



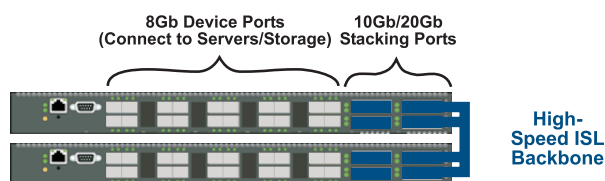
Next Generation Stacking

QLogic 5800V Series Fibre Channel Stackable Switches

QLogic's stackable Fibre Channel switches are now available through EMC[®] Select. This solution sheet explains why stacking makes sense for SANs.

What is Stacking?

Stackable switches, long familiar to Ethernet users, were introduced for Fibre Channel by QLogic in 2003. Stacking *cuts complexity and costs* by providing a stable, highly-expandable transport for aggregate inter-switch traffic—eliminating the disruption, port waste, and management hassles associated with using device ports as ISLs.



True Backbone Value

In a stackable architecture, each switch features dedicated ports for ISLs—that is, for connecting to other switches. These ports run at a much greater bandwidth than the regular data/device ports, and therefore require far fewer connections to achieve specific bandwidth goals.



Need more server or storage ports? Simply add another switch to the stack—no need to move existing cables or disrupt devices.

Affordable Now—Big Savings Later

- **Low initial cost:** Out of the box, dual-speed QLogic 5000 switches provide superior performance at a price-per-port that is competitive with single-speed, non-stacking edge switches.
- **Reduced expansion cost:** Because each stacking port matches the throughput of three device ports, QLogic ISL connections are far less expensive per unit of bandwidth. For example, a single 20Gb connection (25.5Gbps actual line rate, 51Gbps full-duplex) saves *six* 8Gb device ports for devices and eliminates the need for *six* expensive 8Gb SFPs. Stacking is the logical choice from a budget-versus-performance perspective.
- **Longer product and topology lifespan:** Other vendors force customers to take a non-linear “rip-and-replace” approach to SAN growth, offering a limited solution at the low end, followed by a radically different architecture as the installation matures. QLogic's modular ISL backbone helps customers pace investments and deployment activities *predictably* over time, with fewer wrong turns and reversals—even when corporate strategies and directions change.

Blazing 20Gb Bandwidth On-Demand

Start with “Always On” 10Gb ISLs

Each QLogic 5800V switch ships with all four 10Gb stacking ports active—basic inter-switch connectivity is now included with the product. Customers no longer need to consider ISL port costs when planning their SANs—every port they purchase can now be connected directly to a server or storage device.

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10Gb ISL speed provides more than enough bandwidth for customers in the early stages of their 8Gb migration, when many switch ports are still attached to 4Gb storage and other legacy devices.

20Gb Bandwidth On-Demand

When additional inter-switch bandwidth is needed, customers can non-disruptively upgrade the 10Gb stacking ports to 20Gb—the *World's Fastest Fibre Channel*. Because the same cables and connectors are used for 20Gb, customers can upgrade their entire SAN at the click of a mouse—*without touching a cable or purchasing any new hardware*. Only QLogic offers such a cost-deferred, “pay-as-you-grow” plan for the 8Gb transition.

Fast, Reliable Performance

- **Full bandwidth architecture:** The QLogic 5800V switch provides uncontested, “wire-speed” bandwidth at every port—a total of 544Gb per switch. ISL capacity expands automatically as the device port count grows, ensuring a consistent user experience over time.
- **Adaptive trunking:** There are no extra costs or complicated license schemes. QLogic adaptive trunking optimizes ISL use and performance by pooling the capacity of multiple 20Gb, 10Gb, or 8Gb links into a single, high-speed pipeline. Trunks are automatically applied as needed, eliminating the need for manual configuration. Unlike other trunking implementations, trunked ports need not be sequential, and can even be spread across multiple switches. Switch-on-exchange design supports intelligent path selection, fabric-shortest-path-first, and virtual trunking.

A variety of reliability features make the QLogic 5800V switch capable of delivering overall system availability of greater than 99.999 percent:

- I/O StreamGuard registered state change notification (RSCN) suppression guarantees bandwidth for time-sensitive applications such as video streaming.

- Hardware-enforced zoning by worldwide name
- Hot-swappable, dual power-supply options
- Non-disruptive code load and activation (NDCLA)

Powerful, Intuitive Software

QuickTools is an embedded Java® web applet for device discovery, device management, zoning, and fabric management. QuickTools includes a configuration wizard and QLogic drag-and-drop zoning, the industry's most intuitive zoning method.

Enterprise Fabric Suite 2007 (optional software) reduces software costs and enables users to manage the SAN with unprecedented levels of control. Enterprise Fabric Suite bundles high-value enterprise features into a single site-licensed package. Customers will spend less money licensing individual features and less time worrying about “balloon-payment” per-switch fees as their SAN grows.

Virtualization Support

N_Port ID Virtualization (NPIV) support comes standard across the entire QLogic switch portfolio, allowing full integration and interoperability with applications, such as VMware®, and hardware products, such as transparent blade solutions from IBM®, HP®, and others.

Investment Protection

The QLogic 5800V switch provides low TCO, extended product life-span, and a phased “pay-as-you-grow” approach that will enhance any company's long-term financial strategy. Make business-critical applications and personnel more productive with a next-generation QLogic SAN—the best choice for today's infrastructure, and tomorrow's.



To learn more, please visit www.qlogic.com/go/emc.

Corporate Headquarters QLogic Corporation 26650 Aliso Viejo Parkway Aliso Viejo, CA 92656 949.389.6000

www.qlogic.com

Europe Headquarters QLogic (UK) LTD. Quatro House Lyon Way, Frimley Camberley Surrey, GU16 7ER UK +44 (0) 1276 804 670

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