Jetstream Chooses LynxOS for Carrier Class Infrastructure

Founded in 1994, Jetstream Communications, Inc. is the leading developer of bundled Voice-over-Broadband (VoBB) solutions. First to demonstrate a working Voice over DSL (VoDSL) product, first in number of trials, and the first to deploy, Jetstream has established a significant advantage in the huge global broadband market opportunity, selling its products to both incumbents and competitive local-exchange carriers.

In 2002, Jetstream was acquired by Paradyne Networks, which in turn was acquired by Zhone in 2005.

JETSTREAM® COMMUNICATIONS

Through full system redundancy and a strategy of exhaustive internal and external field testing, Jetstream equipment delivers the 99.999 percent service availability voice customers demand. Its solutions are architected, designed and supported for fast, efficient deployment, and are endorsed by industry-leading partners. Jetstream is privately held and has received funding from premier venture capital firms. The company was recently named one of Upside Magazine's "Hot 100 Private Companies." Jetstream serves global customers from its headquarters in San José, CA.

Selecting a quality OS

Rick Morris is vice president of engineering for Jetstream, responsible for all hardware and software development, systems and the interoperability test labs. Working for Morris is a team of engineers who develop and support the innovative broadband technology for which Jetstream is known.

LYNUXWORKS

In 1998, faced with developing and delivering the first voice-over-broad-band product, Jetstream began to look for a commercially available operating system that could support the high-availability features they planned to deliver in the product. They specifically needed to address three issues:

1) OS extensions for providing system redundancy,
2) hot swap capability, and
3) a scalable system with features that would accommodate high growth.

After completing their evaluations, Morris' team selected the LynxOS® real-time operating system (RTOS) from LynuxWorks™ in San José, CA.

High availability

"We knew that we needed extensions to the operating system to support redundancy," commented Morris, "so the ability to support CPU failure and switch over to a back-up CPU was important.

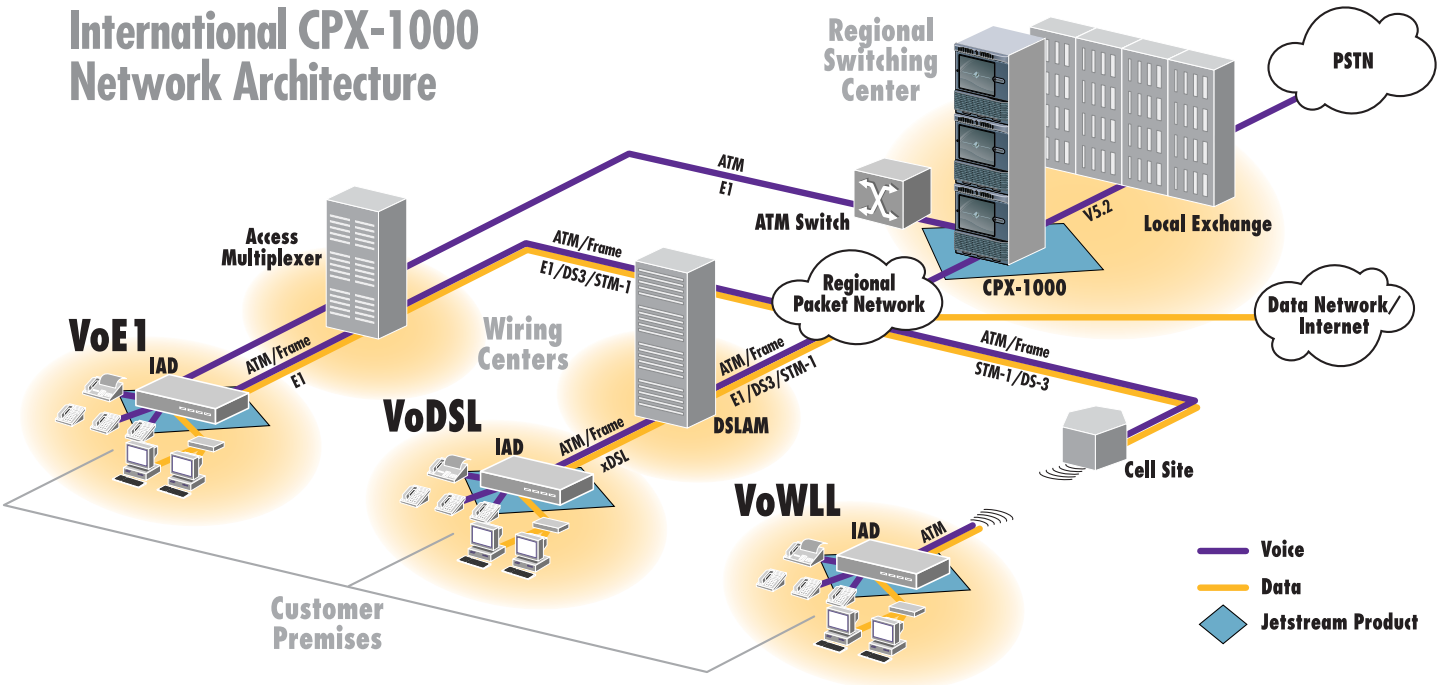
The ability to hot-swap the system's I/O boards was also important. Morris and his team already knew that Windows® NT would not support their requirements—they needed more. "We looked at the alternatives—and LynuxWorks was the only one that could deliver the features we needed in our timeframe," remarked Morris.

They selected LynxOS to provide the foundation for building Jetstream's high-performance applications. Its high-availability configurations, including board-level fail-over support and hot-swappable PCI support, made it a reliable choice for Jetsream's mission-critical business systems.

Open standards speed market delivery

Both LynxOS is unique in the real-time embedded software market. It is a true RTOS that combines deterministic performance, reliability, and scalability together with open-standards-based interfaces to the operating system.

LynxOS was also designed to be UNIX®-compatible and pass the stringent POSIX®-conformance test suites. With an open API, LynxOS embedded application



developers can leverage open-source or commercially available software to achieve faster time to market.

LynuxWorks helped Jetstream develop the APIs to its call-processing application—and the LynxOS RTOS enabled the company to rapidly deliver its systems. "Our product's high-availability system features, including redundant call-processing CPU cards and support for redundant broadband and narrowband interfaces, as well as redundant power and cooling systems, are a result of our partnership with LynuxWorks," observed Morris. He also recalled how, during the final software integration and debugging, the two companies' engineers worked side-by-side in the lab for one month, assisting and supporting one another.

LynuxWorks' Professional Services and Support

"It took just nine months for the initial implementation. LynxOS enabled us to make delivery of Jetstream's initial systems," Morris recalled. His team also relied on LynuxWorks to debug code and, through its professional-services organization, to assist with customization and integration.

LynuxWorks was able to provide local support. "The key thing for us was on-site support during the design and debugging phase.

We relied on LynuxWorks for its product, open development environment and professional services," Morris remarked. And, the LynuxWorks products played a role in helping Jetstream products pass the rigorous qualification tests at the largest telcos.

Responsive to customers

The market for Jetstream's products demand new features and releases, quarter after quarter. For Morris, having LynuxWorks deliver a high-availability embedded operating system, developer's toolset, an open development environment and professional services, enables him to stay on the leading edge of products for telecom platforms.

It also enables him to be responsive to the carrier-class customers who demand new features and the reliability for which Jetstream is known.

As the two companies continue to work together to do feature enhancements and follow-on releases, Morris knows that he has to consistently deliver a quality product to his customers—and that LynuxWorks continues to provide him with a reliable, quality product. "Integrating LynxOS into our product has enabled us to meet our customers' needs and to succeed in this very hot and exciting market," he concluded.

"We looked at the alternatives—and LynuxWorks was the only one that could deliver the features we needed in the timeframe we needed."

—Rick Morris, VP of engineering, Jetstream Communications

1.800.255.5969

LynuxWorks, Inc.
855 Embedded Way
San José, CA 95138-1018
408.979.3900
408.979.3920 fax
www.lynuxworks.com

LynuxWorks Europe
Craven House
121 Kingsway, Holborn
London WC2B 6PA
United Kingdom
+44 208 906 9506
+44 208 906 2338 fax