

## Wind River Lab Diagnostics

Today’s device software applications contain millions of lines of code. Within the next two years, that number will double. QA has never been more important—or more difficult. To realize the potential of the burgeoning device market and to mitigate its risks, manufacturers need to streamline the product verification and validation process, leveraging the expertise of development teams throughout the entire device life cycle and across the enterprise.

### Enterprise-wide infrastructure optimizes software-centric test and QA

Wind River Lab Diagnostics is the industry’s premier enterprise-class commercial solution for the challenges of finding and fixing potentially catastrophic software defects before products ship. Lab Diagnostics enables engineers to collect, aggregate, and analyze performance and time-of-failure data from multiple devices under test at multiple locations. It also optimizes collaboration among distributed development and test teams standardized on a single powerful toolset. Lab Diagnostics plugs into Wind River Workbench and exploits its GUI, allowing development and test teams to deal with the same data in the same way. Supporting Wind River’s industry-standard run-times and tightly integrated with the Wind River Field Diagnostics application, Lab Diagnostics offers device OEMs the industry’s first comprehensive develop-run-manage system.

### Sensorpoints extend the expertise of your development teams

Wind River’s unique Sensorpoint technology enables engineers to become key participants in their products’ test and support procedures. A Sensorpoint is software used to ins-

trument “live” applications dynamically without modifying the application source code, rebuilding the application, re-flashing boards, or rebooting the device. Using Sensorpoints inserted by developers, test teams can exercise application code more intelligently, thoroughly, and quickly. When defects are found, development teams can access detailed data to speed resolution, and use the Lab Diagnostics infrastructure to push fixes back to the device. With this application, it becomes possible for the first time to push software to the extreme application-specific conditions it may encounter in the field, as well as to observe and fine-tune its behavior before releasing it in the marketplace.

### Server applications power data collection and knowledge share

Two enterprise-class JBoss server applications—the Device Management Server and Site Manager—collect and archive logs from devices under test, store Sensorpoint libraries, and, as data accumulates, become an increasingly valuable knowledge asset. The ability to access and analyze extensive performance metrics lets companies establish software benchmarks and make intelligent, fact-based decisions about upgrades and new product investments.

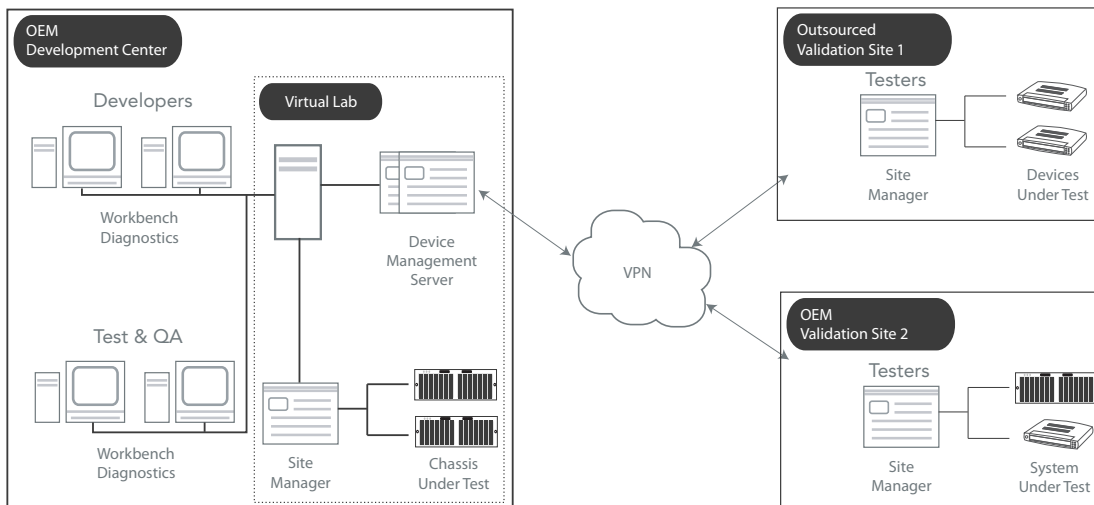


Figure 1: Lab Diagnostics provides enterprise-wide workflow and information flow

**Streamlined workflow and information flow speed testing and mitigate risk**

Lab Diagnostics is groundbreaking in a number of different ways. Enabling fact-based analysis of software defects, it eliminates much of the time developers traditionally spend trying to reproduce intermittent problems encountered during test. Making it possible to inject faults into running systems lets OEMs anticipate and address issues likely to arise in the field. Being able to instrument and test large builds without recompiling or rebooting not only saves time when tests are essential, but also lets manufacturers choose to test more exhaustively, even under tight deadlines. Uniting development and test teams through a common test infrastructure enables each group to do what it does best, and to share the results freely. Early adopters speculate Lab Diagnostics may increase productivity by as much as 50%.

**Wind River Device Management follows your product into the field**

Wind River Device Management applications enable companies to perform fact-based diagnostics and software fault correction across the entire device life cycle, from development to QA to field support. While many OEMs recognize the need to deploy thoroughly tested, remotely supportable device software, homegrown technologies have proved time-consuming and expensive to develop, document, and maintain. By offering task-specific configurations of the same powerful, interoperable technologies, Wind River Device

Management changes the device business model, improving support, increasing customer satisfaction, and extending the revenue-generating potential of your deployed device. It extends the promise of Device Software Optimization (DSO) across the entire life of your products.

**World-class professional services increase productivity and efficiency**

To get the most out of Lab Diagnostics, your company may want expert assistance. Wind River Professional Services, a CMMI Level 3–certified organization, knows how to jump-start your development efforts. Even if you opt for a non-Wind River platform, Linux distribution, host operating system, or target architecture, we can help. Our global team of services engineers stands ready 24/7 to make Wind River Device Management products work for you.

**A proven, reliable partner contributes to your success**

The right technology partner can greatly increase your odds of succeeding in a highly competitive marketplace. As the industry leader in DSO, Wind River has met and exceeded the requirements of our customers and their markets for 25 years. More than 4,000 businesses have leveraged our skills, experience, and expertise to deploy and support over 350 million devices worldwide. A vibrant, publicly traded company, Wind River is positioned to stay the course with established device manufacturers and new companies alike.

**Platform Support Matrix**

	Workbench 2.6.1/ VxWorks 6.1–6.5			Workbench 2.6.1/ VxWorks 5.5.1			Workbench 2.6.1/ Linux 1.4–1.5		
	Host	Sensor-point	Core File <sup>1</sup>	Host	Sensor-point	Core File	Host	Sensor-point	Core File
Workbench Diagnostics 2.1	Windows 2000/XP SUSE Linux Rhat Linux Solaris	ARM IA-32 MIPS PowerPC XScale	ARM IA-32 MIPS PowerPC XScale	Windows 2000/XP	PowerPC	NA	Windows 2000/XP SUSE Linux Rhat Linux Solaris	IA-32 PowerPC	Standard Feature of Workbench/ Wind River Linux

Figure 2: Server application support matrix

<sup>1</sup>Core file not supported on VxWorks 6.1 or 6.2

**Enterprise Application Support Matrix**

	Server Platforms	Application Servers	Databases	Browsers
Lab Diagnostics 2.1 Server Applications	Windows 2000 Linux Solaris	WebLogic JBoss	Oracle MySQL	Internet Explorer Firefox

Figure 3: Workbench Diagnostics support matrix



Wind River is the global leader in Device Software Optimization (DSO). We enable companies to develop, run, and manage device software faster, better, at lower cost, and more reliably. [www.windriver.com](http://www.windriver.com)

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