

Datasheet

Windows Server® 2016 (OEM, ROK) FOR FUJITSU Server

WITH THE RELEASE OF THE WINDOWS SERVER® 2016 OPERATING SYSTEM FUJITSU EXPANDS ITS OFFERING OF X86 PRIMERGY SERVER-BASED OPERATING SYSTEMS.

Windows Server

Windows Server 2016

Windows Server 2016 delivers a cloud-inspired solution that modernize your infrastructure to enhance operations while maintaining security, resilience, and performance. Windows Server 2016:

- Gives you new capabilities to prevent attacks and detect suspicious activity with features to control privileged access, protect virtual machines and harden the platform against emerging threats.
- Reduce your datacenter footprint, increase availability, and reduce resource usage with “just enough OS” using the Nano Server deployment option, with an image that is size 6%-13% of Windows Server 2016 with the full desktop experience.
- Deploy applications on multiple operating systems with best-in-class support for Linux on Hyper-V.
- Build highly available and scalable software-defined storage solutions at a fraction of SAN or NAS. Storage Spaces Direct uses standard servers with local storage to create converged or hyper-converged storage architectures.
- Create affordable business continuity and disaster recovery among datacenters with Storage Replica synchronous storage replication.
- Windows Server Containers bring the agility and density of containers to the Windows ecosystem, enabling agile application development and management.
- Use Hyper-V Containers for a unique additional level of isolation for containerized applications without any changes to the container image.

Product lineup

The following editions of Windows Server 2016 are available: Datacenter, Standard, Essentials and Windows Storage Server 2016. All products include an English, German, French, Italian, Spanish, Japanese, Chinese and Korea user interface. Additional language packs are available for download.

Delivery

The products ship packaged with the FUJITSU Server PRIMERGY system and are available in the PRIMERGY price list. Windows Server Client Access Licenses, Remote Desktop Services CAL, and the Windows Server Additional License are available after the purchase of the FUJITSU Server PRIMERGY system as well.

Serviceability

Products include a country-specific warranty.

Installation

ServerView Installation Manager, included with the FUJITSU Server PRIMERGY lets you install Windows Server 2016 on the FUJITSU Server PRIMERGY system hardware. Windows Server 2016 (OEM, ROK) can be installed as a guest operating system on Windows Server 2016, Windows Server 2012 R2, Microsoft Hyper-V Server 2016 and 2012 R2, and VMware hosts. For installation of Windows Server 2016 (OEM, ROK) on VMware hosts, please follow Fujitsu’s readme on Fujitsu VMware OEM media or binaries.

Lifecycle Support Policy

Microsoft’s support lifecycle for Windows Server 2016 applies in addition to FUJITSU’s PRIMERGY lifecycle: <http://support.microsoft.com/gp/lifeselectindex#W>



Datasheet

Windows Server® 2016 (OEM, ROK) FOR PRIMER- GY/PRIMEQUEST

WITH THE RELEASE OF THE WINDOWS SERVER® 2016 OPERATING SYSTEM FUJITSU EXPANDS ITS OFFERING OF X86 PRIMERGY SERVER-BASED OPERATING SYSTEMS.

Windows Server

Order numbers

- | | | |
|---|--|---|
| <ul style="list-style-type: none"> • Windows Server® 2016 Datacenter 16 core
OEM S26361-F2567-E510
ROK S26361-F2567-D510
w/Reassignment 16 core
OEM S26361-F2567-E511
ROK S26361-F2567-D511 • Windows Server® 2016 Datacenter Additional License
16 core No Media/Key
OEM S26361-F2567-E512
ROK S26361-F2567-D512
4 core No Media/Key
OEM S26361-F2567-E513
ROK S26361-F2567-D513
2 core No Media/Key
OEM S26361-F2567-E514
ROK S26361-F2567-D514 • Windows Server® 2016 Standard 16 core
OEM S26361-F2567-E520
ROK S26361-F2567-D520 • Windows Server® 2016 Standard Additional License
16 core No Media/Key POS Only
OEM S26361-F2567-E522
ROK S26361-F2567-D522
4 core No Media/Key POS Only
OEM S26361-F2567-E523
ROK S26361-F2567-D523
2core No Media/Key POS Only
OEM S26361-F2567-E524
ROK S26361-F2567-D524 • Windows Server® 2016 Standard Additional License
16 core No Media/Key APOS
OEM/ROK S26361-F2567-L522

4 core No Media/Key APOS | <p>OEM/ROK S26361-F2567-L523
2 core No Media/Key APOS
OEM/ROK S26361-F2567-L524</p> <ul style="list-style-type: none"> • Windows Server® 2016 Essentials
OEM S26361-F2567-E530
ROK S26361-F2567-D530 • Windows® Storage Server 2016 Standard 2CPU & 2VM
OEM S26361-F2567-E550
ROK S26361-F2567-D550 • Windows Server® 2016 CAL
100 Devices
S26361-F2567-E568
S26361-F2567-L568
50 Devices
S26361-F2567-E566
S26361-F2567-L566
10 Devices
S26361-F2567-E564
S26361-F2567-L564
5 Devices
S26361-F2567-E562
S26361-F2567-L562
1 Device
S26361-F2567-E560
S26361-F2567-L560 • Windows Server® 2016 CAL
100 Users
S26361-F2567-E569
S26361-F2567-L569
50 Users
S26361-F2567-E567
S26361-F2567-L567
10 Users
S26361-F2567-E565
S26361-F2567-L565
5 Users
S26361-F2567-E563
S26361-F2567-L563 | <p>1 User
S26361-F2567-E561
S26361-F2567-L561</p> <ul style="list-style-type: none"> • Windows Server® 2016 RDS CAL
100 Devices
S26361-F2567-E578
S26361-F2567-L578
50 Devices
S26361-F2567-E576
S26361-F2567-L576
10 Devices
S26361-F2567-E574
S26361-F2567-L574
5 Devices
S26361-F2567-E572
S26361-F2567-L572
1 Device
S26361-F2567-E570
S26361-F2567-L570 • Windows Server® 2016 RDS CAL
100 Users
S26361-F2567-E579
S26361-F2567-L579
50 Users
S26361-F2567-E577
S26361-F2567-L577
10 Users
S26361-F2567-E575
S26361-F2567-L575
5 Users
S26361-F2567-E573
S26361-F2567-L573
1 User
S26361-F2567-E571
S26361-F2567-L571 |
|---|--|---|

Your Features and Benefits

Windows Server 2016 at a glance

Windows Server 2016 Datacenter

Windows Server 2016 Datacenter is for highly virtualized datacenter and cloud environments. Windows Server 2016 Datacenter is a cloud-ready operating system that applies new levels of security and innovation to applications and infrastructure. It provides a flat virtualization rate thanks to unlimited virtual use rights and there are exclusive features to the Datacenter edition.

To license a server, all physical cores in the server must be licensed. Each server is required to be licensed with a minimum of 16 core licenses. Each physical processor is required to be licensed with a minimum of eight core licenses. If the number of physical cores in the server exceeds the minimum 16-core license requirement, you need additional core licenses to cover the additional physical cores.

Features

- Shielded Virtual Machine
- Storage Spaces Direct
- Storage Replica
- Network Controller

Benefits

- In addition to user data protection, it can prove the innocence of the cloud operator
- Efficient use of storage resources
- In addition to the standard features, measures against possible disasters, such as low-cost, highly reliable storage are available
- Centralized management and monitoring of the data center and the cloud infrastructure network components by the Network Controller

Windows Server 2016 Standard

Windows Server 2016 Standard is for physical or minimally virtualized environments. To license a server is the same as for Windows Server 2016 Datacenter Edition. Windows Server 2016 Standard licenses are available that allows the user to run 2 virtual instances.

Features

- Containers (Windows Server Containers and Hyper-v Containers)
- Nano Server
- VM Compute Resiliency/VM Storage Resiliency
- PowerShell Direct
- Just Enough Administration
- Nested Virtualization
- Windows Defender

Benefits

- Support Containers management by PowerShell and Efficient use of the virtual environment resources
- Fast start-up and reduced security risk by using a Nano Server for minimum footprint
- Virtual infrastructures curbing impact of temporary failures can be provided
- Increasing user convenience by making network settings not required when doing virtual environment configurations.
- Enhance security by giving rights to administer the required minimum security level
- For an evaluation, with Hyper-v running on a virtual machine, further virtual machines can be run (nested)
- High level of security in the only standard function (also supports Nano Server)

Windows Server 2016 Essentials

As an ideal first server for small businesses with up to 25 users and 50 devices, Windows® Server 2016 Essentials provides an affordable and easy-to-use solution to protect critical business data with advanced, automated backup features for both clients and the server. It helps to organize and access business documents from virtually anywhere with centralized storage and remote access. Furthermore, it supports the applications small business customers need to run their business and allows quick connections to optional online services to increase the server's functionalities.

Benefits

- No CALs required
- Licensing model of Essentials edition is Server-based as before

Windows Server 2016 at a glance

Windows Storage Server 2016 Standard

There are no changes to Windows Server Storage Server from 2012 R2.

Windows Storage Server 2016 is the most suitable operating system platform for NAS appliances that are pre-configured for customers that need a cost effective, reliable storage solution. Being a file based storage solution, it supports and incorporates enterprise class features like iSCSI target, SMB/NFS file sharing, clustering and continuous availability, cluster aware updating, data de-duplication, branch cache. It is designed as an optimized for storage solution, hence it does not support features like Active Directory Domain controller, application server roles, terminal services for applications, rights management server, certificate federation, fax server. Windows Storage Server 2016 Standard licenses are available for running on 2 processors / 2 virtual instances and 4 processors / 4 virtual instances respectively. An Additional license will add 2 more processors / virtual instances.

Benefits

- Scale out and Scale up file server
- No CALs required
- Support for an unlimited amount of users (may only be limited by particular hardware implementation)

Windows Server 2016 – Editions and their differences

Function	Datacenter	Standard
Shielded VM	Yes	No
Storage Spaces Direct	Yes	No
Storage Replica	Yes	No
Software Defined Networking Infrastructure (Network Controller, Software Load Balancer, and Multi-tenant Gateway)	Yes	No
Nano Server	Yes	Yes
OSes / Hyper-V Container	Yes(Unlimited)	Yes(2VM)
Windows Server Container	Yes(Unlimited)	Yes(Unlimited)
Nested Virtualization	Yes	Yes
Windows Defender	Yes	Yes

Windows Server 2016 - Comparison of editions and their technical specifications

Technical specification	Windows Server 2016 Datacenter	Windows Server 2016 Standard	Windows Server 2016 Essentials	Windows Storage Server 2016 Standard
• PRIMERGY supports max. physical CPUs/cores	4CPU/96core	4CPU/96core	2CPU/44core	2CPU/44core
Max. VM supported	Unlimited VM	Unlimited VM	1 ²⁾	Unlimited VM
• VM use rights included per product	Unlimited VM	2 VM ¹⁾	1 VM ²⁾	2 VM ¹⁾
Max. physical RAM supported	24TB	24TB	64GB	24TB
Hyper-V role supported ³⁾	Yes	Yes	Yes ³⁾	Yes
Max. logical processors supported	640	640	Unlimited (Limit to 2CPU)	Unlimited (Limit to 2CPU)
Active virtual machines supported	1024	1024	1 ²⁾	
Cluster support max. nodes	64	64	Not supported	64
Max. Users / Devices	No limit ⁴⁾	No limit ⁴⁾	25 / 50 ⁵⁾	No limit ⁴⁾
Remote Desktop Services supported	Yes / Unlimited	Yes / Unlimited	No ⁶⁾	No ⁶⁾
CALs required / included with license	Yes / 0	Yes / 0	No	No
RDS CALs required if used / included	Yes / 0	Yes / 0	N/A	N/A
Admin connections allowed w/o CAL	2	2	2	N/A
Can act as a Domain Controller (AD)	Yes	Yes	Yes ⁷⁾⁸⁾	No

- 1) Additional use rights for VMs can be obtained with 1 or more Additional Licenses for 1 VMs
- 2) Only Windows Server 2016 Essentials as guest OS
- 3) Hyper-V guests can access 64 virtual CPUs, 1 TB of memory, and 64-TB VHDs
- 4) No technical limit designed into the product, particular hardware implementation might limit performance and hence limit reasonable amount of users or devices
- 5) Up to 50 devices: client connector can be installed on up to 50 devices
- 6) Except two admin remote sessions covered by product license .
- 7) Domain controller is configured for max. 25 users and 50 devices and runs "out of the box"
- 8) AD must be configured for max. must be the root of a forest and not to be a child domain and to have no trust relationships with any other domains.

Technical Details

SOFTWARE REQUIREMENTS

Server Operating System	Windows Server 2016 The minimum system hardware requirements are defined by Microsoft. FUJITSU Server PRIMERGY systems, server blades and nodes, which are or will be certified ("logo'd"), fulfill these requirements.
Windows Server 2016 Editions	Datacenter, Standard, Essentials
Windows Server 2016 Storage Server Editions	Standard
Product Updates	Updates through Microsoft via Windows Update After the first install of Windows Server 2016, Apply the cumulative Update KB3192366 provided by Microsoft on 26 th September 2016 or any later cumulative updates.
Shielded Virtual Machine – Shielded VM	When using the new feature "Shielded Virtual Machine", please apply the cumulative Update KB3213522 provided by Microsoft on 20 th December, 2016 or any later cumulative updates.
Precautions	Log EventID:219(Source: System) of Windows is detected during the reboot/power-onoff. Such event recording does not affect the system.

HARDWARE REQUIREMENTS

FUJITSU Server PRIMERGY/PRIMEQUEST	PRIMERGY Blade / Rack / Tower Servers / PRIMEQUEST
Microsoft Hyper-V Server 2016 free, for download at Microsoft	[PRIMERGY] RX4770 M3, RX2560 M2, RX2540 M2, RX2530 M2, RX2520 M1, RX1330 M2, TX2560 M2, TX2540 M1, TX1330 M2, TX1320 M2, TX1310 M1, BX2580 M2, BX2560 M2, CX2570 M2, CX2550 M2 [PRIMEQUEST] 2800E3, 2400E3, 2800B3
Windows Server 2016 Datacenter	[PRIMERGY] RX4770 M3, RX2560 M2, RX2540 M2, RX2530 M2, RX2520 M1, RX1330 M2, TX2560 M2, TX2540 M1, TX1330 M2, TX1320 M2, TX1310 M1, BX2580 M2, BX2560 M2, CX2570 M2, CX2550 M2 [PRIMEQUEST] 2800E3, 2400E3, 2800B3
Windows Server 2016 Standard	[PRIMERGY] RX4770 M3, RX2560 M2, RX2540 M2, RX2530 M2, RX2520 M1, RX1330 M2, TX2560 M2, TX2540 M1, TX1330 M2, TX1320 M2, TX1310 M1, BX2580 M2, BX2560 M2 CX2570 M2, CX2550 M2 [PRIMEQUEST] 2800E3, 2400E3, 2800B3
Windows Server 2016 Essentials	PRIMERGY RX2560 M2, RX2540 M2, RX2530 M2, RX2520 M1, RX1330 M2, TX2560 M2, TX2540 M1, TX1330 M2, TX1320 M2, TX1310 M1, BX2580 M2, BX2560 M2, CX2570 M2 and CX2550 M2
Windows Server 2016 Storage Server Standard	PRIMERGY RX2560 M2, RX2540 M2, RX2530 M2, RX2520 M1, RX1330 M2, TX2560 M2, TX2540 M1, TX1330 M2, TX1320 M2, TX1310 M1, BX2560 M2, CX2570 M2 and CX2550 M2. Current release matrix for systems here . FUJITSU Server PRIMERGY components. Please see the release matrix for components. FUJITSU Storage ETERNUS systems. Please see the release matrix for ETERNUS.
Precautions	BIOS When using Windows Server 2016, apply the following version of BIOS/Firmware. Please download the following version from here . [BIOS for PRIMERGY] RX4770 M3 V1.8.0 later

RX2560 M2 V1.7.0 later
 RX2540 M2 V1.7.0 later
 RX2530 M2 V1.7.0 later
 RX2520 M1 V1.17.0 later
 RX1330 M2 V1.14.0 later
 TX2560 M2 V1.7.0 later
 TX2540 M1 V1.19.0 later
 TX1330 M2 V1.14.0 later
 TX1320 M2 V1.14.0 later
 TX1310 M1 V1.7.0 later
 BX2580 M2 V1.6.0 later
 BX2560 M2 V1.6.0 later
 CX2570 M2 V1.6.0 later
 CX2550 M2 V1.6.0 later
 [Firmware for PRIMEQUEST]
 2800E3 BC16 - 12 - 2 later
 2400E3 BC16 - 12 - 2 later
 2800B3 BC16 - 12 - 2 later

UEFI mode (1)	<p>In UEFI mode and using Windows Server 2016 native driver, the resolution of the monitor is always 1024 X 768.</p> <p>Applied to PRIMERGY RX4770 M3, RX2560 M2, RX2540 M2, RX2530 M2, RX2520 M1, RX1330 M2, TX2560 M2, TX2540 M1, TX1330 M2, TX1320 M2, TX1310 M1, BX2580 M2, BX2560 M2, CX2570 M2 and CX2550 M2.</p>
UEFI mode (2)	<p>When installing in UEFI mode, please set the BIOS menu as either of the following items;</p> <p>(1) [Advanced]-[CSM Configuration]-[Boot option filter] "UEFI only"</p> <p>(2) [Advanced]-[CSM Configuration]-[Launch CSM] "Disabled"</p> <p>Applied to PRIMERGY RX4770 M3.</p>
iSCSI and FCoE	<p>When using iSCSI and FCoE, please download the following firmware and driver kit from here and apply them.</p> <ul style="list-style-type: none"> • Firmware for converged network adapter V11.1.172.23 and later • Windows driver kit for converged network adapter V11.1.172.19 and later <p>Applied to PRIMERGY RX4770 M3, RX2560 M2, RX2540 M2, RX2530 M2, RX2520 M1, TX2560 M2, TX2540 M1, BX2580 M2 and BX2560 M2.</p>
Onboard SATA Controller	<p>When using Software RAID of onboard SATA Controller(Mega SR,) please apply MegaSR V.17.01.2016.0817 and later. You can download it from here.</p> <p>Applied to RX2530 M2, RX2520 M1, RX1330 M2, TX2540 M1, TX1330 M2, TX1320 M2, TX1310 M1, BX2580 M2, BX2560 M2, CX2570 M2 and CX2550 M2</p>
LAN (1)	<p>About the LAN feature, please apply "Intel® Ethernet Adapters Connections SW-Kit 21.1" and later. You can download them from here.</p> <p>Applied to:</p> <p><Systems> RX4770 M3, RX2520 M1, RX1330 M2, TX2540 M1, TX1330 M2, TX1320 M2, TX1310 M1, CX2570 M2 and CX2550 M2.</p> <p><LAN cards> PLAN CP 4x1Gbit Cu Intel I350-T4, PLAN CP 2x1Gbit Cu Intel I350-T2, PLAN AP 1x1Gbit Cu Intel I210-T1, RX4770 10GB LAN Mezzanine Card (Niantic), Eth Ctrl 2x10GBase-T PCIe x8 X540-T2, Eth Ctrl 2x10Gbit PCIe x8 D2755 SFP+ and PLAN EP X710-DA2 2x10Gb SFP+.</p>
LAN (2)	<p>About the following LAN cards, Intel PROset is not available. Please use the LAN driver bundled with Windows Server 2016.</p> <p>PY Eth Mezz Card 1Gb 4 Port PY Eth Mezz Card 10Gb 2 Port V2</p>
Display (1)	<p>NVIDIA NVS315 is available. However RX1330 M2, TX1330 M2 and TX1320 M2 will support it in the end of July 2017.</p>
Display (2)	<p>To use the multiple monitors with Quadro M4000, please use the driver version 369.09 and later.</p>

Converged network adapter	<p>When using the following converged network adapter extension card;PY CNA Mezz Card 10Gb 2 Port (MC-CNA112E), please apply all of the following driver and firmware for Windows Server 2016. You can download from here.</p> <p><Common></p> <ul style="list-style-type: none"> • Avago FCoE Driver for Windows: V.11 - 1 - 145.16-37 and later • Avago NIC Driver for Windows: V.11 - 1 - 145.24-9 and later • Firmware Flash ISO for Avago CNA Controller (OCx14 FW: 11.1.172.23 / OCx11 FW: 10.6.193.15): V.Flash ISO RT11.1_Main and later
Fibre channel cards (1)	<p>When using the following 16Gbps fibre channel cards; PFC EP LPe16000 1x 16Gb, PFC EP LPe16002 2x 16Gb and PFC EM MC-FC162E 2x16Gb, please apply both of the following firmware, BootBIOS and driver for Windows Server 2016. You can download them from here.</p> <p><Common></p> <ul style="list-style-type: none"> • Avago Storport Miniport Driver for Windows: V.11 - 1 - 145.16-37 and later • Universal Boot and FW for MC-FC162E and LPe1600x: V.11.1.172.15 and later
Fibre channel cards (2)	<p>When using the following 8Gbps fibre channel cards; FC CTRL LPe1250, FC CTRL LPe12002 and PY FC Mezz. Card 8Gb 2 Port (MC-FC82E), please apply the following firmware, BootBIOS and driver for Windows Server 2016. You can download them from here.</p> <p><Common></p> <p>Avago Storport Miniport Driver for Windows: V.11 - 1 - 145.16-37 and later</p> <p><Indivisual></p> <ul style="list-style-type: none"> • Universal Boot and FW for LPe1250: V.Boot v7.00a3 FW v2.02a1 and later • Universal Boot and FW for LPe12002: V.Boot v7.00a3 FW v2.02a1 and later • MultiBoot Firmware Flash for MC-FC82E incl. Reg17/19 SERDES: V.MultiBoot 7.00a3 FW v2.02a1 and later
SAS array controller	<p>When using PSAS CP400i / PSAS CP400e / PRAID CP400i / PRAID EP400i / PRAID EP420i / PRAID EP420e / RAID Ctrl SAS 6G 8Port ex 1GB LSI V3 / PRAID EM400i / PRAID CM400i, EventID:11(Source: disk) of Windows is detected during the attaching or reattaching disk. Such event recording does not affect the system. When using the following SAS controller cards, please download the SAS array controller MegaRAID SAS Windows Driver from here and apply it. PRAID CP400i, PRAID EP400i, PRAID EP420i, PRAID EP420e, PRAID EM400i, PRAID CM400i, RAID Ctrl SAS 6G 8Port ex 1GB LSI V3</p>
SAS Storage Spaces	<p>Storage Spaces, which is a new feature from Windows Server 2012, can be used in Windows Server 2016 too.</p> <p>SAS Storage Spaces support is released for Fujitsu Server PRIMERGY systems with external ETERNUS JBOD enclosures or internal disks.</p> <p>SAS Storage Spaces is not supported to operate on top of a Hardware or Software RAID configuration. This is per design for SAS Storage Spaces. Use with external storage enclosures: cannot use hotspare if the corrupted disk is in different enclosures. This is per design for SAS Storage Spaces.</p>
Storage Spaces Direct – S2D General	<p>"Storage Spaces Direct" is available with Windows Server 2016 Datacenter Edition on RX2540 M2 and RX2530 M2 shipped in or after December 2016. These systems with the following base units or bays expandable are available for "Storage Spaces Direct."</p> <p>[Base unit]</p> <p>PY RX2530 M2 10x 2,5"(S26361-K1565-V501)</p> <p>PY RX2540 M2 24x 2,5"(S26361-K1566-V424)</p> <p>PY RX2540 M2 12x 3,5"(S26361-K1566-V112)</p> <p>[Bays expandable]</p> <p>Config 5: 16x 2.5" HDD(S26361-F2495-E450)</p> <p>Upgr. kit for V401 from 8 to 24x2.5" HDD(S26361-F2495-L442)</p> <p>"Storage Spaces Direct" is only available for Hyper-V workload or SQL Server workload. And this feature is not available for the file server used for general user data.</p>

HDD/SSD

The following HDD/SSD are supported.

[HDD]

-SAS(2.5-inch)

HD SAS 12G 900GB 10K 512e HOT PL 2.5' EP (S26361-F5543-E190)

HD SAS 12G 1.2TB 10K 512e HOT PL 2.5' EP (S26361-F5543-E112)

HD SAS 12G 1.8TB 10K 512e HOT PL 2.5' EP (S26361-F5543-E118)

HD SAS 12G 600GB 15K HOT PL 2.5' EP (S26361-F5531-E560)

HD SAS 12G 1TB 7.2K 512e HOT PL 2.5' BC (S26361-F5573-E100)

HD SAS 12G 2TB 7.2K 512e HOT PL 2.5' BC (S26361-F5573-E200)

HD SAS 12G 1TB 7.2K 512n HOT PL 2.5' BC (S26361-F5600-E100)

HD SAS 12G 2TB 7.2K 512n HOT PL 2.5' BC (S26361-F5600-E200)

HD SAS 12G 900G 10K 512n HOT PL 2.5' EP (S26361-F5550-E190)

HD SAS 12G 1.2TB 10K 512n HOT PL 2.5' EP (S26361-F5550-E112)

HD SAS 12G 300GB 15K HOT PL 2.5' EP (S26361-F5531-E530)

HD SAS 12G 450GB 15K HOT PL 2.5' EP (S26361-F5531-E545)

-SATA(2.5-inch)

HD SATA 6G 1TB 7.2K 512e HOT PL 2.5' BC (S26361-F3907-E100)

HD SATA 6G 2TB 7.2K 512e HOT PL 2.5' BC (S26361-F3907-E200)

HD SATA 6G 1TB 7.2K HOT PL 2.5' BC (S26361-F3816-E100)

HD SATA 6G 2TB 7.2K 512n HOT PL 2.5' BC (S26361-F3956-E200)

-SAS(3.5-inch)

HD SAS 12G 2TB 7.2K 512e HOT PL 3.5' BC (S26361-F5571-E200)

HD SAS 12G 4TB 7.2K 512e HOT PL 3.5' BC (S26361-F5571-E400)

HD SAS 12G 6TB 7.2K 512e HOT PL 3.5' BC (S26361-F5571-E600)

HD SAS 12G 8TB 7.2K 512e HOT PL 3.5' BC (S26361-F5571-E800)

HD SAS 12G 10TB 7.2K 512e HOT PL 3.5' BC (S26361-F5571-E100)

HD SAS 12G 300GB 15K HOT PL 3.5' EP (S26361-F5532-E530)

HD SAS 12G 450GB 15K HOT PL 3.5' EP (S26361-F5532-E545)

HD SAS 12G 600GB 15K HOT PL 3.5' EP (S26361-F5532-E560)

HD SAS 12G 1.2TB 10K 512n HOT PL 3.5' EP (S26361-F5568-E112)

HD SAS 12G 1.8TB 10K 512e HOT PL 3.5' EP (S26361-F5569-E118)

-SATA(3.5-inch)

HD SATA 6G 1TB 7.2K HOT PL 3.5' BC (S26361-F3950-E100)

HD SATA 6G 6TB 7.2K 512e HOT PL 3.5' BC (S26361-F3904-E600)

HD SATA 6G 8TB 7.2K 512e HOT PL 3.5' BC (S26361-F3904-E800)

HD SATA 6G 10TB 7.2K 512e HOT PL 3.5' BC (S26361-F3904-E100)

[SSD (for cache and data storage)]

-SAS(2.5-inch)

SSD SAS 12G 400GB Write-Int. 2.5' H-P EP (S26361-F5608-E400)

SSD SAS 12G 800GB Write-Int. 2.5' H-P EP (S26361-F5608-E800)

SSD SAS 12G 1.6TB Write-Int. 2.5' H-P EP (S26361-F5608-E160)

SSD SAS 12G 480GB Mixed-Use 2.5' H-P EP (S26361-F5614-E480)

SSD SAS 12G 960GB Mixed-Use 2.5' H-P EP (S26361-F5614-E960)

SSD SAS 12G 1.92TB Mixed-Use 2.5' H-P EP (S26361-F5614-E192)

SSD SAS 12G 3.84TB Mixed-Use 2.5' H-P EP (S26361-F5614-E384)

-SATA(2.5-inch)

SSD SATA 6G 1.2TB Write-Int. 2.5' H-P EP (S26361-F5592-E120)

SSD SATA 6G 200GB Write-Int. 2.5' H-P EP (S26361-F5592-E200)

SSD SATA 6G 400GB Write-Int. 2.5' H-P EP (S26361-F5592-E400)

SSD SATA 6G 800GB Write-Int. 2.5' H-P EP (S26361-F5592-E800)

SSD SATA 6G 120GB Mixed-Use 2.5' H-P EP (S26361-F5588-E120)

SSD SATA 6G 240GB Mixed-Use 2.5' H-P EP (S26361-F5588-E240)

SSD SATA 6G 480GB Mixed-Use 2.5' H-P EP (S26361-F5588-E480)

SSD SATA 6G 960GB Mixed-Use 2.5' H-P EP (S26361-F5588-E960)

SSD SATA 6G 1.92TB Mixed-Use 2.5' H-P EP (S26361-F5588-E192)

-SAS(3.5-inch)

SSD SAS 12G 400GB Write-Int. 3.5' H-P EP (S26361-F5607-E400)

SSD SAS 12G 800GB Write-Int. 3.5' H-P EP (S26361-F5607-E800)

SSD SAS 12G 1.6TB Write-Int. 3.5' H-P EP (S26361-F5607-E160)

SSD SAS 12G 480GB Mixed-Use 3.5' H-P EP (S26361-F5612-E480)

SSD SAS 12G 960GB Mixed-Use 3.5' H-P EP (S26361-F5612-E960)
 SSD SAS 12G 1.92TB Mixed-Use 3.5' H-P EP (S26361-F5612-E192)
 SSD SAS 12G 3.84TB Mixed-Use 3.5' H-P EP (S26361-F5612-E384)
 -SATA(3.5-inch)
 SSD SATA 6G 200GB Write-Int. 3.5' H-P EP (S26361-F5593-E200)
 SSD SATA 6G 400GB Write-Int. 3.5' H-P EP (S26361-F5593-E400)
 SSD SATA 6G 800GB Write-Int. 3.5' H-P EP (S26361-F5593-E800)
 SSD SATA 6G 1.2TB Write-Int. 3.5' H-P EP (S26361-F5593-E120)
 SSD SATA 6G 120GB Mixed-Use 3.5' H-P EP (S26361-F5589-E120)
 SSD SATA 6G 240GB Mixed-Use 3.5' H-P EP (S26361-F5589-E240)
 SSD SATA 6G 480GB Mixed-Use 3.5' H-P EP (S26361-F5589-E480)
 SSD SATA 6G 960GB Mixed-Use 3.5' H-P EP (S26361-F5589-E960)
 SSD SATA 6G 1.92TB Mixed-Use 3.5' H-P EP (S26361-F5589-E192)
 [SSD(for only data storage)]
 -SAS(2.5-inch)
 SSD SAS 12G 480GB Read-Int. 2.5' H-P EP (S26361-F5617-E480)
 SSD SAS 12G 960GB Read-Int. 2.5' H-P EP (S26361-F5617-E960)
 SSD SAS 12G 1.92TB Read-Int. 2.5' H-P EP (S26361-F5617-E192)
 SSD SAS 12G 3.84TB Read-Int. 2.5' H-P EP (S26361-F5617-E384)
 -SAS(3.5-inch)
 SSD SAS 12G 480GB Read-Int. 3.5' H-P EP (S26361-F5615-E480)
 SSD SAS 12G 960GB Read-Int. 3.5' H-P EP (S26361-F5615-E960)
 SSD SAS 12G 1.92TB Read-Int. 3.5' H-P EP (S26361-F5615-E192)
 SSD SAS 12G 3.84TB Read-Int. 3.5' H-P EP (S26361-F5615-E384)
 *Online Firmware Update is not supported.

SAS controller
LAN Card

Only the SAS controller card "PSAS CP400i" is available to use.
 Please use the LAN cards more than 10Gb.

System Requirements FUJITSU Server PRIMERGY

Processor. ECC Memory. DVD drive. Disk. RAID (Redundant Array of Independent Disks) is supported but not required. The system volume can be MBR or GPT. Keyboard. Video. Mouse. Logo requirements are the same for all editions of Windows Server 2016. Windows Storage Server 2016 Standard does not require keyboard, video, mouse and is always delivered without.

PRIMERGY JBOD External Enclosures

FUJITSU Storage ETERNUS JX40 S2, JX60

SERVERVIEW SUPPORT

Fujitsu ServerView Suite

ServerView Installation Manager as of version 12.16.10 or higher for Windows Server 2016.
 ServerView Operations of version 7.30 manages Windows Server 2016. ServerView RAID Manager as of version 6.40. ServerView Agents as of version 7.30.

Windows Server OEM, ROK on a VMware Host

Installation

Fujitsu Windows Server 2016 OEM, ROK products install as guest operating systems on VMware hosts. Do not use ServerView Installation Manager for installing Windows Server into a virtual machine.

LANGUAGES

Windows Server 2016 Datacenter, Standard, Essentials and Windows Storage Server Standard products are multilingual and include the following languages: English, German, French, Italian, Spanish, Japanese, Chinese and Korea Further language packs for Arab, Bokmal, Brazilian Portuguese, Bulgarian, Croatian, Czech, Danish, Dutch, Estonian, Finnish, Greek, Hebrew, Hungarian, Korean, Latvian, Lithuanian, Polish, Portuguese, Romanian, Russian, Serbian Latin, Slovak, Slovenian, Swedish, Thai, Turkish, and Ukrainian are also available as end user downloads from Microsoft. Install using command line command Ipsetup which opens a GUI and directs you through installation. This article describes the detail (full / partially localized) and language pack type: <http://technet.microsoft.com/en-us/library/hh825678.aspx>.

HYPER-V

Windows Server 2016 Datacenter, Standard and Essentials contain Hyper-V. The Hyper-V role enables you to create and manage a virtualized computing environment by using virtualization technology that is built in to Windows Server 2016. Hyper-V is supported on all PRIMERGY servers.

Supported server guest operating systems

Windows Server 2016, Windows Server 2012 R2, Windows Server 2012, Windows Server 2008 R2 with SP1 Datacenter, Enterprise, Standard and Web editions, Windows Server 2008 (32-bit and 64-bit) with SP2 Datacenter, Enterprise, Standard and Web editions, Windows Home Server 2011, Windows Small Business Server 2011 Essentials and Standard editions, CentOS 7.2 – 5.2, Red Hat Enterprise Linux 7.2 – 5.2, SUSE Linux Enterprise Server 12 SP1, 11 SP4, SP3, SP2, Ubuntu 16.04 ,14.04, 12.04, Oracle Linux 7.2 – 7.0, 6.8 - 6.4 .
For Hyper-V from a Windows Server 2016 Essentials, only one virtual machine with Windows Server 2016 Essentials can be installed.

Supported client guest operating systems

Windows 10, Windows 8.1, Windows 8, Windows 7 with SP1 (32-bit and 64-bit) Ultimate, Enterprise and Professional editions(32-bit and 64-bit), Windows 7 Ultimate, Enterprise, Professional editions(32-bit and 64-bit), Windows Vista with SP2 Business, Enterprise, Ultimate, including N and KN editions.

Upgrade or Install the integration services after you set up the operating system in the virtual machine. The entire list of supported guest operating systems and Service Packs can be found at: <https://technet.microsoft.com/ja-jp/windows-server-docs/compute/hyper-v/hyper-v-technology-overview>.
Guest operating systems must be correctly licensed.

SPECIAL FEATURES SUPPORT

Enhanced Platform Integrity - EPI

EPI is required on RX2560 M2, RX2540 M2, RX2530 M2, RX1330 M2, TX2560 M2, TX1330 M2, TX1320 M2, BX2580 M2, BX2560 M2, and another servers are planned to required.

EPI is sometimes referred to as "Assurance". A system that has this Additional Qualification supports all the hardware and firmware technologies required to support a higher level of security.

Those technologies are:

- TPM 2.0 or later.
- UEFI version 2.31c or higher firmware support
- SecureBoot

IO Memory Management Unit(IOMMU)

Enhanced Power Management

The Enhanced Power Management feature identifies servers which support the next generation power management technology available with Windows Server 2016 These features will provide cost-savings associated with reducing power consumption on each server. EPM will be supported on FUJITSU Server PRIMERGY RX4770 M3, RX2560 M2, RX2540 M2, RX2530 M2, RX1330 M2, TX2560 M2, TX1330 M2, TX1320 M2, BX2580 M2, BX2560 M2, and another servers are planned to supported.

Out of Band Manageability - OOBM

Out-of-band remote manageability allow different makes and models of server systems running Windows Server 2016 to operate efficiently in a software-defined datacenter and therefore lowering operational costs for the customers where heterogeneous hardware platforms are deployed.

Out of Band Manageability will be supported on FUJITSU Server PRIMERGY RX4770 M3, RX2560 M2, RX2540 M2, RX2530 M2, RX1330 M2, TX2560 M2, TX1330 M2, TX1320 M2, BX2580 M2, BX2560 M2, and another servers are planned to supported.

EDITION-SPECIFIC RESTRICTIONS

System Restrictions Windows Server 2016 Essentials

Windows Server 2016 Essentials is dedicated for use in Small Businesses. Maximum 2 CPU and 64GB RAM supported.

Notes: Microsoft Hyper-V Server 2016

Release and support for FUJITSU Server PRIMERGY for Windows Server 2016 includes release and support for Microsoft Hyper-V Server 2016, free end user download at Microsoft.

Click the 'Free Download' button on the Microsoft Hyper-V Server product page www.microsoft.com/en-us/evalcenter/evaluate-windows-server-2016/ .

LICENSING

Right to use – Server License	The software is licensed per server system based on the number of processors and instances of server software.
	<p>Permanent Assignment. The software license is permanently assigned to the FUJITSU Server PRIMERGY with which you acquired the software. That server is the licensed server for that particular license. You may assign other software licenses to the same server, but you may not assign the same license to more than one server.</p> <p>Windows Server 2016 Datacenter and Standard requires CALs, although not included. CALs are required for every user or device accessing a server. Licensing details: https://www.microsoft.com/en/server-cloud/products/windows-server-2016/default.aspx#Menuitem4</p>
	<p>OEM Virtual Machines Portability. VMs are not permanently assigned to a server. All Windows Server license types support virtual machine (VM) portability. Virtual machines (VM/Instances) are licensing-agnostic (VL, OEM, retail based images) and you can dynamically move instances of the software to any licensed server with the properly licensed edition that is capable of running the VM. You have the rights to run as many instances on the server as the assigned License Terms allow.</p>
Right to use – Additional License	<p>Additional OEM Licenses are two kind of product. One is POS(Point of Sale) and another is APOS(After of POS). Additional OEM License of POS must be purchased together with the Server License, may not be purchased after the initial server sale. Additional OEM License of APOS can be purchased after the initial server sale and be reassigned one server to another that is licensed with base license.</p>
Right to use – Client Access License (CAL)	<p>CALs are no longer included in the Windows Server operating system license, but CALs are still required for access to any Windows Server 2016 Datacenter or Standard instance (physical or virtual). These CALs must be purchased separately. OEM CALs are not tied to a server. Additional OEM CALs may be purchased after the initial server sale. CALs are channel agnostic; any CAL (OEM, VL, or Retail) can be used to access any Windows Server (OEM, VL, or Retail).</p>
	<p>OEM CALs are not tied to a server. Additional OEM CALs may be purchased after the initial server sale. CALs are channel agnostic; any CAL (OEM, VL, or Retail) can be used to access any Windows Server (OEM, VL, or Retail). OEM CALs are independent of the server operating system license and are still valid after the server operating system license has been retired. CALs are only required for users or devices that have direct access to the server. Customers will need a CAL for each employee, or each employee device, that accesses the Windows Server, but not for anonymous users who access it over the internet.</p>
End User License Terms	<p>Delivered with the product, either electronically or printed on paper. By using the software, you accept the license terms. If you do not accept them, do not use the software. Instead, contact Fujitsu to determine our return policy for a refund or credit.</p>
Product Activation Notice to End Users – OEM	<p>Certain Microsoft® Products included with this computer may use technological measures for copy protection. Unless the software is activated, you have no right to use the software after the time permitted for activation. This is to prevent its unlicensed use. You are not permitted to bypass or circumvent activation. Product activation procedures and Microsoft’s privacy policy will be detailed during initial launch of the product, or upon certain reinstallations of the Software or reconfigurations of this computer, and may be completed by Internet or telephone (toll charges may apply). The software will remind you to activate it until you do. New PRIMERGY server systems ship pre-activated when sold with Windows Server 2016 directly ex-factory (OEM).</p>
Product Activation Notice to End Users – ROK	<p>Certain Microsoft® software products included with this computer system may use technological measures for copy protection. If properly licensed, you have the right to use the version of the software installed during the installation process up to the time permitted for activation. Unless the software is activated, you have no right to use the software after the time permitted for activation. This is to prevent its unlicensed use. You are not permitted to bypass or circum-</p>

vent activation. Product activation procedures and Microsoft's privacy policy will be detailed during the initial launch of the product, or upon certain re-installations of the software products or reconfigurations of this computer system, and may be completed by Internet or telephone (toll charges may apply).

**Product Validation of User Accounts and Active Directory
Pre-Sale End User Notification – Essentials OEM and ROK**

Certain Microsoft software products or server technologies included with this server may limit the number of permissible user accounts and/or require certain Active Directory and domain configurations. If not properly configured, the software will generate warnings to correct the configuration. The warnings will alert you as to the behavior of the software in the absence of corrective measures, which may include the periodic shutdown of the server. The warnings and shutdowns will cease once the configuration is corrected. For more information about these features as they apply to the product, please review the product-specific documentation located on www.microsoft.com.

Downgrade Rights

Windows Server 2016 Datacenter, Standard and Essentials licenses include downgrade and/or down-edition rights to Windows Server 2012 R2, Windows Server 2012, Windows Server 2008 R2 and Windows Server 2008. The majority of customers, who are requesting a downgrade, already have an existing environment running a previous version of Windows Server. They may use their existing media and keys to exercise their downgrade rights. The ability to run downgrade bits does not change the licensing or support terms in which you can use the product; the purchased product (Windows Server 2016) rights apply. This means that the license will continue to cover all cores in the physical processors and the virtualization rights do not change, i.e., the license entitles up to two virtual machines if Windows Server 2016 Standard was purchased.

Upon end user request, Fujitsu is able to provide downgrade media and / or product key for Windows Server editions under the following conditions.

- Windows Server 2016 Datacenter includes downgrade and down-edition rights to Windows Server 2016 Standard and Essentials, to Windows Server 2012 R2 Datacenter, Standard, Essentials and Foundation, to Windows Server 2012 Datacenter, Standard, Essentials and Foundation, to Windows Server 2008 R2 Datacenter, Enterprise, Standard and Foundation, and to Windows Server 2008 Datacenter, Enterprise, Standard and Foundation. Fujitsu does not provide downgrade media / or product key for Windows Server 2016 Essentials, Foundation, Windows Server 2012 Essentials, Foundation and Windows Server 2008.
- Windows Server 2016 Standard includes downgrade and down-edition rights to Windows Server 2016 Essentials, to Windows Server 2012 R2 Standard, Essentials and Foundation, to Windows Server 2012 Standard, Essentials and Foundation, to Windows Server 2008 R2 Enterprise, Standard, Foundation, and to Windows Server 2008 Enterprise and Standard. Fujitsu does not provide downgrade media / or product key for Windows Server 2016 Essentials, Foundation, Windows Server 2012 Essentials, Foundation and Windows Server 2008.
- Windows Server 2016 Essentials: End users have a downgrade right to Windows Server 2012 R2 Essentials and Foundation, and to Windows Server 2012 Essentials. Fujitsu does not provide downgrade media and / or product key for Windows Server 2012 Essentials anymore.

Downgrading Windows Server CAL

Downgrading Windows Server 2016 CAL (Client Access Licenses) does not require any additional activities nor deliverables nor keys. However, downgrading Windows Server 2016 RDS CAL (Remote Desktop Services CAL) requires the end user to call the Microsoft RDS Clearinghouse during activation. Locate the Microsoft Clearinghouse telephone number for your country or region at <https://technet.microsoft.com/en-us/library/cc754874.aspx>.

SOFTWARE ASSURANCE

Enrollment of Original Equipment Manufacturer Licenses into Software Assurance

Software Assurance (SA) is Microsoft's maintenance program providing benefits that may include new version rights, additional use rights, spread payments, consulting services, training, support and more. Software Assurance is available

for the latest version* of the software: Windows Server 2016. You must acquire Software Assurance within 90 days of your purchase (see the Microsoft Volume Licensing Product List for details). If you acquire Software Assurance for an OEM license, your use of the software becomes subject to the Microsoft Product Use Rights for that product and the terms and conditions of your organization's Volume Licensing agreement. After expiration of SA, OEM terms apply again. SA and Microsoft Volume Licenses, e.g. MPSA (Microsoft Products and Services Agreement) have to be sourced from authorized Microsoft Licensing Solution Partner (LSP).

Fujitsu is authorized Microsoft LSP in a number of territories around the world. Fujitsu is authorized Microsoft LSP for the region European Union (EU) and the European Free Trade countries (EFTA). For further assistance please contact PM-Team-LAR@ts.fujitsu.com.

*The latest version is determined by the most recent version available on the Volume Licensing Service Center.

SA is necessary to use Nano Server.

SUPPORT FROM FUJITSU

Issues referring to any HW-Warranty- or HW-Support-Service for a Fujitsu Server PRIMERGY system, that are related to Windows Server 2016 according driver or agents issues in a POSE (Physical Operating Software Environment) are supported by the Maintenance organization responsible for the HW Support. Issues related to a VOSE (Virtual Operating System Environment) are not for free and are commercial support service offerings. Commercial support service offerings such as the Fujitsu Support Pack for Windows Server 2016, Service Contract (Software), or Advanced Installation Pack for Fujitsu Server PRIMERGY systems are options (available in selected countries), not included with the purchase of the Windows Server (OEM, ROK) license.

SUPPORT LIFE CYCLE

Microsoft's support lifecycle for Windows Server 2016 applies in addition to Fujitsu's PRIMERGY lifecycle. Lifecycle Start Date 15th October, 2016, Mainstream Support End Date 11th January, 2022, Extended Support End Date 11th January, 2027:

- Datacenter <http://support.microsoft.com/gp/lifeselectindex#W>
 - Standard <http://support.microsoft.com/gp/lifeselectindex#W>
 - Essentials <http://support.microsoft.com/gp/lifeselectindex#W>
 - WSS Standard <http://support.microsoft.com/gp/lifeselectindex#W>
-

More Information

Fujitsu OPTIMIZATION Services

In addition to Fujitsu Windows Server 2016 R2 OEM / ROK for FUJITSU Server PRIMERGY, Fujitsu provides a range of platform solutions. They combine reliable FUJITSU products with the best in services, know-how and worldwide partner-ships.

Dynamic Infrastructures

With the Fujitsu Dynamic Infrastructures approach, Fujitsu offers a full portfolio of IT products, solutions and services, ranging from clients to datacenter solutions, Managed Infrastructure and Infrastructure-as-a-Service. How much you benefit from Fujitsu technologies and services depends on the level of cooperation you choose. This takes IT flexibility and efficiency to the next level.

Computing products

www.fujitsu.com/global/products/computing/

- PRIMERGY: Industrial standard server
- ETERNUS: Storage system

Software

www.fujitsu.com/global/products/software/

- Windows Server: FUJITSU PRIMERGY Operating System
- ServerView: FUJITSU PRIMERGY Server Management

More information

Learn more about FUJITSU Server PRIMERGY, please contact your Fujitsu sales representative, Fujitsu business partner, or visit our website.

www.fujitsu.com/global/products/computing/servers/primergy/

Fujitsu green policy innovation

Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment. Using our global know-how, we aim to contribute to the creation of a sustainable environment for future generations through IT. Please find further information at:

www.fujitsu.com/global/about/environment/



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Contact

FUJITSU

Fujitsu Technology Solutions GmbH

Address: Heinz-Nixdorf-Ring 1, 33106 Paderborn, Germany

Website: www.ts.fujitsu.com/

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