

# WHAT'S NEW IN RED HAT ENTERPRISE LINUX 7.5

TECHNOLOGY OVERVIEW

#### **BENEFITS FOR:**

- Architects
- System administrators
- Developers

#### **NEW FUNCTIONALITY IN:**

- Security
  and compliance
- Performance and efficiency
- Platform managability
- Stability and reliability
- Multiplatform support
- Application experience

## INTRODUCTION

Enterprises choose many cloud, virtual, and bare-metal architectures to support their business needs while attempting to reduce the complexity, costs, and skill sets required to manage hybrid IT environments. They want to continue benefiting from their existing infrastructure and application investments while safely investing in tomorrow.

With Red Hat® Enterprise Linux®, enterprises gain the control, confidence, and freedom to make the application and infrastructure decisions that make sense for them. Through the ongoing value of a subscription, enterprises gain continuous security; access to a broad ecosystem of software, hardware, and cloud providers; over ten years of support for each major version with the option to standardize on minor versions; and a commitment to application compatibility.

We continue to fulfill our customer commitment with the release of Red Hat Enterprise Linux 7.5 that delivers enhanced security and compliance, usability at scale, continued integration with Windows infrastructure on-premise and in Microsoft Azure, new functionality for storage cost controls, and continued investment in platform manageability for Linux beginners, experts, and Microsoft Windows administrators.

**Architects:** Red Hat Enterprise Linux 7.5 brings you enhanced interoperability, storage efficiency on-premise and in the cloud, and multiplatform support for building network-intensive applications, massively scalable data repositories, or a build-once-deploy-often solution that performs well in physical, virtual, and cloud environments.

**System administrators:** Red Hat Enterprise Linux 7.5 has new features that help you perform advanced troubleshooting in an easy-to-use web interface and simplify security and compliance at scale and within containers, improved storage cost efficiencies for on-premise and cloud environments, additional interoperability with Microsoft environments, and improvements to stability, reliability, and multiplatform support.

**Developers:** Red Hat Enterprise Linux 7.5 is more than just an operating system; it provides you with a rich application infrastructure and built-in mechanisms for security, identity management, resource allocation, self-service management, and performance optimization.

## FEATURES AND ENHANCEMENTS

The following sections include additional information on new features and enhancements as they relate to security and compliance, performance and efficiency, platform manageability, and so much more.

# **SECURITY AND COMPLIANCE**

As hybrid IT environments continue to expand and evolve, security must streamline, scale, and complement interoperability to mitigate risk and continue to meet the needs of the business. The security controls built into Red Hat Enterprise Linux 7.5 deliver added freedom for enterprises to extend their infrastructure into public clouds; build, design, and interact with Windows infrastructure; and deploy more mature workloads within containers. This includes:



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Easier deployment of compliance and security configurations at scale through the integration of OpenSCAP in Red Hat Enterprise Linux with Red Hat Ansible® Automation, generating Ansible Playbooks directly from scans. The resulting playbooks can be used by Ansible Automation to implement remediations rapidly and consistently across the enterprise.

Enhanced usability and security features with additional Microsoft integration, including security enhancements of data transfers within and to Microsoft Azure, streamlined management and communication with Windows Server, and performance integration improvements with complex Microsoft Active Directory architectures.

- Enhanced communication between Red Hat Enterprise Linux and Microsoft Windows Server with the addition of SMB3 protocol as the default within Samba suite.
- Streamlined Windows file system administration with Windows Distributed File System (DFS) support for SMBv2 and SMBv3, allowing a Windows system administrator to combine multiple SMB file systems into a single virtual file system.
- Reduced risk of data theft by helping system and cloud admins connect to Microsoft Azure file storage share-either from on-premise or from a different Azure region-through encryption support of the SMB3 protocol for CIFS shares.
- Improved performance for Red Hat Enterprise Linux IdM server in complex Microsoft Active Directory configurations and when dealing with tens of thousands of user entries.

**Enhanced container security** that includes proactive security and compliance configuration at build, fine-grained security controls, and host layer access controls.

- Proactive integration of security and compliance configurations, such as PCI-DSS or DISA STIG into containers at build time through the integration of Atomic Scan, OpenSCAP, and SCAP Security Guide
- Enhanced security for third-party containers, like those from the Red Hat Container Catalog and other containers that need systemd integration with additional fine-grained SELinux protections on control groups
- Strengthened container host security by removing container root users from automatic access to the host layer

Secure sensitive data in the cloud and on-premise with security enhancements to network-bound disk encryption that support automatic decryption of data volumes. Compliance improvements for accurate time-stamping and synchronization needs with the addition of failover with bonding interfaces for Precision Time Protocol (PTP) and Network Time Protocol (NTP)

#### PERFORMANCE AND EFFICIENCY

As enterprises seek to extend their existing investments, they continue to optimize storage to extend resources and reduce costs. Virtual data optimizer (VDO), new in Red Hat Enterprise Linux 7.5, is designed to reduce the costs of data in the cloud and on-premise by up to 83%. Through inline deduplication and compression, VDO eliminates data redundancy and increases effective capacity of new and existing storage up to six times.

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#### PLATFORM MANAGEABILITY

Existing skill set reuse, or lack thereof, continues to be a challenge in organizations optimizing IT investments and deploying new technologies. Red Hat Enterprise Linux 7.5 reduces the learning curve for new Linux administrators, Windows users, experts performing advanced troubleshooting, and developers with self-service needs who do not need to get into the command line.

An easy-to-use web interface, the cockpit admin console, provides management of individual systems, and includes additional use cases for network and storage management including support for virtual data optimizer (VDO).

Manage the creation of bootable snapshots that provide safer and faster recovery and rollback when evaluating upgrade options.

## STABILITY AND RELIABILITY

High availability support for enterprise applications running on Amazon Web Services or Microsoft Azure with Pacemaker support in public clouds via the Red Hat High Availability Add-On and Red Hat Enterprise Linux for SAP® Solutions.

# MULTIPLATFORM SUPPORT

New technology enablement such as single host virtualization and support for containers within System Z architectures.

#### APPLICATION EXPERIENCE

The Buildah utility has moved out of tech preview in 7.5 and is now fully supported. Customers can utilize Buildah to create and modify Linux container images without the Docker daemon running. This is available in both Red Hat Enterprise Linux and Red Hat Enterprise Linux Atomic Host.

# CONCLUSION

For more information on Red Hat Enterprise Linux 7.5 and Red Hat Enterprise Linux Atomic Host, visit the Red Hat Enterprise Linux product page, review the release notes in the Red Hat Customer Portal, visit the Red Hat Enterprise Linux blog, or contact a Red Hat sales representative.



## **ABOUT RED HAT**

Red Hat is the world's leading provider of open source software solutions, using a community-powered approach to provide reliable and high-performing cloud, Linux, middleware, storage, and virtualization technologies. Red Hat also offers award-winning support, training, and consulting services. As a connective hub in a global network of enterprises, partners, and open source communities, Red Hat helps create relevant, innovative technologies that liberate resources for growth and prepare customers for the future of IT.



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