Wind River Linux Subscription and Services Offerings

The industry's most advanced embedded Linux development platform, with a comprehensive suite of products, tools, and lifecycle services to help our customers build and support intelligent edge devices

Wind River® Linux enables you to build and deploy robust, reliable, and secure Linux-based edge devices and systems without the risk and development effort associated with roll-your-own (RYO) in-house efforts. Let Wind River keep your code base up-to-date, track and fix defects, apply security patches, customize your runtime to adhere to strict market specifications and certifications, facilitate your IP and export compliance, and significantly reduce your costs.

Wind River is the global leader in the embedded software industry, with decades of expertise, more than 15 years as an active contributor and committed champion of open source, and a proven track record of helping customers build and deploy use case–optimized devices and systems. Wind River Linux is running on hundreds of millions of deployed devices worldwide, and the Wind River Linux suite of products and services offers you a high degree of confidence and flexibility as you prototype, develop, and move to real deployment.

Table 1. Comparison of Wind River Linux Delivery Release Options

	Freely Available	Commercial
Frequency	**BASE** release in sync with Yocto Project	**LTS/CD:** Annual for LTS and every 4 weeks for CD
Lifecycle	**6–12 months,** depending on the community	10+ years
Support	N/A	**Standard,** under Software License Agreement (SLA) Additional options available
Maintenance	Community	**Commercial**, with predictable cadence
Distro (binary)	**Download from the Wind River website; registration required**	Available in sync with corresponding LTS release

Wind River Linux offers flexibility by providing source-code releases in three delivery models: Long Term Support (LTS), Continuous Delivery (CD), and pre-built binaries (as Wind River Linux Distro).

- **Validated community code:** Ready to download, free to use, with no commitment or paperwork to sign

- **Wind River Linux LTS releases:** Source code released with a predictable cadence and a product lifecycle of 10+ years (extendable with Wind River Professional Services), with regular maintenance releases and continuous security monitoring

- **Wind River Linux CD:** DevOps-ready with frequent releases based on Yocto Project code for the continuous integration of the most up-to-date components

- **Wind River Linux Distro:** Pre-built validated binary images for an extensive list of supported hardware platforms

THE BENEFITS OF WIND RIVER LINUX

Accelerating Time-to-Market for Linux-Based Devices

- **Streamlined:** Get started today with the Wind River Linux software development environment, freely available on GitHub. Build and optimize your Wind River Linux–based distribution with confidence that it has been thoroughly validated and tested. Help is always at hand from our experts via an IRC channel as well as online documentation. You can easily prototype new designs for a wide variety of CPU architectures, using the many validated board support packages (BSPs) supplied by Wind River and its partners. Subscription customers can also leverage the Wind River Workbench development suite, a comprehensive set of Eclipse-based developer tools for building embedded products.

- **Optimized:** Optimize your Linux-based devices for different market segments, use cases, and CPUs. Wind River Linux is carefully tuned to deliver high-reliability, deterministic, low-latency performance and small footprint, matched to the requirements of each use case. Integrate the packages we've already validated. Build from the ground up and create your own layers to easily locate and review all the changes made, add and remove packages, and implement specific features through customized kernel builds.

- **Secure:** Wind River provides ongoing threat mitigation against emerging vulnerabilities. The Wind River security team constantly monitors security vulnerabilities, including specific security notifications from U.S. government agencies and organizations such as the National Institute of Standards and Technology and the United States Computer Emergency Readiness Team, as well as public and private security mailing lists and the common vulnerabilities and exposures (CVE) database. Wind River also offers system hardening and securing against cyberattacks.

- **Certified:** Wind River Linux follows strict engineering processes that are certified to ISO 9001:2015 and audited regularly for quality. This certification covers the design, development, integration, verification, validation, and maintenance of open source technologies when packaged into Wind River Linux. For the aerospace and defense segment, Wind River Linux is the first and only Linux OS to conform to the Future Airborne Capability Environment (FACE™) Technical Standard, as recognized by the Open Group FACE Consortium. Certified FACE conformance allows A&D developers to utilize open system architectures, enabling more affordable systems with rapid capability insertion and better software portability.
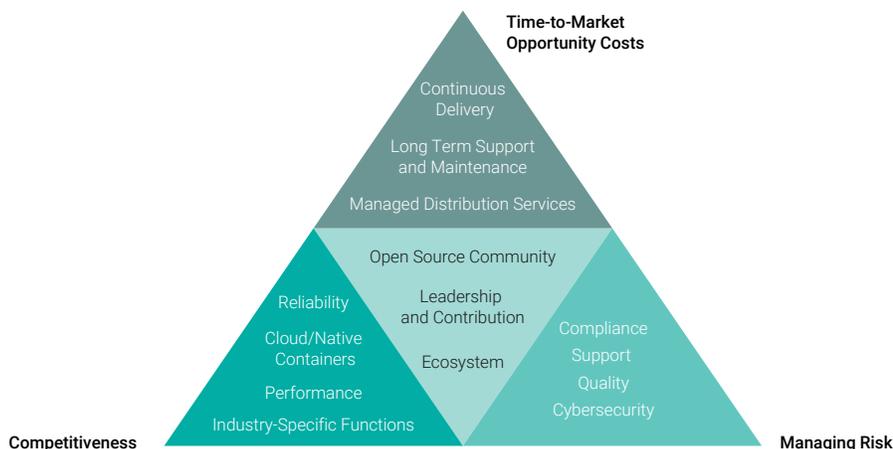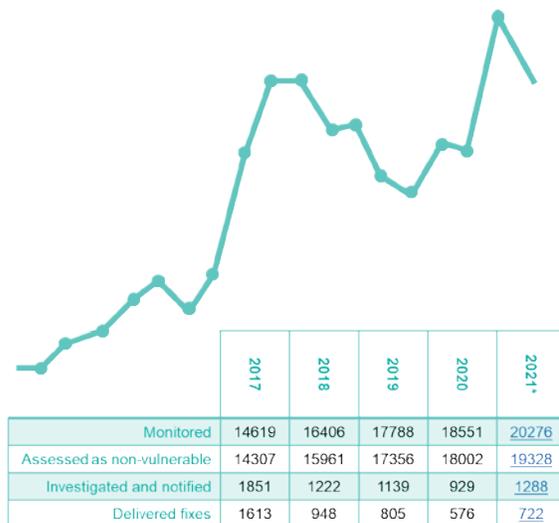

Figure 1. Benefits of using Wind River as your Linux partner

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- **Cloud native:** Cloud-native computing architectures and technologies, such as containers, provide speed and scalability benefits; however, the technology itself is complex and built for the cloud, often inhibiting usage in embedded systems. Simplifying the integration of containers, Wind River provides pre-built containers, tools, and documentation along with support for Docker and Kubernetes frameworks, which aid in the deployment and management of devices in distributed networks, such as radio access network (RAN) products.

- **DevSecOps:** A framework that brings together Wind River Linux, related tools, and processes into a single, collaborative, transparent, secure environment under Wind River Studio, which is designed to scale to geographically dispersed developer teams and offer extensibility to industry-leading technologies and tools through partner integrations. Wind River Studio includes a curated environment of hand-selected partner technologies.

Reducing Total Cost of Ownership (TCO) with Wind River Long Term Support

Predictable and frequent OS releases keep your code base up-to-date.

- **Certified Linux support and maintenance:** Our award-winning certified maintenance and 24/7 global customer support can drastically reduce your development efforts, lower costs, and better protect you from the risks inherent in managing your embedded software across its entire lifecycle. We monitor, assess, and quickly fix CVEs and defects (see Figure 2) to keep your device running safely and smoothly. Customers can access live assistance, product documentation, software patches, and other resources within the online Wind River Support Network.

- **Open source software (OSS) compliance artifacts:** License compliance requirements arise when using OSS in production devices. To assist you in obtaining license compliance, Wind River supplies the required source code, legal notices, SPDX data, and software bill of materials associated with the OSS used to construct the product. Wind River is the first software to be OpenChain 2.1 conformant. All OSS artifacts are prepared under an Open-Chain conforming program, providing an additional level of assurance. These deliverables relieve developers of the burden of identifying, reporting, and complying with hundreds of OSS license terms.

	2017	2018	2019	2020	2021*
Monitored	14619	16406	17788	18551	20276
Assessed as non-vulnerable	14307	15961	17356	18002	19328
Investigated and notified	1851	1222	1139	929	1288
Delivered fixes	1613	948	805	576	722

*as of end of 2021. data source: Wind River CVE Database

NUMBER OF CVES TO FIX INCREASES BY 8X OR MORE OVER LIFECYCLE OF A DEVICE

Figure 2. Total cost of ownership and the hidden costs of security monitoring

- **Yocto Project leadership:** Wind River is a founding member of the Linux Foundation's Yocto Project and is one of its top contributors, while also helping maintain many Yocto Project components. As the number-one commercial software contributor to the Yocto Project with committed lines of code, Wind River also contributes on project governance and advocacy while being active in terms of communications inside the community.
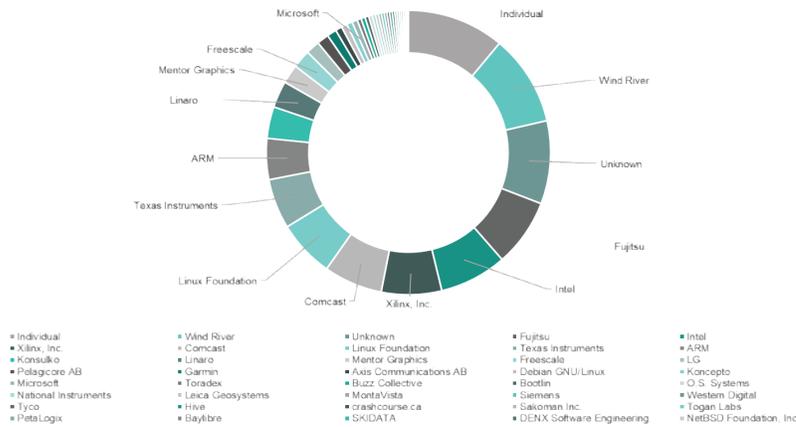
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Figure 3. Yocto Project top contributors by number of commits to the code repositories

WIND RIVER STUDIO LINUX SERVICES

Leverage Wind River experts' comprehensive knowledge and expertise to unlock the full potential of open source. Our Wind River Studio Linux Services can dramatically reduce the risks and time associated with creating and integrating new technologies, offering insights, expertise, and resources built from more than 40 years of leadership in the embedded software industry.

We work together with your development teams so they can focus on their core competencies and deliver market-leading devices, systems, and networks. We help your teams bring safe, secure, reliable, and compliant products to market by offering prepackaged services:

- Security and Compliance Scanning
  - CVE and vulnerabilities scanning, making sure the product is compliant at a key point in time
- Security and Compliance Analysis and Remediation
  - IP compliance gap analysis and recommendations
  - Discovery and vulnerability resolution on the current platform for high-impact issues
- Lifecycle Security
  - Ongoing monitoring, mitigation, and management of security issues through the whole lifecycle of a product

- Lifecycle Performance Assurance
  - Services to manage, test, document, and Q&A open source solutions in the field
  - Daily monitoring, reception of online submissions, and delivery of emergency fixes through 10 or more years of the product lifecycle
- Architecture and Implementation
  - Access to our multi-industry expertise to build a more competitive product
  - Support for companies with critical product development looking for differentiation and performance for their businesses

ECOSYSTEM SUPPORT

Wind River Linux has multiple partnerships and engagements with the leading hardware and software vendors in the industry. Wind River also collaborates with many of the member companies of and contributors to the Yocto Project community. Customers can leverage technical integration and optimizations to add unique capabilities and speed time-to-market.

NEXT STEPS

Visit www.windriver.com/company/contact to find your local Wind River sales contact. Or, to have a representative contact you, call +1-800-545-9463 or write to salesinquiry@windriver.com.

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