.broadcom.com/web/ecx/support-content-notification/-/external/content/SecurityAdvisories/0/23545>

<https://support.broadcom.com/web/ecx/support-content-notification/-/external/content/SecurityAdvisories/0/23546>

"ESXi Side-Channel-Aware Scheduler" is disabled after installing or upgrading to this Customized Image.

ESXi Side-Channel-Aware Scheduler Version 2 is available. See the following VMware Knowledge Base

<https://knowledge.broadcom.com/external/article/317621>

"esx.problem.hyperthreading.unmitigated" notification would be displayed on vCenter Server when "ESXi Side-Channel-Aware Scheduler" is disabled. See the following VMware Knowledge Base

<https://knowledge.broadcom.com/external/article/310322>

B) Machine Check Error on Page Size Change (MCEPSC)

VMware patch for the following vulnerabilities is included in the Customized image.

Refer to the following URL for more details.

<https://knowledge.broadcom.com/external/article/309708>

<https://knowledge.broadcom.com/external/article/318828>

Hypervisor-Specific Mitigations for one of these vulnerabilities is not enabled by default, because a significant performance impact when applied to nested virtualized environments on ESXi.

Check the above documents and test carefully before the migration function be enabled

### **vSphere Auto Deploy on UEFI Boot**

If ESXi is installed with Auto Deploy on UEFI Boot, set Boot option by vSphere PowerCLI to avoid failure.

#### ■ Target server

RX4770 M4, RX2540 M4, RX2530 M4, RX2520 M4, RX2450 M1, TX2550 M4

(less than BIOS R1.29.0)

RX4770 M5, RX2540 M5, RX2530 M5, TX2550 M5

RX1330 M5, TX1330 M5, TX1320 M5

[Connect to vCenter Server]

```
# Connect-VIServer -Server [IP address ] -Protocol https -User [ account ] -Password [ password ] -force
```

[Set boot option]

```
# Set-DeployOption "extra-boot-args" "norts=1"
```

```
# Set-DeployOption "extra-kernel-args" "-U"
```

[Confirm boot option] # Get-DeployOption -Key "extra-boot-args"

```
# Get-DeployOption -Key "extra-kernel-args"
```

### **HSM support**

HSM plugin named "Infrastructure Manager SV Plug-in for VMware vLCM (ISM SV Plug-in for vLCM)" is delivered.

To get the user manual, see the following URL.

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

Top -> Select a new Product -> Browse for Product -> Software -> Infrastructure Manger (ISM) -> DOWNLOADS

Selected operating system: VMware ESXi 7.0

The "Document" tab and "Applications" tab is included HSM materials.

### **Set the scratch partition and core dump file when using USB/micro SD device**

When ESXi is booted from USB/micro SD device, set the scratch partition and core dump file on VMFS datastore.

The following documents show how to set the above configuration.

<https://techdocs.broadcom.com/us/en/vmware-cis/vsphere/vsphere/7-0/esxi-installation-and-setup-7-0/installing-and-setting-up-esxi-install/setting-up-esxi-install/storage-behavior-install/set-the-scratch-partition-from-the-vsphere-client-install.html>

<https://techdocs.broadcom.com/us/en/vmware-cis/vsphere/vsphere/7-0/vsphere-storage-7-0/working-with-datastores-in-vsphere-storage-environment/setting-up-esxi-core-dump-on-a-vmfs-datastore/set-up-a-file-as-core-dump-location.html>

When set the scratch partition, confirm the following KB to avoid the inaccessible issue.

<https://knowledge.broadcom.com/external/article/318364>

### **Selection of storage multipath**

In vSphere 7.0U2, the default of multipath plugin is changed from Native Multipathing Plug-in (NMP) to VMware High-Performance Plug-in (HPP). NMP shall be selected unless the attached device is PCIe SSDs.

To get more information, see the following document.

<https://techdocs.broadcom.com/us/en/vmware-cis/vsphere/vsphere/7-0/vsphere-storage-7-0/understanding-multipathing-and-failover-in-the-esxi-environment/using-pluggable-storage-architecture-and-path-management-with-esxi.html>

### **Recommendation to apply the patch when using USB/micro SD device**

There are some issues regarding USB/micro SD boot device. All of them are fixed in VMware ESXi 7.0 Update 2c.

It is recommended to apply this patch when using USB/micro SD boot device.

To get more information, see the following documents.

<https://techdocs.broadcom.com/content/dam/broadcom/techdocs/us/en/pdf/vmware/vsphere/vsphere/vSphere-Release-Notes/vsphere-esxi-70u2c-release-notes.pdf>

### **How to confirm the model name of device in case of incorrected information**

In vSphere Client, some devices are not shown their model name correctly. To confirm the correct name, it can be checked by iRMC or MMB.

### **Creating image profile with Image Builder**

When image profile based custom image is created with Image Builder, you may find two same driver name in list at Step2 “Select software packages” of “New Image Profile” wizard. Those drivers are different in this case, you have to select only one driver whose version include “OEM” in order to work properly.

### **Removing i40enu vib before updating vCenter Server to 7.0U3c**

In the update process of vCenter server to 7.0U3c, it may fail because there is driver conflicts. There are 2 workarounds which is described in the following KB.

To get more information, see the following documents.

<https://techdocs.broadcom.com/content/dam/broadcom/techdocs/us/en/pdf/vmware/vsphere/vsphere/vSphere-Release-Notes/vsphere-vcenter-server-70u3c-release-notes.pdf>

<https://knowledge.broadcom.com/external/article/318867>

### **Upgrade to 7.0 U3(v530-1) fails with error message about live VIB installation**

When performing an interactive/scripted upgrade to 7.0 U3 using the installer ISO(v530-1), the upgrade process may fail. This error occurred when live vibs were installed in the past. For example, if vSphere HA is enabled, the process surely fails. To solve this issue, upgrade ESXi using vSphere Lifecycle manager or esxcli command.

To get more information, see the following documents.

<https://knowledge.broadcom.com/external/article/315478>

### **Using vSphere DPM setting in vSphere 7.0U3**

To use IPMI setting for vSphere DPM in vSphere 7.0U3 , apply the 7.0U3f or later patch.

### **Limitation for NSX node switch option**

In vSphere 7.0U3, mode of node switch is only supported for “Standard”.

## System related issues

### Limitations for RX2520 M4/M5, RX2530 M4/M5/M6, RX2540 M4/M5/M6, TX2550 M4/M5, RX4770 M4/M5 servers

Because of the BIOS issue, RX2520 M4/M5, RX2530 M4/M5/M6, RX2540 M4/M5/M6, TX2550 M4/M5, and RX4770 M4/M5 installed with ESXi cannot be powered on from vCenter Server via Wake on LAN with onboard LAN connection.

### Limitations for LX1430 M1, GX2460 M1 server

CIM providers are not supported for this server. Please remove CIM Providers from system. System monitoring can be done via BMC. Ex. esxcli software component remove -n Fujitsu-raid0, Fujitsu-svscimprovider

### How to stop periodical vCenter Alarm for TX server series

vCenter alarm "Status of other host hardware objects" may periodically occurs on specific TX server series. To avoid this problem, a workaround described in <https://knowledge.broadcom.com/external/article/317946> is available.

(1) Find out the sensor ID for "System Chassis 0 Housing open 0" because this ID may vary on TX server.

```
# esxcli hardware ipmi sdr list
```

e.g. Sensor ID of TX2550M5: 84.

(2) Ignore hardware health alarm from selected sensor.

```
# esxcfg-advcfg -s <sensor ID> /UserVars/HardwareHealthIgnoredSensors
```

(3) Restart hostd service.

```
#/etc/init.d/hostd restart
```

(4) Reset the alarm to green on vCenter UI.

## Controller related issues

### Deprecated and unsupported controller

Before updating ESXi 6.5/6.7 to ESXi 7.0, please check "the following controllers are not supported from ESXi 7.0". It is an exception for PRIMEQUEST 2800E2/2800E to using Broadcom/Emulex LPe16002

Controller model	Fujitsu Order Number	FTS Order Number
Broadcom/Emulex LPe1250	PY-FC201	S26361-F3961-L1
Broadcom/Emulex LPe1250	PYBFC201	S26361-F3961-E1
Broadcom/Emulex LPe1250	PY-FC201L	S26361-F3961-L201
Broadcom/Emulex LPe1250	PYBFC201L	S26361-F3961-E201
Broadcom/Emulex LPe1250		MC-0JFC31
Broadcom/Emulex LPe1250		MCX0JFC31
Broadcom/Emulex LPe1250		MC-0JFC3L
Broadcom/Emulex LPe1250		MC-0JFC91
Broadcom/Emulex LPe1250		MCX0JFC91
Broadcom/Emulex LPe1250		MC-0JFC9L
Broadcom/Emulex LPe12002	PY-FC202	S26361-F3961-L2

Broadcom/Emulex LPe12002	PYBFC202	S26361-F3961-E2
Broadcom/Emulex LPe12002	PY-FC202L	S26361-F3961-L202
Broadcom/Emulex LPe12002	PYBFC202L	S26361-F3961-E202
Broadcom/Emulex LPe12002		MC-0JFC41
Broadcom/Emulex LPe12002		MCX0JFC41
Broadcom/Emulex LPe12002		MC-0JFC4L
Broadcom/Emulex LPe12002		MC-0JFCA1
Broadcom/Emulex LPe12002		MCX0JFCA1
Broadcom/Emulex LPe12002		MC-0JFCAL
Broadcom/Emulex LPe16000	PY-FC221	S26361-F4994-L501
Broadcom/Emulex LPe16000	PYBFC221	S26361-F4994-E1
Broadcom/Emulex LPe16000	PYBFC221L	S26361-F4994-E201
Broadcom/Emulex LPe16000		MC-0JFC71
Broadcom/Emulex LPe16000		MCX0JFC71
Broadcom/Emulex LPe16000		MC-0JFC7L
Broadcom/Emulex LPe16000		MC-0JFC72
Broadcom/Emulex LPe16000		MCX0JFC72
Broadcom/Emulex LPe16002	PY-FC222	S26361-F4994-L502
Broadcom/Emulex LPe16002	PYBFC222	S26361-F4994-E2
Broadcom/Emulex LPe16002	PYBFC222L	S26361-F4994-E202
Broadcom/Emulex LPe16002	PY-FC222LL	-
Broadcom/Emulex LPe16002	PYBFC222LL	-
Broadcom/Emulex LPe16002		MC-0JFC81
Broadcom/Emulex LPe16002		MCX0JFC81
Broadcom/Emulex LPe16002		MC-0JFC8L
Broadcom/Emulex LPe16002		MC-0JFC82
Broadcom/Emulex LPe16002		MCX0JFC82
PFC EM MC-FC162E 2x16Gb	PY-FCD12	S26361-F4994-L402
PFC EM MC-FC162E 2x16Gb	PYBFCD121	S26361-F4994-E402
PFC EM MC-FC162E 2x16Gb	PYBFCD122	-

**PRAID EP5xx Support**

PRAID EP5xx are supported.

IRMC firmware (see the following table) and EP5xx firmware (51.13.0-3399 or later) must be applied.

ESXi	Server models	iRMC
7.0GA (Build number: 15843807) 7.0b (Build number: 16324942)	RX1330 M3, RX1330 M4, RX2520 M4, RX2520 M5, RX2530 M4, RX2530 M5, RX2540 M4, RX4770 M4, RX4770 M5, TX1320 M3, TX1320 M4, TX1330 M3, TX1330 M4, TX2550 M4, TX2550 M5	3.05P or later
	RX2540M5	3.06P or later
7.0U2 (Build number: 17867351)	RX2530M6, RX2540M6	All

**No support of Software RAID**

ESXi does not support Software RAID. For the necessary BIOS changes from the default settings see section "Configuration".

**PSAS controller specific issues**

In order to use PSAS controller for vSAN system, certified firmware and driver must be applied.

The supported firmware and driver version is listed in the VMware HCL under

<https://compatibilityguide.broadcom.com/search?program=vsanio&persona=live&column=brandName&order=asc>

**Unsupported functions of Marvell CNA and Ethernet controllers**

FCoE, RoCE and RDMA functions are not supported.

**Installation nmlx5 driver to support Mellanox devices**

To support the following Mellanox devices in ESXi 7.0U2, nmlx5\_driver has to be updated.

■ **How to install driver**

- (1) Download the driver "nmlx5\_core 4.21.71.1" from Broadcom Support Portal and upload it to host.  
The following Broadcom Knowledge Base article provides instructions on how to download the packages from Broadcom Support Portal: <https://knowledge.broadcom.com/external/article/366755>
- (2) Execute following command to unzip the file and apply it  

```
# cd /vmfs/volumes/datastore1
# unzip /vmfs/volumes/datastore1/Mellanox-nmlx5_4.21.71.1-1OEM.702.0.0.17473468_17858163-package.zip
# esxcli software component apply -d /vmfs/volumes/datastore1/Mellanox-nmlx5_4.21.71.1-1OEM.702.0.0.17473468_17858163.zip
```
- (3) Reboot ESXi host

Note: it may be displayed the message "Host is out of compliance with the image" in the vLCM screen but this can be ignored.

■ **Devices**

Fujitsu Order Number	FTS Order Number	PRIMERGY Controller model
PY-LA3L12	S26361-F4052-L501	PLAN EP MCX4-EN 100Gb 1p QSFP28 LP
PYBLA3L12	S26361-F4052-E1	
PYBLA3L12L	S26361-F4052-E201	
PY-LA3H22	S26361-F4053-L502	PLAN EP MCX4-EN 40Gb 2p QSFP LP
PYBLA3H22	S26361-F4053-E2	
PYBLA3H22L	S26361-F4053-E202	
PY-LA3E22	S26361-F4054-L502	PLAN EP MCX4-LX 25GB 2P SFP28
PYBLA3E22	S26361-F4054-E2	

PYBLA3E22L	S26361-F4054-E202	
PY-LA3E22U	S26361-F4054-L302	PLAN EP MCX4-LX 25Gb 2p SFP28 OCP
PYBLA3E22U	S26361-F4054-E302	
PY-LA3F2U		PLAN EP MCX4-LX 2X 25G SFP28 OCPv3
PYBLA3F2U		
PY-LA3F2U2		
PYBLA3F2U2		
PY-LA412		PLAN EP MCX6-DX 2X 100G QSFP28
PYBLA412		
PYBLA412L		
PY-LA412U		PLAN EP MCX6-DX 2X 100G QSFP28 OCPv3
PYBLA412U		
PY-LA412U2		
PYBLA412U2		

Fujitsu Order Number	FTS Order Number	PRIMEQUEST Controller model
MC-0JFE11		PLAN EP MCX4-LX 25Gb 2p SFP28
MCX0JFE11		
MC-0JFE41		PLAN EP MCX4-EN 40Gb 2p QSFP
MCX0JFE41		
MC-0JFE71		PLAN EP MCX4-EN 100Gb 1p QSFP28
MCX0JFE71		
MC-0JFED1		PLAN EP MCX6-DX 2X 100G QSFP28 PCIe
MCX0JFED1		

**PSAS CP 2100-8i support**

PSAS CP 2100-8i is supported.

To using this controller, install driver and ServerView modules for ESXi 7.0.

■ **Driver**

Please get smartpqi driver from the following site and install it.

ESXi Version	Versions	URL
7.0 Update 1 7.0 Update 2	70.4150.0.119 or 70.4252.0.103	Download the driver “smartpqi 70.4150.0.119” from Broadcom Support Portal or Download the driver “smartpqi 70.4252.0.103” from Broadcom Support Portal
7.0 Update 3 (v530-1)	70.4252.0.103	Download the driver “smartpqi 70.4252.0.103” from Broadcom Support Portal
7.0 Update 3 (v531-1)	70.4380.0.108	The driver 70.4380.0.108 is included in v531-1. vSAN with v531-1 is supported with combination of the driver 70.4380.0.108 and the firmware 5.61. Please update the firmware 5.61.

■ **ServerView ESXi CIM Provider for ESXi 7.0**

Please update the following both modules.

See “ServerView RAID” chapter to download the modules.

ESXi Version	Module	Version
7.0 Update 1 7.0 Update 2	ServerView RAID Core Provider	v9.90.02 or later
7.0 Update 3	ServerView CIM Provider	v9.80.06 or later

**Intel E810 LAN adapters support**

When using FUJITSU Customized Image v530-1, Intel E810 LAN adapter users shall update the latest firmware and drivers before using them because of a critical bug.

■ **Drivers**

Please retrieve the icen driver and irdman driver from the following VMware Compatibility page then install them to your system.

VMware ESXi 7.0U2 icen 1.11.3.0 NIC Driver for Intel Ethernet Controllers E810-C family  
Download the driver “icen 1.11.3.0” from Broadcom Support Portal

VMware ESXi 7.0 native irdman 1.4.3.0 RDMA Driver for Intel Ethernet Controllers E810-C, E810-XXV and X722 families  
Download the driver “irdman 1.4.3.0” from Broadcom Support Portal

■ **Firmware**

Please get the firmware from our Product Support page and apply it.

The following procedure shows how to download the firmware from our Product page, then apply this to your system.

- (1) Access <https://support.ts.fujitsu.com/index.asp?lng=COM>
- (2) Choose appropriate servers and ESXi 7.0U3, then select Intel E810 adapter you are using.
- (3) Download “E810 NVMe Update Package for ESXi” which version is 4.20 and apply it.

**No support of NVMe device on CX2560 M7**

ESXi does not support NVMe device on CX2560 M7.

## Management Software related issues

### ServerView RAID

To provide the management of AHCI related device such as M.2, SATADOM and SATA disks directly connected to Motherboard, RAID core provider is included in the FUJITSU Customized Image. The ServerView RAID Manager, running on a separate management server, deals with this provider.

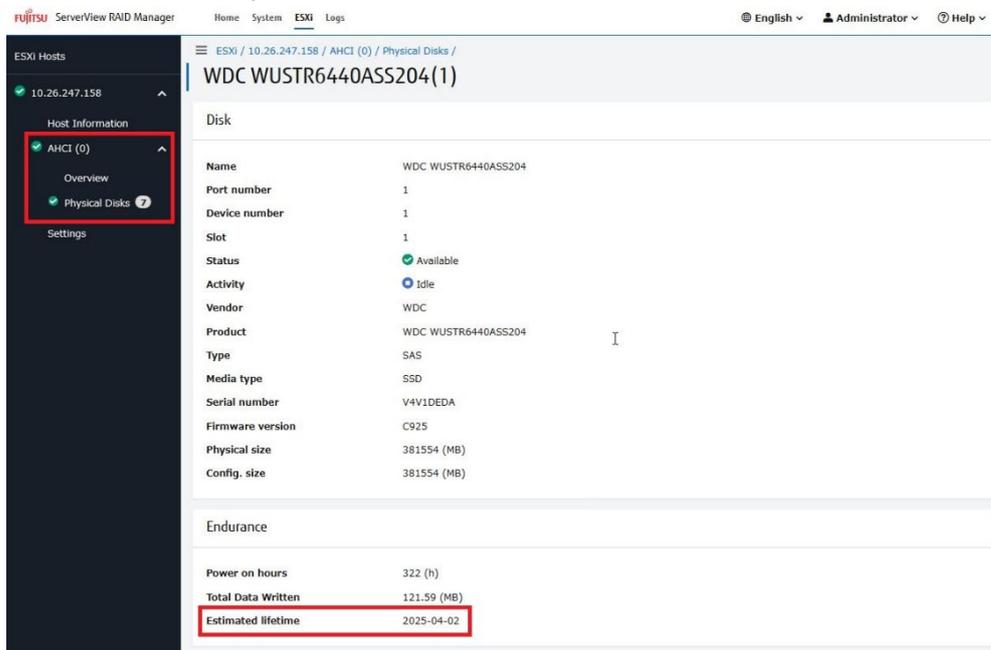
The ServerView RAID Manager is downloadable from

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

Use the latest ServerView RAID version.

### Caution:

Monitoring/Managing for SAS/RAID controllers on VMware\_ESXi\_7.0.0\_15843807\_Fujitsu\_v500\_1.iso is not supported except the lifetime monitoring on PSAS CP403i/passthrough mode connected SSDs(For vSAN use). In this case, SSDs are shown under AHCI, not PSAS CP403i. Also, error monitoring should be done via vCenter.



### How to monitor NVMe device in 7.0U3

Customers who are using NVMe device(PCIe SSDs) with "VMware-ESXi-7.0.3.update03-19193900-Fujitsu-v530-1.iso", Offline bundle and Add-on must do following.

(1) Check if "CIMFujitsu\_raid0NativeNvme" service is already activated or not.

```
# esxcfg-advcfg -g /UserVars/CIMFujitsu_raid0NativeNvme
```

If following message is shown, go to step (2).

Otherwise no additional action is required because your system is ready to monitor NVMe device.

Exception occurred: Unable to find option CIMFujitsu\_raid0NativeNvme

(2) Activate "CIMFujitsu\_raid0NativeNvme" service with following command.

```
# esxcfg-advcfg -A CIMFujitsu_raid0NativeNvme -T int -E "Enable or Disable SVRCP NVMe native support" -F 0 -N 0 -M 1  
# esxcfg-advcfg -s 1 /UserVars/CIMFujitsu_raid0NativeNvme
```

"Value of CIMFujitsu\_raid0NativeNvme is 1" message will be shown as output.

### OS name/CIM provider name are not displayed correctly on iRMC WebUI of RX1440 M2/RX2450 M2

Please check the correct OS name/CIM provider name under OS.

Or CIM provider 10.70.02 can fix this issue. Please update CIM provider.

### **PDUAL CP100 support**

RAID0 module in v532-1 (9.91.08) is not supported with PDUAL CP100.

PDUAL CP100 cannot be monitored with SVRM/SVOM.

Please use iRMC to monitor the adapter.

### ***Guest OS related issues***

#### **Microsoft Windows Server**

We deliver the Microsoft Windows Server media with a BIOS lock to prevent an installation on Non-PRIMERGY/PRIMEQUEST Servers.

From this a modification within the virtual machine is necessary to support their installation anyway.

The VM configuration file (\*.vmx) must contain one of the following additions:

- `smbios.addHostVendor = "TRUE"`  
If `smbios.addHostVendor = "TRUE"` is set, a host system vendor is present in SMBIOS tables even without `smbios.reflectHost`, and it is present in the field which Microsoft uses for host's system vendor.
- `smbios.reflectHost = "TRUE"` and `smbios.noOEMStrings = "TRUE"`  
By setting the `smbios.reflectHost = "TRUE"` option the virtual machine Product and Manufacturer SMBIOS information is the same as the server's SMBIOS information.  
`smbios.noOEMStrings = "TRUE"` determines the VM to stop reporting our OEM key in SMBIOS data, so Microsoft's OEM checks won't kick in and break things.

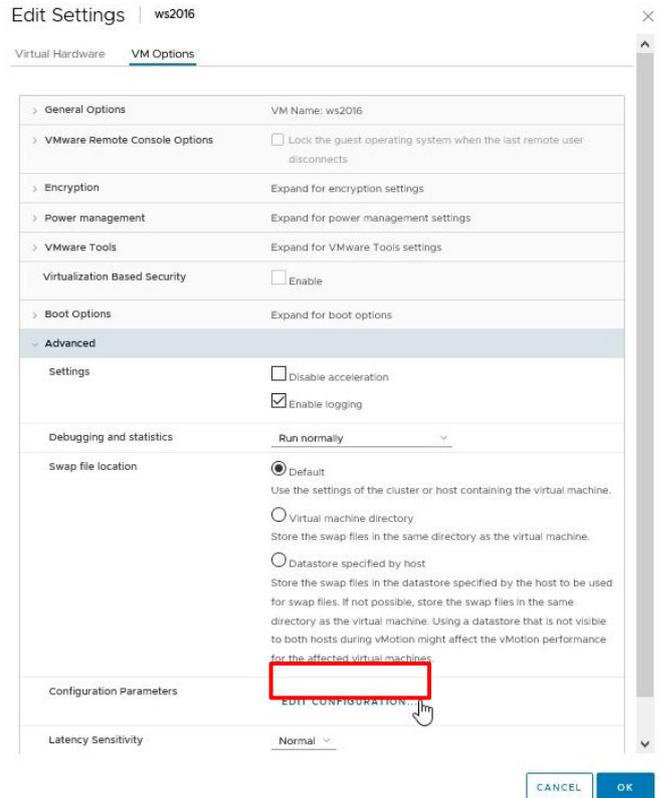
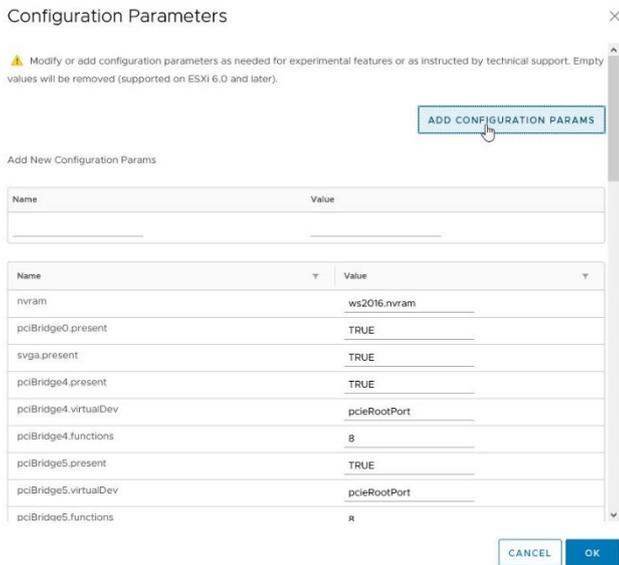
After installation, the above parameters should be deleted because these parameters may lead to vMotion failure.

#### **Attention:**

These settings never will cause an automatic activated Windows System. They only will allow the installation, and activation must follow in a separate step using the provided product key.

The modification of the VM configuration file (\*.vmx) can be done using different ways:

- Edit manually the VM configuration file via ssh-shell  
e.g. `vi /vmfs/volumes/datastore/<VM-name>/<VM-Name>.vmx`
- Edit virtual machine settings in vSphere Client or Host Client



**CPU hot-add on Windows VM**

Hot-adding virtual CPU on Windows virtual machine needs Windows patch to avoid BSOD. Please apply the latest patch to VMs. The latest patches can get from Microsoft web page or Windows Update.

**Sending keys to guest OS via ESXi Host Client**

When ESXi is applied 7.0U3l or later patch, sending keys to guest OS via ESXi Host Client is failed. If you want to send the keys, please use VMware Remote Console(VMRC) or vCenter server.

**How to build own Custom Image for VMware Cloud Foundation(VCF)**

Not all Customized images from us match with the ESXi patch version on VCF BOM(Bill of materials). This article describes how to build your own Customized Image with your necessary patch and our OEM modules for VCF installation.

[Preparation]

1. Find out the appropriate ESXi version from your necessary VCF Release Notes.  
Ex for VCF 4.5.2: [VMware Cloud Foundation 4.5.2 Release Notes](#) -> VMware ESXi 7.0Update 3n

Note; Check your VCF version and lifecycle at [Product Lifecycle Matrix](#).  
Please enter "VMware Cloud Foundation" for "Search by Description".

2. Download ESXi depot which was found by step 1 from Broadcom Support Portal
3. Download FUJITSU OEM Add-on from Broadcom Support Portal.  
You can find out the FUJITSU OEM Add-on name from the following table which shows ESXi update version and its corresponding OEM Add-on.

ESXi version	FUJITSU OEM Add-on Name
7.0 Update 1 – 7.0 Update 1e	VMware-ESXi-7.0.1.update01-16850804-Fujitsu-v510-1-Addon.zip
7.0 Update 2 – 7.0 Update 2e	VMware-ESXi-7.0.2.update02-17867351-Fujitsu-v520-1-Addon.zip

7.0 Update 3c – 7.0 Update 3l	VMware-ESXi-7.0.3.update03-19193900-Fujitsu-v530-1-Addon.zip
7.0 Update 3m – 7.0 Update 3n	VMware-ESXi-7.0.3.update03-21686933-Fujitsu-v531-1-Addon.zip
7.0 Update 3o or later	VMware-ESXi-7.0.3.update03- 22348816-Fujitsu-v532-1-Addon.zip

[Procedure]

There are 2 options to build Customized Image. One is by Power CLI, the other is by vSphere Lifecycle Manager. For both cases, see [Create a Custom ISO Image for ESXi](#).

## Open Source Software License Information

This FUJITSU Customized Image includes components which may contain additional open source software packages or are developed with the help of third-party software.

The copyright statements and license information applicable to the open source software are available at Broadcom Support Portal.

- on the Driver & Tools tab
- on the Open Source tab
- on the Custom ISOs tab

or at <https://support.ts.fujitsu.com>

The ZIP-archive is downloadable which contains OSL file.

## Documentation

### VMware

For actual Compatibility Guides (HCL) follow the link:

<https://compatibilityguide.broadcom.com/>

Release Notes, Patches & Updates and the Main Documentation Set of vSphere follow the link:

<https://techdocs.broadcom.com/us/en/vmware-cis/vsphere.html>

For a list of supported Guest Operating Systems look at:

<http://partnerweb.vmware.com/GOSIG/home.html>

For technical resources e.g. White Papers, Technical Papers, look at:

<https://www.vmware.com/techpapers.html>

### Fsas Technologies

Fsas Technologies documents:

<https://www.fujitsu.com/jp/products/computing/servers/primergy/software/vmware/>

### FUJITSU Technology Solutions

FUJITSU technical documents:

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