

BroadLight Gains Speed with Wind River

The World's Largest GPON Company Selects Wind River VxWorks and Wind River Linux for Next-Generation Optical Broadband Solutions

BroadLight Systems is the worldwide leader in end-to-end passive optical network (PON) technology—with a global market share of 65%. BroadLight's customer portfolio includes the majority of major telecommunications companies, such as Motorola, Ericsson, Huawei, and ECI.

By delivering highly integrated semiconductor devices, embedded and application software, reference designs, and support tools that power communications equipment, BroadLight enables triple-play services and delivers exceptional performance with space- and power-saving features.

BroadLight is the only company that delivers complete end-to-end broadband passive optical network (BPON) and gigabit-capable passive optical network (GPON) component solutions for the central office. These solutions help equipment companies quickly bring standards-based PON products to service providers, with low risk.

BroadLight Selects Wind River's VxWorks

When BroadLight began developing its GPON systems, it needed a real-time operating system (RTOS). Because of its customers' demands for VxWorks-based products, the company never even considered other products or roll-your-own (RYO).

"We quickly narrowed our focus to Wind River's VxWorks eight years ago," says Doron Tal, Vice President of Business Development and Product Management for BroadLight. "Our customers felt strongly that VxWorks was the best RTOS, since it's a hard real-time solution, scalable, easy to deploy, and very stable."



"We have significantly accelerated our customers' time-to-market with Wind River-based solutions. Products that used to take our customers 12 to 18 months to develop are now taking four to six months."

—Doron Tal, Vice President of Business Development and Product Management, BroadLight Systems

Company Profile: BroadLight Systems

- Worldwide leader in passive optical networks (PON) technology
- Headquarters in Ramat Gan, Israel

Industry

- Networking

Solutions

- Wind River Platform for Network Equipment, VxWorks Edition
- Wind River General Purpose Platform, Linux Edition
- Wind River Workbench, On-Chip Debugging Edition

Results

- Accelerated BroadLight customers' time-to-market by up to 12 months
- Reduced BroadLight's development cycle by a factor of two
- Standardized across the enterprise with a common set of development tools
- Entered new markets with a larger product portfolio and solutions offering

Over the years BroadLight has remained pleased with its decision to go with Wind River Platform for Network Equipment, VxWorks Edition. The company recently upgraded its VxWorks platform from version 5 to version 6.

VxWorks vs. Linux: Choosing the Right Tool for the Job

A couple years ago, the company noticed a shift from VxWorks toward Linux in some segments of the market. The initial reason for the trend was the misconception that Linux solutions are cheaper because there are no royalties. But over time, varying development needs required both platforms. Some customers needed the “hard” real-time of VxWorks, while others required the “soft” real-time of Linux.

“It took us more than a year to develop our first Linux-based solution,” Tal recalls. “A third party created our first generation of Linux, which was based on a Debian distribution. After a year we were so into Linux that we became official Linux distributors.”

Even so, BroadLight experienced some problems with scalability and the compatibility of some patches with undocumented Linux kernel versions. So for its second generation of Linux, BroadLight turned to Wind River General Purpose Platform, Linux Edition.

“Wind River’s Linux specialists helped us develop a new Linux solution, based on a meticulous documenting process throughout the development cycle, using a newer kernel version and developing better patches for the customers,” Tal says.

Wind River Brings Value to BroadLight Customers

Today, all of BroadLight’s solutions are based on either Wind River VxWorks or Wind River Linux platforms. This offers BroadLight the convenience and consistency of a one-stop shop and offers many benefits to its customers.

BroadLight customers can now pick their solution of choice—VxWorks or Linux. They can use their own kernel and get patches from BroadLight or receive an end-to-end solution from BroadLight, complete with full support during all phases of deployment and product development.

“We have significantly accelerated our customers’ time-to-market with Wind River–based solutions,” Tal says.

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Wind River’s software has reduced BroadLight customers’ development cycles by a factor of two. In addition, customers benefit from Wind River Professional Services, which expands BroadLight’s software ecosystem and services.

The Bottom Line

“VxWorks and Linux platforms allow our devices to run faster and more reliably,” Tal says. “Wind River platforms enable us to offer solutions to a wider market and to develop better and faster products with a smaller footprint.”

The proof is in the product line’s success: GPON is quickly becoming the worldwide PON standard as a result of its speed for IPTV delivery, superior quality of service, and industry-led interoperability activities.



BROADLIGHT

For additional information about the products mentioned in this case study, visit

www.windriver.com

www.broadlight.com

WIND RIVER

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

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