

Veritas Implements their Dream Data Center Design with Force10 E-Series Switch/Routers

Customer PROFILE

Customer

Veritas DGC Inc.
Houston, TX

Industry

Petroleum Industry



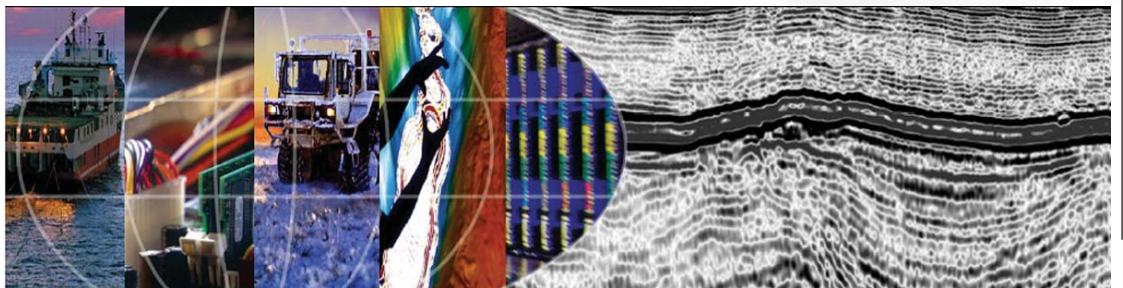
VERITAS
Geophysical Integrity

Applications

Data Center Core

Highlights

Using Force10 high density E-Series switch/routers, Veritas was able to build efficient, high bandwidth, resilient data center back ends with the scalability to accommodate future changes. The simplified network design cut equipment, overhead and management expenses.



Processing volumes of data better, faster and cheaper is at the heart of Veritas DGC's value proposition to its customers — making IT strategic to the company's competitiveness. So when it came time to upgrade its computing clusters from Fast Ethernet to Gigabit Ethernet (GbE) connections (one of several cluster interconnect technologies used), the IT team knew it had an opportunity to design a network core that could help the company reduce data center costs and hone its competitive edge for years to come.

Veritas, headquartered in Houston, Texas, is a leading provider of integrated geophysical information and services to the petroleum industry worldwide. Among its services are seismic survey planning and design, seismic data acquisition, and the processing, visualization, and archiving of 3D and 2D data.

Due to the enormous amount of processing capacity and network bandwidth required to manipulate such complex data, Veritas' IT infrastructure is key to its ability to generate revenue. Making that infrastructure ever more efficient is a challenge for IT. "We have to be able to drive down our costs so we can reduce costs to customers," notes Phil Gaskell, Veritas' Global Network Manager. "If we can deploy a network for \$3 million as opposed to \$5 million, we can deliver a more cost effective solution and improve our bottom line."

When IT staff brainstormed about what the ideal data processing facility design would be, it became clear they wanted fewer layers in the network. "That was our dream design — everything taken away, with a big chuffing switch with lots of ports at the core," says Doug Northrup, Veritas' Houston Manager of Networks. Force10 Networks was the only vendor that could deliver a switch/router with the port density and resiliency Veritas needed, according to Northrup.

Realizing the Dream Core

The initial challenge facing the IT team was to scale the network core in each data processing center to accommodate large numbers of GbE interfaces. But the team also wanted a network design that was flexible and scalable enough to accommodate new technologies and traffic flows down the line. Lacking a very high density core device, other networking vendors proposed designs that required numerous inter-switch links. And IT would have had to build resiliency into the network through redundant devices, links and other mechanisms.

"That design would have cut down on the infrastructure's scalability and increased the cost and complexity," Northrup says. "You end up using more ports to connect switches together than you do for connecting systems to switches. And instead of a non-blocking core, you have to implement an oversubscribed core."

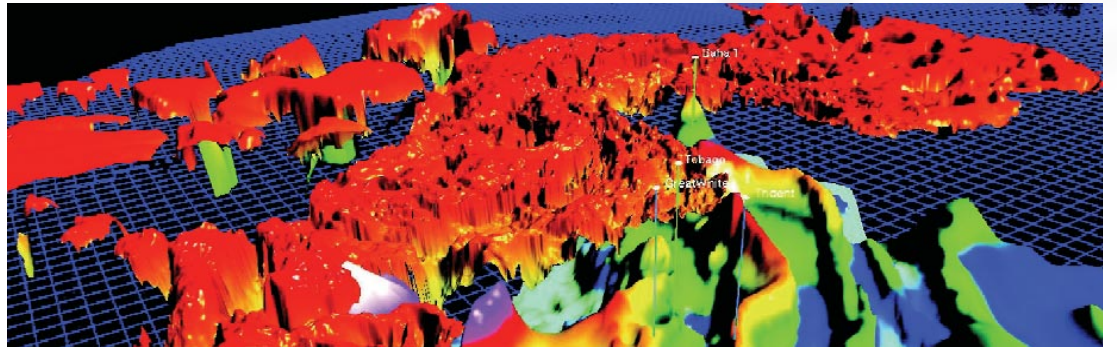


Veritas Implements their Dream Data Center Design with Force10 E-Series Switch/Routers

Customer PROFILE

“That was our dream design — everything taken away, with a big chuffing switch with lots of ports at the core.”

Doug Northrup
Houston Manager of Networks,
Veritas



In contrast, Force10's E-Series 1200 switch/router scales up to 1260 GbE or 224 10 GbE ports per chassis and features a non-blocking switch fabric. The E1200 has allowed Veritas to eliminate an aggregation layer from its network architecture, reducing overall network cost as well as latency. "Don't aggregate unless you have to," Gaskell advises. "It adds costs and inefficiencies."

In addition to high port density, resiliency is built into the E1200. All E-Series devices have fully redundant components, ensuring hitless failover with no packet loss in the event a component fails. The E-Series also has a fully distributed architecture with independent processors for switching, routing, and management, which allows faults to be contained. Because resiliency is inherent in the E1200, Veritas' IT team didn't have to build these capabilities into the network, thus lowering their operations and management overhead.

"The E1200 is a very well designed, redundant piece of machinery," Northrup says. Gaskell concurs: "The only component we could break was the paint. I can sleep well at night."

The Ultimate Benefit: Flexibility

Veritas currently has Force10 E600s and E1200s deployed in its Houston, London, and Singapore data centers. Having such high-density switch/routers has allowed IT to build efficient, high bandwidth, resilient data center back ends with the scalability to accommodate future changes.

And by allowing Veritas to implement a simpler network design, the E1200 has enabled IT to drive down equipment and overhead expenses. Fewer devices in the network means lower power consumption and cooling costs, for example, and less management overhead. Northrup notes that transitioning to Force10's equipment was "seamless," with virtually no learning curve for the staff.

Above all, Force10 has given Veritas flexibility. "We're always pushing the edge with new technologies," notes Gaskell. "Flexibility was one of the main things we were looking for. We don't know what's coming around the corner and we don't want to lock ourselves into an architecture. Such a high density core gives us the flexibility to explore different design options. And if a new technology comes along, or the algorithms or traffic flow change, we wouldn't have to re-engineer the network or forklift out the infrastructure with Force10."



Force10 Networks, Inc.
1440 McCarthy Boulevard
Milpitas, CA 95035 USA
www.force10networks.com

408-571-3500 PHONE
408-571-3550 FACSIMILE

© 2005 Force10 Networks, Inc. All rights reserved. Force10, the Force10 logo, EtherScale, FTOS, and TeraScale are trademarks of Force10 Networks, Inc. All other brand and product names are trademarks or registered trademarks of their respective holders. Information in this document is subject to change without notice. Certain features may not yet be generally available. Force10 Networks, Inc. assumes no responsibility for any errors that may appear in this document.

CP23 1205 v1.1