DCUCS

Configuring Data Center Unified Computing

MODULE 1: DESCRIBING CISCO UCS ARCHITECTURE
CISCO UCS B-SERIES BLADE SERVER HARDWARE COMPONENTS

- ✓Cisco UCS Overview
- ✓Cisco UCS 5100 Series Blade Server Chassis
- ✓Cisco UCS B-Series Components
- ✓Cisco UCS B-Series Blade Servers
- ✓Cisco UCS C-Series
- ✓Power Requirements
- ✓Determining Supported Configurations

DESCRIBING THE CISCO UCS USER INTERFACES

- ✓Cisco UCSM GUI Layout
- ✓Navigation Pane
- ✓Standalone Navigation of the Cisco UCS C-Series IMC
- ✓CLI Shells

DESCRIBING CISCO UCS MANAGEMENT FRAMEWORK AND FEATURES

- ✓Managing Cisco UCS
- ✓Managing C-Series Servers
- ✓External Management Framework
- ✓Fault Detection and Correction Using the Cisco UCSM

MODULE 2: CONFIGURING CISCO UCS B-SERIES CONNECTIVITY
CONFIGURING CISCO UCS B-SERIES PHYSICAL CONNECTIVITY

- ✓Cluster Connection Requirements
- ✓Initial Setup
- ✓Modifying Cluster IP Addressing
- ✓Discovery Process and Monitoring Using FSM Output
- ✓I/O Uplinks and Bandwidth Oversubscription with the Cisco UCS 2104XP
- ✓I/O Uplinks and Bandwidth Oversubscription with the Cisco UCS 2208XP
- ✓I/O Uplinks and Bandwidth Oversubscription with the Cisco UCS 2204XP

CONFIGURING COMPUTE NODE LAN CONNECTIVITY

- ✓Port Personality States of 10 Gigabit Ethernet Interfaces on the Cisco UCS 6100 Series
- ✓Port Personality States of Unified Ports on the Cisco UCS 6200 Series
- ✓Configuring Port Channels to Northbound Switches
- ✓Configuring Discrete Mode and Port Channel Mode on Southbound Chassis Links
- ✓End Host Mode

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- ✓Disjointed Layer 2 Uplink Support in EHM
- ✓EHM Compared to Switching Mode
- ✓Requirements for Configuring VLANs in Cisco UCS Manager
- ✓Role of the vNIC in Abstracting MAC Addresses
- ✓Failover
- ✓Static IOM Pinning and Recovery from Failure
- ✓Automatic Uplink Pinning and Recovery from Failure
- ✓Configuration of Manual Uplink Pinning and Recovery from Failure

CONFIGURING COMPUTE NODE SAN CONNECTIVITY

- ✓Fibre Channel Switching
- ✓Fibre Channel Operating Modes
- ✓Fibre Channel Switching Mode
- ✓End Host Mode and N-Port Virtualization
- ✓Benefits and Drawbacks of Fibre Channel Switching and EHM
- ✓Multipath I/O
- ✓Configuring VSANs in the Cisco UCS Manager
- ✓Creating VSANs and FCoE VLANs in the Cisco UCS
- ✓Role of vHBAs when Abstracting WWNNs and WWPNs into a Service Profile
- ✓Configuring Manual Uplink Pinning and Recovery from Failure

SUPPORTING DISJOINTED LAYER 2 DOMAINS WITH CISCO UCS MANAGER

- ✓Disjointed Layer 2 Domains
- ✓Network Implications of Disjointed Layer 2 Domains
- ✓Configuring Disjointed Layer 2 Domains

MODULE 3: CONFIGURING AND MANAGING UCS VIRTUAL RESOURCES

CREATING IDENTITY AND RESOURCE POOLS

- ✓Rationale for Creating Identity and Resource Pools
- ✓Configure UUID Pools
- ✓Configure MAC Pools
- ✓Configure WWN Pools
- ✓Configure IQN Pools
- ✓Configure Server Pools

CREATING SERVICE PROFILES

- ✓Purpose and Benefits of Service Profiles
- ✓Configuring a BIOS Policy to Enable Virtualization Features
- ✓Configuring an Adapter Policy
- ✓Create a QoS System Class
- ✓Configure IPMI and SoL Policies
- ✓Configure a Scrub Policy for Local Disks and BIOS
- ✓Simple Compared to Expert Service Profile Wizards
- ✓Simple Service Profile Wizard

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- ✓Expert Service Profile Wizard

CREATING SERVICE PROFILE TEMPLATES AND CLONING SERVICE PROFILES

- ✓Service Profile Templates
- ✓Creating Differentiated Service Profile Templates
- ✓Automating Creation of a Server Farm using Service Profile Templates
- ✓Hidden Pitfalls when using Updating Templates
- ✓Unbind a Service Profile from its Template
- ✓Cloning a Service Profile

MANAGING SERVICE PROFILES

- ✓Associating and Disassociating a Service Profile to a Server Blade
- ✓Changes to a Service Profile that Trigger a Cisco UUOS Update
- ✓Planning the Organization where a Service Profile is Created
- ✓Moving a Service Profile to a New Server Blade in the Event of Hardware Failure
- ✓Management IP Address, KVM, and Virtual Media
- ✓Supported Operating Systems and Boot Options

CREATING LOGICAL SERVICE PROFILES THAT BOOT FROM ISCSI WITH CISCO UCS 2.0

- ✓Creating a Service Profile that Boots from iSCSI
- ✓Creating an iSCSI Adapter Policy
- ✓Creating an IQN Pool
- ✓Creating an iSCSI Authentication Profile
- ✓Installing and Booting ESXi
- ✓Installing and Booting Windows 2008 R2 or R2-SP1
- ✓Installing and Booting RHEL

CONFIGURING CISCO UCS VM-FEX

- ✓vCenter Integration Methods
- ✓Provisioning VMware ESXi Servers with a Cisco VEM
- ✓Provisioning the Secure Connection from Cisco UCS Manager to vCenter Server
- ✓Provisioning Port Profiles and Port Profile Clients
- ✓Provisioning a Dynamic vNIC Connection Policy and BIOS Policy for Cisco VM-FEX
- ✓Joining ESXi Hosts to the DVS
- ✓Provision VMs to Consume Port Groups on the DVS

MANAGING VIRTUAL RESOURCES

- ✓Overall Framework of RBAC in Cisco UCS
- ✓Configuring Local Users, Roles, and Privileges
- ✓Configuring Organizations and Locales
- ✓Effective Rights of a User, as an Intersection of Mapped Roles

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and Locales

BACKING UP AND RESTORING THE CISCO UCS MANAGER DATABASE

- ✓Supported Backup Types and Functions
- ✓Import Operations and Disaster Recovery Restore Operations
- ✓Configuring a Backup Job
- ✓Verifying Backup Creation and Execution
- ✓Configuring an Import Job to Restore the AAA User Database
- ✓Configuring the Cisco UCS Fabric Interconnects for a Disaster Recovery Restore Operation

MANAGING HIGH AVAILABILITY

- ✓High-Availability Cluster Connection Requirements for Cisco UCS B-Series
- ✓Intercluster Communications and Synchronization of the Cisco UCS Manager Database
- ✓How the Cisco UCS 5108 Chassis Serial EEPROM Resolves Split-Brain Issues in the High-Availability Cluster
- ✓Cluster Partition-in-Space and Cluster Partition-in-Time Conditions

MANAGING AND UPGRADING CISCO UCS B-SERIES FIRMWARE

- ✓Updating Cisco UCS B-Series Firmware
- ✓Direct Upgrade of Cisco IMC, IOM, and Mezzanine Adapter Firmware
- ✓Firmware Updates Using a Service Profile
- ✓Differences Between Firmware Processes Used by Cisco UCS Fabric Interconnects and CIMC, IOMs, and Adapters

MODULE 4: CONFIGURING CISCO UCS C-SERIES FEATURES

DESCRIBING CISCO UCS C-SERIES SERVERS

- ✓Cisco UCS C-Series
- ✓Managing C-Series Servers
- ✓Describing FEX Connectivity

USING CISCO UCS C-SERIES INTEGRATED MANAGEMENT CONTROLLER Discovery

- ✓Configuring Cisco IMC Local User Accounts
- ✓Using the KVM Console
- ✓Configuring Virtual Media
- ✓Downloading Operating System Drivers and Utilities
- ✓Configuring IPMI
- ✓Configuring the SoL Protocol

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DESCRIBING CISCO UCS C-SERIES SERVER CONNECTIVITY OPTIONS

- ✓Cisco UCS P81E and 1225 VICs
- ✓Describe the networking options for the Cisco UCS C-Series

UPGRADING CISCO UCS C-SERIES FIRMWARE

- ✓Cisco UCS C-Series Host Upgrade Utility
- ✓Downloading the Cisco UCS C-Series Firmware
- ✓Installing the Cisco IMC Firmware
- ✓Recovering from a Corrupted BIOS

Sono previste esercitazioni pratiche su tutti gli argomenti trattati.

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