

LynuxWorks JumpStart for Communications

Packaged state-of-the-art feature sets for advanced data networking



A key adjunct to the LynxOS® real-time operating system, the LynuxWorks™ JumpStart for Communications package enables OEMs to rapidly develop mission-critical communications equipment, including intelligent core optical networking and new world voice applications.

LynuxWorks' JumpStart for Communications package includes pre-integrated, state-of-the-art, data networking and porting software components.

OEMs can use the package to construct reliable networking solutions on top of the dependable, real-time base of LynxOS, without having to integrate networking components and middleware from a variety of vendors. Instead of shopping for individual networking components, customers can leverage a single package from a single reliable source, committed to meeting the rigorous standards of the communications industry.

Fast to market, complete, and customizable

LynuxWorks JumpStart for Communications package delivers a comprehensive set of state-of-the-art networking, routing and security technologies—including the source code versions of the TCP/IP stack and a porting kit—backed by bundled consulting services. OEMs can easily custom-configure the software to gain the networking features, functionality and performance that their products require.

Core networking support

In the area of networking support, the package delivers an updated TCP/IP stack enhanced for reentrancy, determinism and performance, support for Gigabit Ethernet, IPv6, and IPSec/IKE/VPN security.

Core routing support

New routing algorithms are also provided, including RIP and RIPv2, OSPF and OSPFv2, Distance Multicast Routing Protocol (DVMRP), and BGP-4.

Securing, managing and transport

Other areas of support and their associated technologies include:

- Security—Secure DNS dynamic update, IPSec AH and IPSec ESP, NTPv3, PPP Password Authentication and Challenge Handshake AP, and IP NAT
- Operation and management—MIB, SNMP v1-v3, and DNS
- Transport—IP DARPA Spec, IP DAARPA ICMP, IPDARPA TCP, ARP and RARP

Layered 3rd-party components

Layered 3rd-party components are also available from LynuxWorks' SynergyWorks members, including best-of-breed:

- Multi-protocol label switching solutions from Trillium, NetPlane and IPInfusion
- Java™-based management solutions from UXComm
- CORBA solutions from OIS, Object Computing and PrismTech

Mission-critical platform

One of a select handful of companies in the embedded industry to be ISO 9001-certified, LynuxWorks is dedicated to meeting the most demanding requirements of the communications industry. This means that OEMs can confidently use the combination of this JumpStart for Communications package and LynxOS as the platform for communications applications

JumpStart for Communications Advantages

- **Rapid Time-To-Market**—fast-track development of leading-edge Internet infrastructure equipment
- **Mission-Critical Platform**—superior reliability coupled with hard real-time performance
- **Open Standards Based**—maximum flexibility in planning and developing highly competitive products

that require the highest levels of availability and real-time performance.

LynxOS performance and reliability

LynxOS itself has more than 18 years of experience providing communications OEMs with predictable embedded performance due to its:

- Unwavering deterministic behavior
- Rapid response times
- True linear scalability

LynxOS couples its hard real-time performance with ironclad reliability—reliability that isn't layered on, but rather is built into the OS from the ground up. This includes Memory Management Unit (MMU) support at the lowest level of the kernel to provide the reliability advantages of protected memory and the performance advantages of virtual addresses.

High-availability framework

LynuxWorks JumpStart for Communications package is complemented by the LynxOS High Availability Package (HAP). Designed to enable developers to create highly available systems around the naturally robust LynxOS kernel, the

High Availability Package serves the needs of communications OEMs by delivering:

- A Fault Management Framework for fault-tolerant takeover operations
- Redundant system slot (RSS) support and warm domain failover support
- Full CompactPCI Hot Swap support for I/O boards

The combination of LynxOS, HAP, and the JumpStart for Communications package empower OEMs to quickly build high performance, state-of-the-art communications solutions capable of providing up to 99.999% uptime.

Maximum flexibility through openness

Fast to market, full-featured, high-performance, highly reliable—all this leaves to discuss is flexibility. The LynuxWorks dedication to openness provides OEMs with unprecedented flexibility when planning and developing products.

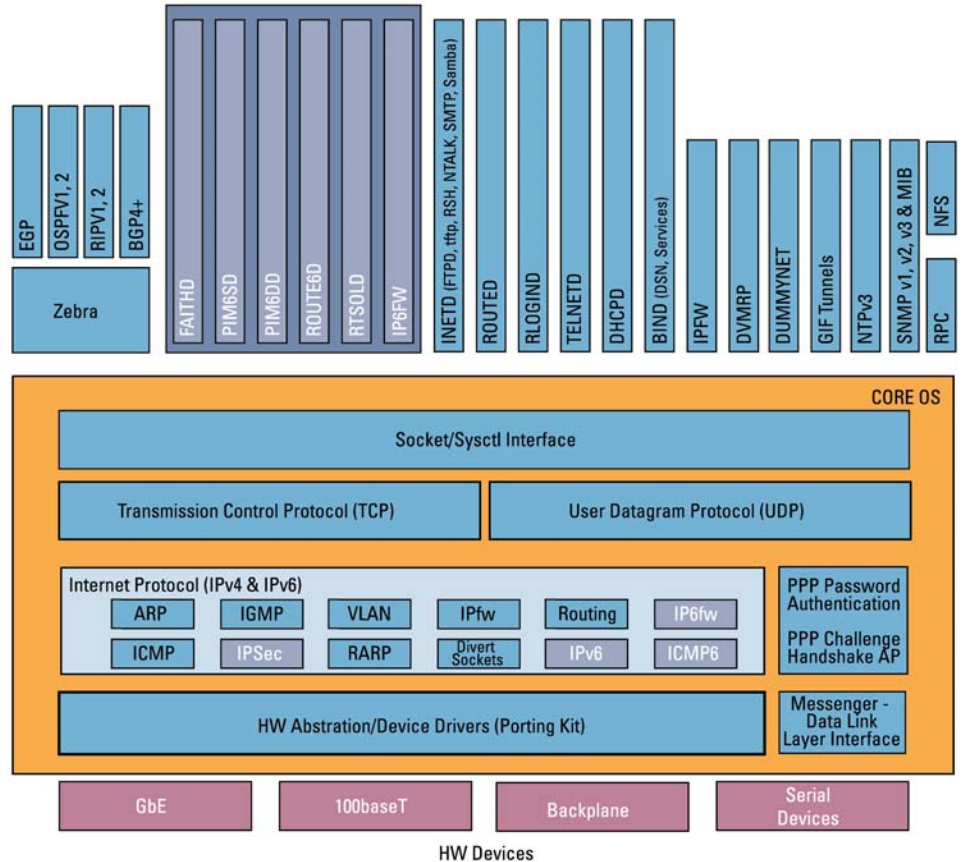
Consider:

- LynxOS is the most Linux®-like of all embedded operating systems
- LynxOS stands alone in combining hard real-time performance with open-standard interfaces
- LynxOS is ABI-compatible with Linux

This adds up to the ability to use Linux/POSIX-experienced programmers and open-source software programs to speed development efforts, combined with the capability to quickly add new features and functions to future generation communications products.

Success over the long term

Significantly, LynuxWorks' unique dedication to openness and flexibility is complemented by long-term stability and unequalled expertise in embedded and real-time systems for communi-



Source code for networking and porting kit components are included in the LynuxWorks JumpStart for Communications Package

cations. For 18 years, the expert LynuxWorks services organization has helped many of the world's largest data communications and telecommunications companies bring advanced products to market quickly and cost effectively.

Once developed, LynuxWorks implementations can be supported by LynuxWorks for an unmatched 15 years—the longest term support in the embedded industry. LynuxWorks even offers software certification services, designed to address a wide range of certification standards required by U.S. and international organizations.

Hence customers turning to LynuxWorks JumpStart for Communications gain more than just state-of-the-art feature sets for advanced data networking. They also inherit the full and unparalleled range of LynxOS and LynuxWorks benefits for sustained competitive advantage.

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