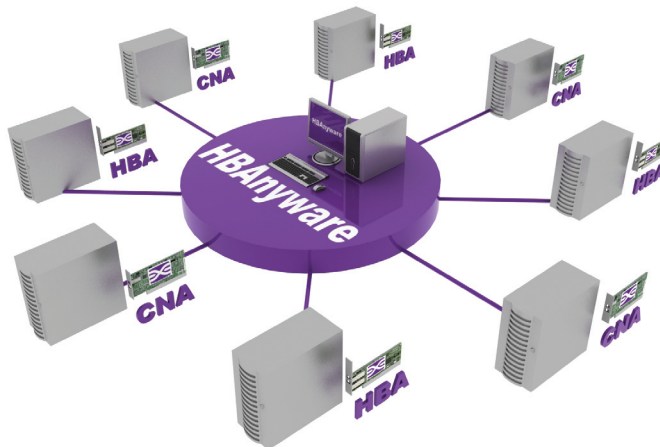


# Emulex® HBAnyware®

**SIMPLIFY AND  
STREAMLINE  
SAN MANAGEMENT  
WHILE  
REDUCING TCO  
AND IMPROVING ROI**

Emulex HBAnyware management application provides comprehensive control of Emulex LightPulse Fibre Channel HBAs and Fibre Channel over Ethernet (FCoE) converged network adapters (CNAs) within a centralized, cross-platform framework, combining flexible remote-management options with secure access control. Broad operating system support ensures seamless integration and operation within Enterprise SAN environments, while the graphical user interface (GUI) and command line interface (CLI) options provide greater management flexibility. Powerful suite of diagnostics tools and customizable reporting capabilities of HBAnyware help data center administrators to optimize SAN performance and availability.



## Centralized Management

of Emulex LightPulse® Fibre Channel HBAs and Fibre Channel over Ethernet CNAs

### Key benefits

- Reduce total cost of ownership by enhancing SAN availability and reducing management costs
- Streamline adapter administration through centralized cross platform management capability
- Enhance overall SAN performance via robust diagnostic capabilities
- Increase SAN availability by leveraging powerful troubleshooting and diagnostic capabilities
- Implement SAN best practices in virtual server environments
- Secure the network
- Secure SAN access points

### Key features

- Unified platform for management of Emulex LightPulse Fibre Channel HBAs and Fibre Channel over Ethernet (FCoE) converged network adapters (CNAs) on local and remote hosts
- Online "Boot-from-SAN" capability improves server provisioning and SAN availability
- Automation capabilities such as batch mode driver parameter and firmware updates
- Secure network with remote host access permission
- Protect access points with DHCPAP by securing the data link between the adapter and the switch
- Graphical and Command Line user interface options
- Cross-platform solution with broad OS and hypervisor support
- CIM based adapter management for VMware ESXi (vSphere) environments
- Real-time SAN-wide discovery, monitoring and administration of Emulex LightPulse adapters and connected devices
- Extensive command line interface (CLI) with advanced scripting capabilities
- Web-launch capability allowing access to HBAnyware from a browser

# Emulex® HBAnyware®



## Centralized Management of Emulex LightPulse® Fibre Channel HBAs and Fibre Channel over Ethernet CNAs

### SPECIFICATIONS

#### Availability

- Integrated in software kits shipping with Emulex LightPulse adapters and available at [www.emulex.com](http://www.emulex.com)

#### OS Support

- Windows
- Linux
- Solaris

#### Hypervisor Support

- VMware ESX (vSphere), VMware ESXi
- Microsoft Hyper-V
- Xen

#### CPU Architectures

- x86
- EM64T
- AMD64
- IA-64
- SPARC (Solaris only)
- POWER (Linux only)

#### HBA Support

- All of Emulex LightPulse Fibre Channel HBA (LP8000 or later) and FCoE CNA

#### Relevant Standards

- FC-GS-3
- FC-MI
- ANSI/INCITS 388-2004 (SMI-S 1.0.2)
- FC-SP
- CIM/SMI-S

#### Backward Compatibility

- HBAnyware 4.1 is interoperable with HBAnyware 4.0 and later
- Please refer to [www.emulex.com](http://www.emulex.com) for the latest support matrix

#### Application Integration

- EMC Control Center
- HP System Insight Manager
- IBM Director

#### Improve Management Efficiency

##### Centralize Adapter Administration

- HBAnyware provides centralized management of Emulex LightPulse Fibre Channel HBAs and Fibre Channel over Ethernet (FCoE) converged network adapters (CNAs) in the SAN.
- Adapter discovery and management via Fibre Channel or TCP/IP networks, affords greater administration flexibility, while access control features enhance security by preventing accidental or malicious modifications to Emulex LightPulse adapters.

##### Leverage Management Automation

- HBAnyware automates key management tasks for unparalleled efficiency in adapter configuration and management. Driver profiles and firmware updates can easily be replicated and propagated onto other LightPulse adapters using HBAnyware's batch mode capability. In addition, the rich command line interface provides powerful scripting capabilities to automate complex or customize administration tasks.

##### Enhance Ease-of-Use

- HBAnyware transparently installs along with the driver for Emulex LightPulse adapters, streamlining deployment and eliminating user intervention. Ease-of-use features like adapter aliasing and view settings enable easier identification and management of Emulex LightPulse adapters. In addition to GUI and CLI interface options, HBAnyware can also be accessed via web browser, providing the greatest degree of interface and access flexibility.

#### Increase Data Center Consolidation

##### Deploy Adapter Virtualization

- Adapter port virtualization is a key feature of HBAnyware. Virtual adapter ports enable application of SAN best practices, such as LUN masking and zoning. SAN administrators can easily configure and manage virtual adapter ports in non-server virtualized environments or use HBAnyware's virtual adapter port discovery function within virtual server environments. In addition, the Vport mapping function displays virtual adapter port to virtual machine associations—eliminating the need to use multiple management tools, improving management efficiency and increasing resource flexibility.

- HBAnyware has been tested for interoperability and seamless integration with the leading server virtualization solutions, such as VMware ESX, Microsoft Hyper-V and Xen source.

##### Increase SAN Availability

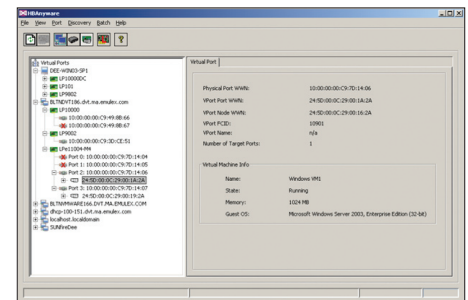
- In addition to enterprise-class management capabilities, HBAnyware is also designed to maximize enterprise SAN availability. Should a server go off-line, HBAnyware can help to transition the server's HBA WWN to the stand-by server's HBA. This ensures maximum SAN availability in clustered and non-clustered environments.

- Powerful diagnostic features capture key adapter information helping to expedite root cause analysis and reduce time to resolution. Flexible reporting tools provide customized views of the SAN. With HBAnyware's beaconing function, an adapter can be quickly identified within a server by distinctive flashing of the adapter's LEDs. These features and capabilities have all been provided to help organizations optimize SAN performance and increase SAN availability.

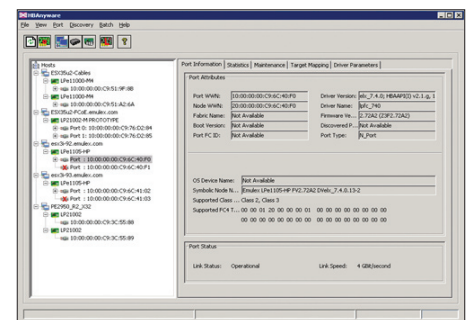
- The Online "Boot-from-SAN" capability improves server provisioning by enabling pre-staging of "Boot-from-SAN" settings while the server is operational and in a production environment. Introduces greater speed and flexibility to reduce deployment costs and improve SAN availability.

#### A Versatile Foundation for Storage Management

- HBAnyware can be integrated into storage and server management solutions via industry-standard management instrumentation (such as SMI-S) or application-level integration facilities. HBAnyware is designed to operate as a seamless extension to third-party management solutions, providing for active management of Emulex LightPulse adapters within these environments.



HBAnyware's Vport mapping function enables IT administrators to quickly identify Vport to VM associations eliminating the need to toggle between multiple management applications.



Emulex CIM provider and client interface enable comprehensive adapter management in VMware ESXi environments.



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