



Wind River Linux LTS Datasheet

Wind River Linux enables developers to build and deploy robust, reliable, and secure Linux-based edge devices and systems – and to do so without the risk, cost, and development effort associated with roll-your-own (RYO) efforts.

Wind River is the global leader in the embedded software industry, with decades of technical expertise and more than 20 years of experience as an open source active contributor. We have earned a stellar reputation by helping our customers build and deploy purpose-built Linux distributions that are optimized for embedded devices and edge systems, especially for deployment in highly regulated markets.

A Wind River® Linux LTS subscription provides long-term support – and peace of mind. It ensures that code bases are up to date, tracks and fixes defects, applies security patches, customizes runtimes to adhere to market specifications and certifications, complies with government regulations, and mandates and facilitates intellectual property and export compliance.

» *Learn About Wind River Linux Offerings:* www.windriver.com/products/linux

THE PURPOSE-BUILT LINUX TO POWER EMBEDDED AND IOT DEPLOYMENTS

Optimize Linux-based devices using Wind River Linux LTS. Achieve efficient deployments in constrained environments with out-of-the box board support packages (BSPs) that are tuned for performance, small footprint, low-latency response, and minimal memory usage across diverse CPU architectures.

Configurable kernel and user-space features allow developers to match market requirements (such as real-time responsiveness, security hardening, or minimal boot time) without compromising stability or supportability.

LONG-TERM COMMERCIAL SUPPORT FOR YECTO PROJECT LINUX

Wind River provides commercial long-term support for Linux distributions built using the Yocto Project set of tools, layers, recipes, and packages.

Wind River Linux LTS is released yearly, in alignment with Yocto Project community releases. Each version is followed by a predictable set of rolling cumulative patch layers (RCPLs) as maintenance updates. The RCPL releases include security and bug fixes, plus new BSPs and feature enhancements.

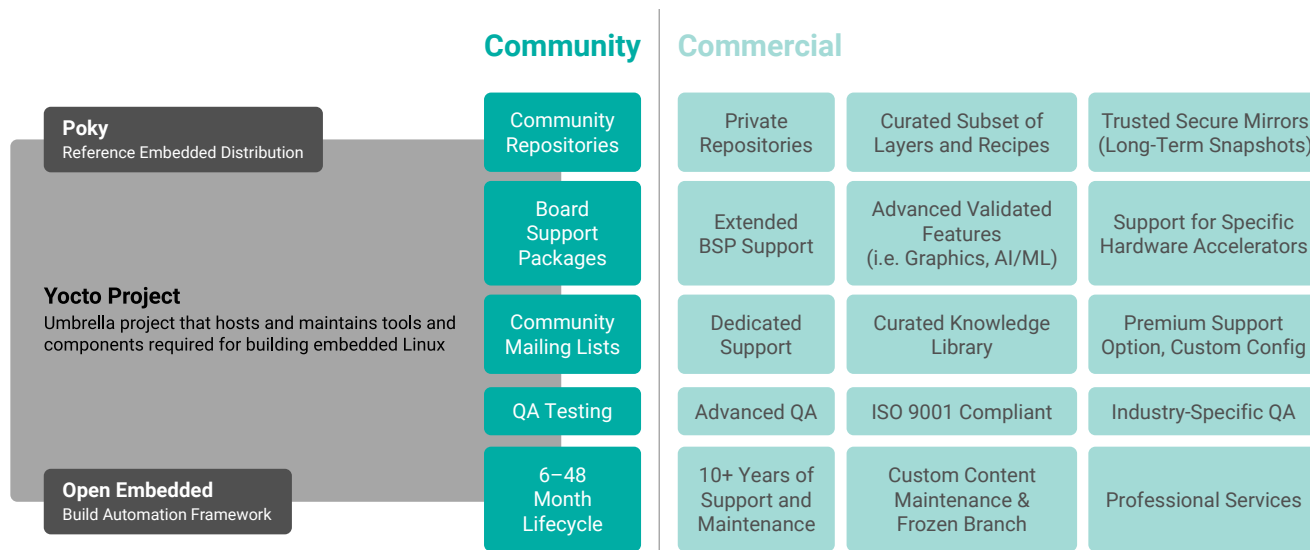


Figure 1. Community innovation combined with commercial quality and assurance

Wind River Linux LTS abstracts distribution maintenance, so engineers can prioritize application-layer development. That includes:

- Patching for common vulnerabilities and exposures (CVEs)
- Tuned kernel configurations
- Upstream integration handled externally

Teams reduce the time they spend on hardware support, low-level system validation, and integration overhead. End result: faster prototyping and deployment cycles.

Wind River ensures sustained patching, regression testing, and compliance updates. This stability across product life-cycles supports certification efforts and minimizes the risk from unpatched vulnerabilities or unsupported components in production environments.

The managed Linux lifecycle reduces internal resource allocation for security, maintenance, and compliance. This lowers infrastructure overhead, minimizes downtime risk, and streamlines support workflows, resulting in measurable cost savings.

Streamlined Hardware Support

Wind River Linux LTS has an extensive portfolio of supported BSPs from several vendors. This means that there is no lock-in to any specific hardware vendor's Linux tree. Companies delivering several hardware platforms can share the same code base. That reduces the need to maintain multiple tracks and makes it easier to change hardware vendors to meet new product requirements. Pre-validated BSPs enable immediate hardware bring-up and faster prototyping.

Wind River decouples BSP maintenance from vendor-specific kernels, offering a unified, upstream-aligned code base. This abstraction allows seamless hardware migrations, simplifies multi-architecture support, and avoids fragmentation caused by proprietary forks.

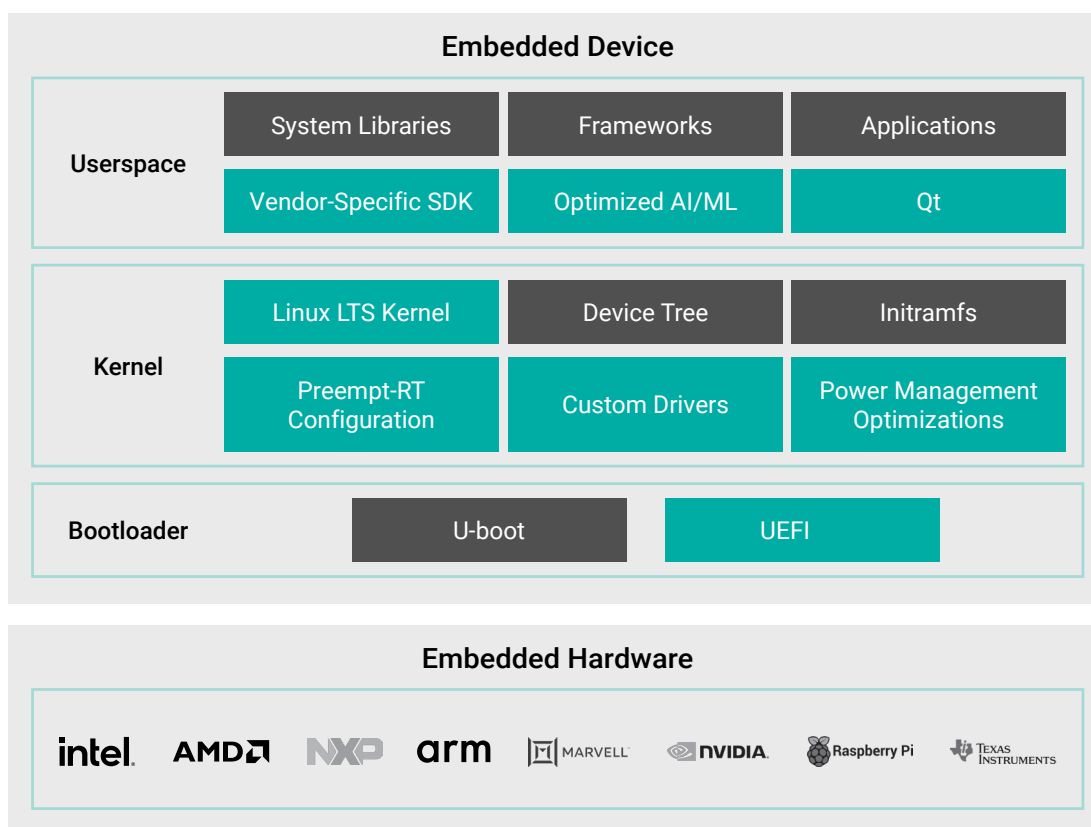


Figure 2. A solid foundation for custom embedded hardware enablement

All BSPs provided with Wind River Linux LTS adhere to Yocto Project standards, ensuring reproducibility, portability, and compliance. This guarantees compatibility with Yocto-based workflows, simplifies continuous integration and continuous deployment (CI/CD) efforts, and supports scalable customization across diverse embedded product lines.

CVE Monitoring and Mitigation

Wind River Linux LTS includes automated tools as well as manual audits for CVE tracking, assessment, notification, and patch integration, ensuring timely vulnerability remediation. Security updates are validated and delivered proactively through predictable releases, which reduces exposure windows and simplifies compliance. This offloads risk management from internal teams and supports secure deployment across embedded and edge platforms.

Wind River Linux LTS supports Cyber Resilience Act (CRA) compliance by integrating CVE monitoring, software bill of materials (SBOM) generation, and secure update mechanisms. Simplifying audit readiness and regulatory alignment reduces engineering overhead for cybersecurity and lifecycle documentation.

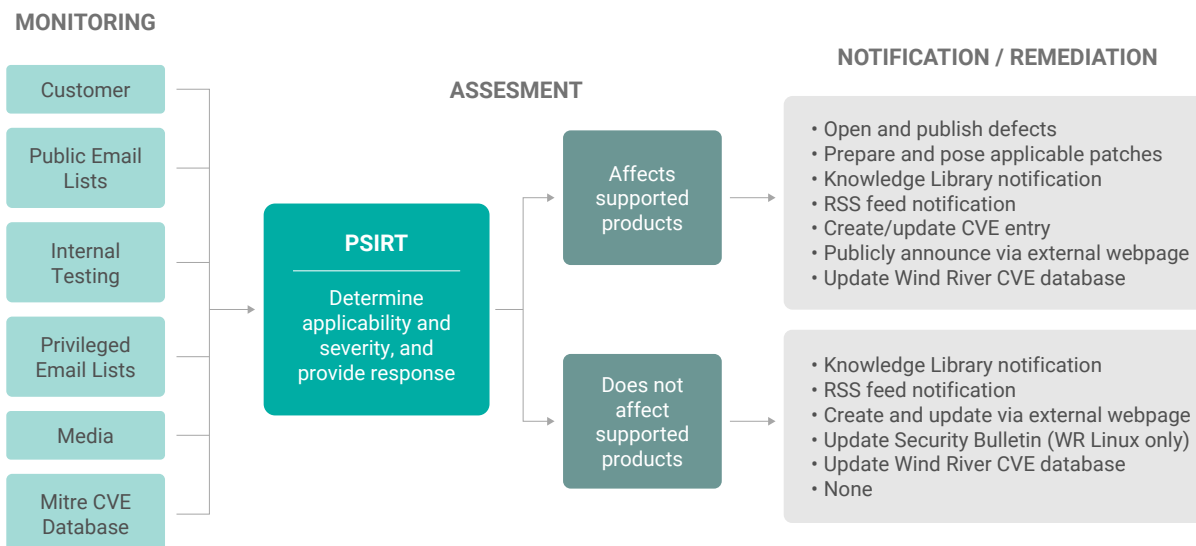


Figure 3. Dedicated PSIRT and processes for continuous CVE mitigation

KEY FEATURES

- **Yocto Project—compatible**
 - 100% open source
 - In sync with spring releases
 - Curated subset of Yocto Project recipes and packages
- **Broad architecture support**
 - Extensive range of BSPs
 - Multi-architecture compatibility
 - Aligned with vendor SDK
 - X86, Arm®, RISC-V
- **Security**
 - CVE protection
 - Secure development lifecycle (SDL)
 - Secure boot*
 - Trusted Platform Module (TPM)*
- **Real-time performance:**
 - Preempt-rt optimizations
 - High-availability configuration
 - Multi-core and SMP support
 - Small-footprint optimizations
- **Cloud-native and container support**
 - Docker container support
 - Kubernetes and orchestration ready
 - Built-in tools, configurations, and documentation
- **Compliance**
 - SBOM
 - License compliance artifacts
 - OpenChain 2.1
 - Export compliance artifacts (cryptography)
- **Certifications**
 - ISO 9001:2015
 - Future Airborne Capabilities Environment (FACE™)
 - Security Technical Implementation Guide (STIG)
- **Long-term support:**
 - Extended lifecycle of 10+ years
 - 24/7 global customer support
 - Preempt-rt optimizations
 - High-availability configuration
- **Commercial subscription:**
 - Per-project business model
 - No per-unit royalties
 - Managed services (additional fee)

* On selected hardware platforms, based on availability

STANDARDS AND CERTIFICATIONS

Wind River Linux distinguishes itself from open source alternatives through rigorous adherence to the ISO 9001:2015 quality management standards to ensure traceability, structured development processes, and continuous improvement. This certification supports enterprise-grade reliability and audit readiness.

Additionally, Wind River Linux supports market-specific certifications critical for regulated industries:

- STIG compliance enables hardened configurations aligned with U.S. Department of Defense cybersecurity mandates, including secure defaults, access control, and audit logging.
- FACE conformance ensures modularity and interoperability for airborne systems, which streamlines integration for defense and aerospace platforms.
- FIPS 140-2 support validates cryptographic modules for secure data handling, which meets federal requirements for encryption and integrity.

These certifications enable Wind River Linux to serve as a trusted, production-grade platform for mission-critical applications, far surpassing the support levels and lifecycle guarantees of community-maintained distributions.

WIND RIVER'S PARTNER ECOSYSTEM

The Wind River partner portfolio includes a large ecosystem of complementary third-party hardware and software solutions.

» *Discover Our Partner Ecosystem:* www.windriver.com/partners

WIND RIVER LINUX MANAGED SERVICES

Augment Wind River Linux LTS product capabilities with award-winning professional services from Wind River Linux Services. We can help with:

- **Design, architecture, and implementation** delivered by industry experts who interpret requirements, design options, and recommend decisions.
- **Security and compliance analysis**, including remediation services to improve code quality.
- **BSP development services** to develop, support, and maintain custom BSP solutions.

» *Our Customer Support Eases Your Workload:* www.windriver.com/services/linux

WIND RIVER CUSTOMER SUPPORT

A Wind River Linux LTS subscription includes access to our global support organization. We offer live help in multiple time zones, the online Wind River Support Network with multifaceted self-help options, and optional premium services to provide developers the fastest possible time-to-resolution. Premium options include a dedicated customer success manager, aggressive SLAs with 24/7 support, and help with replicating issues or validating fixes in the customer environment.

» *Explore Customer Support Options:* www.windriver.com/services/customer-support

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