

Overview

HP Virtual Connect Enterprise Manager (VCEM) centralizes network connection management and workload mobility for HP BladeSystem servers that use Virtual Connect to access LANs and SANs, helping organizations increase productivity, respond faster to workload and infrastructure changes, and reduce operating costs.

Built on the Virtual Connect architecture integrated into every HP BladeSystem c-Class enclosure, VCEM provides a central console to administer LAN and SAN address assignments, perform group-based configuration management, and execute rapid deployment, movement and failover of server connections and their workloads for 250 Virtual Connect domains (up to 1,000 enclosures and 16,000 server blades). Use Virtual Connect Enterprise Manager to complete core datacenter tasks quickly and reliably, without impacting the configuration and availability of production LANs and SANs:

- Deploy new Virtual Connect domains, HP BladeSystem enclosures and servers
- Perform fast and cost effective server recovery
- Complete planned system maintenance with minimal downtime
- Rapidly migrate and repurpose blade servers to meet changing workload and application priorities

Together, Virtual Connect and Virtual Connect Enterprise Manager create a change-ready infrastructure that enables system administrators to add, replace and recover servers across the datacenter in minutes without disrupting LAN and SANs. This flexible change-ready infrastructure also provides the foundation for logical server deployment and orchestration delivered with HP Insight Dynamics for ProLiant software.

What's New

HP Virtual Connect Enterprise Manager v6.0 is an update to VCEM v1.20 through v1.40 that adds new features plus support for the latest Virtual Connect hardware and firmware, which includes:

- HP Virtual Connect 8Gb 20-Port Fibre Channel module for BladeSystem c-Class
- Operations with new Virtual Connect firmware v2.30 features that include:
 - Updated SNMP event definitions for Virtual Connect
 - Number of VLANs per shared uplink increased to 128
- Dedicated VCEM 128K address ranges for MAC and Worldwide Name assignments, for a total 256K supported network addresses per VCEM console
- Role-based access and control for Virtual Connect Domain Groups
- Number of supported Virtual Connect domains from a single VCEM console increased to 250 (1,000 BladeSystem c-Class enclosures and 16,000 servers when used with Virtual Connect multi-enclosure domain configurations)
- Native installation and operations with Microsoft Windows Server 2008 64-bit
- Supported on HP Systems Insight Manage v6.0 (required for installation)
- Removes support for Virtual Connect firmware v1.2x and 1.3x. Minimum supported Virtual Connect firmware is v2.00
- VCEM v6.0 updates existing installations of VCEM v1.20 through v1.40 and is delivered on Insight Software media v6.0, which can be downloaded from : www.hp.com/go/vcem
- Streamlined delivery with the HP Virtual Connect Flex-10 10Gb Enterprise Edition for BL c7000 option. Combines 2 x HP Virtual Connect Flex-10 Ethernet modules and 1 x c7000 enclosure license for VCEM. (Part number - 591973-B21).

NOTE: VCEM v6.0 directly supersedes VCEM v1.40. The current version number represents alignment and compatibility with other products delivered on HP Insight Software media v6.0.

Models

NOTE: Virtual Connect Enterprise Manager is licensed per BladeSystem c-Class enclosure, with separate options for BL-c3000 and BL-c7000 enclosures. A single



Overview

VCEM license is required for each enclosure to be managed in both single and multi-enclosure domain configurations.

NOTE: All Virtual Connect Enterprise Manager licenses include one year of 24 x 7 HP Software Technical Support and Update Service ensuring rapid access to HP support staff and proactive delivery of software updates. For more information about this service, please visit: <http://www.hp.com/services/insight>.

NOTE: For each purchased license, a license entitlement certificate will be delivered. The license entitlement certificate contains information needed to redeem license activation key(s) online or via fax. This electronic redemption process enables easy license management and service and support tracking. For more information, please visit: <http://www.hp.com/go/ICe-license>.

HP Virtual Connect Enterprise Manager for BL-c7000, No Media, 1-Enclosure License including 1 year of 24x7 Technical Support and Updates 459864-B21

NOTE: Allows 1 BL-c7000 enclosure to be managed with VCEM. Customer will receive a printed license entitlement certificate via physical shipment. The license entitlement certificate must be redeemed online or via fax to obtain the license activation key(s).

HP Virtual Connect Enterprise Manager for BL-c7000, No Media, Flexible-Quantity Enclosure License including 1 year of 24x7 Technical Support and Updates 459865-B21

NOTE: Allows multiple BL-c7000 enclosures to be managed with VCEM using a single license key. Customer specifies / orders the number of enclosure licenses to be covered by the flexible-quantity key and will receive a single printed license entitlement certificate via physical shipment. The license entitlement certificate must be redeemed online or via fax to obtain the license activation key(s).

HP Virtual Connect Enterprise Manager for BL-c7000, No Media, 1-Enclosure Tracking License including 1 year of 24x7 Technical Support and Updates 459866-B21

NOTE: For use with signed and implemented Activation Key Agreements (AKA) only. Purchase of this part number entitles the customer to deploy additional licenses of the product under the terms of the existing Activation Key Agreement. No physical components or license keys are delivered in conjunction with the purchase of this part number. For more information on Activation Key Agreements please visit: <http://h18004.www1.hp.com/products/servers/proliantessentials/license/akalic.html>

HP Virtual Connect Enterprise Manager for BL-c7000 1-Enclosure Electronic License including 1 year of 24x7 Technical Support and Updates T9094AAE

NOTE: This part number can be purchased as a single license or as multiple licenses with a single activation key. Customer will receive a license entitlement certificate via e-mail. The license entitlement certificate must be redeemed online or via fax to obtain the license activation key(s). Electronic LTUs are only available through limited points of sales; if not available, order a printed license entitlement certificate (xxxxx-B2x).

HP Virtual Connect Enterprise Manager for BL-c3000, No Media, 1-Enclosure License including 1 year of 24x7 Technical Support and Updates 459867-B21

NOTE: Allows 1 BL-c3000 enclosure to be managed with VCEM. Customer will receive a printed license entitlement certificate via physical shipment. The license entitlement certificate must be redeemed online or via fax to obtain the license activation key(s).

HP Virtual Connect Enterprise Manager for BL-c3000, No Media, Flexible-Quantity Enclosure License including 1 year of 24x7 Technical Support and Updates 459868-B21

NOTE: Allows multiple BL-c3000 enclosures to be managed with VCEM using a

Overview

single license key. Customer specifies / orders the number of enclosure licenses to be covered by the flexible-quantity key and will receive a single printed license entitlement certificate via physical shipment. The license entitlement certificate must be redeemed online or via fax to obtain the license activation key(s).

HP Virtual Connect Enterprise Manager for BL-c3000, No Media, 1-Enclosure Tracking License including 1 year of 24x7 Technical Support and Updates 459869-B21

NOTE: For use with signed and implemented Activation Key Agreements (AKA) only. Purchase of this part number entitles the customer to deploy additional licenses of the product under the terms of the existing Activation Key Agreement. No physical components or license keys are delivered in conjunction with the purchase of this part number. For more information on Activation Key Agreements please visit:

<http://h18004.www1.hp.com/products/servers/proliantessentials/license/akalic.html>

HP Virtual Connect Enterprise Manager for BL-c3000 1-Enclosure Electronic License including 1 year of 24x7 Technical Support and Updates T9095AAE

NOTE: This part number can be purchased as a single license or as multiple licenses with a single activation key. Customer will receive a license entitlement certificate via e-mail. The license entitlement certificate must be redeemed online or via fax to obtain the license activation key(s). Electronic LTUs are only available through limited points of sales; if not available, order a printed license entitlement certificate (xxxxx-B2x)

HP Virtual Connect Flex-10 10Gb Enterprise Edition for BL-c7000, No Media, 1-Enclosure License including 1 year of 24x7 Technical Support and Updates 591973-B21

NOTE: Includes 2 x HP Virtual Connect Flex-10 10Gb Ethernet modules plus 1 x VCEM BL-c7000 enclosure license. Customer will receive a printed license entitlement certificate and 2 Virtual Connect modules as a single deliverable. The license entitlement certificate must be redeemed online or via fax to obtain the VCEM license activation key.

Standard Features

Licensing and Packaging **NOTE:** Virtual Connect Enterprise Manager is licensed per BladeSystem c-Class enclosure. One VCEM license is required for every BL-c3000 or BL-c7000 enclosure to be managed by Virtual Connect Enterprise Manager. Licenses are non-transferable. Full details are contained in the End User License Agreement. Licenses are additive such that you can combine multiple licenses together for the total number of BladeSystem c-Class enclosure licenses you have purchased.

For each purchased license, a license entitlement certificate will be delivered. The license entitlement certificate contains information needed to redeem license activation key(s) online or via fax. This electronic redemption process enables easy license management and service and support tracking. For more information, please visit: <http://www.hp.com/go/ICe-license>.

All Virtual Connect Enterprise Manager licenses include one year of 24 x 7 HP Software Technical Support and Update Service ensuring rapid access to HP support staff and proactive delivery of software updates. For more information about this service visit: <http://www.hp.com/services/insight>.

Virtual Connect Enterprise Manager is included on the Insight Software media kit that ships with every BladeSystem c-Class enclosure. The latest media kit can also be downloaded or purchased as physical media from: <http://www.hp.com/go/ice>

NOTE: VCEM v6.0 is delivered on HP Insight Software media v6.0 provided with HP BladeSystem c-Class enclosures or downloaded from: <http://www.hp.com/go/vcem>. VCEM v6.0 can be applied as a new installation or an update to existing installations of VCEM v1.20, v1.30 or v1.40.

NOTE: VCEM v6.0 directly supersedes VCEM v1.40. The current version number represents alignment and compatibility with other products delivered on HP Insight Software media v6.0.

For more information and resources related to Virtual Connect Enterprise Manager visit: <http://www.hp.com/go/vcem>

For more information and resources related to Virtual Connect technology visit: <http://www.hp.com/go/ bladesystem/virtualconnect>

Virtual Connect Enterprise Manager Benefits

- Centrally manage network connections and workloads for thousands of HP server blades
- The VCEM central address repository enables more efficient administration of LAN and SAN assignments (MAC and WWN) and eliminates the risk of conflicts
- Group-based management of Virtual Connect domains increases infrastructure consistency, simplifies deployments, and enables rapid change management across hundreds of HP BladeSystem enclosures
- Add, change, and replace servers across the data center in minutes when your business needs to without impacting production LANs and SANs
- Reduce the costs and time to deploy and maintain server connections to production networks
- Increase productivity and server-to-administrator ratios
- Release LAN and SAN administrators from routine server-centric tasks
- Scalable across small and large data centers

Standard Features

Key Product Features

- Single intuitive console controls up to 250 Virtual Connect domains (1,000 BladeSystem enclosures and 16,000 server blades when used with Virtual Connect multi-enclosure domain configurations)
- Central repository administers a total of 256K Media Access Control (MAC) addresses and Worldwide Names (WWNs)
- Group-based management of Virtual Connect domains using master configuration profiles increases infrastructure consistency, simplifies new/bare metal enclosure deployment, and enables configuration changes to be pushed to multiple Virtual Connect domains
- Scripted and manual movement of server connection profiles and workloads between Virtual Connect domains that belong to the same Domain Group
- Automated failover of connection profiles and workloads to customer-defined spare servers
- Integrates seamlessly and extends existing Virtual Connect infrastructures - discovers and aggregates Virtual Connect domain resources into a central console
- Licensed per c-Class enclosure - simplifies deployment and provides support readiness for current and future releases of HP blade servers and Virtual Connect hardware

Service and Support, HP Care Pack, and Warranty Information

Warranty HP will replace defective delivery media for a period of 90 days following the date of purchase.

Software Support HP offers a number of software support services, many of which are provided to customers at no additional charge.

Software Technical Support and Update Service

HP Virtual Connect Enterprise Manager include one year of 24 x 7 HP Software Technical Support and Update Service. This service provides access to HP technical resources for assistance in resolving software implementation or operations problems. The service also provides access to software updates and reference manuals either in electronic form or on physical media as they are made available from HP. With this service, customers will benefit from expedited problem resolution plus proactive notification and delivery of software updates. For more information about this service, see:

<http://www.hp.com/services/insight>.

Registration for Software Technical Support and Update Service

Upon online redemption of your license certificate/key, HP will process your support registration. A service contract will be created for you and you will receive a Service Agreement Identifier (SAID).

How to Use Your Software Technical Support and Update Service

Once registered, you will receive a service contract in the mail containing the Customer Service phone number and your Service Agreement Identifier (SAID). In order to receive the software updates that you are entitled to, you will need to use your SAID and access the Software Update Manager (SUM) at the HP IT Resource Center (ITRC) home page: www.itrc.hp.com.

You will need your SAID when calling for technical support. Using your SAID, you can also go to the Software Update Manager (SUM) web page to view your contract online and elect electronic delivery for your updates.

Join the Discussion

The HP Support Forum is a community-based, user-supported tool for HP customers to participate in discussions amongst the customer community about HP products. For discussions related to Insight Control and ProLiant Essentials software, see the "Management Software and System Tools" area.

Software and Drivers Download Pages

Provides latest software and drivers for your ProLiant products.

Management Security (<http://www.hp.com/servers/manage/security>)

HP is proactive in its approach to the quality and security of all its management software. Be sure to check this website often for the latest downloadable security updates.

HP Worldwide Customer Service contact numbers are available at:

<http://www.hp.com/country/us/en/wwcontact.html>.

For U.S. customers, say "Insight Manager" when prompted for the product name.

Technical Specifications

Host system requirements	Hardware	At least 1.6 GHz (2 GHz recommended) At least 2 GB RAM (4 GB recommended) At least 10 GB available hard disk space
	Operating system	Microsoft Windows Server 2003 Standard and Enterprise Editions SP2 (32-bit only) Microsoft Windows Server 2003 R2, Standard and Enterprise Editions SP2 (32-bit only) Microsoft Windows Server 2008 Standard and Enterprise Editions (32-bit and 64-bit native modes) VMware ESX v3.x and v4.x (VCEM installed on a virtual machine running Microsoft Windows Server 2003 or 2008)

NOTE: For more details about VCEM installation and operations requirements, refer to the VCEM User Guide at: <http://www.hp.com/go/vcem>

Operating System Components

Services

NET 2.0 Framework
NET 3.0 Framework
Simple Network Management Protocol (SNMP)
TCP/IP with DNS

Database

Microsoft SQL Server 2008
Microsoft SQL Server 2005 SP2
Microsoft SQL Server 2005 Express Edition SP2 *
Microsoft SQL Server 2005 Express SP2 installed by default

Applications

HP Systems Insight Manager v6.0 or higher
Mozilla Firefox 2.0 or 3.0
Microsoft Internet Explorer v6.0 SP2
Microsoft Internet Explorer v7.0
Microsoft Internet Explorer v8.0
NOTE: Not recommended. The hardware-based Virtual Connect Manager (VCM) does not yet support IE v8.0. VCEM maintenance operations that directly access VCM will not work
Adobe® Acrobat® Reader

Supported HP ProLiant and Integrity BladeSystem c-Class servers as target/managed servers

HP ProLiant BL260c
HP ProLiant BL2x220c
HP ProLiant BL460c
HP ProLiant BL465c
HP ProLiant BL480c
HP ProLiant BL495c
HP ProLiant BL680c
HP ProLiant BL685c
HP ProLiant xw460c Blade Workstation
HP Integrity BL860c
HP Integrity BL870c

NOTE: Some servers listed above may be discontinued.

Technical Specifications

Virtual Connect Modules (Firmware v2.00 or higher)	HP Virtual Connect 1/10Gb Ethernet Module
	HP Virtual Connect 1/10Gb-F Ethernet Module
	HP Virtual Connect Flex-10 10Gb Ethernet Module
	HP Virtual Connect 4Gb Fibre Channel Module
	HP Virtual Connect 8Gb 24-port Fibre Channel Module
	HP Virtual Connect 8Gb 20-port Fibre Channel Module

Related Options

Other product information

The following product materials are available on Virtual Connect Enterprise Manager at:

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

Product Datasheet

User Guide

General FAQ

Quick Start Installation Poster

White Papers

HP Virtual Connect For more information on HP Virtual Connect technology visit:

<http://www.hp.com/go/bladesystem/virtualconnect>

HP Insight Dynamics for ProLiant For more information on HP Insight Dynamics for ProLiant visit:

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

HP Systems Insight Manager For more information on HP Systems Insight Manager visit:

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

HP Insight Control suites For more information on HP Insight Control visit:

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

Service and Support Offerings (HP Care Packs)

NOTE: HP offers a number of software support services, many of which are provided to customers at no additional charge.

HP Installation and Startup for HP Virtual Connect Enterprise Manager

UF816E

HP Custom Software Deployment Service

HJ898A1

HP 3 Year 24 x 7 Virtual Connect Enterprise Manager for BL-c3000 Software Support

UH746E

HP 4 Year 24 x 7 Virtual Connect Enterprise Manager for BL-c3000 Software Support

UJ236E

HP 5 Year 24 x 7 Virtual Connect Enterprise Manager for BL-c3000 Software Support

UJ237E

HP 3 Year 24 x 7 Virtual Connect Enterprise Manager for BL-c7000 Software Support

UH747E

HP 4 Year 24 x 7 Virtual Connect Enterprise Manager for BL-c7000 Software Support

UJ238E

HP 5 Year 24 x 7 Virtual Connect Enterprise Manager for BL-c7000 Software Support

UJ239E

Environment-friendly Products and Approach

End-of-life Management and Recycling

Hewlett Packard offers end-of-life HP product return, trade-in, and recycling programs in many geographic areas. For trade-in information, please go to: <http://www.hp.com/go/green>. To recycle your product, please go to: <http://www.hp.com/go/green> or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.

The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: <http://www.hp.com/go/green>. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.

Related Options

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