Ubuntu Server 16.04 for IBM Power exploits the IBM POWER8 family of servers

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At a glance

 $\mathsf{IBM}^{(R)}$ and Canonical collaborate to enable you to order Ubuntu Server 16.04 for $\mathsf{Power}^{(R)}$, directly from IBM. Ubuntu 16.04, offers:

- Exploitation of the latest Power and OpenPower hardware innovation
- A broad range of the latest open source components and vendor software products for Power
- · Increased flexibility and greater scalability
- A cost-effective consolidation platform with mission-critical qualities of service

Ubuntu is a $Linux^{TM}$ distribution designed for cloud environments that is offered as an IBM PowerVM^(R) virtual machine, as an IBM PowerKVM guest operating system, and in a nonvirtualized configuration.

Overview

With Ubuntu 16.04, you gain the flexibility to quickly adapt to demands for business agility and IT efficiency on an enterprise-level, long-term support release. Ubuntu 16.04 uses the latest IBM POWER8^(R) and virtualization technologies to help maximize system resources and provide the qualities of service you expect as a Power SystemsTM client.

The availability of Ubuntu 16.04 strengthens the Linux operating system choices available on POWER8 technology. Boasting a new kernel, Ubuntu 16.04 continues to accelerate innovation and expand the Power Systems ecosystem while exploiting the POWER8 family of servers with Power KVM and PowerVM guest operating system support, as well as nonvirtualized support. These technologies help maximize system resources and deliver the quality of service you need.

Ubuntu Server 16.04 for Power Highlights:

- Enablement for the fast NVLINK GPU connection
- Efficient and Power optimized KVM and Dynamic DMA Windows™ (DDW) support
- Support NVME technology on Power, including PCIe and CAPI devices
- Native support for Docker and Containers technology, including live migrations
- New set of device drivers and I/O hardware, from HBAs to serial devices
- vNIC SR-IOV virtualization support with a new device driver

- SR-IOV improvements and new devices for both KVM and PowerVM
- · Performance and debugging improvements
- Improvements in energy consumption on kernel
- Better support on PowerVM LPARs, including Dynamic LPARs
- Improved support for CAPI devices
- New file system support, including BTRFS and ZFS

For the latest details about Ubuntu Server, see the Ubuntu website.

For further details, refer to Software Announcement ZP14-0155, dated April 28, 2014.

System preload

Thirty days after Ubuntu Server 16 availability, Ubuntu Server 14 will no longer be offered for preload with Power systems.

Support requirements

If you order Ubuntu Server, you will also be required to purchase Ubuntu Advantage Server Level-3 Support, which includes IBM Support access to Canonical technical resources in the event that IBM needs Canonical's assistance in problem determination and resolution. To ensure that Canonical resources are available to assist IBM throughout the hours of support, IBM supplies you with the appropriate Level 3-only offering. IBM Support Line is offered in conjunction with Ubuntu Advantage Server Level 3 to allow for a unified support strategy.

Support agreements are structured in the following way:

In addition to purchasing Ubuntu Advantage Server Level 3 support, clients should select the IBM Operational Support Services - SupportLine for Linux on Power Systems servers (5771-LNX).

Note: If you live in a country that has not announced IBM Operational Support Services - SupportLine for Linux on Power Systems servers (5771-LNX or 5773-LNX), contact IBM Technical Support Services (TSS) for pricing and contract information.

Key prerequisites

Ubuntu Server 16.04 for IBM Power supports Power Systems servers that use POWER8 technology.

Planned availability date

April 21, 2016

Description

The availability of Ubuntu 16.04 strengthens the Linux operating system choices available on IBM POWER8 technology. Boasting a new kernel, Ubuntu 16.04 continues to accelerate innovation and expand the Power Systems ecosystem while exploiting the POWER8 family of servers with Power KVM and PowerVM guest operating system support, as well as nonvirtualized support. These technologies help maximize system resources and deliver the quality of service you need.

Ubuntu Server 16.04 for Power Highlights:

Enablement for the fast NVLINK GPU connection

- Efficient and Power optimized KVM, including GPU passthrough and Dynamic DMA Windows (DDW) support
- Support NVME technology on Power, including PCIe and CAPI devices
- Native support for Docker and Containers technology, including live migrations
- New set of device drivers and I/O hardware, from HBAs to serial devices
- vNIC SR-IOV virtualization support with a new device driver
- SR-IOV improvements and new devices for both KVM and PowerVM
- Performance and debugging improvements,
- Improvements in energy consumption on kernel
- Better support on PowerVM LPARs, including Dynamic LPARs
- · Improved support for CAPI devices
- New file system support, including BTRFS and ZFS

For the latest details about Ubuntu Server, visit the Ubuntu website.

Product positioning

PowerVM virtual machine, as an IBM PowerKVM guest operating system, and in a nonvirtualized configuration.

Reference information

Software Announcement ZP14-0155, dated April 28, 2014

Program number

Program number	VRM	Program name
5639-U16	16	Ubuntu Server for IBM Power

Product identification number

Program PID number	Maintenance 1-year PID number	Maintenance 3-year PID number
5639-U16	N/A	N/A

Offering Information

Product information is available on the IBM Offering Information website.

Publications

Not applicable

Services

Global Technology Services

Contact your IBM representative for the list of selected services available in your country, either as standard or customized offerings for the efficient installation, implementation, or integration of this product.

Technical information

Specified operating environment

Hardware requirements

This program is only orderable on POWER8 servers.

Software requirements

None.

The program's specifications and specified operating environment information may be found in documentation accompanying the program, if available, such as a readme file, or other information published by IBM, such as an announcement letter. Documentation and other program content may be supplied only in the English language.

Planning information

Packaging

Your Proof of Entitlement (PoE) for this program is a copy of a paid sales receipt, purchase order, invoice, or other sales record from IBM or its authorized reseller from whom you acquired the program, provided that it states the license charge unit (the characteristics of intended use of the program, number of processors, number of users) and quantity acquired.

Information about how you may obtain program services will be provided by the party (either IBM or its authorized reseller) from whom you acquired the program.

Security, auditability, and control

Ubuntu Server 16.04 for IBM Power uses the security and auditability features of the operating system.

The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communication facilities.

Ordering information

Consult your IBM representative.

5639-U16 Ubuntu Server for IBM Power Basic License One-Time Charge

Feature description	OTC feature number	Supply feature number
Ubuntu Advantage Server L3 Support 1yr	MCYAV8	5809
Ubuntu Advantage Server L3 Support 3yr	MCYBV9	5809

Charge metric

Program name	Part number or PID number	Charge metric
Ubuntu Server for IBM Power	5639-U16	Per Server

Server

Server is a unit of measure by which the program can be licensed. A *server* is a physical computer that is comprised of processing units, memory, and input/output capabilities and that executes requested procedures, commands, or applications for one or more users or Client Devices. Where racks, blade enclosures, or other similar equipment is being employed, each separable physical device (for example, a blade or a rack-mounted device) that has the required components is considered itself a separate server. For the purpose of server-based licensing, licensee must obtain entitlements for each server that is made available to the program, regardless of the number of processor cores and partitions in the server or the number of copies of the program on the server.

Notes:

- Some programs may require licenses for the program and what is being managed. In that case, the following applies. In addition to the entitlements required for the program directly, licensee must obtain entitlements for this program sufficient to cover the servers managed by the program.
- Some programs may be licensed on a managed basis only. In that case, the
 following applies. Instead of the entitlements required for the program directly,
 licensee must obtain entitlements for this program sufficient to cover the servers
 managed by program.

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Licensing Supplier's license terms apply. Limited warranty Not warranted by IBM. Warranty, if any, provided by supplier. Volume orders Not applicable

Educational allowance

No.

Statement of good security practices

IT system security involves protecting systems and information through prevention, detection, and response to improper access from within and outside your enterprise. Improper access can result in information being altered, destroyed, or misappropriated or can result in misuse of your systems to attack others. Without a comprehensive approach to security, no IT system or product should be considered completely secure and no single product or security measure can be completely effective in preventing improper access. IBM systems and products are designed to be part of a lawful, comprehensive security approach, which will necessarily involve additional operational procedures, and may require other systems, products, or services to be most effective.

Important: IBM does not warrant that any systems, products, or services are immune from, or will make your enterprise immune from, the malicious or illegal conduct of any party.

Prices

For all local charges, contact your IBM representative.

Announcement countries

All European, Middle Eastern, and African countries except Islamic Republic of Iran, Sudan, and Syrian Arab Republic.

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Corrections

(Corrected on November 20, 2017)

Updated Overview section.