DELL Ubuntu Server 22.04 LTS for PowerEdge Systems User Guide

Technologies
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Ubuntu Server 22.04 LTS for PowerEdge Systems

Ubuntu Server 22.04 LTS for Dell PowerEdge Systems Release Notes
Current Release Version: Ubuntu Server 22.04
Previous Release Version: Ubuntu Server 20.04
Release Type: Major (MA)

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Revision History

Table 1. Document revision history

Document revision	Date	Description
A00	Nov-22	Initial release

Product description

Canonical Ubuntu 22.04 LTS is the follow-on Operating System (OS) release to the Ubuntu 20.04 LTS operating system. Major enhancements in Ubuntu 22.04 are improvements in security and stability.

New features

The table lists the new and enhanced features of Ubuntu Server 22.04.
Table 2. New features in Ubuntu Server 22.04

Functional area	Feature description	Summary of benefits
Security	nftables as default backend for the firewall	● The simplification of the Linux kernel ABI ● Improved error reporting ● More efficient execution ● Reduction of code duplication
	Secure shell-RSA is disabled by default in OpenSSH.	Improved security

Table 2. New features in Ubuntu Server 22.04 (continued)

Functional area	Feature description	Summary of benefits
	Rust for memory-safe system level programming	● High performance while ensuring memory safety ● Backwards compatibility and stability ● Support for concurrent programming
	OpenSSL updated to version 3, which includes new cryptographic algorithms	● OpenSSL 3.0 comes with five different providers as standard. ● Fetching algorithms and property queries ● Multiple library contexts may exist simultaneously.
Kernel	● Latest Kernel 5.15 ● Major features like in Kernel SMB 3 server ● Data access monitor ● cgroup support for SCHED_IDLE ● Device mapper IMA-based remote attestation ● Support for asymmetric scheduling affinity	Contains various new device drivers, fixes, and optimizations
Container	Long time supported docker images on Ubuntu receive new long-term supported 22.04-based tracks	Ubuntu 22.04 provides long-term benefit for containers.

Changed features

The table lists the changed features of Ubuntu Server 22.04.
Table 3. Changed features in Ubuntu Server 22.04

Functional area	Feature description	Summary of benefits
Toolchain upgrade	GCC was updated to the 11.2.0 release, binutils to 2.38, and glibc to 2.35. Python 3.10.4 Perl version 5.34.0, OpenJDK 11, and OpenJDK 18.	Use of the latest toolchain.
Network File System	User datagram protocol (UDP) is disabled for Network File System mounts.	Helps to improve secure and lossless data transfer
High availability and clustering	Corosync is updated to version 3.16. Pacemaker is updated to version 2.1.2. Fence agents are updated to version 4.7.1.	Ubuntu provides the latest high availability and clustering packages.
Containers runtime	Container is updated to version 1.5.9. Runc is updated to version 1.1.0.	● Non-https container image pull ● Apparmor support for arm65 and seccomp ● Support for clone3 ● Container Runtime Interface (CRI) image labeling
Virtualization	qemu updated to version v6.2.0	● fuse3 based nonroot way to export image files 14 ● Jack support for low latency audio ● Massively improved reduced instruction set system five (RISC-V) support. ● Many fixes for the emulation of advanced micro devices (AMD) virtualization extensions ● More devices for the microvm build (virtio- gpu, vhost-user-gpu, virtio-input-host, and vhost_user_input)

Table 3. Changed features in Ubuntu Server 22.04 (continued)

Functional area	Feature description	Summary of benefits

		● Allows to remove the additional drivers of qemu- block-extra ● Most common qemu features are now separate modules. ● Improved storage key emulation s390x
	libvirt updated to version v8.0.0	● Support hotplug and hot unplug for virtiofs. ● Introduced virtio-mem memory model ● qemu: Support librbd encryption ● qemu: Add new API to inject a launch secret in a domain. ● Enhanced swtpm integration
	virt-manager updated to 4.0.0	● Shared memory configuration in the user interface ● virtiofs file system driver user interface option ● Enable a trusted platform module (TPM) by default when UEFI is used. ● Use cpu host-passthrough by default on qemu x86. ● Use virtio-gpu video for most modern distros.

	dpdk	Contains various new device drivers, fixes, and optimizations
	openvswitch	● Various features that ease the use of a user space datapath ● Performance improvements for the Open vSwitch database management protocol (OVSDB) and clustered OVSDB which is heavily used in open virtual network (OVN) deployments. ● Brings compatibility with the data plane development kit (DPDK 21.11)

Resolved issues

The table lists the resolved issues in Ubuntu Server 22.04.
Table 4. Resolved issues in Ubuntu Server 22.04

Issue ID	Functional area	Description	Workaround/Resolution
235936	When external monitor is connected, video goes blank during the installation of Ubuntu 22.04.	When external monitor is connected using VGA, video goes blank during the installation of Ubuntu 22.04. The VGA screen is blank, or displays out of range message. The PLLs are not configured properly.	The issue is not observed when using iDRAC virtual console. The issue is resolved in Ubuntu 22.04.1.

Known issues

The table lists the known issues in Ubuntu Server 22.04:
Table 5. Common issues in Ubuntu Server 22.04

Issue ID	Functional area	Description	Workaround
238939	A message cloud-init failed to complete after 10 minutes of waiting is displayed when Ubuntu 22.04 is installed through iDRAC virtual media option.	On Dell PowerEdge systems, when installing Ubuntu 22.04 using iDRAC virtual media option, installation process stops and displays a message cloud-init failed to complete after 10 minutes of waiting.	● Installation can be completed by clicking the Close option. ● The issue could be avoided by installing OS by attaching the OS image using the iDRAC Remote File Share option in Virtual Media section.
236474	In Ubuntu 22.04, auto tab functionality does not work as expected for nvme-cli utility.	Issue in bash-completion script of nvme-cli package. On Dell PowerEdge systems with Ubuntu 22.04, the auto tab completion for the nvme command does not work as expected. If the tab is entered after nvme, it gets overwritten by the command prompt instead of listing the subcommands. The functionality of nvme command is not impacted, and the subcommands could be entered manually.	The issue could be worked around by typing the command line manually.
247411	Ubuntu 22.04 server suspends automatically when the system is in idle state.	After a period of inactivity, Ubuntu server enters the suspend mode if the automatic suspend option under power settings is set On. This may result in undesired side effects such as blank screen or a system crash.	Change the power settings: ● Go to Settings > Power > Power-Saving Options. ● Select Off from the Automatic Suspend option and Set Screen Blank option to Never.

Limitations

Installing a GUI on servers is not supported by Ubuntu Server. For more information, see

- ServerGUI
- Desktop or GUI environment on a server
- Dell PowerEdge RAID Controller S150 is not supported on Ubuntu 22.04 LTS. For more information, see Jammy JellyRelease Notes.

Environment and system requirements

Ubuntu Server Edition provides a common, minimalist base for various system applications, such as file or print services, web hosting, and email hosting. This version supports four 64-bit architectures:

- amd64 (Intel or AMD 64-bit)

- arm64 (64-bit ARM)
- ppc64el (POWER8 and POWER9)
- s390x (IBM Z and LinuxONE)

The recommended system requirements are:

- CPU: 1 GHz or better
- RAM: 1 GB or more
- Disk: Minimum of 2.5 GB

Installation and upgrade considerations

For detailed information about the installation or upgrade instructions, see the Ubuntu Installation Guide available at **https://ubuntu.com/server/docs/installation**.

Where to get help

The Dell Technologies Support site (**https://www.dell.com/support**) contains important information about products and services including drivers, installation packages, product documentation, knowledge base articles, and advisories.

A valid support contract and account might be required to access all the available information about a specific Dell Technologies product or service.

Notes, cautions, and warnings

NOTE: A NOTE indicates important information that helps you make better use of your product.

CAUTION: A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

WARNING: A WARNING indicates a potential for property damage, personal injury, or death.

Documents / Resources

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Ubuntu Server 22.04 LTS for PowerEdge Systems, Ubuntu Server, 22.04 LTS for PowerEdge Systems, PowerEdge Systems

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