

Emulex Brings Integrated Management To Fibre Channel HBAs for Blade Servers

AT A GLANCE

Fibre Channel SANs provide scalable, high performance and flexible storage that is the perfect complement to today's blade servers. But IT administrators want to spend less time, not more, managing the host bus adapters (HBAs) that link these blade servers to SANs. This paper describes how Emulex's exclusive management tools allow blade server customers to quickly and easily deploy Emulex LightPulse® HBAs, and to perform ongoing management and maintenance on them within either Windows or Linux operating environments.

PRODUCTS

Emulex LightPulse Fibre Channel Host Bus Adapters
Emulex HBAnywhere®

APPLICATIONS

SAN Connectivity and Management for Blade Servers

Modern organizations need flexible, cost-effective IT infrastructures, in which computing, storage and networking resources can be deployed in the most easily scalable and efficient form factors. For an increasing number of customers, that means adopting blade servers, which take up dramatically less space than traditional rack-mounted servers and can be more easily upgraded as business and application needs change.

The amount and density of computing power available in a blade-server environment increases the need for storage systems that can efficiently and quickly handle the massive amounts of data produced by, or required by, blade servers. More than 40 percent of blade servers use Fibre Channel Storage Area Networks, or SANs, for their storage because SANs excel at meeting a number of key requirements for blade servers.

SANs provide the highest data transfer speeds, the greatest reliability and the most options for redundancy and failover of any storage topology. While blade servers are usually limited to two direct-attached disk drives, customers can easily increase the capacity of a SAN exponentially by adding more arrays. Because a SAN allows any application to access any unused capacity within the storage network, storage managers are freed from having to buy enough storage to meet each application's peak demands, regardless of whether that storage sits idle most of the time. SANs also support clustering and failover, which reduces downtime by allowing one storage array to immediately assume the workload of a failed array.

Linking blade servers to a SAN requires an HBA, in the form of a mezzanine card specifically engineered for each OEM's blade design. Beyond sheer compatibility, IT managers need HBAs that lower the total cost of ownership through the easiest possible deployment, maintenance and management. Emulex meets these needs through industry-leading deployment and management tools that integrate with management solutions from leading server vendors.

Integrated Management

In IBM server environments, IBM's Remote Deployment Manager (RDM) software automates the provisioning of HBAs and the deployment of a wide array of server software. In HP environments, those capabilities are provided by HP's Rapid Deployment Pack (RDP) software. Emulex has integrated its HBA installation and deployment tools closely with these solutions, providing a seamless, and automated deployment experience.

In each case, whether the blade servers are running Windows or Linux, Emulex provides the necessary pre-boot utilities for blade installation and provisioning. This tight integration between Emulex's installation and deployment software and the vendor's deployment and provisioning tools creates a virtual presence and control point for server deployments, which reduces support, maintenance and training costs.

Ongoing management is further eased by Emulex's HBAnyware software that enables uniform management of Emulex LightPulse HBAs anywhere in a SAN. HBAnyware gathers information about LightPulse HBAs through the common HBA (cHBA) API, and includes the ability to actively manage remote HBAs. Because Emulex has worked closely with blade server vendors to integrate HBAnyware within the overall management umbrella, users can now manage Emulex LightPulse HBAs as part of their overall blade server management suites. This streamlines the management experience, and makes the overall storage environment more flexible, manageable and cost-effective.

HBAnyware also leverages other unique architectural capabilities of Emulex LightPulse HBAs that reduce management costs, such as firmware upgradeability and driver compatibility across generations of Emulex products. This unified approach makes it easier for users to integrate multiple generations of servers, including the latest blade servers, into an IT environment which can be easily scaled and whose assets can be dynamically reprovisioned as application and business needs change.

Summary

Today, more than 40 percent of blade servers use Fibre Channel SANs for storage because of their scalability, speed, reliability and flexibility. When connecting those blade servers to SANs, users need the easiest to deploy, and manage host bus adapters. Emulex's HBAnyware management software is tightly integrated with the deployment and provisioning software developed by leading blade server OEMs. This reduces the time, training and effort required to link today's blade servers with high-performance SANs. Features like these, combined with Emulex's multi-generation driver support, make Emulex LightPulse HBAs the top choice for users deploying blade servers in their data center environments.

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