# VMware vSphere 6, Part 3 of 5: Creation and Management



**Meet the expert:** Jeff has held a broad spectrum of positions within the IT>field for over 30 years. Jeff has owned and operated his own IT business and has installed and supported networks and data centers at almost every level of the IT world. Jeff has recently authored both courseware and exams for Microsoft. For over 15 years, Jeff has worked as a consultant and trainer with a focus on the design of Enterprise Architecture, as well as Windows and VMware networks.

**Prerequisites:** This course assumes that students are familiar with the basic use of Windows and common use of the mouse and keyboard. No prior experience with Office 365 is assumed.

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**Course description:** Welcome to VMware 6 Bootcamp. In this course we get into everything VM. We talk about creating individual as well as multiple VMs and also VM capabilities, snapshots, security, and permissions.

**Course outline:**

**Create a VM**
- Introduction
- VM Virtual Hardware
- Types of Virtual NICs
- Virtual Machine Files
- VMDK Stub File Creation
- VMDK Disk Provisioning
- Virtual Disk
- VM Properties HW v9 via vSphere Web Client
- VM Properties HW v10 and 11 via vSphere Web Client
- Larger than 62 TB Virtual Disks
- AHCI SATA Controller
- Virtual SCSI Controller Type
- Install Guest OS into VM
- VM Console and Menus: VC
- VM Console: Web Client
- VM Remote Console and VMWare Tools
- VMware Tools Version Comparison
- Summary

**Create VM Clones And Virtual Appliances**
- Introduction
- Clones and Templates
- Deploy VM from Template
- Customizing the OS in a Virtual Machine
- Customization Specification Manager
- Content Library - Store Template
- Use Template from Library
- Customize Existing VM
- Deploying Across Datacenters
- Virtual Appliances
- Import Virtual Appliances
- Export VM to OVF Format
- Summary

**vApps and VMware Converter**
- Introduction
- vApp Overview
- Creating and Using vApps
- VMWare Converter 6.0
- VMware Converter 6.0 What's New
- VMware Converter 6.0 Sources
- VMware vCenter Converter 6.0
- Pre-Conversion Tasks
- The Conversion Process
- Post-Conversion Steps
- VMware vCenter Converter 6.0 Standalone
- Troubleshooting VMware Converter
- NetIQ: PlateSpin Migrate 9.3
- Summary

**Manage VMs**
- Introduction
- Hot and Cold VM Migrations
- Hot Add Memory and CPUs
- VM Properties: Hardware Tab
- Adding USB Devices to VM
- VM Properties: Options Tab
- Resize a Virtual Disk
- Extend VDMK, extpart, and gparted
- vOptimizer Pro
- Thin Provisioned Disk Reclamation and sDelete
- VMware GuestReclaim Fling and Raxco PerfectStorage
- Renaming a Virtual Machine
- Summary

**VM Startup and Snapshots**
- Introduction
- Startup and Shutdown
- Enabling VM Startup/Shutdown
- Virtual Machine
- Files Used by Snapshots
- Taking Snapshots and Snapshot Manager
- Reverting to a Snapshot and Deleting Snapshots
- Consolidating Shapshots
- Troubleshooting VM Problems
- Differences Between VMs and Physical Servers
- Summary

**Control Access**
- Introduction
- Types of Users
- ESXi Account Security
- Account Security Configuration and Enhancements
- Lockdown Modes in vSphere 6.0
- vCenter/ESXi Host Security Model
- Granting Permissions
- Roles and Global Permissions
- Privileges Explained
- ESXi Host Permissions and vCenter Permissions
- vCSA Permissions
- Multiple Group Permissions
- User Overrides and Unions
- Explicit vs. Inherited
- Summary

**AD and Managing Firewalls and Security Certs**
- Introduction
- AD-ESX/ESXi Authentication Services
- Assign ESXi Permissions Directly to AD Users
- ESXi FIrewall
- TCP and UDP Ports
- ESXi Firewall Config via vSphere Web Client
- Data Encryption
- Certificate Changes in vSphere 6.0
- VMWare Certificate Management and Additional Info
- Summary