Wind River eLxr Pro

The Right Formula for Trusted Enterprise Linux

Enterprise infrastructure is undergoing a structural shift. AI and machine learning workloads are moving out of centralized cloud clusters and into distributed, mission-critical environments. The information technology (IT) and operational technology (OT) domains are converging. Open architecture has become a board-level mandate. And Linux — long the backbone of enterprise computing — is now being asked to operate across thousands of geographically dispersed systems where lifecycle, compliance, and determinism matter as much as performance.

eLxr, based on Debian, helps users get up and running fast, is easy to modify, and works with on-premises, cloud-based, and edge solutions — all while retaining compatibility with popular development and integration tools. eLxr Pro™ is enterprise Linux that has everything you need and nothing you don't.

WHAT'S NEW

eLxr Pro has proved itself in industries that require mission-critical, data-intensive, edge-ready workloads. Its latest version provides trusted enterprise Linux for distributed intelligence at scale.

eLxr Pro transforms Linux from an operational risk to a governed enterprise platform. The operating system enables organizations to securely scale distributed intelligence with predictable costs, reduced risk, and long-term operational confidence. eLxr Pro encompasses performance optimization, improved interoperability, and seamless workload integration. www.windriver.com/products/enterprise/elxr-pro

PRODUCT OVERVIEW

Built on the open source eLxr project — a Debian-based downstream derivative — eLxr Pro extends the same transparent, upstream-aligned foundation into a managed, enterprise-grade platform. Organizations can use the community eLxr distribution (available at elxr.org) for experimentation, evaluation, and proof-of-concept development and then seamlessly transition validated designs into production using eLxr Pro. This approach preserves compatibility, reduces rework, and ensures that innovations proved in early exploration can be operationalized with full lifecycle support, security hardening, and enterprise governance.

The latest release marks a major step forward for enterprises looking to modernize and secure their distributed Linux environments. Upgraded to Debian 13, eLxr Pro now delivers broader package coverage and a leaner minimal image base, providing an efficient foundation for both fresh deployments and ongoing operations. Performance has been enhanced with intentional image updates, benchmarking capabilities, and improved compliance tracking, giving IT teams predictable, measurable outcomes across large-scale infrastructure. The platform also introduces a multi-tenant web console, which simplifies management across distributed environments and supports role-based access control for secure operations.

Modernization without disruption is critical in industrial environments. Imagine, for instance, a large manufacturer running Linux across IT and OT systems that faces a scheduled hardware refresh across production lines and edge analytics servers. Because its builds likely diverged over time, it will need to perform revalidation across dozens of configurations — which will cause months of delays and operational risk. eLxr Pro can address this challenge with long-term lifecycle support (10–15 years), predictable patch streams, in-place migrations with data, and policy-driven configuration management. With eLxr Pro, the manufacturer could modernize confidently while maintaining uptime and predictable costs.

ENABLE INTELLIGENT ENTERPRISE EDGE AND CLOUD SYSTEMS

Challenges

Organizations face pressure to scale edge deployments efficiently while managing resource constraints. The integration of intricate AI workloads at the edge adds complexity, requiring solutions that balance low latency with optimized performance. Addressing such challenges in hybrid edge-to-cloud environments demands robust security, seamless operations, and cost-effective scalability.

Advantages

eLxr Pro meets the demands of evolving edge-to-cloud ecosystems. It empowers organizations to accomplish more with fewer resources. It streamlines processes, improves efficiency, and optimizes uptime. And its cloud-native flexibility securely simplifies deployments, which enables scalable and efficient AI operations at the edge.

Features

eLxr Pro 26, the latest version of the operating system, supports an updated, stable Kubernetes release, enhanced distribution-to-order tooling and templates, turnkey images, and flexible migration options — for both fresh migrations without data and in-place migrations with data. These features make modernization smoother and less disruptive. AI enablement is strengthened with AI workload software verification, so validated stacks run predictably at scale.

WORK FAST AND EFFICIENTLY

Challenges

Organizations need workload adaptability across diverse hardware platforms. That's particularly true in industries with mission-critical and data-intensive demands. Balancing performance optimization with seamless integration and cost-effectiveness further complicates system efficiency.

Advantages

eLxr Pro delivers optimized system performance without breaking or disrupting what you already have in place. Its expanded hardware compatibility list enhances interoperability too, which makes eLxr Pro suitable for a wide range of applications, from new deployments to scaling AI workloads.

Features

The latest version of eLxr Pro expands hardware and platform enablement to cover Dell, Hewlett Packard Enterprise (HPE), and Supermicro systems. It aligns pricing and activation across physical infrastructure and virtualized environments. It also provides full Intel® Xeon® and AMD EPYC™ support, ensuring that workloads like AI inference and critical analytics run reliably and efficiently. Partners benefit from distributor and reseller activation and the eLxr Partner Certification guide, which makes it easier for enterprise customers to adopt eLxr Pro.

ENHANCING TRUST, COMPLIANCE, AND PROTECTION

Challenges

Regulated industries must ensure that systems are secure and compliant and can handle sensitive workloads and data in edge and cloud environments. Balancing stringent compliance requirements with operational efficiency and future-readiness is a top priority.

Advantages

eLxr Pro strengthens trust and compliance by delivering robust data protection and security measures. These enhancements safeguard workloads while enabling secure, cloud-native operations, providing peace of mind for organizations that manage critical systems.

Features

In the latest version of eLxr Pro, security and compliance remain central, with a Common Vulnerabilities and Exposures (CVE) API and database, automated CVE scanning, and improved software bill of materials reporting. Robust controls include Secure Boot, Unified Kernel Image (UKI), security hardening, mandatory access control, and role-based access control. Enterprises have continuous visibility and protection across distributed systems.

With these updates, eLxr Pro is more than a Linux distribution. It's a trustworthy foundation for secure, intelligent, and scalable operations across data centers and distributed enterprise environments.

ELXR 26 SYSTEM REQUIREMENTS

To support maximum uptime, eLxr supports customized images that perform system-level and user-space package updates on a live target. To run eLxr on a hardware device, such as a PC or development board, users can download the ISO file and copy it to bootable media.

ISO image–based installations require the following:

- An x86 device with a Unified Extensible Firmware Interface (UEFI) connected to a keyboard and monitor
- A virtual machine manager, such as VirtualBox, to test on a Windows, macOS, or Linux host
- Bootable media, such as a USB or SD flash drive

Images include package management by default to help customize your distribution. Supported architectural platforms include x86-64 and ARM64. For a list of supported platforms, consult docs.elxr.dev.

To run eLxr in a container for use in cloud-native applications, clone the eLxr tools repository and install it in a Docker container. A Linux development host with the following minimum requirements is necessary to perform container-based installations:

- Internet access, to download the images and update the deployed system
- Git, to clone repositories to communicate with the eLxr project on GitLab
- Docker Engine installed and configured, to allow nonprivileged u sers to run Docker commands
- Python with the Rucksack and libvirt-python modules installed
- The libvirt-dev package

GET STARTED WITH ELXR AND ELXR PRO

eLxr Pro is the commercial support and services version of the eLxr open source project.

eLxr is available today. Try it at elxr.org/downloads.

Learn how to contribute to the eLxr community.

For detailed eLxr documentation, product specifications, system requirements, and more, visit docs.elxr.dev.

Request information about eLxr Pro support and services at www.windriver.com/contact.

For additional information on the eLxr project, visit elxr.org.

For the latest information on eLxr Pro, visit www.windriver.com/products/enterprise/elxr-pro.

Wind River is a global leader of software for the intelligent edge. Its technology has been powering the safest, most secure devices since 1981 and is in billions of products. Wind River is accelerating the digital transformation of mission-critical intelligent systems that demand the highest levels of security, safety, and reliability.