



Dell EMC PowerEdge Installation, Management and Diagnostics

In association with : **DELL**EMC



Dell EMC PowerEdge Installation, Management and Diagnostics

3 days

Course overview:

- This 3 day Dell EMC PowerEdge Installation, Management and Diagnostics course is part of the recommended training path leading to the Dell EMC PowerEdge Associates level certification for PowerEdge servers.
- This course assists you to successfully configure, manage and troubleshoot Dell PowerEdge servers providing best practice information consisting of instructor-led training and hands-on activities.
- This course will focus on the 14th generation Dell EMC PowerEdge rack and tower servers.

Course objectives:

- After completing this course, the attendee will be able to:
 - Demonstrate knowledge of key server components
 - Identify hot swap components
 - Identify Boot Mode and Boot Order
 - Describe the role and features of the iDRAC9 and Lifecycle Controller
 - Access and navigate the iDRAC9 and Lifecycle Controller user interfaces to configure and manage PowerEdge servers
 - Configure RAID storage using the iDRAC user interface, the System Setup utility and OMSA
 - Retrieve the hardware inventory using the Lifecycle Controller
 - Configure the Parts Replacement settings
 - Backup and restore the server profile
 - Update component firmware
 - Perform SupportAssist Collections using both the iDRAC9 and SupportAssist Enterprise

- Install OpenManage Server Administrator (OMSA) and the iDRAC Service Module (iSM)
- Use the iDRAC to validate hardware health status
- Troubleshoot system issues using available diagnostic tools
- Install OpenManage Essentials and discover / monitor remote servers
- Deploy a server operating system using the iDRAC Virtual Console / Media Course Modules (Presentations):

- **Module 1 – Server Platforms:**

- o Numbering and Tags
- o Key Specifications
- o Chassis Options
- o Hot Swap Components

- **Module 2 - Integrated Dell Remote Access Controller with Lifecycle**

- o iDRAC8 / iDRAC9 accessing
- o iDRAC9 passwords
- o iDRAC9 Dashboard
- o iDRAC9 Virtual Console
- o iDRAC9 configuration
- o Lifecycle Controller accessing and menu options

- **Module 3 - Server Components**

- o Processors
- o Memory / NVDIMMs
- o Power
- o Cooling
- o Expansion slots
- o Networking
- o Backplanes
- o RAID
- o PERC10 and S140 controllers
- o Virtual Disk Management

- o Internal Dual SD Module (IDSDM) / vFlash
- o Boot Optimized Storage Solution (BOSS)

- **Module 4 - Unified Extensible Firmware Interface (UEFI)**

- o BIOS
- o CMOS
- o System Setup utility

- **Module 5 – Troubleshooting**

- o LCD / LEDs / Codes / Messages
- o Logs
- o Video Capture
- o Server Profile
- o Parts Replacement
- o Erase system and user data
- o System Diagnostics
- o RACADM
- o iDRAC Direct
- o Quick Sync
- o Dell technical websites

- **Module6 – Security**

- o Trusted Platform Module (TPM)
- o iDRAC Secure Password
- o BootGuard
- o BIOS / UEFI Recovery

- **Module 7 – Systems Management**

- o OpenManage Server Administrator (OMSA)
- o iDRAC Service Module (iSM)
- o OpenManage Mobile
- o SupportAssist Enterprise
- o OpenManage Essentials (OME)

- **Lab Exercises:**

- o iDRAC9 Dashboard and System Options
- o iDRAC9 Storage and Configuration
- o Maintenance and iDRAC Settings Options
- o iDRAC Virtual Console
- o Lifecycle Controller Navigation
- o iDRAC Information Gathering
- o Configuring RAID using iDRAC
- o RAID Level Migration
- o Boot Optimized Storage Subsystem (BOSS)
- o System Setup Utility
- o iDRAC Troubleshooting Tools
- o Server Profile Backup and Restore
- o RACADM CLI
- o Embedded System Diagnostics
- o Virtual AC Cycle
- o OpenManage Server Administrator (OMSA)
- o ISM
- o SupportAssist Collection
- o Install SupportAssist Enterprise
- o Install OME
- o Out-of-Band Discovery
- o In-Band Discovery
- o Home Portal Navigation
- o Operating System Installation

Thank You