

# Datasheet

## Windows Server® 2016 (OEM, ROK) FOR FUJITSU Server PRIMERGY/PRIMEQUEST

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



### 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>



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### Order numbers

- **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
- **4 core No Media/Key**  
OEM S26361-F2567-E513
- **2 core No Media/Key**  
OEM S26361-F2567-E514
- **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
- **4 core No Media/Key POS Only**  
OEM S26361-F2567-E523
- **2core No Media/Key POS Only**  
OEM S26361-F2567-E524
- **Windows Server® 2016 Standard Additional License 16 core No Media/Key APOS**  
OEM S26361-F2567-L522
- **4 core No Media/Key APOS**  
OEM S26361-F2567-L523
- **2 core No Media/Key APOS**  
OEM S26361-F2567-L524
- **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
- **1 User**  
S26361-F2567-E561  
S26361-F2567-L561
- **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
Network Controller	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
Just Enough Administration	Yes	Yes
PowerShell Direct	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 <sup>2)</sup>	Unlimited VM
• VM use rights included per product	Unlimited VM	2 VM <sup>1)</sup>	1 VM <sup>2)</sup>	2 VM <sup>1)</sup>
Max. physical RAM supported	24TB	24TB	64GB	24TB
Hyper-V role supported <sup>3)</sup>	Yes	Yes	Yes <sup>3)</sup>	Yes
Max. logical processors supported	640	640	Unlimited (Limit to 2CPU)	Unlimited (Limit to 2CPU)
Active virtual machines supported	1024	1024	1 <sup>2)</sup>	
Cluster support max. nodes	64	64	Not supported	64
Max. Users / Devices	No limit <sup>4)</sup>	No limit <sup>4)</sup>	25 / 50 <sup>5)</sup>	No limit <sup>4)</sup>
Remote Desktop Services supported	Yes / Unlimited	Yes / Unlimited	No <sup>6)</sup>	No <sup>6)</sup>
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 <sup>7)8)</sup>	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

<b>Server Operating System</b>	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.
<b>Windows Server 2016 Editions</b>	Datacenter, Standard, Essentials
<b>Windows Server 2016 Storage Server Editions</b>	Standard
<b>Product Updates</b>	Updates through Microsoft via Windows Update

## HARDWARE REQUIREMENTS

<b>FUJITSU Server PRIMERGY/PRIMEQUEST</b>	PRIMERGY Blade / Rack / Tower Servers / PRIMEQUEST
<b>Microsoft Hyper-V Server 2016 free, for download at Microsoft</b>	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 release.
<b>Windows Server 2016 Datacenter</b>	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 release.
<b>Windows Server 2016 Standard</b>	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 release.
<b>Windows Server 2016 Essentials</b>	PRIMERGY RX2560 M2, RX2540 M2, RX2530 M2, RX1330 M2, TX2560 M2, TX1330 M2, TX1320 M2, BX2580 M2, BX2560 M2, and another servers are planned to release.
<b>Windows Server 2016 Storage Server Standard</b>	PRIMERGY RX2560 M2, RX2540 M2, RX2530 M2, RX1330 M2, TX2560 M2, TX1330 M2, TX1320 M2, BX2560 M2, and another servers are planned to release.

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.

## Components Restrictions

After the first install of Windows Server 2016, Apply the cumulative Update [KB3192366](#) provided by Microsoft on 26<sup>th</sup> September 2016 or any later cumulative updates.

When using Windows Server 2016, apply the following version of BIOS. Please download the following version from here.

RX4770 M3 V1.8.0 later  
RX2560 M2 V1.7.0 later  
RX2540 M2 V1.7.0 later  
RX2530 M2 V1.7.0 later  
RX1330 M2 V1.14.0 later  
TX2560 M2 V1.7.0 later  
TX1330 M2 V1.14.0 later  
TX1320 M2 V1.14.0 later  
BX2580 M2 V1.6.0 later  
BX2560 M2 V1.6.0 later

In UEFI mode and using Windows Server 2016 native driver, the resolution of the monitor is always 1024 X 768.

Applied to PRIMERGY RX4770 M3, RX2560 M2, RX2540 M2, RX2530 M2, RX1330 M2, TX2560 M2, TX1330 M2, TX1320 M2, BX2580 M2 and BX2560 M2.

When installing in UEFI mode, please set the BIOS menu as either of the follow-

## SOFTWARE REQUIREMENTS

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ing items;  
(1) [Advanced]-[CSM Configuration]-[Boot option filter]  
"UEFI only"  
(2) [Advanced]-[CSM Configuration]-[Launch CSM ]  
"Disabled"  
Applied to PRIMERGY RX4770 M3.

iSCSI and FCoE will be supported by OEM driver in December 2016.  
Applied to PRIMERGY RX4770 M3, RX2560 M2, RX2540 M2, RX2530 M2, TX2560 M2, BX2580 M2 and BX2560 M2.

SR-IOV is not available.  
This feature will be supported from the spring of 2017.  
Applied to PRIMERGY RX4770 M3, RX2560 M2, RX2540 M2, RX2530 M2 and TX2560 M2.

Software RAID of using onboard SATA Controller(Mega SR) will be supported in the end of November 2016. When using the internal storage, please use the SAS array controller card connected to the internal storage or the SAS array controller module.  
Applied to PRIMERGY RX2530 M2, RX1330 M2, TX1330 M2, TX1320 M2 and BX2560 M2. When using PRIMERGY BX2580 M2, can not use the internal storage until it is supported.

EventID:219(Source: System) of Windows is detected during the reboot/power-on-off. Such event recording does not affect the system.

The Firmware of PLAN EP X710-DA2 2x10Gb SFP+ can not be update. This will be fixed next driver.

Wake on LAN will be supported by OEM driver in December 2016.

IntelPROSet will be supported by OEM driver in December 2016.

To use the multiple monitors with Quadro M4000, please use the driver version 369.09 and later.

When using PSAS CP400i / PRAID CP400i / PRAID EP400i / PRAID EP420i , EventID:11(Source: disk) of Windows is detected during the attaching or reattaching disk. Such event recording does not affect the system. It will be supported by OEM driver in the end of November 2016.

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### SAS Storage Spaces

Storage Spaces, which is a new feature from Windows Server 2012, can be used in Windows Server 2016 too.  
SAS Storage Spaces support is released for Fujitsu Server PRIMERGY systems with external ETERNUS JBOD enclosures or internal disks.

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 hot spare if the corrupted disk is in different enclosures. This is per design for SAS Storage Spaces.

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### Storage Spaces Direct – S2D

A new feature "Storage Spaces Direct" is not available.  
Fujitsu Server PRIMERGY systems without this restriction are planned to be shipped in or after December 2016. (This feature is not available in these systems shipped before restriction release.)  
Applied to PRIMERGY RX2540 M2 and RX2530 M2.

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### Shielded Virtual Machine – Shielded VM

When using the new feature "Shielded Virtual Machine", please apply the cumulative Update [KB3197954](http://www.microsoft.com/updates/details/2016/october/KB3197954) provided by Microsoft on 27<sup>th</sup> October 2016 or any later cumulative updates.

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**SOFTWARE REQUIREMENTS**

<b>System Requirements FUJITSU Server PRIMERGY</b>	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.
<b>PRIMERGY JBOD External Enclosures</b>	FUJITSU Storage ETERNUS JX40 S2, JX60

**SERVERVIEW SUPPORT**

<b>Fujitsu ServerView Suite</b>	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.
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**Windows Server OEM, ROK on a VMware Host**

<b>Installation</b>	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.
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**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 <code>lpksetup</code> which opens a GUI and directs you through installation. This article describes the detail (full / partially localized) and language pack type: <a href="http://technet.microsoft.com/en-us/library/hh825678.aspx">http://technet.microsoft.com/en-us/library/hh825678.aspx</a> .
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**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.
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<b>Supported server guest operating systems</b>	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.
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<b>Supported client guest operating systems</b>	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: <a href="https://technet.microsoft.com/ja-jp/windows-server-docs/compute/hyper-v/hyper-v-technology-overview">https://technet.microsoft.com/ja-jp/windows-server-docs/compute/hyper-v/hyper-v-technology-overview</a> . Guest operating systems must be correctly licensed.
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**SPECIAL FEATURES SUPPORT**

<b>Enhanced Platform Integrity - EPI</b>	EPI is required on RX2560 M2, RX2540 M2, RX2530 M2, RX1330 M2, TX2560 M2,
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**SOFTWARE REQUIREMENTS**

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/](http://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.

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.

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>

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.

**Right to use – Additional License**

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.

**SOFTWARE REQUIREMENTS**

<p><b>Right to use – Client Access License (CAL)</b></p>	<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>
<p><b>End User License Terms</b></p>	<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>
<p><b>Product Activation Notice to End Users – OEM</b></p>	<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>
<p><b>Product Activation Notice to End Users – ROK</b></p>	<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 circumvent activation. Product activation procedures and Microsoft’s privacy policy will be detailed during the initial launch of the product, or upon certain reinstallations of the software products or reconfigurations of this computer system, and may be completed by Internet or telephone (toll charges may apply).</p>
<p><b>Product Validation of User Accounts and Active Directory Pre-Sale End User Notification – Essentials OEM and ROK</b></p>	<p>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 <a href="http://www.microsoft.com">www.microsoft.com</a>.</p>
<p><b>Downgrade Rights</b></p>	<p>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.</p>

## SOFTWARE REQUIREMENTS

- Windows Server 2016 Datacenter includes downgrade and down-edition rights to Windows Server 2012 R2 Datacenter, Standard, Essentials and Foundation, Windows Server 2012 Datacenter, Standard, Essentials and Foundation, Windows Server 2008 R2 Datacenter, Enterprise, Standard and Foundation and to Windows Server 2008 Datacenter, Enterprise, Standard and Foundation. Due to license terms, Fujitsu is unable to provide downgrade media / or product key for Windows Server 2008.
- Windows Server 2016 Standard includes downgrade rights to Windows Server 2012 R2 Standard, Essentials and Foundation, Windows Server 2012 Standard, Essentials and Foundation, Windows Server 2008 R2 Enterprise, Standard, Foundation and to Windows Server 2008 Enterprise, Standard, and Foundation. Due to license terms, Fujitsu is unable to provide downgrade media / or product key for Windows Server 2008.
- Windows Server 2016 Essentials: End users have a downgrade right to Windows Server 2012 R2 Essentials and Windows Server 2012 Essentials or Windows Small Business Server 2011 Essentials. Due to license terms, Fujitsu is unable to provide downgrade media and / or product key.

Upon end user request, Fujitsu is able to provide downgrade media and / or product key for Windows Server Datacenter, Enterprise, and Standard.

### 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 <http://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 or 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](mailto: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

- Basic Installation Support – free of charge. Issues referring to any HW-Warranty- or HW-Support-Service for a Fujitsu Server PRIMERGY system, that are related to the initial installation of Windows Server 2016 are supported by the Maintenance organization responsible for the HW Support. Such basic installation support includes support issues for installation of the operating system as a POSE (Physical Operating Software Environment) onto the Fujitsu Server PRIMERGY system hardware. Issues related to a VOSE (Virtual Operating System Environment) installation are not for free and are commercial support service offerings. Commercial support service offerings such as the Fujitsu Support Pack for Win-

## SOFTWARE REQUIREMENTS

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Windows Server 2016, Service Contract (Software), or Advanced Installation Pack for Fujitsu Server PRIMERGY systems are options, not included with the purchase of the Windows Server (OEM, ROK) license.

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## SUPPORT LIFE CYCLE

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- Microsoft's support lifecycle for Windows Server 2016 applies in addition to Fujitsu's PRIMERGY lifecycle. Lifecycle Start Date 10/15/2016, Mainstream Support End Date 1/11/2022, Extended Support End Date 1/11/2027:
    - 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>
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# More Information

## Fujitsu OPTIMIZATION Services

In addition to Fujitsu Windows Server 2012 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/](http://www.fujitsu.com/global/products/computing/)

- PRIMERGY: Industrial standard server
- ETERNUS: Storage system

### Software

[www.fujitsu.com/global/products/software/](http://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/](http://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/](http://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/](http://www.ts.fujitsu.com/)

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