

IBM BladeCenter HBA Installation and Management

AT A GLANCE

IT administrators want to spend less time, not more, installing and managing the host bus adapters that link servers to SANs. This paper describes the installation and management tools available to IBM BladeCenter customers allowing them to quickly and easily deploy HBAs, and to perform on-going management and maintenance within Windows or Linux operating environments

PRODUCTS

Emulex Lightpulse[®] Fibre Channel Host Bus Adapters
Emulex AutoPilot Installer[®]
Emulex HBAnywhere[®]

APPLICATIONS

IBM BladeCenter

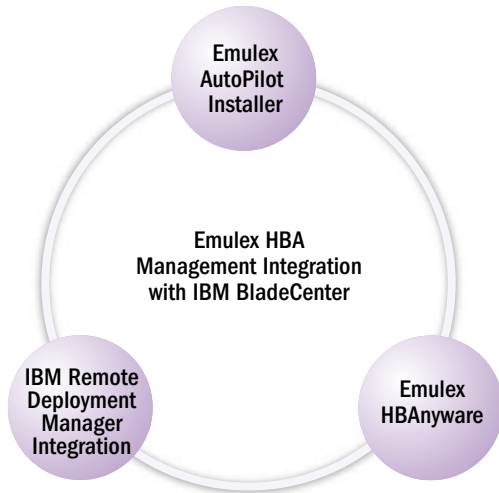
From installation to management, Emulex provides an extensive collection of tools and utilities to simplify the use of its Fibre Channel HBA or mezzanine cards in IBM BladeCenter blade servers. Emulex AutoPilot Installer software enables quick and easy installation of HBAs, while support for automated provisioning of the HBA is provided by IBM's Remote Deployment Manager (RDM). Finally, the Emulex HBAnywhere software delivers a powerful management application, which is integrated within IBM Director. These applications greatly simplify the process of provisioning and deploying new blades within a Fibre Channel-based SAN, thereby saving IT departments both time and money.

Installation

The Windows-based HBA installation tool, Emulex AutoPilot Installer, dramatically reduces the time and number of keystrokes necessary to install an HBA within a blade server and attach it to the SAN.

The simple, wizard-based installation begins with the administrator selecting the executable file with the appropriate driver (Storport Miniport, SCSIport Miniport or FC Port) for the target server.

AutoPilot Installer installs a single driver that is compatible with all generations of Emulex HBAs. In addition, AutoPilot Installer allows either the OEM or end user to customize the default driver settings using a configuration file. This feature allows unique settings to be standardized across the enterprise for both interactive and automated installations. This allows a SAN architect to define parameters once – which can then be consistently implemented throughout the data center by IT staff – helping to reduce the time spent connecting new HBAs to the SAN.

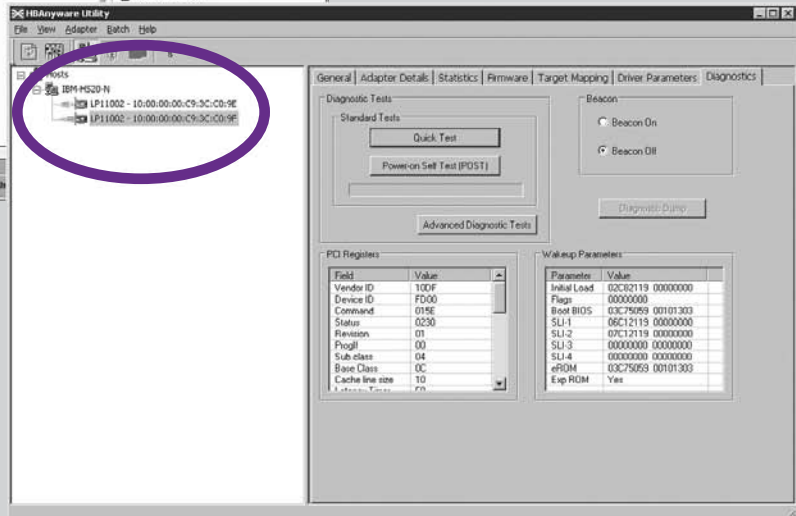
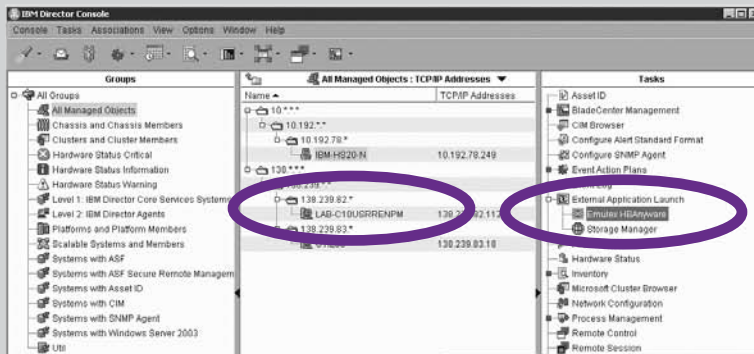


AutoPilot Installer also supports scripting for automated or unattended installations. This powerful feature enables customers to reduce the time and effort required to replicate installations for multiple servers that are installed throughout the enterprise. This capability is a valuable tool for end users, as it enables rapid deployment of multiple HBAs with little, or no, end-user intervention.

For blades running in a Windows or Linux environment, Emulex has provided the necessary pre-boot utilities for blade installation and provisioning via IBM's Remote Deployment Manager. RDM is a complete deployment solution for automating the deployment of a wide array of server software. By establishing a virtual presence and control for server deployments within the data center or at remote locations, it reduces support, maintenance and training costs. This capability provides the ability to quickly

For added convenience, the Emulex driver and utilities can be installed prior to the installation of any HBAs – thus allowing an IT administrator to “pre-stage” HBA support on a broad range of platforms in advance of the actual SAN connection.

SMI-S Integration



and flexibly provision a SAN-connected blade to meet the needs of any organization, right out of the box.

Management

Emulex HBAnyware software is a powerful platform for efficient and scaleable administration of enterprise SAN connectivity. HBAnyware delivers comprehensive control of Emulex HBAs within a centralized management framework, with flexible remote management options backed by secure remote access control. It allows administrators to centrally update both the firmware running on HBAs and the parameters of the HBAs, as well as to diagnose and signal (beacon) HBAs in remote offices individually or in batch. Furthermore, advanced automation features allow SAN best practices to be implemented effortlessly. Powerful, standards-based upward integration capabilities make HBAnyware a seamless extension of higher-level server and storage management solutions.

In addition to the robust features of HBAnyware, Emulex HBAs support the Storage Management Initiative-Specification (SMI-S) standard. Emulex HBAs have passed the SNIA CTP (Conformance Testing Program) for SMI-S compliance, which reinforces seamless upward integration into vendor-specific blade management suites such as IBM Director. The combination of HBAnyware and IBM Director provide storage administrators the least expensive, most robust HBA implementation and management capabilities on the market today.

Summary

Emulex provides IBM BladeCenter customers with AutoPilot Installer, a wizard-based application that automates installation by loading the correct driver and utilities for the HBA with just a few mouse clicks. For those deploying blades using IBM's Rapid Deployment Manager, all of the necessary pre-boot utilities are included to enable HBA installation and provisioning. Emulex support for the SMI-S interoperability standard allows on-going management using the powerful combination of HBAnyware and RDM. This collection of technologies represents a best-in-class system for HBA installation and management tools in a blade server environment.

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