Embrace scalable server mobility management at lower cost

HP Virtual Connect Enterprise Manager

Is a change-ready data center environment within your grasp?

In today’s world of infrastructure complexity, IT organizations are constantly under pressure to reduce operational costs and increase productivity. Space constraints add to IT sprawl, along with traditional switch connectivity that is inflexible and hardwired—demanding extensive coordination between the data center server and the network and storage teams. The need really is for technology that is simple and efficient. Businesses today need data centers where servers can be added, modified, and recovered within minutes, not hours. They need an environment that provides seamless server connectivity, reduced costs, and increased output. HP Virtual Connect can help you do all this and much more.

HP Virtual Connect Enterprise Manager (VCEM), a single-pane-of-glass management platform, centralizes connection management and workload mobility for HP BladeSystem server blades that use HP Virtual Connect to control access to LANs, SANs, and converged network infrastructures. VCEM helps organizations increase productivity, respond faster to infrastructure and workload changes, and reduce operating costs. This enterprise management platform manages Virtual Connect modules, creates a scalable management system for data centers that need streamlined, cost-effective IT organizations. Now, with a single console, you can manage workloads flexibly across thousands of server blades on your BladeSystem environment with minimal downtime when compared to a non VCEM environment. VCEM saves time by leveraging spare blades and moving new profiles to spare blades.

If you work with more than one rack of HP BladeSystem c-Class enclosures, incorporating VCEM from the very beginning allows you to reap the benefits offered for a bare metal enclosure deployment and a simplified infrastructure build out. Built on the HP Virtual Connect architecture, VCEM provides a central console to administer server personality—LAN and SAN address assignments, and boot paths. It facilitates group-based configuration management, and can rapidly deploy, move, and failover servers for up to 250 Virtual Connect domains (1,000 BladeSystem enclosures and 16,000 servers).

With the VCEM for BladeSystem environments, you can quickly and reliably complete tasks across the data center, such as:

- Adding new Virtual Connect domains, blade servers, and BladeSystem enclosures
- Modifying multiple enclosure configurations
- Recovering problematic servers and their workloads to spare blades
- Performing more efficient system maintenance
- Migrating and repurposing servers to address changing workload requirements quickly
- Administering LAN and SAN addresses more efficiently and avoiding costly duplications
- Defining configurations for groups of Virtual Connect domains
- Reducing repetitive, labor-intensive tasks
- Responding faster to changing workload needs across the data center

Together, Virtual Connect and VCEM create a change-ready infrastructure that enables system administrators to add, replace, and recover servers across the data center without impacting network configurations and availability.

Simplifies management

- Administers 256K addresses—128K media access control (MAC) addresses, and 128K Worldwide Names (WWN) addresses from Virtual Connect with central repository
- Enables management of thousands of server connections and centralizes connectivity, with one console
- Manages network connections and workload mobility for 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), simplifies deployment, and reduces configuration errors for Virtual Connect domains, HP BladeSystem enclosures, and server blades
- Provides smooth deployment, movement, and failover server connections and workloads across the data center very quickly
- Avoids address conflicts with the creation of customer address ranges and exclusion zone definitions; protects selected addresses or prevents address overlaps if more than one VCEM instance is used in a large environment
- Supports multiple access roles for isolation and role-based domain management and access control
- Displays all completed activities, as well as those in progress, on the summary screen
- Integrates as a component of HP Systems Insight Manager (SIM), allowing seamless infrastructure orchestration, and server lifecycle and hardware management
Key features and benefits

Virtual Connect Enterprise Manager

**Key features and benefits**

- **Reduces costs and increases productivity in multiple environments**
  - Automates profile failover to a server in the spare pool with System Insight Manager integration, whenever there is a critical event from a server
  - Reduces unnecessary and disruptive production downtime, by temporarily moving server workloads to alternate enclosures/bays during server maintenance. Responds faster to change, reducing time, costs, and risks
  - Enhances scalability and multi-tenancy for a Cloud Computing environment
  - Renders quick movement of blade server profiles between enclosures, within or between Virtual Connect Domain Groups
  - Repurposes servers to meet changing business and application priorities
  - Automates multiple module operations with command-line interface (CLI) and Application Programming Interface (API) for tighter integration

- **Enables flexibility and time to value**
  - Simplifies the server deployment or movement with per enclosure licensing, thereby avoiding the need to assign license to new servers
  - Removes complexities, automates repetitive tasks, and avoids configuration errors
  - Enables addition of new or bare metal enclosures and configures Virtual Connect domains quickly by assigning to a domain group
  - Assigns a set of enclosures (Virtual Connect domain group) to a particular employee group or application category and maintain consistent configuration
VCEM license options
All license options for VCEM include one year of service and support.

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Technical specifications

**Hardware**
To support HP SIM 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

**Operating system components**

- **Services**
  - .NET 3.0 Framework
  - SNMP
  - TCP/IP with DNS
  - Microsoft iSCSI Software Initiator
- **Database**
  - Microsoft SQL Server 2008 Express Standard
  - Microsoft SQL Server 2008 Express, Standard or Enterprise
- **Applications**
  - HP Systems Insight Manager 7.1 V6.3 or higher
  - Mozilla Firefox 7.x
  - Microsoft Internet Explorer v8.0
  - Microsoft Internet Explorer v9.0
  - Adobe® Acrobat® Reader

**Supported servers**
HP ProLiant server blades:
- HP ProLiant BL260c
- HP ProLiant BL280c
- HP ProLiant BL2x220c
- HP ProLiant BL460c
- HP ProLiant BL465c
- HP ProLiant BL466c

HP ProLiant xw460c Blade Workstation
HP ProLiant BL465c

For the latest supported servers information, please refer to the support matrix document in the following web page:

**Supported HP Virtual Connect Modules**
HP Virtual Connect Flex-10 10Gb Ethernet Module
HP Virtual Connect Flex-10/10D Module—Product availability; 2nd half of CY2012
HP Virtual Connect FlexFabric 10Gb/24-port Module
HP Virtual Connect 8Gb 24-port Fibre Channel Module
HP Virtual Connect 8Gb 20-port Fibre Channel Module

**QuickSpecs**

**Warranty**
HP replaces defective delivery media for a period of 90 days following the date of purchase. Visit: hp.com/go/vcem
Ideal environment

HP VCEM is ideal for:

- Organizations with multiple BladeSystem enclosures and Virtual Connect domains can use HP VCEM for quick completion of tasks across the data center
- Organizations with multiple remote locations can use the domain grouping capabilities to centralize infrastructure management and reduce travel costs
- Organizations with dynamic environments where server resources are regularly repurposed to meet changing workload requirements can use VCEM domain grouping and extensive profile movement capabilities

HP Factory Express

HP Factory Express provides customization and deployment services along with your storage and server purchases. You can customize hardware to your exact specifications in the factory helping to speed deployment. Visit [hp.com/go/factoryexpress](http://hp.com/go/factoryexpress).

Customer technical training

We offer a variety of training courses on storage software, networking, archiving, and disk storage systems. Our classes are available in many delivery modalities—from traditional instructor-led courses at one of our 80 training centers worldwide to online and/or onsite training. Visit [hp.com/learn/storage](http://hp.com/learn/storage).

HP Services

HP VCEM includes one year of 24x7 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 in electronic form as they are made available from HP.

You can now benefit from an expedited problem resolution experience plus proactive notification and delivery of software updates. A VCEM Installation & Startup Service is available to get customers configured and up and running.

For more information about this service, visit [hp.com/go/vcem](http://hp.com/go/vcem).

HP Financial Services

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Learn More

Discover centralized server management, and get started on creating a change-ready data center that is right for you. Visit [hp.com/go/vcem](http://hp.com/go/vcem).