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 and PRIMEQUEST system and are available in the PRIMERGY and PRIMEQUEST 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 and PRIMEQUEST lets you install Windows Server 2016 on the FUJITSU Server PRIMERGY and PRIMEQUEST 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 and PRIMEQUEST lifecycle:
http://support.microsoft.com/gp/lifeselectindex#W
Datasheet
Windows Server® 2016 (OEM, ROK) FOR PRIMEQUEST

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

Order numbers

- **Windows Server® 2016 Datacenter 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 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
  - 2 core 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

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® Storage 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® Storage 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

S26361-F2567-E563
S26361-F2567-L563
1 User
S26361-F2567-E561
S26361-F2567-L561

4 core No Media/Key APOS
- OEM/ROK S26361-F2567-L523
  - 2 core No Media/Key APOS
    - OEM/ROK S26361-F2567-L524

## Your Features and Benefits

### Windows Server 2016 at a glance

<table>
<thead>
<tr>
<th>Windows Server 2016 Datacenter</th>
<th>Windows Server 2016 Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td>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.</td>
</tr>
</tbody>
</table>

### 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

### 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 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)

<table>
<thead>
<tr>
<th>Function</th>
<th>Datacenter</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shielded VM</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Storage Spaces Direct</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Storage Replica</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Software Defined Networking Infrastructure (Network Controller, Software Load Balancer, and Multi-tenant Gateway)</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Nano Server</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>OSEs / Hyper-V Container</td>
<td>Yes(Unlimited)</td>
<td>Yes(2VM)</td>
</tr>
<tr>
<td>Windows Server Container</td>
<td>Yes(Unlimited)</td>
<td>Yes(Unlimited)</td>
</tr>
<tr>
<td>Nested Virtualization</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Windows Defender</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Windows Server Container</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Just Enough Administration</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>PowerShell Direct</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
# Windows Server 2016 - Comparison of editions and their technical specifications

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. physical CPUs/cores supported</td>
<td>4CPU/96core</td>
<td>4CPU/96core</td>
<td>2CPU/44core</td>
<td>2CPU/44core</td>
</tr>
<tr>
<td>Max. VM supported VM use rights included per product</td>
<td>Unlimited VM</td>
<td>Unlimited VM</td>
<td>1 VM</td>
<td>Unlimited VM 2 VM</td>
</tr>
<tr>
<td>Max. physical RAM supported</td>
<td>24TB</td>
<td>24TB</td>
<td>64GB</td>
<td>24TB</td>
</tr>
<tr>
<td>Hyper-V role supported</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Max. logical processors supported</td>
<td>640</td>
<td>640</td>
<td>Unlimited (Limit to 2CPU)</td>
<td>Unlimited (Limit to 2CPU)</td>
</tr>
<tr>
<td>Active virtual machines supported</td>
<td>1024</td>
<td>1024</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Cluster support max. nodes</td>
<td>64</td>
<td>64</td>
<td>Not supported</td>
<td>64</td>
</tr>
<tr>
<td>Max. Users / Devices</td>
<td>No limit 4)</td>
<td>No limit 4)</td>
<td>25 / 50 5)</td>
<td>No limit 4)</td>
</tr>
<tr>
<td>Remote Desktop Services supported</td>
<td>Yes / Unlimited</td>
<td>Yes / Unlimited</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>CALs required / included with license</td>
<td>Yes / 0</td>
<td>Yes / 0</td>
<td>No</td>
<td>N/A</td>
</tr>
<tr>
<td>RDS CALs required if used / included</td>
<td>Yes / 0</td>
<td>Yes / 0</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Admin connections allowed w/o CAL</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>N/A</td>
</tr>
<tr>
<td>Can act as a Domain Controller (AD)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

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

The following hardware information in Technical Details is information on products released at the time of Windows Server 2016 release. For information on products newly released after Windows Server release, please see the catalog and manual of the product.

### SOFTWARE REQUIREMENTS

<table>
<thead>
<tr>
<th>Server Operating System</th>
<th>Windows Server 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The minimum system hardware requirements are defined by Microsoft. FUJITSU Server PRIMERGY systems, server blades and nodes, which are or will be certified (&quot;logo'd&quot;), fulfill these requirements.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Windows Server 2016 Editions</th>
<th>Datacenter, Standard, Essentials</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Windows Server 2016 Storage Server Editions</th>
<th>Standard</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Product Updates</th>
<th>Updates through Microsoft via Windows Update</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>After the first install of Windows Server 2016, Apply the cumulative Update KB3192366 provided by Microsoft on 26th September 2016 or any later cumulative updates.</td>
</tr>
</tbody>
</table>

| Shielded Virtual Machine – Shielded VM | When using the new feature "Shielded Virtual Machine", please apply the cumulative Update KB3213522 provided by Microsoft on 20th 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

<table>
<thead>
<tr>
<th>FUJITSU Server PRIMERGY/PRIMEQUEST</th>
<th>PRIMERGY Blade / Rack / Tower Servers / PRIMEQUEST</th>
</tr>
</thead>
</table>

| 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 | 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

<table>
<thead>
<tr>
<th>BIOS</th>
<th>When using Windows Server 2016, apply the following version of BIOS/Firmware. Please download the following version from <a href="#">here</a>.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>[BIOS for PRIMERGY] RX4770 M3 R1.8.0 later RX2560 M2 R1.7.0 later</td>
</tr>
</tbody>
</table>
UEFI mode (1)

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

Applied to PRIMERGY RX4770 M3, RX2560 M2, RX2540 M2, RX2530 M2, RX2520 M1, TX2560 M2, TX2540 M1, TX1330 M2, TX1320 M2, TX1310 M1, BX2580 M2, BX2560 M2, CX2570 M2 and CX2550 M2.

UEFI mode (2)

When installing in UEFI mode, please set the BIOS menu as either of the following items;
(1) [Advanced] - [CSM Configuration] - [Boot option filter]
  "UEFI only"
(2) [Advanced] - [CSM Configuration] - [Launch CSM ]
  "Disabled"

Please check the ServerView Installation Manager (SVIM) and BIOS version before installing Windows Server 2016. If they are the same or newer than the following versions, there is no need to execute the above steps (1) (2).

- BIOS R1.10.0
- SVIM V12.17.07.03

iSCSI and FCoE

When using iSCSI and FCoE, please download the following firmware and driver kit from here and apply them.

- Firmware for converged network adapter V11.1.172.23 and later
- Windows driver kit for converged network adapter V11.1.172.19 and later

Applied to PRIMERGY RX4770 M3, RX2560 M2, RX2540 M2, RX2530 M2, RX2520 M1, TX2560 M2, TX2540 M1, TX1330 M2, TX1320 M2, TX1310 M1, BX2580 M2, BX2560 M2 and BX2560 M2.

Onboard SATA Controller

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.

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.

LAN (1)

About the LAN feature, please apply "Intel® Ethernet Adapters Connections SW-Kit 21.1" and later. You can download them from here.

Applied to:
<Systems>
- RX4770 M3, RX2520 M1, RX1330 M2, TX2540 M1, TX1330 M2, TX1320 M2, TX1310 M1, CX2570 M2 and CX2550 M2.

<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+.
**LAN (2)**

To use Intel PROset with the following LAN cards, please use Intel PROset V22.2 or later.
- PY Eth Mezz Card 1Gb 4 Port
- PY Eth Mezz Card 10Gb 2 Port V2

**Display (1)**

To use NVS315 with the following PRIMERGY, please apply BIOS R1.19.0 or later.
- PRIMERGY RX1330 M2, TX1330 M2 and TX1320 M2

**Display (2)**

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

**Converged network adapter**

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.

- 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)**

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.

- 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)**

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.

- Avago Storport Miniport Driver for Windows: V.11-1-145.16-37 and later
- 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**

When using 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

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

**Storage Spaces Direct**

For precautions and disk information regarding Storage Spaces Direct, please refer to the following data sheet on the Fujitsu website.

- [Data Sheet: Windows Server 2016 Addendum for Storage Spaces Direct](http://www.fujitsu.com/PRIMERGY)

**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.
### PRIMERGY JBOD External Enclosures

<table>
<thead>
<tr>
<th>Supported Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>FUJITSU Storage ETERNUS JX40 S2, JX60</td>
</tr>
</tbody>
</table>

### SERVERVIEW SUPPORT

**Fujitsu ServerView Suite**

- ServerView Installation Manager as of version 12.16.10 or higher for Windows Server 2016.

### 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, Bokmål, 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 `lpksetup` 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](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

- 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

- 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](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 supported on RX2560 M2, RX2540 M2, RX2530 M2, RX1330 M2, TX2560 M2, TX1330 M2, TX1320 M2, BX2580 M2, BX2560 M2,
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)

**EDITION-SPECIFIC RESTRICTIONS**

|---|---|

**LICENSING**

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## 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:


**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](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 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.

*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**

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.

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■ 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.

Fujitsu green policy innovation
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