

## Datasheet

# Fujitsu PRIMERGY/PRIMEQUEST Server Systems for Windows Server 2019 (OEM & ROK)

With the release of Windows Server 2019, Fujitsu proudly presents the new lineup of its best-selling PRIMERGY and PRIMEQUEST servers!



#### Windows Server 2019

The latest iteration of Microsoft's renowned Windows Server operating system, Windows Server 2019 helps you thrive in the cloud-driven modern computing environment. Windows Server 2019 helps you update your digital infrastructure for the cloud-computing age, boosting the performance of your servers while maintaining their resilience and security. Much anticipated Windows Server 2019

- Helps you manage your servers and incorporate Microsoft's Azure services into them via Windows Admin Center.
- Uses Hyper-V Containers for enhanced isolation of containerized applications without any changes to container images.
- Enables agile application deployment and management through Windows Server Containers.
- Allows the deployment of applications on Linux-based operating systems with bestin-class support for Hyper-V on Linux.
- Protects your servers from attacks and threats with such robust security measures as Shielded Virtual Machine and Windows Defender Advanced Threat Protection.
- Reduces resource usage considerably without sacrificing your servers' performance or full desktop experience—via Nano Server.
- Lets you manage your data easily with Storage Spaces Direct, highly scalable software-defined storage, and helps you recover effortlessly from catastrophic system failures with Storage Replica.

### Windows Server 2019 Editions

The following editions of Windows Server 2019 are available: Datacenter, Standard, and Essentials. All editions include English, German, French, Italian, Spanish, Japanese, Chinese, and Korean by default. Down-

loadable Language Packs are available for other languages.

#### Delivery

Fujitsu OEM and ROK Windows Server Base Licenses ship with Fujitsu PRIMERGY server systems. FUJITSU OEM and ROK Windows Server Client Access Licenses, Remote Desktop Services Client Access Licenses, and Windows Server Additional Licenses may be obtained separately after PRIMERGY server systems are purchased.

#### Warranty

Fujitsu products include a country-specific warranty.

#### Installation

ServerView Installation Manager, included in Fujitsu PRIMERGY server systems, assists the installation of Windows Server 2019 on Fujitsu PRIMERGY server systems. For the installation of Windows Server 2019 (whether OEM or ROK) on VMware hosts, please consult the readme file on Fujitsu VMware OEM media.

#### **Support Policy**

Please refer to Fujitsu's PRIMERGY supprt policy as well as Microsoft's support lifecycle. https://support.microsoft.com/en-us/help/14085





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## **Windows Server**

### **Fujitsu Product Order Numbers**

 Windows Server 2019 Datacenter Base License 16 core

OEM: S26361-F2567-E610 ROK: S26361-F2567-D610

—— w/Reassignment 16 core

OEM: S26361-F2567-E611 ROK: S26361-F2567-D611

Windows Server 2019 Datacenter Additional License 16 core, No Media/Key

OEM: S26361-F2567-E612 ROK: S26361-F2567-D612

—— 4 core, No Media/Key

OEM: S26361-F2567-E613

—— 2 core, No Media/Key

OEM: S26361-F2567-E614 ROK: S26361-F2567-D614

 Windows Server 2019 Standard Base License 16 core

OEM: S26361-F2567-E620 ROK: S26361-F2567-D620

 Windows Server 2019 Standard Additional License 16 core, No Media/Key, POS Only

OEM: S26361-F2567-E622 ROK: S26361-F2567-D622

—— 4 core, No Media/Key, POS Only

OEM: S26361-F2567-E623 ROK: S26361-F2567-D623

—— 2 core, No Media/Key, POS Only

OEM: S26361-F2567-E624 ROK: S26361-F2567-D624  Windows Server 2019 Standard Additional License 16 core, No Media/Key, APOS

OEM/ROK: S26361-F2567-L622

—— **4 core, No Media/Key, APOS** OEM/ROK: S26361-F2567-L623

—— **2 core, No Media/Key, APOS** OEM/ROK: S26361-F2567-L624

Windows Server 2019 Essentials

OEM: S26361-F2567-E630 ROK: S26361-F2567-D630

Windows Server 2019 CAL

—— 100 Device

S26361-F2567-E668

S26361-F2567-L668

—— 50 Device

S26361-F2567-E666

S26361-F2567-L666

— 10 Device

S26361-F2567-E664

S26361-F2567-L664

—— 5 Device

S26361-F2567-E662

S26361-F2567-L662

—— 1 Device

S26361-F2567-E660

S26361-F2567-L660

Windows Server 2019 CAL

—— 100 User

S26361-F2567-E669

S26361-F2567-L669

---- 50 User

S26361-F2567-E667

S26361-F2567-L667

\_\_\_ 10 User

S26361-F2567-E665

S26361-F2567-L665

—— 5 User

S26361-F2567-E663 S26361-F2567-L663

—— 1 User

S26361-F2567-E661

S26361-F2567-L661

Windows Server 2019 RDS CAL

— 100 Device

S26361-F2567-E678

S26361-F2567-L678

— 50 Device

S26361-F2567-E676

S26361-F2567-L676

—— 10 Device

S26361-F2567-E674

S26361-F2567-L674

— 5 Device

S26361-F2567-E672

S26361-F2567-L672

—— 1 Device

S26361-F2567-E670

S26361-F2567-L670

Windows Server 2019 RDS CAL

—— 100 User

S26361-F2567-E679

S26361-F2567-L679

—— 50 User

S26361-F2567-E677

S26361-F2567-L677

—— 10 User

S26361-F2567-E675

S26361-F2567-L675

—— 5 User

S26361-F2567-E673

S26361-F2567-L673

—— 1 User

S26361-F2567-E671

S26361-F2567-L671

## Windows Server 2019 – Editions and Features

#### Windows Server 2019 Editions at a Glance

#### Windows Server 2019 Datacenter

(while Standard and Essentials offer their subsets). For a server to stances of virtual machine. be properly licensed, all physical cores in that server must be licensed. Each server must be licensed for a minimum of 16 cores. Each physical processor must be licensed for a minimum of 8 cores. If there are more than 16 physical cores in a server, addi- • Container management by PowerShell and efficient use of tional licenses are needed to cover excess cores.

#### Benefits

- Windows Admin Center makes it a breeze not only to manage the most complex of server systems but also to take advantage of Microsoft Azure services.
- With Hyper-V, virtual machines can be run on top of (i.e., can be nested in) other virtual machines.
- Enhanced efficiency in storage reource usage.
- Easy configuration of virtual environments.
- Highly scalable storage to accommodate ever accumulating data (Storage Spaces Direct).

#### Windows Server 2019 Standard

Windows Server 2019 Datacenter is for highly virtualized datacen- Windows Server 2019 Standard is for physical or minimally virtualter and cloud environments. It provides unprecedented levels of ized environments. As such, Standard does not include some security and brings cutting-edge innovations to modern compu- functionalities that are available in Datacenter. Licensing details ting infrastructure. Windows Server 2019 Datacenter is the only for Windows Server 2019 Datacenter apply to Windows Server edition of Windows Server 2019 that includes its all functionalities 2019 Standard. Windows Server 2019 Standard allows two in-

#### Benefits

- Fast startup through Nano Server.
- virtual environment resources.
- Enhanced security through the ability to set required minimum security levels.
- Highly reliable disaster recovery to keep data from being lost (Storage Replica).

#### Windows Server 2019 Essentials

Affordable and user-friendly, Windows Server 2019 Essentials is ideal for small businesses with up to 25 users or 50 devices. It helps expand small business servers' functionalities through optional online services.

#### **Benefits**

No CALs required

Windows Server 2019 Features			
	WS 2019 Datacenter	WS 2019 Standard	WS 2019 Essentials
Server Management by Windows Admin Center	Yes	Yes	Yes
Shielded Virtual Machine	Yes	No	No
Hyper-V Container	Yes (Unlimited)	Yes (2 VMs)	No
Windows Server Container	Yes (Unlimited)	Yes (Unlimited)	No
Nested Virtualization	Yes	Yes	No
Network Controller	Yes	No	No
Storage Spaces Direct	Yes	No	No
Storage Replica	Yes	Yes	No
Nano Server	Yes	Yes	No
Windows Defender	Yes	Yes	Yes
Licensing	Core-based	Core-based	Server-based
CAL	Needed	Needed	Not Needed

Note: Data in this table, partially based on old information, are subject to change without notice.

## Windows Server 2019 – Editions and Technical Specifications

Technical Specification	WS 2019 Datacenter	WS 2019 Standard	WS 2019 Essentials
Maximum physical CPUs / cores sup- ported by PRIMERGY	4 CPUs / 96 cores	4 CPUs / 96 cores	2 CPUs / 44 cores
VM-use rights included per product	Unlimited VMs	2 VMs <sup>1</sup>	$1 \text{ VM}^2$
Maximum physical RAM supported	24TB	24TB	64GB
Hyper-V role supported	Yes	Yes	Yes³
Maximum logical processors supported	640	640	2
Active virtual machines supported	1,024	1,024	1 <sup>2</sup>
Maximum nodes per cluster	64	64	Not supported
Maximum no. of users / devices	Unlimited <sup>4</sup>	Unlimited <sup>4</sup>	25 / 50
Remote Desktop Services supported	Yes	Yes	No <sup>6</sup>
CALs required / included in base license	Yes / 0	Yes / 0	No
RDS CALs required for RDS / included in base license	Yes / 0	Yes / 0	N/A
Admin connections allowed w/o CAL	2	2	2
Can act as Domain Controller (AD)	Yes	Yes	Yes <sup>7</sup>

Note: Data in this table, partially based on old information, are subject to change without notice.

<sup>&</sup>lt;sup>1</sup> Can support as many VMs as needed (i.e., unlimited) with the purchase of Additional Licenses.

<sup>&</sup>lt;sup>2</sup> Only Windows Server 2019 Essentials as a guest OS.

<sup>&</sup>lt;sup>3</sup> Hyper-V guests can use no more than 64 virtual CPUs, 1 TB of memory, or 64 TB VHDs.

<sup>&</sup>lt;sup>4</sup> Certain hardware limitations, specifications, and configurations may limit the maximum number of users and devices, though Datacenter and Standard themselves can support unlimited numbers of users and devices.

<sup>&</sup>lt;sup>6</sup> Two admin remote sessions, included in the product license, are allowed.

<sup>&</sup>lt;sup>7</sup> Domain Controller, or AD, must be configured for maximum 25 users and 50 devices, must be the root of a forest, must not be a child domain, and must not have a trust relationship with any other domains.

# **Technical Details**

Server Operating System	Windows Server 2019
Windows Server 2019 Editions	Datacenter, Standard, and Essentials
Product Update	Via Windows Update by Microsoft
HARDWARE REQUIREMENTS	
FUJTSU PRIMERGY/PRIMEQUEST Servers	Minimum hardware requirements are set by Microsoft. FUJITSU PRIMER-
	GY/PRIMEQUEST server systems, scale-out servers (formerly server blades), and
	nodes are (or will be) certified—"logo'd," so to speak—by Microsoft and hence
	meet (or will meet) the minimum hardware requirements.
Microsoft Hyper-V Server 2019	-PRIMERGY RX4770 M4, RX4770 M3, RX2560 M2, RX2540 M4, RX2540 M2,
(free download from Microsoft)	RX2530 M4, RX2530 M2, RX2520 M4, RX1330 M4, RX1330 M3, TX2560 M2,
	TX2550 M4, TX1330 M4, TX1330 M3, TX1320 M4, TX1320 M3, TX1310 M3,
	CX2560 M4, CX2550 M4, and CX2550 M2
	-PRIMEQUEST 3800B, 3800E, 3400E, 2800B3, 2800E3, and 2400E3
Windows Server 2019 Datacenter	-PRIMERGY RX4770 M4, RX4770 M3, RX2560 M2, RX2540 M4, RX2540 M2,
	RX2530 M4, RX2530 M2, RX2520 M4, RX1330 M4, RX1330 M3, TX2560 M2,
	TX2550 M4, TX1330 M4, TX1330 M3, TX1320 M4, TX1320 M3, TX1310 M3,
	CX2560 M4, CX2550 M4, and CX2550 M2
	-PRIMEQUEST 3800B, 3800E, 3400E, 2800B3, 2800E3, and 2400E3
Windows Server 2019 Standard	-PRIMERGY RX4770 M4, RX4770 M3, RX2560 M2, RX2540 M4, RX2540 M2,
	RX2530 M4, RX2530 M2, RX2520 M4, RX1330 M4, RX1330 M3, TX2560 M2,
	TX2550 M4, TX1330 M4, TX1330 M3, TX1320 M4, TX1320 M3, TX1310 M3,
	CX2560 M4, CX2550 M4, and CX2550 M2
	-PRIMEQUEST 3800B, 3800E, 3400E, 2800B3, 2800E3, and 2400E3
Windows Server 2019 Essentials	-PRIMERGY RX2560 M2, RX2540 M4, RX2540 M2, RX2530 M4, RX2530 M2,
	RX2520 M4, RX1330 M4, RX1330 M3, TX2560 M2, TX2550 M4, TX1330 M4,
	TX1330 M3, TX1320 M4, TX1320 M3, TX1310 M3, CX2560 M4, and CX2550 M2
Storage Spaces Direct (S2D)	Storage Spaces Direct (S2D), a storage feature exclusive to Windows Server 2019
	Datacenter, harnesses servers' local storage into highly scalable software-define
	storage. Fujitsu is planning to make S2D available on PRIMERGY RX2540 M4,
	RX2530 M4, and TX1330 M4.
System Requirements for FUJITSU PRIMERGY Servers	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. Certification logo requirements are the same for all
	Windows Server 2019 editions.
FUJITSU ETERNUS Storage Subsystems	ETERNUS JX40 S2 and JX60 S2
SERVERVIEW	
Fujitsu ServerView Suite	ServerView Installation Manager, ServerView Operations Manager, ServerView
•	Agents, and ServerView RAID Manager support, or will support, Windows Server
	2019.
OFFILE AND DOLVEWINDOWS SERVED ON WHAT DE LIGHTS	
OEM AND ROK WINDOWS SERVER ON VMWARE HOSTS Installation	Fujitcu OEM and DOK Windows Sorver 2010 products can be installed as quest
Installation	Fujitsu OEM and ROK Windows Server 2019 products can be installed as guest operating systems on VMware hosts. But do not use ServerView Installation
	Manager to install Windows Server in virtual machines.
	manager to mistan windows server in viltual matrimes.
LANGUAGES	
	Windows Server 2019 Datacenter, Standard, and Essentials are multilingual and
	include the following languages by default: English, German, French, Italian,

	Spanish, Japanese, Chinese, and Korean. Language Packs for Arabic, Brazilian Portuguese, Bulgarian, Croatian, Czech, Danish, Dutch, Estonian, Finnish, Greek, Hebrew, Hungarian, Latvian, Lithuanian, Norwegian, Polish, Portuguese, Romanian, Russian, Serbian, Slovak, Slovenian, Swedish, Thai, Turkish, and Ukrainian are available as end-user downloads from Microsoft. Install Language Packs from the command line by issuing the "lpksetup" command. For more information about Language Packs, see <a href="https://docs.microsoft.com/en-us/windows-hardware/manufacture/desktop/available-language-packs-for-windows">https://docs.microsoft.com/en-us/windows-hardware/manufacture/desktop/available-language-packs-for-windows</a> .
HYPER-V	
	Windows Server 2019 Datacenter, Standard, and Essentials provides Hyper-V.  Hyper-V enables you to create and manage virtualized computing environments
	through Windows Server 2019's built-in virtualization technology. Hyper-V is supported on all PRIMERGY servers.
Supported Guest Operating Systems (Server & Client)	Operating systems that can be used as guest operating systems (whether server or client) in Windows Server 2019's Hyper-V environment will be announced later.
	Install Integration Services after you set up the operating system in the virtual machine. Supported guest operating systems and Service Packs can be found at <a additional="" all="" and="" are="" are:<="" assurance."="" capable="" firmware="" for="" hardware="" higher="" href="https://docs.microsoft.com/en-us/windows-server/virtualization/hyper-v/Hyper-V-https://docs.microsoft.com/en-us/windows-server/virtualization/hyper-v/Hyper-V-https://docs.microsoft.com/en-us/windows-server/virtualization/hyper-v/Hyper-V-https://docs.microsoft.com/en-us/windows-server/virtualization/hyper-v/Hyper-V-https://docs.microsoft.com/en-us/windows-server/virtualization/hyper-v/Hyper-V-https://docs.microsoft.com/en-us/windows-server/virtualization/hyper-v/Hyper-V-https://docs.microsoft.com/en-us/windows-server/virtualization/hyper-v/Hyper-V-https://docs.microsoft.com/en-us/windows-server/virtualization/hyper-v/Hyper-V-https://docs.microsoft.com/en-us/windows-server/virtualization/hyper-v/Hyper-V-https://docs.microsoft.com/en-us/windows-server/virtualization/hyper-v/Hyper-V-https://docs.microsoft.com/en-us/windows-server/virtualization/hyper-v/Hyper-V-https://docs.microsoft.com/en-us/windows-server/virtualization/hyper-v/Hyper-V-https://docs.microsoft.com/en-us/windows-server/virtualization/hyper-v/Hyper-V-https://docs.microsoft.com/en-us/windows-server/virtualization/hyper-v/Hyper-V-https://docs.microsoft.com/en-us/windows-server/virtualization/hyper-v/Hyper-V-https://docs.microsoft.com/en-us/windows-server/virtualization/hyper-v/Hyper-V-https://docs.microsoft.com/en-us/windows-server/virtualization/hyper-v/Hyper-V-https://docs.microsoft.com/en-us/windows-server/virtualization/hyper-v/Hyper-V-https://docs.microsoft.com/en-us/windows-server/virtualization/hyper-v/Hyper-V-https://docs.microsoft.com/en-us/windows-server/virtualization/hyper-v/Hyper-V-https://docs.microsoft.com/hyper-v/Hyper-V-https://docs.microsoft.com/en-us/windows-server/virtualization/hyper-v/Hyper-V-https://docs.microsoft.com/en-us/windows-server/virtualization/hyper-v/Hyper-v/Hyper-v/Hyper-v/Hyper-v/Hyper-v/Hyper-v/Hyper-v/Hyper-v/Hyper-v/Hyper-v/Hyper-v/Hyper-v/Hyper-v/H&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;&lt;/td&gt;&lt;td&gt;&lt;u&gt;Technology-Overview&lt;/u&gt;. Guest operating systems must be properly licensed.&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;SUPPORTED SPECIAL FEATURES&lt;/td&gt;&lt;td&gt;&lt;/td&gt;&lt;/tr&gt;&lt;tr&gt;&lt;td&gt;Enhanced Platform Integrity (EPI)&lt;/td&gt;&lt;td&gt;Enhanced Platfom Integrity (EPI) is sometimes referred to as " levels="" of="" qualification="" required="" security.="" supporting="" systems="" td="" technologies="" this="" those="" with=""></a>
	<ul> <li>Trusted Platform Module version 2.0 or later</li> <li>UEFI version 2.31c or higher firmware support</li> <li>SecureBoot</li> </ul>
	<ul> <li>IO Memory Management Unit(IOMMU)</li> <li>Fujitsu is planning to implement EPI on PRIMERGY RX4770 M4, RX2540 M4, RX2530 M4, RX2520 M4, RX1330 M4, TX2550 M4, TX1330 M4, TX1320 M4, CX2560 M4, CX2550 M4, PRIMEQUEST 3800B, 3800E, and 3400E.</li> </ul>
LICENSING	
Right to Use — Base License	Windows Server 2019 products are licensed on the per-core basis.  The Windows Server (WS) Base License is permanently assigned to the FUJITSU PRIMERGY server with which you acquired that software. (It is, however, possible to move a Base License from one server to another with the purchase of reassignement licenses.) You may not assign a single WS Base License to multiple servers. WS 2019 Datacenter and Standard require Client Access Licenses (CALs), though they are not included in WS 2019 Base Licenses. CALs are required for every user or every device that accesses servers licensed with WS.
	Virtual Machines Portability. Virtual machines (VMs) are not tied to servers permanently. All types of WS licenses support VM portability. VM instances are license agnostic (whether OEM, VL, or Retail), and you can dynamically move VM instances to any servers, capable of running VMs, licensed with proper WS editions. You have the right to run as many VM instances on your servers as license terms allow.
Right to Use — Additional License	There are two kinds of OEM Additional Licenses: POS (i.e., Point of Sale) and APOS (i.e., After POS). POS Additional Licenses must be purchased with base licenses, and may not be purchased after the initial server sale. APOS Additional Licenses can be purchased after the initial server sale and also can be reassigned from the server for which they are purchased to another server as long as the latter server is properly licensed with a base license.
Right to Use — Client Access License (CAL)	CALs are no longer included in Windows Server Base Licenses, but CALs are still required to access any WS 2019 Datacenter or Standard instances (physical or virtual). CALs must be purchased separately from base licenses. OEM CALs are

	not tied to servers. Additional OEM CALs may be purchased after the initial server sale. CALs are channel agnostic; any CALs (whether OEM, VL, or Retail) can be used to access any WS (whether OEM, VL, or Retail) machines.
	OEM CALs are independent of base licenses and remain valid even after base
	licenses are retired. CALs are required for every user or every device that directly
	accesses servers licensed with Windows Server. CALs are not required for anony-
	mous users who access such servers over the internet.
End User License Terms	Delivered with license products as a printed document. By using the software,
	you accept its license terms. If you do not accept them, do not use it. Instead,
	contact Fujitsu to inquire about our return policy and apply for a refund or credit.
Product Activation Notice to End Users — OEM	Certain Microsoft software included in Fujitsu servers may employ copyright protection measures. Unless the software is activated, you have no right to use it after its activation period. This is to prevent its unauthorized use. You may not
	bypass or circumvent activation. The activation procedure and Microsoft's privacy policy will be displayed when the software is launched for the first time, when it is reinstalled, or when your computer is reconfigured. Product activation may be completed by Internet or telephone (toll charges may apply). You will be re-
	minded to activate until you do so. PRIMERGY server systems that ship with
Product Activation Notice to End Users – ROK	Windows Server 2019 OEM licenses will have Windows Server 2019 pre-activated.  Certain Microsoft software included in Fujitsu servers may employ copyright
	protection measures. Unless the software is activated, you have no right to use it after its activation period. This is to prevent its unauthorized use. You may not bypass or circumvent activation. The activation procedure and Microsoft's privacy policy will be displayed when the software is launched for the first time, when it is reinstalled, or when your computer is reconfigured. Product activation may be completed by Internet or telephone (toll charges may apply).
Downgrade Rights	Windows Server 2019 Datacenter, Standard and Essentials licenses include a
	downgrade or down-edition right, or both. Typically, customers who request a downgrade would already have servers running the (older) version of Windows Server they are seeking to downgrade to; hence, for example, customers who wish to exercise a downgrade right that their Windows Server 2019 license entitles would usually have servers running Windows Server 2016 or an earlier WS version. Those customers may use their existing media and keys to exercise their downgrade right. That customers elect to use a downgrade version does not change the terms and rights of the license product they purchased. Therefore, cumstomers who purchased a WS 2019 license have to abide by its terms and rights even when they exercise their downgrade right. For example, when Windows Server 2012 R2 or an earlier WS verion is used through a WS 2019 license's downgrade right, all cores on physical processors still have to be licensed because WS 2019 is licensed on the per-core basis, while Windows Server 2012 R2 or an earlier WS version is licensed on the per-processor basis. Virtualization rights, too, stay unaltered; if WS 2016 Standard is used via a WS 2019 Standard license's downgrade right, that license still permits two instances of virtual machine, for example. Upon request, Fujitsu provides downgrade media or product key (or both) for Windows Server Datacenter, Standard, and Enterprise.
	<ul> <li>Windows Server 2019 Datacenter includes downgrade and down-edition rights to WS2019 Standard and Essentials; WS2016 Datacenter, Standard, and Essentials; WS 2012 R2 Datacenter, Standard, Essentials, and Foundation; WS 2012 Datacenter, Standard, and Essentials; and WS 2008 R2 Datacenter, Enterprise, and Standard. Due to licensing terms, Fujitsu is unable to provide downgrade media or product key (or both) for WS 2008 R2.</li> <li>Windows Server 2019 Standard includes downgrade and down-edition rights to WS 2019 Essentials; WS 2016 Standard and Essentials; WS 2012 R2 Standard, Essentials, and Foundation; WS 2012 Standard and Essentials; and WS 2008 R2 Enterprise and Standard. Due to licensing terms, Fujitsu is unable to provide downgrade media or product key (or both) for WS 2008 R2.</li> <li>Windows Server 2019 Essentials includes downgrade rights to WS 2016 Essentials, WS 2012 R2 Essentials and Foundation, and WS 2012 Essentials.</li> </ul>

### Downgrading Windows Server 2019 CALs (Client Access Licenses) does not re-**Downgrading Windows Server CALs** quire end users to take special action or obtain separate product keys. SOFTWARE ASSURANCE Enrollment of OEM Licenses into Software Assurance Software Assurance is Microsoft's maintenance program. Its benefits include new version rights, additional use rights, installment payment plans, consulting services, training, and much more. You must sign up for Software Assurance within the 90 days of your software purchase. (Please note use of Nano Server requires Software Assurance.) If you purchase a Software Assurance (SA) policy for your OEM license, use of that software becomes subject to Microsoft Product Use Rights and the terms and conditions of your organization's volume licensing agreement. Your software's OEM terms are reinstated after the expiration of your SA policy. Software Assurance, Microsoft Volume Licenses, and Microsoft Products and Services Agreements must be obtained from authorized Microsoft Licensing Solution Partners (LSPs). Fujitsu is an authorized Microsoft LSP around the world, including the European Union and European Free Trade Association countries. For assistance, please contact PM-Team-LAR@ts.fujitsu.com. **FUJITSU CUSTOMER SUPPORT** Basic installation support is provided free of charge. Windows Server 2019 initial installation issues that pertain to Fujitsu PRIMERGY server systems' hardware warranty or hardware support services are handled by Fujitsu Maintenance Organizations. Basic installation support covers issues related to the installation of an operating system as a POSE (Physical Operating Software Environment) on Fujitsu PRIMERGY server systems. Support for issues related to VOSE (Virtual Operating System Environment) installation is not free. Customers needing advanced levels of product support are advised to purchase such services as Fujitsu Support Pack Software, Fujitsu Service Contract Software, and Fujitsu Installation Pack. Those services are not included in Windows Server licenses (whether OEM or ROK) and must be purchased separately. For more information about those services, please see <a href="http://www.fujitsu.com/fts/produc support-services/. PRODUCT SUPPORT LIFE CYCLES Please refer to Microsoft's support lifecycle for Windows Server 2019 as well as Fujitsu's PRIMERGY lifecycle policy.

Microsoft's Windows Server 2019 support lifecycle begins: on GA or shortly after

Microsoft's Extended Support ends: about 5 years after Mainstream Support ends <a href="https://support.microsoft.com/en-us/help/14085/microsoft-business-developer-">https://support.microsoft.com/en-us/help/14085/microsoft-business-developer-</a>

Microsoft's Mainstream Support ends: about 5 years from GA

and-desktop-operating-systems-policy

## More Information

#### Fujitsu OPTIMIZATION Services

In addition to Fujitsu Windows Server 2019 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 knowhow, 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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Fujitsu Technology Solutions GmbH Address: Mies-van-der-Rohe-Straße 8, 80807 München, Germany Website: www.ts.fujitsu.com/ 2018-09-26 [DE] [EN]