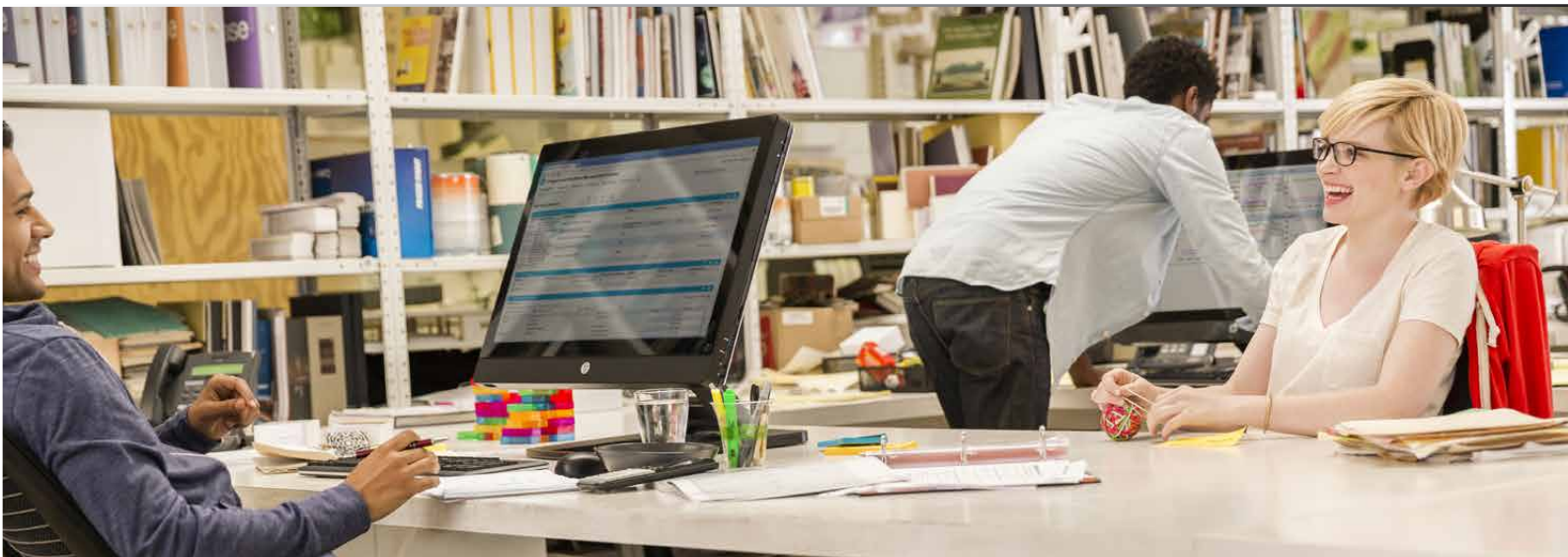


HPE Virtual Connect Enterprise Manager

Embrace scalable server mobility
management at lower cost



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. HPE Virtual Connect can help you do all this and much more.

HPE Virtual Connect Enterprise Manager (VCEM), a single-pane-of-glass management platform, centralizes connection management and workload mobility for HPE BladeSystem server blades that use HPE 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 HPE 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 HPE 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 (WWNs) 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, HPE 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 HPE Systems Insight Manager (SIM), allowing seamless infrastructure orchestration, and server lifecycle and hardware management

Key features and benefits

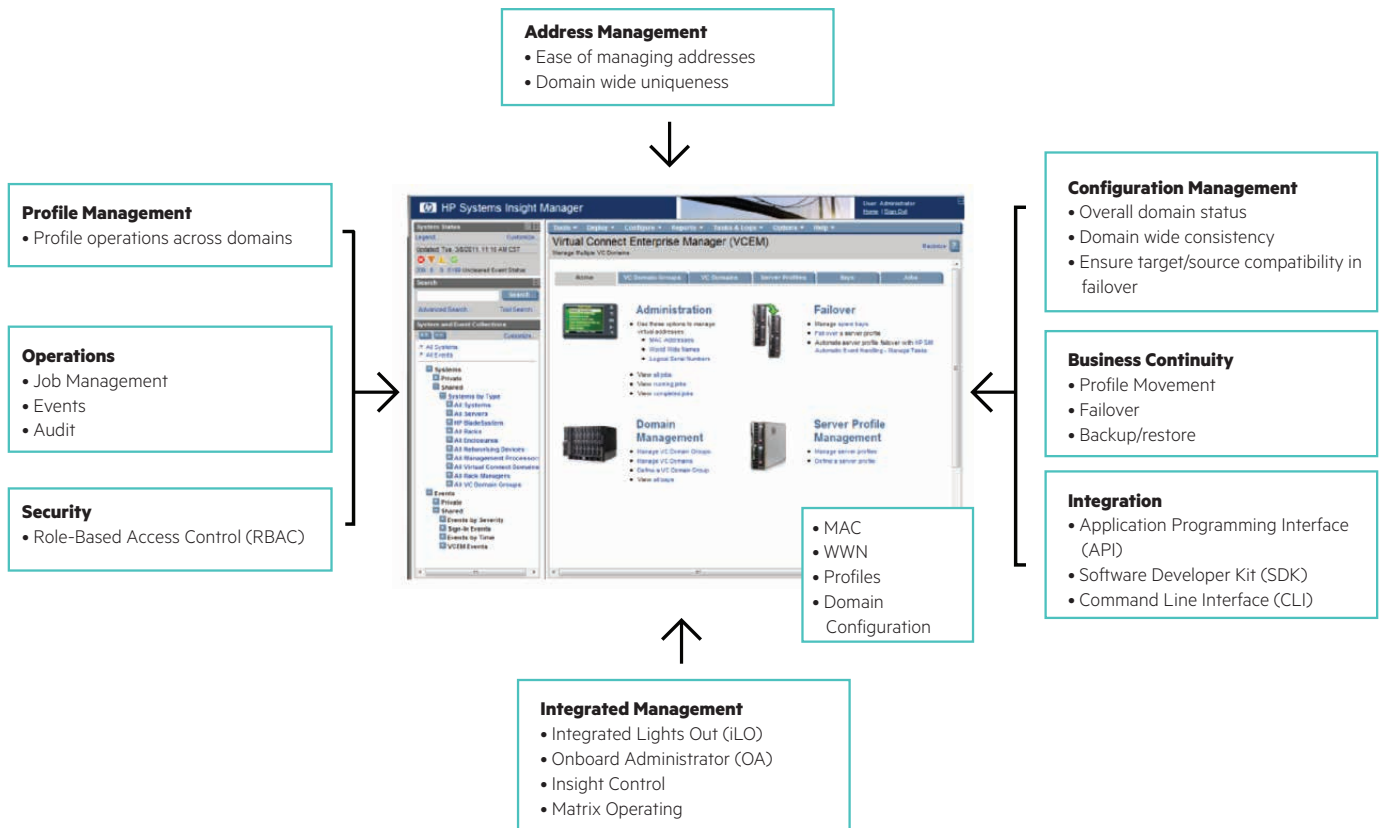


Figure 1. Virtual Connect Enterprise Manager

Reduces costs and increases productivity in multiple environments

- Automates profile failover to a server in the spare pool with Systems 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 CLI and API for tighter integration

Catalyst for agile environment



- Domain Configurations
- Server Profiles

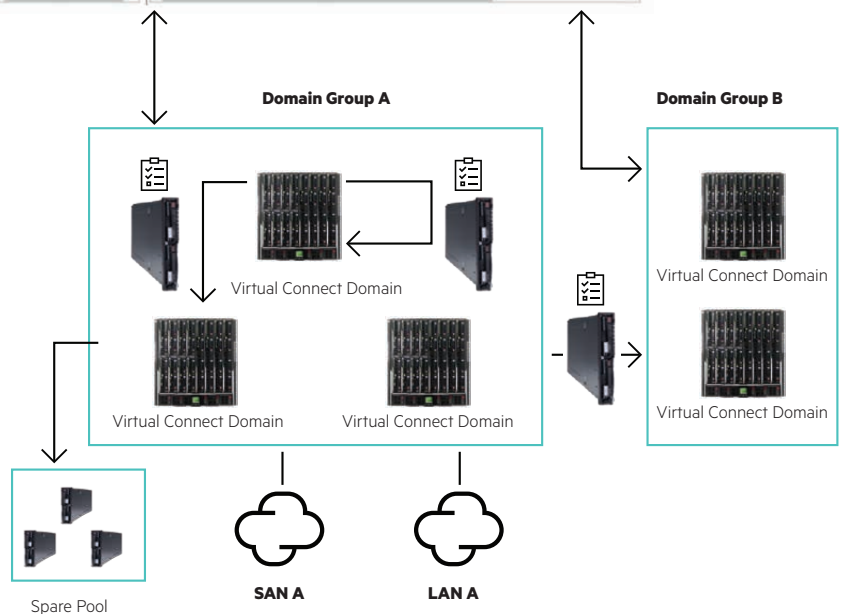


Figure 2. VCEM Server Profile Movement

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.

SKU number	Description
Combination SKUs	
605865-B21	HPE Virtual Connect FlexFabric 10Gb/24-port Enterprise Edition for BLc7000 Includes 2 x HPE Virtual Connect FlexFabric modules and 1 x VCEM license for c7000
662048-B21	HPE Virtual Connect Flex-10/10D Enterprise Edition for BLc7000 Includes 2 x HPE Virtual Connect Flex-10/10D Ethernet Modules and 1 x VCEM license for c7000
A-la-carte SKUs	
459864-B21	HPE VCEM BLc7000 Nm 1-encl Lic
459865-B21	HPE VCEM BLc7000 Nm Flex Qty Encl Lic
459866-B21	HPE VCEM BLc7000 Nm Tracking Encl Lic
T9094ABE	HPE VCEM BLc7000 Encl E-LTU 24x7 Support
459867-B21	HPE VCEM BLc3000 Nm 1-encl Lic
459868-B21	HPE VCEM BLc3000 Nm Flex Qty Encl Lic
459869-B21	HPE VCEM BLc3000 Nm Tracking Encl Lic
T9095ABE	HPE VCEM BLc3000 Encl E-LTU 24x7 Support

Technical specifications

Hardware	To support HPE SIM and VCEM: At least 1.6 GHz (2 GHz recommended) At least 8 GB RAM (16 GB recommended) At least 18 GB available hard disk space		
Operating system	Microsoft® Windows Server® 2012 R2 Standard and Data Center Edition Microsoft Windows Server 2012 Standard and Data Center Edition 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 2012 R2 with Hyper-V Microsoft Windows Server 2008 Hyper-V SP2 Microsoft Windows Server 2008 R2 Hyper-V SP1	Microsoft Hyper-V Server 2012 Microsoft Hyper-V Server 2008 SP2 Microsoft Hyper-V Server 2008 R2 SP1 VMware ESX® 4.0 Update 4 VMware ESX 4.1 Update 2, 3 VMware ESX 5.0 Update 1, 2, 3	VMware ESXi® 5.1 Update 1, 2 VMware ESXi 5.5 VMware ESXi 5.5 Update 1, 2
Operating system components	Services NET 3.0 Framework 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 SP4 Microsoft SQL Server 2012 Standard/ Express/Enterprise/Business Intelligence/Web SP1 Oracle 11g Enterprise Edition Release 2	Applications HPE Systems Insight Manager 7.1 v6.3 or higher Mozilla Firefox 24 ESR Microsoft Internet Explorer v8.0, v9.0, v10.0, v11.0 Google™ Chrome v3x.x.x Adobe® Acrobat® Reader
	For the latest managed host specifications, please refer to the support matrix document in the reference section of the following webpage: hpe.com/info/insightmanagement/docs		
Supported servers	HPE ProLiant server blades: HPE ProLiant BL260c HPE ProLiant BL280c HPE ProLiant BL2x220c HPE ProLiant BL420c HPE ProLiant BL460c HPE ProLiant xw460c Blade Workstation HPE ProLiant BL465c	HPE ProLiant BL480c HPE ProLiant BL490c HPE ProLiant BL495c HPE ProLiant BL620c HPE ProLiant BL680c HPE ProLiant BL685c HPE ProLiant WS460c	HPE Integrity server blades: HPE Integrity BL860c HPE Integrity BL860c i2 HPE Integrity BL870c HPE Integrity BL870c i2 HPE Integrity BL890c i2
	For the latest supported server information, please refer to the support matrix document in the reference section of the following webpage: hpe.com/info/insightmanagement/docs		
Supported HPE Virtual Connect Modules	HPE Virtual Connect Flex-10 10Gb Ethernet Module HPE Virtual Connect Flex-10/10D Module HPE Virtual Connect FlexFabric 10Gb/24-port Module HPE Virtual Connect FlexFabric-20/40 F8 Module HPE Virtual Connect 8 Gb 24-port Fibre Channel Module HPE Virtual Connect 16 Gb 24-port Fibre Channel Module HPE Virtual Connect 8 Gb 20-port Fibre Channel Module		
QuickSpecs	hpe.com/info/vcem		
Warranty	HPE replaces defective delivery media for a period of 90 days following the date of purchase.		



Customize your IT lifecycle management, from acquisition of new IT, management of existing assets, and removal of unneeded equipment. [hpe.com/solutions/hpefinancialservices](https://www.hpe.com/solutions/hpefinancialservices)

Ideal environment

HPE VCEM is ideal for:

- Organizations with multiple BladeSystem enclosures and Virtual Connect domains can use HPE 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

Customer technical training

Gain the skills you need with ExpertOne training and certification from HPE. With HPE ProLiant, training, you will accelerate your technology transition, improve operational performance, and get the best return on your HPE investment. Our training is available when and where you need it, through flexible delivery options and a global training capability. [h10076.www1.hpe.com/education/curr-proliant.htm](https://www1.hpe.com/education/curr-proliant.htm)



HPE Services

HPE VCEM includes one year of 24x7 HPE Software Technical Support and Update Service. This service provides access to HPE 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 HPE.

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

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