

Implementing and Administering the FlexPod Solution (FPIMPADM)

Module 1: FlexPod Solution Portfolio

- FlexPod validated designs
- FlexPod architecture
- FlexPod platform solutions
 - Cisco UCS Mini
 - All FAS Flash
 - OpenStack
 - Hyper-V
- FlexPod platform
 - Review of storage
 - Review of network
 - Review of compute
- FlexPod cooperative support
- Life-cycle management (LCM)
- Customer profile
- Customer challenges and goals
- Existing customer environment
- VMware vSphere 6.0 characteristics

Module 2: FlexPod Solution Networking Implementation

- Cisco Nexus hardware
- VLAN requirements
- Port configuration options
- Access and trunk ports
- Port channels
- Virtual port channels (vPC)
- vPC building blocks
- vPC configuration requirements
- NPV and NPIV
- Fibre Channel fundamentals
- FCoE fundamentals
- Overview of VSAN
- VSAN information
- VSAN recommended practices
- Zoning implementation
- Zones and zone sets
- Zoning practices

Module 3: FlexPod Storage Implementation

- NetApp hardware

- Cluster configuration
- Switched/switchless clusters
- Management interfaces
 - NetApp Oncommand System Manager
 - NetApp OnCommand Unified Manager
 - CLI
- Service Processor and RLM
- Management settings: CDP, Autosupports, and SNMP
- Aggregates
- SVM namespace and volumes
- NFS for VMware datastores
- SAN configuration
- Initiator groups (igroups), port sets, and ALUA
- High availability, including Storage Failover (SFO)
- IPspaces and broadcast domains
- ifgrps and VLAN tags
- LIFs

Module 4: Cisco UCS Implementation

- Cisco UCS hardware
- Cisco UCS features
 - User interfaces
 - Manager
 - Central
- Finite-state machine (FSM)
- Fabric interconnect configuration
 - Clustering
 - Discovery process and monitoring using FSM
- I/O Uplinks and Bandwidth Oversubscription
- End-host and switching mode comparisons
- Port personality and port types
- Unified uplink ports and port channels
- Chassis links
- VLAN
- Resource pools
- Creating identity and resource pools
- MAC pools
- IP pools
- LAN connectivity policies
- WWNN and WWPN pools
- SAN connectivity policies
- Policies
- Benefits of service profiles
- Benefits of service profile template

- Expert Service Profile wizard
- Service profile associate/disassociate
- Management of IP address, KVM and virtual media Cisco hardware

Module 5: Virtualization and Application Solutions

- Key implementation factors for FlexPod applications and hypervisors
- VMware
- OpenStack
- Hyper-V

Module 6: FlexPod Management Tools Implementation

- Cisco UCS Director
- Cisco UCS Central
- NetApp OnCommand Unified Manager
- NetApp Virtual Storage Console (VSC)