

Overview

HP Virtual Connect Enterprise Manager (VCEM) provides comprehensive and scalable management platform for Virtual Connect modules. VCEM along with HP Systems Insight Manager (HP SIM) continues to be the clear choice for managing Virtual Connect technologies, HP c-Class enclosures, HP servers and storage being the easiest, simplest way for IT Administrators to maximize time and money.

HP Virtual Connect Enterprise Manager (VCEM) centralizes network connectivity and workload mobility for HP BladeSystem servers that use Virtual Connect to access local area networks (LANs) and storage area networks(SANs), helping organizations to increase productivity, respond faster to workload and infrastructure changes, while reducing operating cost substantially.

Built on the Virtual Connect architecture integrated into every BladeSystem c-Class enclosure, VCEM provides a central console to administer LAN, and SAN address assignments, perform group-based configuration management, initiate rapid deployment, move, and failover of server connections and workloads for up to 250 Virtual Connect domains, 1,000 BladeSystem enclosures and 16,000 server blades. Use Virtual Connect Enterprise Manager in HP BladeSystem environments to complete repetitive key datacenter tasks quickly, reliably, and without disrupting production LANs and SANs.

VCEM enables IT Administrators to:

- Deploy new BladeSystem enclosures, server blades and Virtual Connect Domains
- Perform fast and cost effective server recovery
- Complete planned system maintenance with minimal downtime
- Rapidly migrate and repurpose server blades to meet changing workload and application priorities
- Integrate in-house tools or enhance the required functionality with the VCEM Application Programming Interface (API) and Command Line Interface (CLI)

Together, Virtual Connect and Virtual Connect Enterprise Manager create a change-ready infrastructure that enables System Administrators to add, replace and recover blade servers across the data center in minutes without impacting LAN and SAN availability. This flexible, change ready infrastructure, also provides the foundation for logical server deployment and orchestration delivered with HP's Matrix Operating Environment Software

What's New

HP Virtual Connect Enterprise Manager v7.3 is the latest software version with added new features including:

Features in VCEM 7.3:

- IPv6 Level 3
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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 VCEM license is required for each enclosure to be managed in both single and multi-enclosure domain configurations.

NOTE: Virtual Connect Enterprise Manager licenses work with all versions of VCEM and include one year of 24 x 7 HP Software Technical Support and Update Service, which provides rapid access to HP support staff and proactive delivery of software updates. For more information about this service, please visit:

Overview

<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 Flex-10/10D Module Enterprise Edition for BLc7000 Option 662048-B21

NOTE: Includes 2 x HP Virtual Connect Flex-10/10D 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.

HP Virtual Connect Flex-10 Ethernet Module Enterprise Edition for BLc7000 Option 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.

HP Virtual Connect FlexFabric 10/24 Enterprise Edition BLc7000 Option 605865-B21

NOTE: Includes 2 x HP Virtual Connect FlexFabric 10Gb/24-port 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.

HP Virtual Connect Enterprise Manager including 1yr 24x7 Support Single c7000 Enclosure Lic 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 including 1yr 24x7 Support Flexible Qty c7000 Enclosure Lic 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 including 1yr 24x7 Support Tracking c7000 Enclosure Lic 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 BLc7000 Encl E-LTU w/24x7 Support T9094ABE

NOTE: The Electronic software license is available in EMEA only

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-

Overview

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 (xxxxxx-B2x).

HP Virtual Connect Enterprise Manager including 1yr 24x7 Support Electronic c7000 Enclosure Lic T9094AAE

NOTE: The electronic software license available in North America only.

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 (xxxxxx-B2x).

HP Virtual Connect Enterprise Manager including 1yr 24x7 Support Single c3000 Enclosure Lic 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 including 1yr 24x7 Support Flexible Qty c3000 Enclosure Lic 459868-B21

NOTE: Allows multiple BL-c3000 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 including 1yr 24x7 Support Tracking c3000 Enclosure Lic 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 including 1yr 24x7 Support Electronic c3000 Enclosure Lic T9095ABE

NOTE: The Electronic software license is available in EMEA only.

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 (xxxxxx-B2x).

HP Virtual Connect Enterprise Manager including 1yr 24x7 Support Electronic c3000 Enclosure Lic T9095AAE

NOTE: The Electronic software license available in North America only.

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 (xxxxxx-B2x).

Standard Features

Platform Support

VCEM is supported on most HP BladeSystem c-Class hardware, storage, software, and third party operating platforms. For a full list of supported platforms and components, see Installing and Configuring VCEM please visit: <http://h18013.www1.hp.com/products/servers/management/hpsim/index.html>

Licensing and Packaging

NOTE: Virtual Connect Enterprise Manager is licensed per BladeSystem c-Class enclosure, with separate options for BL-c3000 and BL-c7000- enclosures. A single VCEM license is required per enclosure to be managed in both a single and multi-enclosure domain configurations, and is valid for the life of the associated enclosure.

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 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 in 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 v7.2 is delivered on HP Insight Management media v7.2 provided with HP BladeSystem c-Class enclosures or downloaded from: <http://www.hp.com/go/vcem>.

VCEM v7.2 can be applied as an update to existing installations of VCEM v6.0x, v6.1x, v6.2x, 6.3x, 7.0, or 7.1.x. For details, refer to the installing and configuring VCEM section in HP Virtual Connect Enterprise Manager user guide.

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 Systems Insight Manager visit: <http://www.hp.com/go/sim>

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

Standard Features

Virtual Connect Enterprise Manager Benefits

- Centrally manage network connections and workloads for thousands of HP BladeSystem server blades
 - The VCEM address repository enables more efficient administration of LAN and SAN assignments (MAC and WWN) and eliminates the risk of address conflict
 - Group-based management of Virtual Connect domains increases infrastructure consistency, and enables rapid change management across multiple enclosures
 - Add, change, and replace servers across the data center in seconds without impacting production networks
 - Reduce the costs and time to deploy and maintain BladeSystem infrastructures.
 - Increase productivity and server-to-administrator ratios
 - Release LAN and SAN administrators from routine server-centric tasks
 - VCEM scales across public and private cloud infrastructures, small and large data centers
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Key Product Features

- Single intuitive console controls up to 250 Virtual Connect domains (designed to support up to 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 configurations 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
- Automated failover of connection profiles and workloads to administrator-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

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.

Related Options

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 & Startup for Virtual Connect Enterprise Manager	UF816E
HP Custom Software Deployment Service	HJ898A1
HP 3 year 24x7 BL c3000 Virtual Connect Enterprise Manager Software Support	UH746E
HP 4 year 24x7 BL c3000 Virtual Control Enterprise Manager Software Support	UJ236E
HP 5 year 24x7 BL c3000 Virtual Control Enterprise Manager Software Support	UJ237E
HP 3 year 24x7 BL c7000 Virtual Connect Enterprise Manager Software Support	UH747E
HP 4 year 24x7 BL c7000 Virtual Control Enterprise Manager Software Support	UJ238E
HP 5 year 24x7 BL c7000 Virtual Control Enterprise Manager Software Support	UJ239E

Technical Specifications

Host system requirements

Hardware

To support Systems Insight Manager and VCEM:

At least 1.6 GHz (2 GHz recommended)
At least 4 GB RAM (4 GB recommended)
At least 10 GB available hard disk space

Operating system

Microsoft Windows Server 2008 Standard and Enterprise Editions SP2 (x64)
Microsoft Windows Server 2008 R2 Standard and Enterprise Edition SP1 (x64)

Hypervisor Guests

(Requires supported Microsoft Windows environment)
Microsoft Windows Server 2008 Hyper-V SP2
Microsoft Windows Server 2008 R2 Hyper-V SP1
Microsoft Hyper-V Server 2008 SP2
Microsoft Hyper-V Server 2008 R2 SP1
VMware ESX 4.0 Update 2
VMware ESX4.0 Update 3
VMware ESX4.1 Update 1
VMware ESX4.1 Update 2
VMware ESX5.0
VMware ESX5.0 Update 1

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 3.0 Framework
Simple Network Management Protocol (SNMP)
TCP/IP with DNS
Microsoft iSCSI Software Initiator 2.06, 2.07 or 2.08
iSCSI 6.0.6001.18000

Database

Microsoft SQL Server 2008 Express Standard or Enterprise SP1
Microsoft SQL Server 2008 Express, Standard or Enterprise SP2
Microsoft SQL Server 2008 R2 Express, Standard or Enterprise

Applications

HP Systems Insight Manager v7.2 or higher
Mozilla Firefox 7.x
Microsoft Internet Explorer v8.0
Microsoft Internet Explorer v9.0
Adobe® Acrobat® Reader

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

HP ProLiant Server Blades:

HP ProLiant BL260c
HP ProLiant BL280c
HP ProLiant BL2x220c
HP ProLiant BL460c
HP ProLiant xw460c Blade Workstation
HP ProLiant BL465c
HP ProLiant BL480c
HP ProLiant BL490c
HP ProLiant BL495c

Technical Specifications

HP ProLiant BL620c
HP ProLiant BL660c
HP ProLiant BL680c
HP ProLiant BL685c
HP ProLiant WS460c

HP Integrity Server Blades:

HP Integrity BL860c
HP Integrity BL860c i2
HP Integrity BL860c i4
HP Integrity BL870c
HP Integrity 870c i2
HP Integrity 870c i4
HP Integrity BL890c i2
HP Integrity BL890c i4

NOTE: Some servers listed above may be discontinued.

NOTE: For the latest information, refer to the VCEM supported servers in the hardware requirements for managed systems of the HP Insight Management Support Matrix document.

<http://h18013.www1.hp.com/products/servers/management/unified/infolibraryis.html>

Virtual Connect Modules

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 Flex-10/10D Module
HP Virtual Connect FlexFabric 10Gb / 24-port 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

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/virtualconnect>

HP Matrix Operating Environment for ProLiant

For more information on HP Matrix Operating Environment for ProLiant visit:

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

HP Systems Insight Manager

For more information on HP Systems Insight Manager visit:

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

HP Insight Control

For more information on HP Insight Control visit:

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

Technical Specifications

**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.

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