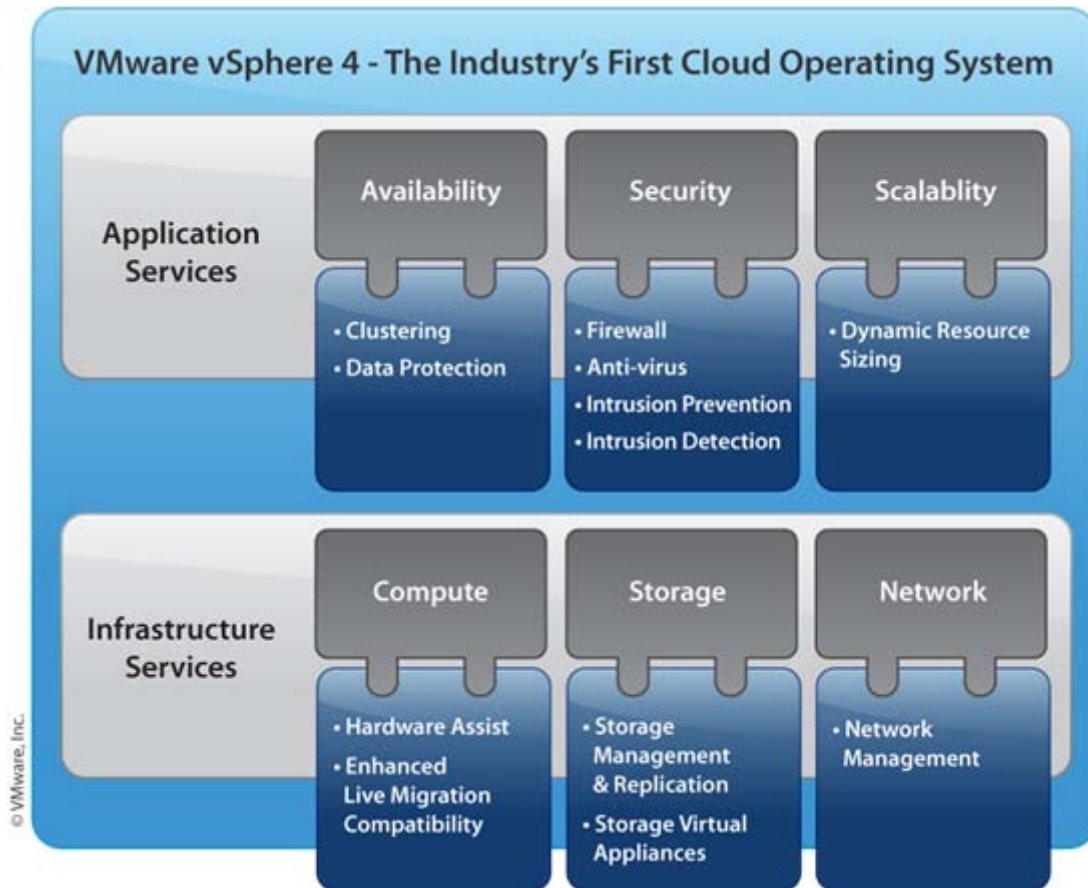




## VMWARE TRAINING - VSPHERE ADMINISTRATION, SECURITY AND ENHANCEMENT

Our **VMware vSphere Administration, Security and Enhancement** class offers an in-depth exploration of advanced vSphere operations and administration. Ideally suited for experienced VMware admins, this class emphasizes "best practice" techniques for maintaining a production VMware vSphere environment.



The class will begin with a pre-configured vCenter server including available Virtual Machine Templates. Each student will then perform a scripted ESX Server installation and deploy and iSCSI SAN.

Students will complete the class with an enhanced knowledge of VMware vSphere administration, security and performance monitoring. All students will have hands-on experience with real servers which will translate directly to their professional environment.

Prerequisites: Our **VMware vSphere Administration, Security and Enhancement** is intended for current VMware admins who have experience with both ESX Server and VirtualCenter/vCenter Server. This class does not cover the specifics of ESX Installation or vCenter installation (Please see our Infrastructure Deployment class), but rather focuses on advanced administration techniques, performance monitoring and the basics of scripting.

In class students will:



- Perform a scripted ESX installation
- Configure ESX and Active Directory
- Implement iSCSI SAN
- Manage storage paths, create VMFS Volumes
- Manage Network Administration, Distributed vSwitches
- Link vCenter Servers
- Implement and test DRS
- Monitor Enterprise Performance
- Implement and test High Availability and Disaster Recovery
- Use VMware Backup tools
- Configure and use Update Management
- Learn Compliance and Remediation
- Create Host Profiles
- Work with Service Console administration
- Use Remote Command Line Interface(s)

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## TOPICS COVERED

- Understanding the environment
  - Network considerations
  - Storage considerations
  - Hardware considerations
  - Active Directory
  - Domain Controller considerations
  - A-Records
- Network Administration
  - Deploy Distributed vSwitches
  - VLAN's
  - Load Balancing
- ESX Storage Administration
  - Deploying a highly available iSCSI SAN
  - SAN Multipathing
  - Partition Alignment
- Linking vCenter Servers for availability or large environments
- DRS Implementation
  - Test DRS Thresholds
  - Monitor DRS operation
  - Implement and Use Distributed Power management
- Performance Monitoring
  - esxtop
  - Performance Charts
  - Performance Monitoring and reporting tools
- Business Continuity
  - HA (High Availability)
  - Snapshots
  - SAN Replication
  - Virtual Machine Data Protection and Backup
    - VMware Consolidated Backup
    - VMware vStorage API for Data Protection
- Compliance and Remediation
  - Regulatory requirements



- DISA STIG's
  - SOX (Sarbanes–Oxley)
  - HIPAA
- Reporting
- Log File Administration
  - vCenter Log file administration
  - ESX Log file administration
- Remediation
  - Using VMware Update Manager
  - Host update management
  - Guest OS update management
- Host Profiles
- Command-line Service Console Administration
  - Create a vSwitch
  - Assign a new physical NIC to vSwitch
  - Commit a snapshot
  - Register a Virtual Machine
  - Diagnose Service Console Connectivity
  - Use vmkfstools to manage Virtual Disks and VMFS Volumes
  - Using fdisk to view partition information
- Remote Console Administration
- VMware vSphere Management Assistant (vMA)
- VMware Power CLI