



Rock Solid Technical

VMware vSphere 5 POWERCAMP™ Accelerated 5 Day Training Camp



Become a VMware Virtualization Master.

This Rock Solid VMware vSphere POWERCAMP™ includes the Virtualization Council's DUAL Virtual Infrastructure Professional (VC-VIP) and Master Infrastructure Architect (VC-MIA) certification; the leading certifications in the industry for Virtual Enterprise Architects. This certification validates your skills on designing and optimizing VMware® environments coupled with intensive training on a wealth of third-party applications that are invaluable when designing and building a VMware enterprise.



WinSCP



vizioncore

vmware



Virtualization Council
Vendor Neutral Certification

VEEAM



Welcome to Rock Solid Technical Services

Today more than ever business organizations are turning to virtualization deployments in order to help them overcome their operational and capital expenditure challenges. Rock Solid Technical Services delivers powerful VMware training, VMware certification and VMware consulting that help improve our customers IT infrastructure and provide key virtualization knowledge sets to their personnel. Individuals will find our VMware virtualization training and certification invaluable to compete in today's tough job marketplace.

Since 1993, Rock Solid Technical Services has been providing leading edge technology training and consulting to thousands of IT professionals, who need to obtain skills on the most current vendor offerings. We currently specialize in Virtualization Solutions including VMware vSphere ESX/ESXi 5/4.1, vCenter 5/4.1 and the Infrastructure 3 suite of datacenter virtualization products. Find out why our VMware virtualization offerings will make your organization's virtualization of systems and people Rock Solid!

- Sherwood Cornforth, President, Rock Solid Technical Services

Why Choose a Rock Solid "POWERCAMP™" for your VMware Training?

We at Rock Solid Technical Services know that you have a choice when choosing a VMware Training Provider, so we thought we would help you differentiate our training from the rest! Our maximum strength POWERCAMP™ blows away all other vendor training. Here are just a few of the potent features included in this class:

- ✓ **Lowest Class Sizes in the Industry** – The Rock Solid POWERCAMP™ is limited in class size to effectively give you more hands-on and the ultimate in exposure to expert instructors.
- ✓ **You Will Build Your Own Server:** In a VMware authorized class, multiple students may share one ESXi server that is located off-site. In our POWERCAMP™, each student installs, configures, and supports his or her own server throughout the class, from start to finish. This gives you, the student, the best learning environment available, allowing for a true hands on experience, rather than simply observing the technology.
- ✓ **Your Certification Included:** Rock Solid Technical Services now offers independent certifications for virtualization professionals. In this unique offering, the POWERCAMP™ prepares you for the industry's only DUAL CERTIFICATION. A passing score will earn you the official certification as a VIP – Virtual Infrastructure Professional **AND** MIA – Master Infrastructure Architect! These certifications will validate your knowledge and set you apart from your peers.
- ✓ **You'll Work with More Third Party Tools Than Any Other Trainer Provider:** Our POWERCAMP™ not only shows you what is supported by VMware, but we also show you what actual administrators in the field are using for solutions. There are many great third party products designed to support VMware products and we train you on them.
- ✓ **Extremely Lab Intensive:** Our POWERCAMP™ is extremely lab intensive and is never the same twice. We cater to the students in the class to deliver a very enriched, targeted course, to suit the student's needs. In addition, we offer Live Labs where when you break it, you fix it! This is true knowledge transfer at its best. We provide you direct experience from the ground up on real hardware that is all on the VMware Hardware Compatibility list. This is proven to increase your learning experience, reduce problems in class and give you concrete skills for returning to the workplace.

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Why Choose a Rock Solid POWERCAMP™ for your VMware Training? - cont.

- ✓ **Accelerated Learning Delivery – You Save Time And Money**
 - **Time Savings:** We have taken out all of the overlap and marketing to condense our POWERCAMP™ down into a 5 day end to end solution.
 - **Cost Savings:** Our accelerated format pulls content from multiple courses, saving you well over \$10,000 in multiple course fees.
- ✓ **Certified Expert “Real World” Instructors:** Our instructors are Certified Virtual Infrastructure Professional Trainers and work hands on with the product on a daily basis, giving them an advantage in the classroom. Rock Solid does consulting as well as training, which sets our trainers apart from others. Our instructors are prepared to answer questions that might not be addressed in a scripted, off the shelf class.
- ✓ **GB’s of Student Downloads:** We provide students with content that is available for download after class.
- ✓ **Access to VMware Student Forum:** We provide our students with post class support via a web forum where students can post questions to our instructor team after class.
- ✓ **Experts in Virtualization:** All we do is virtualization. As the "new technology experts," our entire staff is dedicated to helping your company or organization with its' virtualization needs. Rock Solid Technical specializes in VMware, XenServer and Workstation, Microsoft Virtual Server or Hyper-V, and Virtual Iron.
- ✓ **All POWER CAMP's™ are available in 3 different delivery formats**
 - **Classroom Based** - Instructor Led, Fast Track Classes at locations nationwide.
 - **LiveOnLine** - We provide a “remote learning” POWERCAMP™ offering each month to meet your needs on a convenient and timely basis.
 - **Custom Onsite** – Dedicated, custom, intensive VMware Training at your facility.
- ✓ **100% Rock Solid GUARANTEE**

Course Objectives

Upon the completion of Rock Solid’s VMware vSphere POWERCAMP™, students will master:

- All of the new and exciting features of vSphere 5
- Foundational terms and concepts concerning virtualization
- How to install, configure and support ESXi server 5 and vCenter 5
- How to configure Virtual Machines, templates, and clones
- How to configure Virtual Networking and how to support VMotion / Storage VMotion
- P2V , V2V, V2P, and P2P Methods and Techniques
- Server Consolidation Procedures and Reasoning
- Tools to support a virtual infrastructure - VMware, Platespin, Vizioncore, Veeam, and more
- VMotion, Update Manager, Power Management, Guided Consolidation, Clustering –DRS/HA, and more
- Best Practices within a Virtual Enterprise
- Understanding the ESXi Firewall
- How to perform backups in the ESXi Environment - Service Console and Virtual Machines - VDR
- How to use the Command Line Interface for supporting ESXi Servers - ESXi commands

VMware vSphere 5 POWERCAMP™ | Accelerated 5 Day Training Camp

VMware vSphere POWERCAMP™ - Benefits and Goals

Our five (5) day intense VMware POWERCAMP™ provides the most comprehensive approach to Virtualization training. This is an intense, accelerated immersion course, designed for computer professionals that require effective, real-world skill-building.

Only Rock Solid's VMware POWERCAMP™ offers you the following benefits:

- Rock Solid 's definitive, TOTAL immersion training experience
- Industry's only DUAL Certification!
- Intense instruction with no outside distractions
- Five (5) full days of intense instruction, labs and review with an expert virtualization instructor
- The typical day includes:
 - **Expert Led Instruction**, bringing real world expertise into the classroom
 - **Hands-on Labs with in-class equipment**
 - **Group Reinforcement Activities** to help students retain the information for use in the field
- In class students:
 - will use either 2 PC's
 - 1st Workstation – each student uses his own server to manage his/her environment
 - 2nd ESX – each student works hands-on with his/her own ESX server throughout class
 - or use Dual Monitors using extended desktop
- Pod Access available 24/7 for the 5 days
- CD full of tools used in optimizing your Virtual Infrastructure
- Pre and post mentoring by top rated VMware instructors
- Opportunity to re-sit a classroom-based or distance learning course for up to one year
- Tangible evidence of career growth for potential salary increase and/or promotion
- Lower TCO for your Virtualization Environment

Prerequisites

This class is for IT professionals with 1 or more years of server and infrastructure experience including System Administrators with experience on Microsoft Windows and Linux operating systems

VMware vSphere DUAL Certification

The POWERCAMP™ is capped off with a challenging DUAL certification exam, the VC-VIP (Virtualization Council - Virtual Infrastructure Professional) and VC-MIA (Virtualization Council – Master Infrastructure Architect). This certification requires passing a demanding exam that has been developed by an expert team of Virtualization Professionals. So not only do you leave trained, you leave TESTED by the top Virtualization Experts in the Industry with TWO CERTIFICATIONS!

DUAL VC-VIP/VC-MIA (Virtualization Council - Virtual Infrastructure Professional/Master Infrastructure Architect) Certification - Exam Details

Exam Quick facts:

- Exam Length: 60-minutes
- # of exam items: 100
- Benefits: Certification for wall mounting, proof of knowledge-level
- Multiple choice
- Multiple answer
- Cut Rate: 72%

VMware vSphere 5 POWERCAMP™ | Accelerated 5 Day Training Camp

VMware POWERCAMP™ | Accelerated 5 Day Class Schedule

In our 5 day class, Rock Solid's expert instructors will immerse you in unparalleled knowledge transfer. You will learn, participate in labs, test and certify. The typical daily schedule rolls out as follows:

Schedule	DAY 1 MON	DAY 2 TUES	DAY 3 WED	DAY 4 THURS	DAY 5 FRI
8:00am to 12:00pm	VMware Fundamentals	Configuration of VMs and Virtual Networking	Tools Review vCenter Install and Configure	Best Practices ESXi CLI	Working with 3 rd party tools
12:00pm - 1:00pm	Lunch Break	Lunch Break	Lunch Break	Lunch Break	Lunch Break
1:00pm - 5:00pm	Installing VMware ESXi from the ground up	Imaging Server Consolidation	Advanced Cluster configure DRS and HA	Advanced VMware Troubleshooting	More working with 3 rd party tools
5:00pm - 10:00pm	Access to Lab Room and time for Practice	Access to Lab Room and time for Practice	Access to Lab Room and time for Practice	Access to Lab Room and time for Practice	TAKE THE VC-VIP/MIA Exam

*The above schedule is an example and is subject to change.

VMware POWERCAMP™ - Website Schedule

To view our current VMware Install and Configure Beyond course schedule and locations, visit Rock Solid online [here](#)

VMware POWERCAMP™ - Follow-on Courses

VMware View Offering: Rock Solid Technical has released the new version of VMware View that is unparalleled in the industry. [Click Here](#) to Learn More

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VMware vSphere POWERCAMP™ | Accelerated 5 Day Class - Course Breakdown

DAY ONE

Module 1: Virtualization Architecture

Understand the roles and product positioning of ESXi, vCenter, redundant databases, vSphere client, FT, HA, and DRS. Learn how to quickly recover in a disaster when any of these go offline. How does cloud computing relate to these roles?

Module 2: Product History and Major Technologies of VMware

Take a look at where ESXi and vCenter started. Compare differences and understand how critical it is to know about comparing product builds and Troubleshooting issues in a mixed environment. Learn detailed information about how HA, DRS, FT and Clustering work together.

Module 3: Terms and Concepts

Review VMware terminology and major concepts. Define Host, Guest, Encapsulation, Portability, Isolation, Idealized Hardware, Virtualization Layer, Memory Ballooning, Memory Management, and much more. Understand how the concepts relate to VMware. ESXi Server 4 hardware requirements

Module 4: Installing ESXi Servers

Install your ESXi host. Build a host and understand the options of the build process. Identify the preinstallation and post installations tasks. Understand CPU, Memory, Disk, Storage, and Network limitations. After an install, know how to troubleshoot issues and what log files to find additional information in.

Module 5: Building and understanding Virtual Machine Virtual Switches

Build and configure Virtual Machines. Perform a typical and custom installation. Get to know the files that make up a virtual machine and how to troubleshoot each file when a virtual machine fails to load. Understand how to control resource use of each Virtual Machine, as well as fine tune them.

Module 6: Supporting Virtual Appliances

Build and use Virtual Appliances. Visit VMware's web site and get to know what Virtual Appliances are

available. Import a Virtual Appliance, as well as export them. Look at and understand ovf and ova files. Modify files and view the results.

Module 7: P2V Migrations

Get to the roles of Source, Swing and Target servers. Compare 3rd Party P2V options against VMware Converter. Perform a P2V migration. Cover V2V, V2P, and P2P as options.

Module 8: Configuring Virtual Switches

Take an in-depth look at the Service Console, Virtual Machine, and VMkernel roles. Configure these connection types and understand the specific traffic each uses. Convert Standard configurations to vDs. Configure Virtual Switches to support VLAN's. Review MAC address space and talk about dynamic versus static Layer 2 use for Virtual Machines. Learn how to support Virtual Switches through the command line with esxcfg commands.

Module 9: ESXi Server Security

Get to know how to configure the firewall for inbound and outbound traffic. Get to know the defaults, open ports and create firewall rules from the command line for non-standard port use. Edit firewall configuration rules from the command line and see the results in the GUI under the Security Profile

Module 10: ESXi Storage Architecture

Cover differences on using Local, SAN, NAS and ISCSI storage. Understand how and where each would be used. Know how each is affected in a Disaster and how to recover. Show how to configure each storage solution using the vSphere Client.

Module 11: Connecting to an ISCSI SAN

Configure support for ISCSI. Install an ISCSI target in class then configure ESXi to connect to the target. Cover how to support both hardware and software ISCSI. Install a VMkernel Virtual switch and enable the switch for ISCSI. Enable the ISCSI initiator for dynamic or Static Discovery.

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Module 12: 3rd Party Tools to support the 3rd Party Infrastructure

VMware has many areas where 3rd Party tools will enable IT to more effectually support a virtual infrastructure. Learn how to better support this infrastructure with tools from Veeam, Vizioncore (Quest), and even how to use your smart phone or PDA to build, configure, or troubleshoot Virtual Machines. Show how Veeam Reporter and VFoglight can greatly assist in documenting and troubleshooting the virtual infrastructure.

Module 13: Configuring and Supporting vCenter

Learn what features are enabled with vCenter and how to use them. Talk about running vCenter on a physical server and compare that with running vCenter on a Virtual Machine. Know and understand what databases are supported and how to connect to each, as well as setting up redundant databases.

Module 14: vCenter requirements and Installation

Cover the minimum requirements of vCenter. Perform an installation of vCenter and discuss setup options. Know what databases might be a better fit for your enterprise than others.

Module 15 : vCenter Editions

Compare each edition of ESXi and vCenter. Know the limits imposed and what features each edition has to offer. Learn how VMware licenses work and how to install an associates license with ESXi and vCenter.

Module 16: vCenter Security Roles

Discuss the object hierarchy within the vSphere Client and how VMware permissions work. Look at the default Security Roles and understand how roles are related to Permissions and Privileges. Configure Custom Roles and associate the roles to different objects with the vSphere Client.

Module 17: Virtual Machine Templates

Define a template and how templates are used to speed up the process of building Virtual Machines. Learn how templates differ from Virtual Machines and to customize the template for different deployments through Customization Specification.

Module 18: Virtual Machine Cloning

Make copies of your Virtual Machine using the vSphere Client. Perform a clone with the VMware Cloning Wizard. Learn how to clone from the command line using vmkfstools.

Module 19: Virtual Machine Snap Shots

Perform Virtual Machine Snap Shots of Virtual Machines while they are running. Get to know how Snap Shots work and what files are involved with Snap Shots. Know about some of the storage issues with Snap Shots and how to better manage them.

Module 20: Host and VM Performance

Discuss the Objects and counters used to monitor both Hosts and Virtual Machines. Learn how to create custom charts and graphs to better understand how Hosts and Virtual Machines are performing. Know what to look for when Host and Virtual Machines are under performing.

Module 21: Update Manager

Install and configure Update Manager. Get to know where patches come from and how to schedule patch download, configure support for a firewall, and take snap-shots of Virtual Machines before remediation. Understand the default baselines available and create your own. Learn the difference between fixed and dynamic baselines and when to use each. Attach, Scan and Remediate a baseline to your host. Learn how to verify patches have been installed and troubleshoot a failed patch.

Module 22: VMotion

Cover the requirements for VMotion. Know the 3 stages of VMotion. VMotion a Virtual Machine and verify that a client communicates with the Virtual Machine during the process. Use VMotion Topo Maps as a tool for performing and troubleshooting VMotion.

Module 23: Storage VMotion

Cover the requirements for Storage VMotion. Storage VMotion a Virtual Machine and verify that a client communicates with the Virtual Machine during the process.

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Module 24: Topo Maps

Know what objects you can view in Topo maps and how to customize them. Learn how to use Topo maps to troubleshoot the virtual infrastructure. Reconfigure objects within the maps and view changes.

Module 25: DRS Cluster Configuration

Install a DRS cluster. Define how DRS works. Review Manual, Partially Automated, and Fully Automated levels. Know the difference between the 5 different DRS priorities. Learn how to set different automation levels per Virtual Machine. Create DRS rules to better control network traffic and support service faults.

Module 26: HA Cluster Configuration

Install HA Cluster. Define how HA works. Cover Admission Control and know which policy to best use. Cover advanced options for HA. Know the different restart priorities and how to place Virtual Machines in them.

Module 27: Linked Clones

Install and configure Linked Clones. Learn when you use link clones and how to use VMware Security Roles to control access to individual objects within the vSphere Client.

Module 28: VMware vApps

Create vApps within the vSphere client. Learn how to control CPU, Memory, IP Allocation, and start order of multiple Virtual Machines through vApps.

Module 29: Host Profiles

Configure a host with common settings. Use Host Profiles to import these settings. Once imported, use these settings to configure multiple hosts, while saving time configuring multiple individual ESXi hosts.

Module 30: FT Fault Tolerance

Learn requirements for FT. Discuss how Primary and Secondary Virtual Machines are related. Know the steps that occur when a Secondary Virtual Machine becomes a Primary and how a new Secondary is created. Setup FT and force a fault.

Module 31: VDR – VMware Data Recovery

VMware Data Recovery is replacing VCB. Setup and install the VMware Data Recovery Appliance. Learn how the architecture of VDR works. Perform a Data Recovery on a Virtual Machine.

Module 32: Upgrading from ESXi 2.x to 4.1

Cover the 3 Phases of upgrading. Learn how to upgrade from ESX 2.x or ESXi 3.X or 4.X to 5.X. Cover upgrading vCenter, ESX/ESXi and Virtual Machine upgrades. Cover upgrading VMware Tools and Virtual Machine Hardware.

Module 33: VMware CLI Appliance and Tools

Support your Virtual Machines using the VMware CLI Appliance. Use the command line from your desktop to run viclient or esxcfg commands. Install the VMware CLI appliance and become familiar with its use.

Module 34: Supporting ESXi from the command line

Run esxcfg, vmkfstools, and vmware-cmd. Know how to start, stop, take snap-shots and many more options of your Virtual Machines from the command line using vmware-cmd. Create vmdk's and manage Virtual Machine disks using vmkfstools. Cover over 20 different command using esxcfg commands.

Module 35: ESXi critical files

Get to know the critical configuration files on your ESXi servers. Configure them from the command line and understand where they are located.

Module 36: Log File Analysis

Cover log file locations for Virtual Machines, ESXi servers, vCenter and know what to look for.

Module 37: Best Practices

Cover how to configure a Virtual Switch to Physical switches, load balance CPU, Memory, and Disk, ESXi server sizing, Security, using ISO's and FLP files, Review Services on VM's and ESXi servers, Licensing, Sluggish Windows, Virtual Machine Startup and Shutdown order, and much more

EXAM CRAM /REVIEW SESSION
TAKE VC-VIP/MIA DUAL EXAM

Go Home Certified !!

VMware POWERCAMP™ | Accelerated 5 Day Training Camp

You're protected with a "Rock Solid" Guarantee

Rock Solid is committed to you having the best possible training experience available. If during the first day of any classroom-based or distance learning course, the student is not fully satisfied and wishes to withdraw, the student will receive a 100% refund, less any applicable fees. We also offer students the opportunity to re-sit a classroom-based or distance learning course tuition-free for up to one year or until the student obtains certification, whichever comes first. Our *Human Capital Guarantee* ensures a successful return on investment for employers. If an employer has paid the cost of a class for an employee who leaves within three (3) months of obtaining certification, Rock Solid will train an additional employee of the company with no tuition cost to the employer (other costs will apply). The employee taking advantage of the *Human Capital Guarantee* must take training within 6 months of the original employee's class end date.*

Testimonials

"The VMware class was extremely value added and the remote learning was great; a very desirable way to take a course .The instructor, was absolutely one of the best instructors I have had."

- Elizabeth Anderson - Boeing

"Great class! I highly recommend the instructors."

- Peter Fountain, Orion Computer Services Inc.

"I learned more in this one week of virtualization training than any course I have taken. I want all of my future training to come from Rock Solid!"

- Anthony Masters, FAA

Realize substantial savings with a Custom On-Site Delivery

Want to learn where you work? Rock Solid specializes in custom on-site solutions. Your company will realize substantial discounts and experience the greatest return on investment through our custom on-sites! We deliver training at your site, where we customize the content 100% to suit your needs. You and your team become the experts throughout the week, saving time and money on consultant fees later on. In fact, our instructors serve as an expert consultant during the engagement, allowing you collaboration on planning and implementation ideas with leading virtualization experts, while also being trained by them.

About Rock Solid Technical Services

Rock Solid is the recognized leader in VMware training, certification and consulting. Our expert instructors possess strong consulting, implementation and training expertise. Rock Solid's virtualization professionals come from diverse roles including positions in consulting, product development and project management. Our training team has supported public and private corporations, technology vendors, telecommunications companies, US Government and Military, and professional services organizations around the world.



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