Wind River Linux Platform for Intelligent Connected Devices, Residential Gateway Edition

The fast growth of high-bandwidth access and the proliferation of connected devices in the home have created disruption, confusion, and opportunity, giving birth to machine-to-machine (M2M) gateway solutions. Gateways are essential for consolidating devices within the home and safely connecting home networks with external next-generation network (NGN) services. Residential gateways are customer premises equipment deployed and managed by network operators. They sit at the heart of a new and complex value chain, where time-to-market, total cost of ownership, and interoperability are essential to commercial success.

Wind River Linux Platform for Intelligent Connected Devices, Residential Gateway Edition enables original equipment manufacturers (OEMs) and operators to quickly and cost effectively compete in the complex and fast-moving digital home marketplace.

Wind River Linux is the market-leading commercial embedded Linux development platform and the first to bring device manufacturers the advantages of open source software without the risks. Built to embed, Wind River Linux assembles, integrates, and validates all the components companies need to develop, test, and support highly differentiated devices quickly and cost effectively. It offers customers the latest available technology and the greatest possible stability.

**New Platform Leverages Latest Commercial-Grade Linux**

Wind River Linux Platform for Intelligent Connected Devices, Residential Gateway Edition is a new platform built on Wind River Linux 4. It offers a complete residential gateway reference design platform based on the Linux 2.6.34+ kernel and gcc 4.4.1/eglibc 2.11/gdb 7 toolchains. It is deeply integrated with key embedded hardware platforms and offers the industry’s broadest selection of middleware technologies, from TR069 and DNLA to Z Wave and OSGi, assuring interoperability and enabling companies to innovate and quickly deploy advanced residential gateways at a competitively low cost.

**Powerful, Rational Build System Reduces Complexity**

From easy installation and modification of the kernel and root file system to cross-compiling unique to embedded development, Wind River’s open, intuitive build system provides a methodology for saving time, achieving clarity, and managing, storing, and sharing parts of the development system among projects and teams, even across the largest companies.

Based on “layers,” Wind River Linux Distribution Assembly Tool (LDAT) rationalizes and simplifies every step of the Linux development process, from reviewing and reversing changes to quickly addressing performance issues, bugs, or defects. Because a layer can be as small as a single package or as complex as a distribution, teams can use LDAT to expedite workflow and eliminate redundant effort. Layers also provide a simple and systematic way to separate open source and proprietary software.

**Tools Choice Empowers Development Teams**

Wind River Linux comes bundled with Wind River Workbench, the award-winning Eclipse-based development suite. Workbench not only provides deep capability across the entire development life cycle, it facilitates multi-OS and multi-core development and hosts a number of powerful plug-ins for analysis and on-chip debugging. Additionally, Wind River Linux embraces and extends the capabilities of open source tools, for example, adding full back-trace capability to Oprofile and Mpatrol—to make them more powerful and better suited to embedded development.
Commercial Advantages Mitigate Risk

Wind River Linux Platform for Intelligent Connected Devices, Residential Gateway Edition is commercial-grade and enterprise-ready thanks to the testing, maintenance, support, services, legal resources, and partner ecosystem behind it:

• **Test:** Wind River is committed to providing quality products for both proprietary and open-source-based technologies. Our quality policies include formal code inspections, peer reviews, project reviews, program audits, and traceable requirements change management. Wind River Linux was created following a methodical process to thoroughly test key features on every supported reference configuration (defined by development host, kernel, and package configurations and supported board). Wind River Linux 4 underwent more than 300,000 automated test runs before release.

• **Maintenance:** To the Wind River Linux team, maintenance is not just keeping current with the open source community; it’s a question of maintaining secure products in a fast-evolving and highly connected marketplace. We dedicate a team of full-time engineers to monitor and address the thousands of security alerts issued each year by the Linux community, government agencies, and other institutions worldwide. In addition, Wind River keeps you current with the latest patches, service packs, and updates so your project and your products are always up-to-date.

• **Support:** Wind River Linux Platform for Intelligent Connected Devices, Residential Gateway Edition provides global 24/7 local language support from Wind River’s certified, award-winning support team.

• **Professional services:** Wind River Professional Services, a CMMI Level 3–certified organization, offers a Linux Services Practice that enables you to reduce risk and focus on development activities that add value and differentiate your product design. Our professional services team offers hardware and other customizations, time-to-market acceleration, and workforce augmentation to companies using Wind River Linux.

• **License management:** Wind River performs thorough legal reviews of the compilation and documentation of the General Public License (GPL) and other licenses that control each major release of Wind River Linux. Combining human legal expertise and proprietary automated tools, Wind River examines each open source package that comes into the product to identify and resolve potential intellectual property issues before the product is released. Customers receive extensive documentation to assist them in the protection of their intellectual property.

• **Partner ecosystem:** Wind River’s partner ecosystem ensures tight integration between our core technologies and those of the premier hardware and software companies we’ve chosen to build out our solutions. Our partners extend the capabilities of Wind River Linux by offering out-of-the-box integrations and support. Our team is trained to troubleshoot partner technologies in use with Wind River products.