

OpenSource

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AlmaLinux OS 9.5, a free alternative to RHEL 9.5, unveiled

The AlmaLinux OS Foundation has unveiled AlmaLinux OS 9.5, codenamed 'Teal Serval', offering the open source community a powerful and free alternative to Red Hat Enterprise Linux (RHEL) 9.5. Built to mirror RHEL's capabilities, AlmaLinux OS 9.5 combines stability with features to enhance system performance and developer productivity.

This release introduces significant updates for system monitoring, performance visualisation, and data collection. It also includes improvements in security, with revamped cryptographic policies that now extend to Java algorithm selection, fortifying the platform against emerging threats.

For developers, AlmaLinux OS 9.5 delivers new and updated compilers such as GCC 14, LLVM 18.1.8, Rust 1.79.0, and C++ 12, enhancing application development and management.

AlmaLinux policies have been updated to include the QEMU Guest Agent and various system commands, while CA certificates have been updated to better support trusted CA roots in the OpenSSL directory format.

The release also brings an array of updated components, including .NET 9.0, Node.js 22, Apache 2.4.62, and more, ensuring compatibility with modern application frameworks. New tools such as BIND 9.18, GDB 14.2, and Grafana 10.2.6 further expand its utility for developers and systems administrators alike.

Powered by Linux kernel 5.14.0-427.13.1.el9_4, AlmaLinux OS 9.5 offers robust support for various architectures, including x86_64, AArch64, PowerPC 64-bit Little Endian, and IBM system Z, ensuring compatibility across a wide range of systems.

Users seeking to explore AlmaLinux OS 9.5 can download installation ISOs from the official website. Current users can easily upgrade to the latest version using a single command in their terminal.

the next wave of innovation tomorrow," said Joe Fernandes, vice president and general manager, AI Business Unit, Red Hat.

As businesses increasingly shift to AI-driven practices, the need for AI-ready infrastructure spanning applications, data, platforms, and hybrid environments has never been more critical. RHEL AI on Microsoft Azure addresses these needs



by offering a consistent and scalable platform for building, testing, and deploying gen AI models across hybrid cloud setups.

RHEL AI powers generative AI innovation with enterprise-grade, open source-licensed Granite models and supports model alignment to private enterprise data through InstructLab tooling. Furthermore, it provides an efficient pathway to Red Hat OpenShift AI, enabling organisations to finetune and scale models using familiar tools and concepts.

RHEL AI is the latest addition to Red Hat's AI-optimised offerings on Azure, joining solutions like Red Hat OpenShift AI and Azure Red Hat OpenShift—a fully managed application platform co-developed by the two companies.

With RHEL AI on Azure, organisations gain greater flexibility and a robust foundation to drive generative AI innovation, making it easier to achieve their strategic goals in an AI-driven era.

Jake Zborowski, general manager, Microsoft Azure Platform, Microsoft Cloud said: "We're pleased to welcome Red Hat Enterprise Linux AI to the Microsoft Azure Marketplace, which gives our partners great exposure to cloud customers globally. Azure Marketplace offers world-class quality experiences for our partners with solutions tested to work seamlessly with Azure."

Mcity digital twin unveiled for connected and autonomous vehicle testing

The University of Michigan's Mcity Test Facility has unveiled the first open source digital twin of its renowned test track, enabling researchers worldwide to simulate and test connected and autonomous vehicle (CAV) technologies. This groundbreaking tool, freely accessible, offers a safer, faster, and cost-effective alternative to real-world testing.

A digital twin is a virtual replica of a physical environment that interacts with real-world data, enabling advanced simulations. Researchers can now virtually access Mcity's comprehensive testing environment, featuring diverse road materials, markings, intersections, and traffic signals, without travelling to the test track.

The digital twin integrates with TeraSim, Mcity's open source traffic simulator, to create dynamic testing scenarios. It introduces pedestrians, cyclists, and vehicles while generating safety-critical events, such as potential collisions. Using traffic models calibrated with real-world data, it simulates both every day and high-risk driving scenarios.

Experts view CAV technologies as key to safer, more efficient transportation, though substantial research is still required to achieve widespread benefits. Virtual testing accelerates progress, enabling autonomous vehicles to log "millions of miles" in simulations before real-world deployment. "With the digital twin, we control variables like simulated pedestrian traffic, focusing and accelerating testing," said Mcity software engineer Darian Hogue.



Opened in 2015, Mcity was the world's first purpose-built proving ground for CAVs. Its physical features include urban streets, a traffic circle, diverse road surfaces, and accessibility ramps. In 2022, Mcity debuted remote-use capabilities, enabling researchers to control vehicles and infrastructure onsite via cloud-based systems. Using 5G connectivity, real-time data flows seamlessly between remote researchers and Mcity's physical environment.

"As an open source tool, the Mcity

digital twin reduces barriers to entry, allowing developers to refine systems before transitioning to on-site tests," said Mcity director Henry Liu.

Linux Foundation launches LF India to foster open source innovation and support in India

The Linux Foundation, a nonprofit organisation dedicated to driving innovation through open source, has announced the launch of LF India. This new initiative aims to foster open collaboration among Indian open source developers, enterprises, government organisations, and the broader community. LF India will focus on engaging regional startups and intergovernmental organisations (IGOs), with an emphasis on open source projects in areas such as cloud-native technologies, telecommunications, edge/IoT, blockchain, security, and domain-specific AI across various industries.

India is home to nearly 200,000 developers who contribute to open source projects hosted by the Linux Foundation. With LF India, the Linux Foundation will act as a "sandbox for innovation" in the region, providing support and accelerating the development of open source software projects across startups, enterprises, and IGOs. LF India will invest in this growing

community by offering open source software training, organisational events, and hosting meetups to strengthen the skills and knowledge of developers.

"As open source continues its global growth trajectory, we are time and again inspired by the rapid adoption of open technology in India, driven by policy and investment by government and organisations across the region," said Jim Zemlin, executive director, Linux Foundation. "LF India

is an important milestone in the Linux Foundation's mission to expand global awareness of open source. We look forward to future partnerships with government leaders, enterprises and the developer community during this exciting time of open source advancement."

India's fast-growing developer community is on track to be the world's largest by 2028. This highly skilled group is bolstered by the region's commitment to open innovation and technology, with a strong digital public infrastructure built with open source software. Investment in open technology continues to grow, creating opportunities for developers to contribute meaningfully to transformational technologies, thus enriching the growing deep tech startup ecosystem.

"We are excited to launch LF India focused on building collaborative open source communities and providing a sandbox for next generation projects," said Arpit Joshipura, GM/SVP and head of LF India. "Our focus will be on local innovation with global impact and from consumption to contribution."

Overture Maps Foundation announces general availability of global Transportation dataset

The Overture Maps Foundation, a collaborative initiative aimed at advancing interoperable open map services and products, has announced the general availability (GA) of its global Transportation dataset. This open map dataset is set to support a wide range of industries, including automotive, ride-sharing, logistics, navigation, local search, urban planning, and disaster and humanitarian response, by enabling new and expanded use cases.