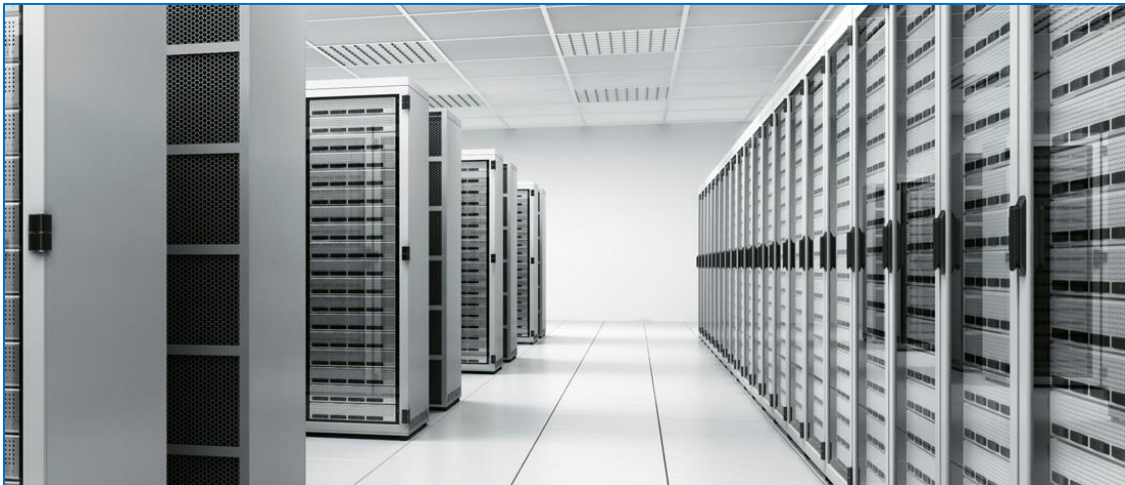




IT130: Implementing Cisco Data Center Virtualisation and Automation

Training Description:

Implementing Cisco Data Center Virtualization and Automation is a five-day skill building course focused on the implementation and deployment automation of Cisco Application Centric Infrastructure (ACI) and Cisco Nexus switches. The course provides rich, hands-on experience in building a data center solution based on Cisco ACI. Participants are introduced to the automation capabilities offered by Python and RESTful APIs in combination with Cisco ACI and Cisco Nexus switches.

This intensive course is designed to help participants prepare for Cisco CCNP Data Center certification and for professional-level data center roles.

This course is recommended as preparation for exam:

- **300-170** - Cisco Data Center Virtualization and Automation

Training Objectives:

By the end of the training, participants will be able to:

- ✓ Implement infrastructure virtualization solutions, such as VDC, VRFs, Cisco Nexus 1000v and Cisco AVS
- ✓ Identify programmability methods and program Cisco Nexus switches using XML, Python and NXAPI
- ✓ Implement a Cisco ACI solution that provides fabric connectivity to bare-metal hosts, virtual machines and external Layer 2 and Layer 3 domains
- ✓ Integrate Cisco ACI with virtual machine managers, such as VMware vCenter
- ✓ Enforce application policies in intra- and intertenant scenarios
- ✓ Deploy Cisco AVS and microsegmentation
- ✓ Program Cisco ACI using Python, RESTful APIs and Arya
- ✓ Orchestrate Cisco ACI using the Cisco UCS Director
- ✓ Insert L4-L7 services into the Cisco ACI fabric
- ✓ Monitor Cisco ACI deployment using atomic counters and other monitoring tools

Training Designed for:

This course is intended for Individuals involved in the deployment of an ACI based data center

Prerequisites:

- Good understanding of the VMware environment
- Attended or have knowledge equivalent to DCICN, DCICT and DCAC9K

Training Program:

DAY ONE:

- ❖ PRE-TEST
- ❖ Introduction
- ❖ Infrastructure Virtualization Implementation
 - Configuring Logical Device Separation
 - Configuring Virtual Switching Technologies

❖ **NX-OS Configuration Automation**

- Implementing Configuration Programmability
- Implementing Configuration Profiles
- Using Scripting Tools

DAY TWO:

❖ **Application-Centric Infrastructure**

- Describing Cisco ACI Fabric
- Describing Management
- Describing Cisco ACI Fabric Access Policies

❖ **ACI Constructs**

- Describing Tenant-Based Policies
- Describing VMM Domain Integration
- Describing Contracts Within an Application Profile

DAY THREE:

❖ **Application-Centric Infrastructure Monitoring and Programmability**

- Configuring Monitoring
- Configuring Security Domains and Role Mapping
- Describing Cisco ACI Programmability

❖ **Cisco ACI Enhanced Features**

- Implementing Inter-Tenant Communication
- Describing vPC
- Deploying Cisco AVS

DAY FOUR:

❖ **Application-Centric Infrastructure Networking**

- Describing Packet Flow Internal to the ACI Fabric
- Describing External Layer 3 Network Integration
- Describing External Layer 2 Network Integration
- Configuring Service Insertion and Redirection

DAY FIVE:

❖ **Labs:**

- Lab 1: Implement Cisco NX-OS Configuration Automation
- Lab 2: Discover and Initialize the ACI Fabric
- Lab 3: Implement Cisco ACI Fabric Connectivity for Bare-Metal Hosts
- Lab 4: Implement Cisco ACI Fabric Connectivity for VMs
- Lab 5: Implement Application Policies
- Lab 6: Monitor Traffic with Atomic Counters
- Lab 7: Implement Inter-Tenant Connectivity
- Lab 8: Program Cisco APIC Using Python and Arya
- Lab 9: Implement vPC to Hypervisors
- Lab 10: Deploy Cisco AVS and Microsegmentation
- Lab 11: Enable Connectivity to External Layer 3 Networks
- Lab 12: Enable Connectivity to External Layer 2 Networks



- Lab 13: Provision Cisco ACI Using Cisco UCS Director
- Lab 14: Deploy Service Graph ASA NGFW
- ❖ Course Conclusion
- ❖ POST-TEST and EVALUATION

Training Requirement:

“Hand’s on practical sessions, equipment and software will be applied during the course if required and as per the client’s request.”

Please note that the above topics can be amended as per client’s learning needs and objectives. Further, it should be forwarded to us a month prior to the course dates.

Training Methodology:

This interactive training course includes the following training methodologies as a percentage of the total tuition hours:

- 30% Lectures, Concepts, Role Play
- 70% Workshops & Work Presentations, Techniques, Based on Case Studies & Practical Exercises, Software & General Discussions
- Pre and Post Test

Training Certificate(s):

Internationally recognized certificate(s) will be issued to each participant who completed the course.

Training Fees:

As per the course location - This rate includes participant’s manual, hand-outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Note: The 5% VAT (Value Added Tax), will be effective starting 01st of January 2018 as per the new regulation from the UAE Government. The VAT applies for all quotation both for local and abroad.

Training Timings:

Daily Timings:

07:45 - 08:00	Morning Coffee / Tea
08:00 - 10:00	First Session
10:00 - 10:20	Recess (Coffee/Tea/Snacks)
10:20 - 12:20	Second Session
12:20 - 13:30	Recess (Prayer Break & Lunch)
13:30 - 15:00	Last Session

For training registrations or in-house enquiries, please contact:

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Training & Career Development Department

