Microsoft

System Center 2016 Virtual Machine Manager: Private Cloud Implementation and Management

WorkshopPLUS

Learn how to effectively implement and manage System Center 2016 Virtual Machine Manager in the virtualized datacenter.

Target Audience:

To ensure the high-quality knowledge transfer expected by the attendees of this four-day WorkshopPLUS, the class size is limited to a maximum of 16 students who meet the following criteria:

- *Recommended:*
  - Familiarity with hypervisors and datacenter concepts (networking, storage)
  - Hyper-V experience

Overview

System Center 2016 Virtual Machine Manager: Private Cloud Implementation and Management is a **four-day** Workshop*PLUS* course provides students with the knowledge to:

- Install and configure System Center Virtual Machine Manager (SCVMM) 2016.
- Understand what is new in Windows Server 2016 Hyper-V, Networking and Storage and Implementation on SCVMM 2016.
- Deploy **Storage Spaces Direct Cluster** in **Hyper-converged** or **Disaggregated** mode using SCVMM.
- Deploy **Nano Server VMs** or **Physical Machines** as **Hyper-V/Storage** hosts.
- Deploy **Shielded VMs** using SCVMM: Deploy **Host Guardian Servers** with Service templates. Configure and manage **Guarded Hyper-V Hosts.** Create artifacts to reuse for tenants and deploy Shielded/Encrypted VMs.

This workshop contains IT professional level content. Review the Target Audience information and contact your Microsoft Services representative to ensure that this workshop is appropriate to the students' experience and technical expertise.

Key Features and Benefits

- **Installation and Configuration** of Virtual Machine Manager 2016 is covered in depth with labs for the installation and configuration of Virtual Machine Manager.
- **Fabric Management** of storage, networking, and physical virtualization hosts is covered in depth with supporting labs
- **Creating Virtual Machine Templates and Service Templates** is covered in detail
- **Creating and managing Clouds**

Technical Highlights

After attending this Workshop*PLUS*, students will understand:

- How to implement Virtual Machine Manager in either standalone or highly available implementations
- The planning required to successfully implement Virtual Machine Manager and configure fabric resources
- How to create and deploy virtual machines from templates

Syllabus

Hardware Requirements:
Contact your TAM if the necessary hardware needs to be provided.
If you are attending an Open enrollment WorkshopPLUS, then the hardware will be provided for you.
Each student requires ONE physical machine with the following configuration.

- *Operating System: Windows Server 2016 with latest Update Rollup*
- *Processor: Eight Core* Intel processor with VT-x and EPT technology. *A processor speed greater than or equal to 2.0 GHz*
- *RAM: At least 32-GB*
- *HD Space: At least 250 GB SSD*
- *Networking: Minimum of 1-Gbit/sec full-duplex NIC*
- *Peripherals: 1 Cat 6 Network Cable, Video card with at least 256-MB (V) RAM*

This Workshop*PLUS* runs for four full days. Students should anticipate consistent start and end times for each day. Early departure on any day is not recommended.

Module 1: Introduction to Cloud Computing: This brief module covers Private and Public Cloud computing and how System Center Virtual Machine manager fits into Microsoft's cloud solutions

Module 2: Installing System Center Virtual Machine Manager: This module covers planning and implementing a System Center Virtual Machine Manager installation

Module 3: Fabric Configuration and Management: This module covers understanding, configuring and managing the VMM fabric, including adding hypervisor hosts, library servers, logical networking, and storage management. This module also covers fabric updates, dynamic optimization, power optimization. Detailed labs help cement knowledge in this area

Module 4: Monitoring and Maintaining the VMM Fabric: This module covers monitoring VMM health, basic usage monitoring scenarios, updating, and maintaining your Private\Public Cloud

Module 5: Creating and Managing Virtual Machines: This module covers all there is to know about creating and managing virtual machines, VM templates, Service templates, as well as P2V and V2V migration methods

Module 6: SCVMM 2016 Cloud Management: This module covers creating a Cloud in VMM as well as managing tenant access

Module 7: SCVMM Security: This module covers VMM security, RunAs Accounts, Cloud, Tenant management and Shielded VMs

Module 8: SCVMM Troubleshooting: Troubleshooting SCVMM issues with specific tools

Appendix A – SCVMM 2016: Various additions on SCVMM content

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