

Hard Real-Time Unix-Compatible OS Support and Maintenance

Client

LynuxWorks™, Inc., a pioneer and a proven leader in the embedded systems industry, delivering its software products solutions to the markets such as communications, aerospace and defense systems, medical, and automotive.

Solution

LynxOS is a UNIX-compatible, POSIX-conformant, multiprocess and multithreaded operating system designed for real-time applications requiring fast, deterministic response. The LynxOS MPC860 product is comprised of two major components:

- LynxOS kernel
- Startup monitor program (boot prom)

The LynxOS MPC860 kernel is a full-featured LynxOS 2.5.0 kernel including the following components:

- MMU and cache driver
- complete FPU emulator
- service module for accesses to the IMM resources
- interrupt handler and client drivers ISRs registry
- CPM-based UART driver
- CPM-based Ethernet driver
- PC Card HBA driver
- SCSI driver for the PC Card Adaptec SlimSCSI adapter
- simple Power Management driver

The Startup Monitor is a firmware program specially developed for configuring the MPC860 controller and boot-

ing LynxOS kernel from a specified device. List of features includes:

- serial line console and command driven user interface
- booting over the network from a TFTP host server
- support of the BOOTP protocol
- diskless booting from the
- FLASH PROM FLASH programming tool
- PC Card's CIS parsing utility
- SCSI bus probe command (for the SlimSCSI)

Auriga's Contribution

Investigating the troubles customers face under LynxOS. Fixing high priority bugs in the kernel, device drivers, utilities, libraries, debuggers, GNU tools, and related products of LynxOS operating system for the following platforms: x86 (3BSPs), PowerPC (10 BSPs), ARM, and MIPS. Consulting on the patches creation for the LynxOS operating system and the development of customer-specific versions of LynxOS kernel, utilities, device/network drivers, libraries.