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## UCS Troubleshooting Boot Camp

**Varighed: 5 Days**    **Kursus Kode: UCSTSBC**    **Version: 1.0**

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### Beskrivelse:

This is an intensive course that combines the Cisco UCS B-Series and C-series troubleshooting courses. Delegates will learn how to identify and configure the features available in the Cisco UCS B-Series and C-series products to ensure that can successfully deploy and maintain their unified computing system.

This course includes the new features added by Cisco UCM code version 2.0. You will receive an overview of the new hardware available with this release, namely the Cisco 6248 Fabric Interconnects, 2208 IOMs, and 1208 VICs. Hands-on experience is vital to a successful deployment and in this course you will be able to properly install, configure, and troubleshoot UCS B-Series servers in conjunction with UCS C-Series servers operating in standalone mode.

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### Målgruppe:

Anyone involved in the deployment and maintenance of a Cisco UCS solution.

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### Agenda:

- **After you complete this course you will be able to :**
  - UCS benefits, connectivity configuration, management, and maintenance
  - Stateless computing and unified fabric
  - MACROBUTTON NoMaro UCS Series product platform with an emphasis on feature support
  - Initial setup, configuration, and connectivity to ensure proper Cisco Integrated Management Controller (CIMC) operation
  - UCS Series troubleshooting methodology and common configuration challenges
  - CIMC utilities that enable performance validation and facilitate data gathering activities for troubleshooting purposes
  - Download firmware updates by using Host Upgrade Utility (HUU)
  - Perform server BIOS updates with various methods
  - Update the server BIOS by using the EFI shell
  - Recover a UCS Series server using a USB Recovery Module
  - Features and benefits of the UCS C-Series P81E Virtual Interface Card (VIC)
  - Perform the proper network (LAN) configuration steps for the P81E VIC
  - Troubleshoot issues and recommended solutions for the UCS Series P81E VIC
  - Cisco VIC P81E SAN configuration and vHBA properties
  - Fibre Channel over Ethernet Initialization Protocol (FIP) and validate its proper configuration
  - SAS extender and expander options for the C-Series servers
  - Install an operating system onto a local disk and using a SAN boot
  - Download and install additional device drivers after successful OS installation
  - Common device driver and operating system troubleshooting issues and their recommended solutions
  - Execute the password recovery process for UCS Series server CIMC and BIOS passwords
  - Configure management access to the UCS C-Series server through the LAN on Motherboard and NIC ports
  - Configure the UCS C-Series Intelligent Peripheral Management Interface (IPMI) for management access
  - Configure the UCS C-Series Serial over LAN (SoL) service
  - Components required to complete UCS C-Series integration with UCS Manager
  - Configure the Fabric Interconnect and Fabric Extender for a UCS C-Series server
  - Configure the UCS C-Series server to operate as part of a UCS Manager instance
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### Forudsætninger:

### Test og certificering

**Attendees should meet the following pre-requisites:**

- Understanding of server system design/architecture and Cisco Enterprise Data Center Architecture
- Familiarity with Cisco UCS Architecture
- Familiarity with Ethernet and TCP/IP networking, SANs, Fibre Channel Protocol (FCP), and hypervisor technologies (VMware vSphere, Microsoft Hyper-V, Citrix Xen)
- Attendance of **DCUCD** or **DCUCI** recommended

**Recommended preparation for exam(s):**

- There is no exam currently aligned to this class

**Indhold:****Troubleshooting Cisco UCS in the Data Center**

- Cisco UCS Configuration Confirmation
- UCS Architecture
- Using Management Interfaces to Identify UCS Configuration Parameters
- Chassis and Blade Discovery
- Cisco UCS Support Tools
- IPMI, SoL, and Data Gathering
- Cisco UCS Advanced Operations
- Ethernet Switching Mode
- EHV Mode
- Fibre Channel Switching Mode
- NPV Mode
- Counters and Statistics
- LAN and SAN Connectivity
- SAN Boot

**Troubleshooting Nexus 1000V Installation and Operations Problems**

- Installations on Cisco UCS
- Troubleshooting the Installation of Nexus 1000V on UCS B-Series Servers Running VMware
- VSM and VEM Installation Considerations
- Troubleshooting VSM-VEM Connectivity Issues and High Availability Problems
- Data Plane Issues
- Virtual and Physical Interfaces: VM Guest to External Network
- Nexus 1000V Operations: Data Plane Pack Flow
- Troubleshooting Approaches Based on TAC Cases

**Troubleshooting Methodology**

- UCS C-Series Product Review
- Server Models, including the C200, C210, C250, and C460
- C-Series Installation, Setup, and Configuration
- Configuring the CIMC to Enable Remote Access Management
- UCS C-Series Troubleshooting Methodology
- Proper Configurations
- C-Series Data Gathering Activities
- CIMC GUI
- Navigating Utilities and Interpreting the Various Command Outputs

**Troubleshooting LAN Connectivity**

- UCS C-Series P81E VIC Configuration
- Troubleshoot the UCS C-Series P81E VIC Installation and Configuration

**Troubleshooting SAN Connectivity**

- Cisco VIC P81E SAN Configuration and vHBA Properties
- FIP: Validating Proper Operation
- Cisco VIC P81E SAN Troubleshooting Configuration Problems
- Configure and Verify SAN Connectivity Using the P81E VIC Interfaces

**Configuring UCS C-Series Integration with UCS Manager**

- UCS C-Series and UCS Manager Integration
- UCS B-Series and C-Series Components
- Cisco Nexus Products
- UCS C-Series and UCS Manager Installation
- Connect Data and Management Paths
- UCS C-Series and UCS Manager Troubleshooting
- Configure the UCS C-Series Server

**Labs**

- Lab 1: Initial System Exploration
- Lab 2: Troubleshoot Cisco UCS Service Profiles
- Lab 3: Cisco UCS Support Tools
- Lab 4: Troubleshoot IPMI
- Lab 5: Cisco UCS Modes of Operation
- Lab 6: Troubleshoot Port Channel
- Lab 7: LAN and SAN Connectivity
- Lab 8: Troubleshoot IP Network
- Lab 9: Cisco UCS Upgrades
- Lab 10: Memory Data Collection
- Lab 11: Memory Troubleshooting
- Lab 12: Troubleshoot and Verify C-Series Integration with Cisco UCS Manager
- Lab 13: Tools and Techniques for Troubleshooting Nexus 1000V Installation Problems
- Lab 14: Commands and Procedures for Troubleshooting Nexus 1000V Data Plane Issues
- Lab 15: Troubleshoot Nexus 1000V Installation, Control, and Data Plane Problems

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## Flere Informationer:

For yderligere informationer eller booking af kursus, kontakt os på tlf.nr.: 44 88 18 00

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