

NETLOGIC TRAINING CENTER

Course Training

Understand Cisco Cloud Fundamental – CCNA Cloud (210-451 CLDFND) version 1.0

Course Content

The Understanding Cisco Cloud Fundamentals course is designed to provide students with the necessary knowledge, skills and abilities (KSA) to perform foundational tasks related to Cloud computing. It teaches the characteristics and deployment models of a Cloud network.

Course Objective

Upon course completion, students will be able to:

- Describe common cloud characteristics
- Describe and Identify the cloud service models
- Describe and Compare cloud deployment models
- Identify cloud deployment decision factors
- Identify and Illustrate key features of UCS
- Define server virtualization
- Describe network architectures for the data center
- Identify infrastructure virtualization
- Analyze and Identify storage provisioning concepts
- Describe and Compare the difference between all the storage access technologies
- Describe and Compare various reference architectures for converged infrastructure
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Course Prerequisite

It is recommended, but not required, that students have the following knowledge and skills before attending this course:

- Understand Network Fundamentals
- Understand Compute Fundamentals
- Understand Storage Fundamentals

Course Pre-Test

Not Required

Course Details

Day 1

Item	Subject	Details	Personal Lab and devices	Workgroup Lab and devices
1	Cloud Characteristics and Models	<ul style="list-style-type: none"> Describe common cloud characteristics <ol style="list-style-type: none"> On-demand self service Elasticity Resource pooling Metered service Ubiquitous network access (smartphone, tablet, mobility) Multi-tenancy Describe Cloud Service Models <ol style="list-style-type: none"> Infrastructure as a Service (IaaS) Software as a Service (SaaS) Platform as a Service (PaaS) 	Theory and Lecture	
Break				
2	Cloud Deployment	<ul style="list-style-type: none"> Describe cloud deployment models <ol style="list-style-type: none"> Public Private Community Hybrid Describe the Components of the Cisco Intercloud Solution <ol style="list-style-type: none"> Describe the benefits of Cisco Intercloud Describe Cisco Intercloud Fabric Services 	Theory and Lecture	
	Summary challenge advance lab for factory default and basic configure	Lab 1 - factory default network device for new configuration Lab 2 - pre-configure ESXi 5.5 - pre-configure vCenter for ESXi 5.5 - pre-configure vmnetwork for ESXi 5.5 basic operation - pre-configure iSCSI for ESXi 5.5 storage - pre-configure core switch for support ESXi 5.5	(Lab 1 and Lab 2) <u>Real Device</u> ISR router 4321 1 Unit Catalyst 2960 1 Unit Catalyst 3560 1 Unit Cisco UCS C series 1 Unit ESXi 1 version 5.5 vCenter for ESXi 5.5 Cisco Nexus 1000v vSphere for ESXi 5.5	

Day 2

Item	Subject	Details	Trainee Lab and devices	Workgroup Lab and devices
3	Basic Knowledge of Cloud Compute	<ul style="list-style-type: none"> • Identify key features of Cisco UCS <ul style="list-style-type: none"> a Cisco UCS Manager b Cisco UCS Central c B-Series d C-Series e Server identity (profiles, templates, pools) • Describe Server Virtualization <ul style="list-style-type: none"> a Basic knowledge of different OS and hypervisors 	Theory and Lecture	
Break				
4	Basic Knowledge of Cloud Networking	<ul style="list-style-type: none"> • Describe network architectures for the data center <ul style="list-style-type: none"> a Cisco Unified Fabric <ul style="list-style-type: none"> a.1 Describe the Cisco Nexus product family a.2 Describe device virtualization b SDN <ul style="list-style-type: none"> b.1 Separation of control and data b.2 Programmability b.3 Basic understanding Open Daylight c ACI <ul style="list-style-type: none"> c.1 Describe how ACI solves the problem not addressed by SDN c.2 Describe benefits of leaf/spine architecture c.3 Describe the role of APIC Controller • Describe Infrastructure Virtualization <ul style="list-style-type: none"> a Difference between vSwitch and DVS b Cisco Nexus 1000V components <ul style="list-style-type: none"> b.1 VSM b.2 VEM b.3 VSM appliance c Difference between VLAN and VXLAN d Virtual networking services e Define Virtual Application Containers <ul style="list-style-type: none"> e.1 Three-tier application container e.2 Custom container 	Theory and Lecture	
	Summary challenge advance lap for Nexus 1000v and configuration	Lab 1 - installation Nexus 1000v in ESXi 5.5 - installation Nexus 1000v license with Cisco website - configuration and verifying Nexus 1000v - fine tune Nexus 1000v and verifying Nexus 1000v operation	(Lab 1) <u>Real Device</u> ISR router 4321 1 Unit Catalyst 2960 1 Unit Catalyst 3560 1 Unit Cisco UCS C series 1 Unit ESXi 1 version 5.5 vCenter for ESXi 5.5 Cisco Nexus 1000v vSphere for ESXi 5.5	

Day 3

Item	Subject	Details	Trainee Lab and devices	Workgroup Lab and devices
5	Basic Knowledge of Cloud Storage	<ul style="list-style-type: none"> • Describe storage provisioning concepts <ul style="list-style-type: none"> a Thick b Thin c RAID d Disk pools • Describe the difference between all the storage access technologies <ul style="list-style-type: none"> a Difference between SAN and NAS; block and file b Block technologies c File technologies • Describe basic SAN storage concepts <ul style="list-style-type: none"> a Initiator, target, zoning b VSAN c LUN 	Theory and Lecture	
Break				
		<ul style="list-style-type: none"> • Describe basic NAS storage concepts <ul style="list-style-type: none"> a Shares / mount points b Permissions • Describe the various Cisco storage network devices <ul style="list-style-type: none"> a Cisco MDS family b Cisco Nexus family c UCS Invicta (Whiptail) • Describe various integrated infrastructures <ul style="list-style-type: none"> a FlexPod (NetApp) b VBlock (VCE) c VSPEX (EMC) 	Theory and Lecture	
	Summary challenge advance lap for Integration Nexus 1000v and ESXi and Troubleshooting with advance option	Lab 1 - configuration Nexus 1000v feature - Observation Nexus 1000v and ESXi issues - Troubleshooting Nexus 1000v and ESXi operation - Consideration I/O consolidation with Nexus 1000v and ESXi - Advanced option for troubleshooting I/O consolidation	(Lab 1) Real Device ISR router 4321 1 Unit Catalyst 2960 1 Unit Catalyst 3560 1 Unit Cisco UCS C series 1 Unit ESXi 1 version 5.5 vCenter for ESXi 5.5 Cisco Nexus 1000v vSphere for ESXi 5.5	

Course Post-Test

Not Required

Course Materials

Not include in this class training (but you can requested from sale team)

Course Devices Training (Per 1 Person)



Cisco Router ISR 4321



Catalyst 3560-CX



Catalyst 2960



Cisco UCS server C-Series

