



Aerojet

Exploring New Frontiers in Speed, Performance and Network Security

Aerojet, a segment of GenCorp, is a major aerospace/defense contractor specializing in space and missile propulsion, space electronics, smart munitions and armaments, and fine chemicals. Since its founding in 1942, Aerojet has led the way in the development of crucial technology and products that have furthered the world's exploration of space. Aerojet has contributed to many of the nation's most important aerospace and defense projects including SBIRS, Titan, Minuteman, Polaris, Apollo, Gemini, Space Shuttle, TOW, SADARM, and the Defense Support Program.

Industry:

Aerospace/defense contractor

Number of Users:

3,000 including 2,000 NT workstations and 1,000 HP and SGI servers

Services:

Specializes in space and missile propulsion, space electronics, smart munitions, armaments and chemicals

Challenge:

Increasing throughput to meet performance demands while preserving security

Solution:

Enterasys X-Pedition switch router gives wire-speed routing with complete control

Benefits:

- Wire-speed throughput—even when security features are enabled
- High capacity to handle demanding network traffic like CAD modeling
- Improved application availability
- Inherent scalability enables the network to evolve to meet changing business demands
- Gigabit Ethernet provides a cost-effective, robust solution

With a tradition of success and a dedication to excellence, Aerojet is committed to remaining a renowned visionary in aerospace technology. To that end, the company requires a scalable information network that not only supports its important business applications—including CAD modeling shared by engineers—but provides the necessary management tools to implement and enforce usage rules for on-site personnel as well as outside vendors and partners.

Located on a 13,300-acre, security-controlled site in Sacramento, California, Aerojet has built an enterprise network with over 3000 nodes including roughly 2000 NT workstations and nearly 1000 HP and SGI servers. Up until recently, the company relied heavily on routers from Cisco and Bay to support emerging applications and maintain all-important network security.

The Challenge:**Increase Throughput, Preserve Security**

As Aerojet's many departments became increasingly dependent on the network for their day-to-day business, the company found that its existing solution simply wasn't adequate. The problem was twofold: large applications such as CAD modeling were creating bottlenecks on the network and whenever access lists had to be added or updated, network performance was further bogged down, greatly impeding Aerojet's productivity.

According to Mark Levine, senior network analyst with Aerojet, the situation created a vicious cycle. "The nature of our business dictates we have the most secure network possible. As a result, we must constantly implement and change access control lists. However, to ensure a more efficient and competitive operation, we also depend on business-enhancing applications like CAD modeling. The combination put a real strain on the network, significantly slowing down our operation."

Levine and his staff concluded that the problem rested with legacy software-based routers. Not only were these routers complicated to configure and manage, but they also did not provide the wire-speed gigabit throughput required to push mission-critical applications out to users. "Every time we needed to add new security rules, it would be a long, laborious process," said Levine. "With the software-based router from Cisco, we typically would have to wait a full hour for the CAD files to finally be downloaded."

The Solution: Wire-Speed Routing with Complete Control

Once it became clear that its current solution wouldn't suffice, Aerojet began its search for an alternative. They soon identified the X-Pedition switch router from Enterasys. As the industry's only switch router that offered wire-speed throughput—even with all of its security features enabled—the X-Pedition delivered the exact kind of performance and control Aerojet was looking for to maintain its competitive edge.

“We were looking for a mature, stable solution that could maintain gigabit-speed performance in a constantly changing, highly secure network environment. The X-Pedition clearly fit this requirement,” said Levine.

After evaluating the X-Pedition and comparing it with offerings from other vendors, Aerojet deployed the X-Pedition 8600 as its core router and the X-Pedition 2000 as its WAN edge router for partners and remote users. With the X-Pedition solution in place, Levine is already witnessing vast improvements in performance and functionality which have translated into a better running business for Aerojet.

For the hundreds of users and partners accessing the network to perform their daily tasks, the X-Pedition's end-to-end wire-speed performance has meant no delays in downloading and manipulating applications, including CAD models. “Application availability has improved so much that our engineers have been joking that they can no longer take long coffee breaks waiting for their files,” said Levine. What's more, the X-Pedition's scalability and forward-thinking design mean that even as new users or applications are added to the network, Aerojet's enterprise will keep pace.

For Levine and his staff, the real benefit of the X-Pedition solution is how it ensures a safe, secure network without sacrificing performance. With an easy-to-use command line interface, the X-Pedition lets Levine easily fine-tune access lists without having to rewrite desired rules every time. An ACL Edit command also gives Levine the freedom to make rule changes on the fly. “With the X-Pedition, I can now select greater levels of granularity without affecting performance whatsoever. In fact, I've been able to increase the number of individual rules on the network by a factor of four and still increase throughput by thirty percent.” And because the X-Pedition switch routers are standards-based, Levine has peace of mind knowing that the solution will work with other vendors' products now and in the future.

Levine sums up the value the X-Pedition brings to Aerojet's operation this way: “Our business requires a network that is as secure and manageable as it is fast and efficient. With Enterasys' X-Pedition switch routers deployed on the backbone and on our WAN edge, we can confidently meet this goal day in and day out. Period.” And as Aerojet moves further into the new millennium, Levine can be confident that the enterprise will seamlessly grow with the company, enabling Aerojet to maintain its leadership position in space exploration for years to come.

Contact Us

For more information, call Enterasys Networks toll free at **1-877-801-7082**, or +1-978-684-1000 and visit us on the Web at **enterasys.com**