



HP 1/10Gb Virtual Connect Ethernet Module

Overview

The Virtual Connect Ethernet Module is a new class of blade interconnect that simplifies server connections by cleanly separating the server enclosure from local area network (LANs). The module simplifies networks by reducing cables without adding switches to manage, and allows administrators to move, add or change servers in just minutes.

The standards-based Virtual Connect Ethernet Module looks like a pass-thru device to the network, yet it provides all the key benefits of integrated switching, including high-performance 1 gigabit (Gb) and 10Gb uplinks to the data center switch, port aggregation, failover, VLAN tagging, and stacking.

The Virtual Connect Ethernet module also administers server profiles that can be pre-defined and deployed anywhere within a Virtual Connect domain. This allows servers to come online very quickly and easily without having to coordinate with network administrators.

What's new?

The HP Virtual Connect Ethernet Module offers high-performance connectivity to the datacenter and makes server administration more efficient. Transparently move, add or change servers inside the BladeSystem domain to external networks.

- Performance
 - Two 10Gb Ethernet CX-4 uplinks can be connected to core switches or used to stack Virtual Connect modules;
 - Eight 1Gb uplinks provide additional capabilities;
 - VLAN Tagging and Port Aggregation support all uplinks.
- Management
 - Virtual Connect Manager is included with every module;
 - HTTP interface is ready out of the box, allowing for easy setup and management by the server administrator.
- Virtual server profiles
 - Pre-configured server I/O connections;
 - Ability to move, add or change servers on the fly;
 - Once defined, LAN and SAN administrators do not have to be involved in server changes.

- Options
 - Fibre Channel Virtual Connect Module;
 - Supports all Server NICs including LOM and Mezzanine card options;
 - Stack multiple Virtual Connect modules together between enclosures to create a domain that can support up to 64 servers.

Ideal for...

- Enterprise and data center customers
 - Integrated management and security;
 - Increased operational efficiencies with pre-defined virtual server profiles;
 - Efficient server sparing by applying profiles to spares with a click of the mouse;
 - Provides seamless integration, non-disruptive connectivity, and 10Gb/s uplinks to the data center LAN.
- Mid-sized data
 - Designed with server administrators in mind to quickly bring up servers on the LAN and SAN;
 - Scalable virtual domains supporting multiple data center enclosures.
- Remote sites
 - Apply server profiles remotely from a central location. No need to send specialists on site to bring up new servers or spares;
 - Pre-design and configure an enclosure prior to installation.

Key benefits

- Ease of operations and deployment
 - Enclosures can be pre-configured for easy, drop-in server installations either locally or in a remote site;
 - Servers are change-ready – add, move, replace, upgrade without affecting the LAN;
 - The standards-based Virtual Connect Ethernet Module is compatible with all other standards-based switch products. This provides high-performance, end-to-end connections with many brands of core switches;
 - The Virtual Connect Ethernet Module appears as a pass-thru device to the network. Any changes to the server are transparent to its associated network to cleanly separate the servers from the LAN and relieve LAN administrators from server maintenance.
- Enterprise class performance and availability
 - 1Gb/s downlink connections to server NICs , and up to 28Gb/s total uplink bandwidth provides non-blocking bandwidth to datacenter networks;
 - High-availability features such as NIC teaming, trunk failover, and dual redundant Virtual Connect Ethernet Modules assure maximum uptime;

- Standards based data center connectivity such as port based VLANs, VLAN tagging, and uplink port aggregation are built in;
- Virtual Connect server profiles are shared and continually updated between high-availability pairs, and within a shared virtual domain of stacked enclosures.
- Security and management
 - No extra software to purchase. The embedded Virtual Connect Manager runs on each Virtual Connect Ethernet Module. Administrators can define available LANs, server connections, and manage server connection profiles;
 - Role based privileges for 'administrator' account defined by default and can be modified by the BladeSystem administrator;
 - Additional role based privileges for user accounts can be created by domain, server, networking and storage.

Specifications

Performance and Form Factor	
Blade Type	Single bay
Performance	108 Gb Switching fabric
Port Configuration	16 Internal 1Gb Downlinks 8 External 10/100/1000BASE-T Uplinks 2 External 10Gb CX-4 Uplinks 1 10Gb Internal cross-connect 1 Management USB Port 1 Internal interface to c-Class Onboard Administrator Module
Media Types	Copper RJ-45 100 Ohm 2-pair Cat5 UTP or equivalent Twinax CX-4 (IB4x)
Management and Protocols	
Management Features	HTTP HTTPS SSL Supports PXE, WOL, port VLAN, VLAN Tagging, VLAN pass through, NIC Teaming Integrated with On Board Administrator
High Availability Features	Link Aggregation Protocol Automatic loop protection Mirrored profile database and multi-path heartbeat between redundant modules

Protocols Supported	802.3, 802.3u, 802.3ab, 802.1s, 802.1w, 802.1p, 802.3ac, 802.3ad (Static), 802.1q
Deployment	
Max per Enclosure	6
Options Available	Virtual Connect 4Gb Fibre Channel Module
Warranty - year(s) (parts/labor/onsite)	1-1-1

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