

# HP StorageWorks MPX200 Multifunction Router

A Simple, Scalable, Stable and Secure solution for your Business



## Solution overview

As mid-range and enterprise businesses grow and deploy physical / virtual servers and storage arrays, the amount of information required to manage, share, and protect continues to grow. The HP StorageWorks MPX200 Multifunction Router extends the Fibre Channel SAN investment with integrated multi-protocol support, allowing customers to incorporate iSCSI servers without requiring additional storage arrays or management costs.

## Simple, Scalable and Secure

MPX200 provides a simple, scalable and secure multiprotocol EVA storage solution. It offers simultaneous iSCSI and Fibre Channel support with 10GbE, 1GbE and 8Gb/s FC technology - providing modular multi-protocol SAN designs with increased scalability, stability, and ROI, and makes your computing environment simpler to manage. It provides a secure storage solution for virtualized server environments.

MPX200's enterprise-class high-availability design provides dual hot-plug power supplies and router blades for no single point of failure. The MPX200, integrated in same rack, allows customers to connect up to 4 EVAs to a single MPX200, reducing the complexity and cost of iSCSI connectivity.

## Enables Multiprotocol EVA Storage System

The MPX200 Multifunction Router enables organizations to integrate low-cost Ethernet connected servers with an EVA storage system by bridging the iSCSI protocol to the Fibre Channel protocol. This capability allows iSCSI servers to leverage shared SAN resources, improving asset utilization and enabling new applications. The HP StorageWorks MPX200 Multifunction Router provides 1 GbE and 10 GbE iSCSI ports for EVA storage arrays.

By connecting hundreds of virtual or physical machines through iSCSI initiators to the EVA, the MPX200 router provides simple and cost-effective storage consolidation, simplified management, and secure storage solution for virtualized server environments. Up to 4 arrays are supported per MPX200 router, and the unit is racked within an EVA storage array cabinet.

## High Performance Virtual Machines Deployment

The MPX200 10-1 GbE blade allows high performance virtual machine deployment with 10GbE iSCSI connectivity. This blade supports up to 600 iSCSI initiator connections to the EVA. As a result, each virtual server can be configured with its own iSCSI initiator and securely manage its own LUNs. This ensures that management policies can be seamlessly maintained throughout the VM deployment. Configuring iSCSI initiators on the VMs also enables administrators to overcome the hypervisor limitation of 256 LUNs.

## Increases EVA Scalability - Fueling Storage Consolidation

Simultaneous Fibre Channel and iSCSI protocol access to the EVA results in increased storage consolidation and utilization. Using MPX200, customers can connect 3 times the number of servers to the EVA. As a result, benefits of SAN can be extended to 70% of servers in most data centers that are not currently connected to a SAN.

The MPX200 can also be used to consolidate storage for branch offices. This eliminates the need to manage data backup in each branch office.

## Simplicity – Fitting seamlessly into the EVA environment

- Consolidate storage around the EVA storage array to simplify management and backup.
- Simplifies management and provides a secure storage solution for virtualized server environments.
- Integrated management using Command View EVA software to manage iSCSI and Fibre Channel EVA connectivity and MPX200 Multifunction Router.

## Value – Cost effective solution

- Up to four EVA arrays can be connected through a single MPX200 router.
- Lowers the cost of Fibre Channel SAN connectivity down to less than \$37 per server using iSCSI.
- Extends the EVA Fibre Channel investment protection without requiring additional storage arrays.
- Delivers SAN-like benefits over the Ethernet IP network resulting in more efficient use of storage.

## Enterprise-class high availability

- The MPX200 router has enterprise-class availability with dual hot-plug power supplies and router blades to satisfy no-single point-of-failure requirements.
- All MPX200 configuration information is mirrored between the blades and the unique addressing information is stored in the chassis (Mac address, WWN, etc.). This provides for seamless blade replacement without the need to update zoning or configuration specific files.

## Go for it..!

If your business is mid-sized or if you are a large IT organization that needs to run large number of applications on blades or virtual servers cost effectively using iSCSI connectivity to EVA arrays, extend SAN advantages with simpler to manage, secure storage solution for virtualized server environments.

## Power up your Business... NOW!

The HP StorageWorks MPX200 Multifunction Router 1GbE Base Chassis/Upgrade Blade is equipped with the following:

- Two 8 Gb/s Fibre Channel ports
- Four 1 Gb/s Ethernet ports

The HP StorageWorks MPX200 Multifunction Router 10-1 GbE Base Chassis/Upgrade Blade is equipped with the following:

- Two 8 Gb/s Fibre Channel ports
- Two 10 Gb/s Ethernet ports
- Two 1Gb/s Ethernet ports

✓ Consolidate Storage

✓ Improve Disk Utilization

✓ Improve IT Efficiency

## Is This Solution for My Organization?

The MPX200 router is well suited for entry level, mid-range, and enterprise-class data centers.

**Enterprise Class Storage** - Ideal for enterprise wide deployment and mission-critical applications. These solutions are the most extensible, resilient, and controllable storage solutions available. They offer maximum scalability, industry-leading performance, a fully integrated suite of centralized management tools, and unmatched data protection and disaster tolerant features.

**Mid-range Storage** - Ideal for small to large data centers running key business applications. These solutions offer scalability to multiple terabytes of capacity, high performance, many enterprise-class data protection features, and a fully integrated suite of centralized management tools for greater administrative control.

**Entry Level Storage** - Ideal for smaller deployments, including small to medium-sized organizations or remote office locations of larger companies.

## Frequently Asked Questions

1. Can my existing EVA support iSCSI?  
Yes. The HP StorageWorks MPX200 Multifunction Router supports all existing HP StorageWorks Enterprise Virtual Array models, including EVA4x00, EVA6x00 and EVA8x00 series, and the new EVA4400, EVA6400 and EVA8400. The MPX200 Multifunction Router can be added to an EVA already installed or installed with a new EVA.
2. How do I manage the iSCSI devices on the EVA?  
The HP StorageWorks Command View EVA Software provides the capability to manage the EVA storage array and the MPX200 router. This powerful tool provides an easy mechanism to manage both iSCSI and Fibre Channel configurations—up to 16 EVA units in a SAN configuration by a single Command View EVA package.
3. Does the MPX200 Base SKU come with redundant power and cooling modules?  
Yes. Each base chassis SKU comes with dual redundant power and cooling modules.
4. Does the MPX200 support high availability configurations?  
Yes. Each MPX200 Chassis has slots for two router blades. Populating these slots with two blades gives you high availability and redundant data paths.
5. How many EVAs can I connect to a single MPX200 chassis/blade?  
Up to 4 EVAs can be connected through a fabric to a single MPX200 chassis.
6. Do I need 10GbE infrastructure in my Data Center to take advantage of MPX200 10GbE Ports?  
No. Most Ethernet 1GbE Edge switches have 10 GbE ISL ports. Connecting MPX200 10GbE ports to either core or ISL ports of Edge switches, provides aggregation of the 1GbE server traffic. MPX200 also comes with 8 ports of 1GbE iSCSI (in dual redundant blades configuration) that can be used in 1GbE only configuration.

7. Is the mpx100/100b and mpx110 in the end of life stage?  
No, we plan on continuing to offer mpx100/100b and mpx110 products to our customers at this time.

## Support tools and resources

### HP StorageWorks MPX200 Multifunction Router Home Page

This page has information about HP StorageWorks MPX200 Multifunction Router - including overview, features and links to support and related documentation.

<http://www.hp.com/go/mpx200>