



## HP教育訓練中心課程簡介

HP Virtual Connect (HK758S)

課程涵蓋Virtual Connect與HP ProLiant BL c-Class BladeSystem的整合技術，包括Virtual Connect Ethernet乙太網路模組以及Fibre Channel光纖通道模組的設定與使用。課程包含模擬現實情況的實作練習。

### 適合對象

規劃和管理HP ProLiant BladeSystem c-Class網路連線與刀鋒型伺服器設定的管理人員, 工程師與諮詢顧問

### 先修課程

- Completion of HP BladeSystem Administration (HE646S)

### 課程目標

At the conclusion of this course, you should be able to:

- Identify the HP BladeSystem Virtual Connect Ethernet, Fibre Channel, and Flex-Fabric modules
- Access and manage the VC Manager through the CLI and GUI interfaces.
- Configure a VC Domain (including profiles, networks, and storage connectivity).
- Plan and complete firmware updates.

### 課程效益

- Gain the ability to perform successful site planning and infrastructure design needed to deploy an HP Virtual Connect solution.
- Understand the various product and firmware versions required in the solution.

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- Comprehensive curriculum of job-specific training leading to vendor certification
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<b>Course title:</b>	HP Virtual Connect
<b>HP product number:</b>	HK758S
<b>Category/Subcategory:</b>	ProLiant
<b>Course length:</b>	3 days
<b>Level:</b>	Advanced
<b>To order:</b>	To review course schedules and to register for a course, visit <a href="http://www.hp.com.tw/education">http://www.hp.com.tw/education</a>

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- Streamlined purchase and management of training with HP Care Pack Services for Education

## 進階課程

- HP OneView Administration (H4C04S)
- HP ConvergedSystem Administration (H7H03S)

## 課程大綱

### Module 1: Virtual Connect overview

- Review recent Firmware releases
- Access Virtual Connect documents and support.
- Introduce the current Virtual Connect modules.
- Outline Virtual Connect default behaviors.
- Review the c-Class management signal paths and stacking link requirements.
- Explain fundamental Virtual Connect technologies.
- Introduce Virtual Connect as a Layer2 bridge.
- Introduce common Virtual Connect terms.

### Module 2: The Virtual Connect Manager

- List basic requirements for accessing and managing Virtual Connect functionality.
- Configure Virtual Connect Manager Local User accounts.
- Explain Virtual Connect Logical Flow for an Initial Setup.
- Investigate Virtual Connect Failover and Configuration Backup.
- Review Administrator Password Recovery

### Module 3: HP Virtual Connect Ethernet

- Investigate the current Virtual Connect Ethernet modules.
- Understand and identify primary/secondary module placement.
- Recognize uplink port status error conditions.
- Introduce the Ethernet concepts and protocols used with Virtual Connect.
- Introduce the concept of Physical Functions (FlexNICs).
- Introduce VLAN tagging and addressing.
- Discuss Teaming and Bonding modes with Virtual Connect.
- An appendix addresses FlexFabric-20/40 F8 cabling and older hardware.

### Module 4: HP Virtual Connect Fibre Channel

- Identify Virtual Connect Fibre Channel modules and function.
- Understand NPIV and why HP uses this technology.
- Review the Fibre Channel Logon sequence (FLOGI).
- Investigate Virtual Connect Fibre Channel login distribution and re-distribution.

### Module 5: The Virtual Connect FlexFabric Technology

- Detail the FlexFabric modules, adapters, and FCoE capabilities.
- Describe VSAN support and configuration.
- Introduce Virtual Connect to 3PAR SAN connectivity.

### Module 6: HP Virtual Connect vNets

- Outline the Virtual Connect ports.
- Investigate Virtual Connect Networking definitions and terminology.
- Configure vNets and VLANs.
- Investigate Advanced Virtual Connect VLAN tagging.
- Describe the Tunneling and Mapping Modes.
- Outline the Link Layer Discovery role in Virtual Connect.
- Introduce Link Aggregation Control Protocol
- Demonstrate basic Virtual Connect Ethernet networks.
- Compare Active/Standby and Active/Active network designs.

### Module 7: The Virtual Connect Profile

- Outline Virtual Connect Flex-Port Assignments.
- Explore Virtual Connect Bandwidth Allocation.
- Investigate profile inheritance, and migration.
- Manage and configure profiles.
- Use the CLI Pool-Specified function to capture MAC and WWN addresses.
- Implement the ProLiant Gen9 UEFI Boot Options.

### Module 8: HP Virtual Connect Manager Advanced Features

- Build Multi-Enclosure Domains.
- Investigate partially stacked Domains
- Configure Native VLANs.
- Explain the role of SmartLink.
- Monitor Virtual Connect from an external utility.
- Introduce and configure the Federal Information Processing Standard 140-2
- Understand Network Loop Detection technologies embedded in Virtual Connect.

### Module 9: Advanced Virtual Connect Networking for the System Administrator

- Review LACP.
- Implement Load Balancing.
- Introduce Pause / Flood Protection
- Configure Flow Control.
- Understand sFlow.
- Deploy IPv6 Management Support.
- Advanced Bandwidth Optimization.
- Setup Priority Queue (QoS).
- Review TACACS+ / RADIUS configuration.
- Implement Multicast Filtering.
- Review SNMPv3 enhancements and MIB support.

### Module 10: HP Firmware Best Practices

- Describe the recent Virtual Connect Firmware enhancements and dependencies.
- Review the HP Service Pack for ProLiant and Smart Update Manager.

- Deploy Virtual Connect Firmware with Smart Update Manager.
- Use the Virtual Connect Support Utility.
- Update Virtual Connect Firmware with Virtual Connect Enterprise Manager in place

#### **Lab 1: Access the Virtual Connect Manager and establish the Virtual Connect Domain**

#### **Lab 2: Basic Virtual Connect Manager Setup**

#### **Lab 3: Advanced VC Setup**

#### **Lab 4: Using the Virtual Connect Manager CLI**

#### **Appendix A: The HP Virtual Connect Enterprise Manager**

- Feature overview
- Configuration and install options.
- Domain groups.
- Profile migration.
- Firmware Updates.

### **更多訊息**

歡迎上網查詢HP教育訓練中心所有課程相關訊息及活動請造訪: <http://www.hp.com.tw/education>

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