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## EMC VCE Vblock Systems Administration and Management

**Duration: 5 Days**    **Course Code: EMCVBAM**

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### Overview:

This course provides an introduction to the administration and management of a Vblock System.

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### Target Audience:

This course is intended for anyone charged with understanding and/or performing administrative and maintenance tasks using the Vblock system.

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### Objectives:

- Understand the main elements of Administration and Management
  - Develop a working understanding of the Vblock system as it pertains to:
    - o Validation
    - o Monitoring
    - o Administration
    - o Management
    - o Security
  - Perform resource isolation for simulated multi-tenant environments
  - Explain the steps for configuring monitoring and alert setup including thresholding
  - Build a Vblock System Run Book by walking through each of the component management interfaces.
  - Inventory current Vblock system configuration
  - Enact role based security
  - Understand and explore VCE Vision
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### Prerequisites:

Prerequisite Knowledge To understand the content and successfully complete of this course, a participant must have a suitable knowledgebase/skill set in datacenter disciplines of storage, network and server virtualization.

Completion of the VCE Converged Infrastructure Solutions Foundations eLearning course is strongly recommended

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## Content:

### LAB 1. Capturing the Vblock System Configuration Baseline

- Establish a Vblock System Configuration Baseline
- UCS Manager GUI: Capture Compute Resource Configuration
- UCS Manager CLI: Capture Compute Resource Configuration
- EMC Unisphere for VNX: Capture VNX Storage Configuration Information
- Navisphere CLI: Capture VNX Storage Configuration using
- Solutions Enabler CLI: Capture VMAX Storage Configuration (Optional)
- NX-OS CLI for MDS Switch: Capture Storage Area Network (SAN) Configuration
- NX-OS CLI for Nexus 5548: Capture Network Configuration
- vSphere Web Client: Explore vCenter Configuration
- Collecting Support Information with VCE Vision and vSphere

### LAB 2. VCE Vision: Administration

- VCE Vision Intelligent Operations Utilization
- Vision System Library Administration

### LAB 3. VCE Vision Plug-in for vCenter

- Install VCE Vision Plug-in for vCenter

### LAB 4. Additional UCS Configuration Options

- Modifying the time zone setting using UCS Manager
- Adding a network time protocol server using UCS Manager

### LAB 5. Monitoring for Component Errors or Failures

- Vblock System Events
- Log Browser
- UCS Fault Detection
- Storage Alerts

### LAB 6. Vblock System Assurance

- Running Compliance Scans
- Installing New Certification Matrixes
- Installing Optional components in a Compliance Scan
- Installing the latest VMware vSphere ESXi 5.1 patch

### LAB 7. Proactive Monitoring

- Validating SNMP Setting within the UCS
- Validating SNMP on the MDS switches
- Validating SNMP on Nexus 5K Switches
- Validating SNMP on VNX
- Validating SNMP trap forwarding in EMC Unisphere
- Configure UCS Threshold Policies
- Syslog Management
- Using VCE Vision SNMP in Network Management Systems
- Testing System Library Configuration

### LAB 8. Service Profile Templates and Service Profiles

- Modifying an Initial Service Profile Template
- Modifying the Service Profile by Bind to an Initial Service Profile Template
- Cloning a Service Profile to an Updating Service Profile Template
- Modifying an Updating Service Profile Template and the Bound Service Profile

### LAB 9. UCS Manager: Expanding Address and ID Pools

- UUID Pool
- Expand MAC Address Pool
- Expand WWNN Address Pools
- Expand the WWPN Pool

### LAB 10. Managing Boot Devices and Paths

- MDS NX-OS CLI: WWPN Verification
- UCS Manager: New Boot Policy (VNX)
- Unisphere for VNX: Connecting to VNX Storage - New Initiators
- Unisphere for VNX: Connecting to VNX Storage – Storage Groups
- Unisphere for VNX: Connecting to VNX Storage - Creating a boot LUN

### LAB 11. UCS Manager: Create a Service Profile from Scratch

- Creating a New Service Profile
- Associate a new service profile
- Installing ESX-i
- Restore Original Service Profile

### LAB 12. Deploying Virtual Machines

- Creating a New Datastore
- Provision an Additional LUN
- Create a New Data Store
- Creating a Virtual Machine
- Creating a New VM in vSphere Web Client
- Accessing the VM
- Capacity Management

### LAB 13. Creating NFS Stores

- Configuring advanced settings for VMware vSphere ESXi 5.1
- Configure File System and NFS Exports
- ESXi NFS Configuration
- VM Access to the NFS File System
- Finding the NFS VLAN
- Adding a New Interface To VNX
- Create new network in vSphere
- Create new NIC the Application VM
- Create The NFS Mount on the VM

### LAB 14. Managing CIFS

- Creating a CIFS Server
- Create a Volume
- Creating a File System Pool
- Creating a CIFS file system
- Mount a File System on the CIFS Server in VNX
- Test the CIFS File System on your Management Workstation
- Mount CIFS on VM

### LAB 15. Protecting Vblock System Metadata

- VCE Vision Configuration Backup
- VCE Vision Configuration Restoration
- VCE Vision Interface to Vblock System Configuration
- Backup of UCS Manager
- Backup of the Nexus 5k Switch
- Backup of the MDS Switch

### LAB 16. Protecting Vblock System Production Data

- Protection in Unisphere

### LAB 17. Securing the Vblock System

- Security
- vCenter Password Retention
- VCE Vision Appliance and Central Authorization
- Adjusting Syslog maximum log file size
- Securing a New VLANs with Roles
- Creating a QoS Policy on the Nexus 1000v

### LAB 18. Trusted Multi-tenant in a Vblock System

- Trusted Multi-Tenancy
- Create Admin Account
- Create Sub-Organization
- Segregated Storage
- Create a Segregated Storage Pool on EMC VNX
- Segregate UCS Compute Environment
- Segregate vSphere Access

- VMware Capacity Monitoring
- Monitoring Storage
- Monitor a Storage Pool
- Monitoring a RAID group
- Capacity Expansion
- Expand A Storage Pool
- Expand an Existing LUN
- Expand a Data Store
- Template Creation and Usage
- Creating a VM Template in vSphere Web Client
- Creating a VM from a Template
- Accessing the VM
- VLAN Creation
- Add a VLAN on UCS
- Adding a VLAN to the Cisco Nexus 5000
- Adding a VLAN to the Cisco Nexus 1000V
- Adding the VLAN to VMware Virtual Switch
- Changing the VLAN for the Application VMs

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### Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

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