Case Study

Intel® PRO Multi-Port Adapters

Design and Manufacturing

Intel® PRO Multi-Port Adapters Help Improve Performance for Woodward Governor Company

Bandwidth gets a boost while company controls costs

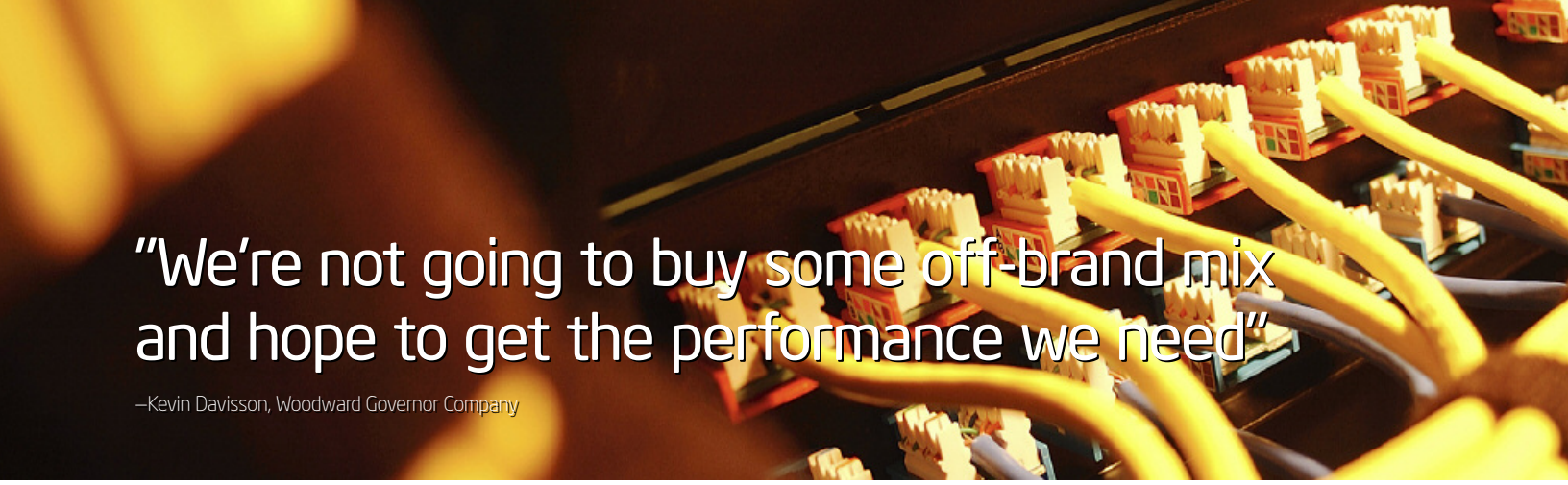
Challenges	Struggling with efficiency and performance challenges, the Woodward Governor Company sought to improve capacity, reliability, and flexibility to better serve its customers.
Solutions	Intel® PRO dual- and quad-port network adapters provided the bandwidth and reliability needed for business-critical applications and helped Woodward take advantage of virtualization technology to further increase efficiency.
Benefits	With Intel PRO multi-port Gigabit Ethernet adapters, Woodward has seen improved network reliability as well as increased performance for high-bandwidth applications. Accelerated provisioning and eased resource allocation also accommodate the company's evolving business needs. In addition, Intel PRO adapters work with VMware virtualization software to improve utilization, reduce administrative overhead, and enable consolidation of physical servers.

Woodward Governor Company is one of the world's largest independent designers, manufacturers, and service providers of energy control solutions for industrial and aircraft engines, serving the aerospace, power generation, transportation, and process industries markets. Founded in 1870, the USD 827 million company is adept at helping customers such as General Electric, Caterpillar, and Mitsubishi gain fuel efficiency and high performance. However, the IT department at Woodward's Rockford, Illinois, headquarters was struggling with its own efficiency and performance challenges.

Intel Brings Higher Efficiency to the IT Engine

Woodward's IT department supports about 1,100 employees at the company's Rockford and Rockton, Illinois, facilities as well as employees across more than 20 sites in Europe, China, and South America. Difficulty with optimizing the use of these resources and current investments while providing the bandwidth and reliability needed for business-critical applications led the organization to start using Intel® PRO dual- and quad-port network adapters.

WOODWARD



"We're not going to buy some off-brand mix and hope to get the performance we need"

—Kevin Davisson, Woodward Governor Company

"Intel® PRO dual- and quad-port Gigabit Ethernet adapters deliver excellent value and performance while enabling us to hold the line on costs."

- Kevin Davisson
IT Systems Administrator
Woodward Governor Company

Intel PRO multi-port Gigabit Ethernet adapters are now a key component in the toolkit of Kevin Davisson, IT systems administrator at Woodward. Davisson first used the adapters with Microsoft Windows* operating system–based clusters and now uses them to enable server virtualization based on VMware software, helping his company keep IT costs under control. In addition to lowering the total cost of IT ownership by reducing the number of necessary physical servers, Intel PRO network adapters help Davisson and the IT department better support its customers. Intel multi-port Gigabit Ethernet adapters help improve network reliability, increase performance for high-bandwidth applications, and enable rapid yet simple deployment of new applications and services. Servers can now be provisioned faster and system resources can now more easily be allocated to accommodate evolving business needs. "Supporting new customer requests and providing more resources is much quicker and easier. This makes a huge difference in our responsiveness," explains Davisson.

Multi-Port Adapters Deliver Needed Flexibility

Woodward originally purchased Intel PRO dual-port Gigabit Ethernet adapters to support Microsoft Windows cluster machines for print, e-mail, and other high-bandwidth services. When the company began moving to VMware virtualization software to improve resource utilization and reduce administrative overhead, it deployed Intel PRO multi-port adapters extensively to support the new virtual computing infrastructure.

While performance and reliability are key reasons why Woodward deploys Intel PRO adapters, Davisson also stresses that a major benefit of the multi-port adapters is newfound flexibility. The IT department can now more easily allocate server resources to support variable workloads. Having multiple available ports allows Davisson to leverage features such as network segmentation, adapter teaming for higher throughput, load balancing, and fault tolerance.

Virtualization Helps Deliver Enhanced Efficiency

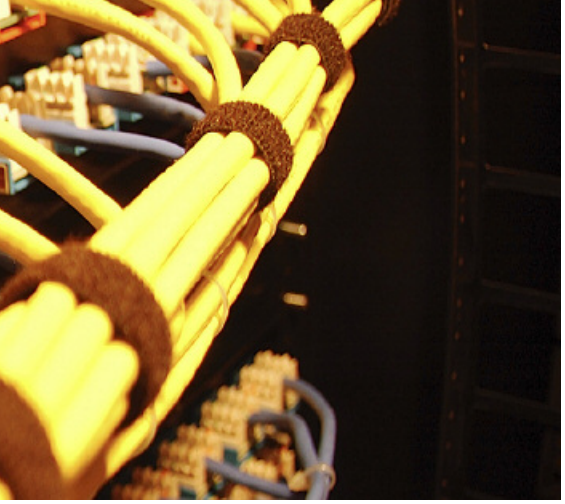
Using Intel PRO multi-port adapters and VMware virtualization software, Woodward was also able to minimize its reliance on physical servers—from 250 servers to 170. And the company isn't stopping there: "Without the Intel PRO multi-port adapters, we'd need twice as many servers—and we're pursuing even more consolidation opportunities as we go," says Davisson.

Davisson says he wouldn't consider using anything other than Intel PRO adapters: "We specifically buy Intel PRO adapters because they offer full support for VMware virtualization and demonstrate consistently high throughput. We're not going to buy some off-brand mix and hope to get the performance we need."

The Intel PRO multi-port adapters have been powerful enablers for consolidating servers, improving bandwidth, and increasing flexibility within Woodward's IT environment. While Woodward helps its customers deliver high-efficiency and high-performance engines, the IT department takes advantage of Intel PRO multi-port gigabit adapters to deliver this same value to end users throughout the company.

Woodward Realizes Increased Return on Investment

Using Intel PRO multi-port gigabit network adapters and VMware virtualization software for maximum resource utilization, the IT department has been able to minimize IT costs every year for the past three years—a very real increase in return on investment. And performance and reliability gains for business-critical applications and services, as well as the ease of provisioning additional resources, enable Woodward to provide better service to its more than 3,500 global users.



While increasing network bandwidth capacity and reliability was a primary motivation for choosing Intel PRO multi-port adapters, Davisson considers enhanced flexibility and the benefits it brings to be important as well: "With Intel PRO, I have the ability to configure network connections in a variety of ways to better support the performance, fault tolerance, load balancing, and feature requirements required by the services and applications our users depend on."

Intel® PRO multi-port Gigabit Ethernet network adapters enable Woodward Governor Company to improve the performance and reliability of business-critical services.

For more information on Intel® networking solutions, visit www.intel.com/network.

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