

Full Cycle Embedded Linux OS Development, Release Engineering, and Support

Business need

LynuxWorks, a world-wide leader in the embedded software market, resolved to develop its own version of an embedded Linux distribution—a fully open source OS, but with enhancements, extensions, bug fixes, and support to make it more suitable for embedded systems and soft real-time applications.

Solution

LynuxWorks outsourced BlueCat Linux development to Auriga, which had offered an unbeatable combination of skills, quality, and price. Within a short period of time, Auriga brought together 22 top-notch Linux kernel engineers for the project. A mere five months was needed for the Moscow-based Auriga engineers to complete the initial implementation. Auriga's team has performed full life-cycle development and maintenance for BlueCat Linux. From the very start the whole product has been designed, developed, qualified, documented, productized, and maintained by the Auriga engineers.

Result

Created specifically for embedded development and deployment, BlueCat Linux is uniquely constructed to be a stable, commercial-grade embedded operating system capable of providing immediate productivity and optimized performance throughout. Packages are tailored to various requirements for tools and technical support. A comprehensive set of tools and board support packages for developing, debugging, and deploying Linux into embedded environments. BlueCat Linux supports the majority of current platforms and architectures (PowerPC, ARM, XScale,

x86 family, SuperH, etc), as well as scales from small consumer-type devices to large-scale multi-CPU systems. The first version of BlueCat Linux won the prestigious Electron d'Or Award from the Electronique magazine as the best embedded software of the year. The mutually rewarding collaboration between LynuxWorks and Auriga did not, however, end there. Auriga and LynuxWorks continue to collaborate on further feature enhancements and follow-up releases. The most recent version, BlueCat Linux 5.x, is based on the new Linux 2.6 kernel (that is pre-emptible), and features a rewritten scheduler to speed up the process of selecting tasks for execution. Enhanced with the improved POSIX threading support and the new POSIX signals and timers to ensure the improved level of real-time performance, BlueCat 5.x represents a leading source of stable, commercial-grade embedded Linux technology that provides the flexibility and cost benefits of open source software.

Technologies:

- GNU Toolkit;
- C/C++;
- Assembler.

Customer's Quote

... The Auriga engineers working for LynuxWorks have exhibited excellent Software Engineering skills and a strong commitment to the complete product life cycle..."

Luke C. Dion
Vice President, Engineering
LynuxWorks, Inc