Designing Cisco Network Service Architectures V3.0

Duration: 5 Days   Course Code: ARCH   Delivery Method: E-learning

Overview:

Cisco E-Learning for ARCH v3.0 is designed to enable students to perform the conceptual, intermediate, and detailed design of a network infrastructure that supports desired network solutions over intelligent network services to achieve effective performance, scalability, and availability.

It enables learners, applying solid Cisco network solution models and recommended design practices, to provide viable, stable enterprise internetworking solutions. The course presents concepts and examples necessary to design converged enterprise networks. In addition, it includes content addressing software defined networks (SDN). Building on the Designing for Cisco Internetwork Solutions (DESGN) v3.0 course, the students will learn additional aspects of modular campus design, advanced addressing and routing designs, WAN service designs, enterprise data center, and security designs.

Course content is presented in easily-consumable segments via both Instructor Video and text. Interactivity is enabled through Discovery labs, content review questions, and graded Challenge labs and tests. This makes the learning experience hands-on, increasing course effectiveness, and provides students direct feedback on how well they have mastered the material. Gamification features are built in, including earning badges and a leaderboard, to encourage better performance.

Related Certification: CCDP

Exam: 300-320 ARCH

Duration: Subscription is valid for 365 Days

This course is worth 40 Credits in the Continuing Education Program

Target Audience:

This course is intended for individuals seeking the Cisco CCDP certification and those working toward the Cisco CCDE certification. Presales and postsales network engineers that are involved in network design, planning, and implementation, Network administrators and designers that are responsible for designing and implementing the enterprise network.

Objectives:

- **After completing this course you should be able to:**

- Design internal routing for enterprise network

- Design BGP routing for enterprise network

- Design enterprise WAN connectivity

- Design enterprise data center integration

- Design security services in an enterprise network

- Design QoS for optimized user experience

- Design enterprise transition to IPv6

- Design enterprise multicast network

Prerequisites:

Recommended that students have the following knowledge and skills:

- Internetworking technologies, Cisco products, and Cisco IOS features
- Cisco Certified Network Associate **(CCNA)** level-of-knowledge
- Designing for Cisco Internetwork Solutions **(DESGN)** level-of-knowledge
- Implementing Cisco IP Switched Networks (**SWITCH)** level-of-knowledge
- Implementing Cisco IP Routing **(ROUTE)** level-of-knowledge

Testing and Certification

Recommended preparation for exam(s):

- **300-320** - **ARCH** Designing Cisco Network Service Architectures
This course is required for those delegates looking to obatin their Cisco Certified Design Professional (CCDP) Certification

Content:

Enterprise Connectivity and High-Availability

- EIGRP Design Considerations
- OSPF Design Considerations
- IS-IS Design Considerations
- Challenge 1: Design Enterprise Connectivity

BGP Design

- Designing IBGP Sessions
- Designing BGP Communities
- Load Sharing
- Challenge 2: Design Enterprise BGP Network with Internet Connectivity

Wide Area Networks Design

- Service Provider Managed VPNs
- Enterprise Managed VPNs
- WAN Resiliency Design
- Campus Edge and Connectivity to Partners
- Challenge 3: Design Resilient Enterprise WAN
- SDN and APIC-EM

Enterprise Data Center Integration

- Modular and Scalable Data Center Network
- Multi-Tenant Data Center
- Data Center Interconnections
- Data Center Traffic Flows
- SDN and APIC-DC
- Challenge 4: Design Enterprise Data Center Connectivity

Design Security Services

- Security Services Overview
- Designing Infrastructure Protection
- Designing Firewall and IPS Solutions
- Designing Network Access Control Solutions
- Challenge 5: Design Secure Enterprise Network

Design QoS for Optimized User Experience

- QoS Overview
- Recommended QoS Design Principles
- Campus QoS Design
- Data Center QoS Design
- WAN QoS Design
- MPLS VPN QoS Design
- IPsec VPN QoS Design
- Challenge 6: Design QoS in Enterprise Network

Transition to IPv6

- Transition to IPv6
- Challenges with Transition to IPv6
- Challenge 7: Design Enterprise IPv6 Network

IP Multicast Design

- Defining Multicast Distribution Trees and Forwarding
- Introducing PIM-SM Protocol and PIM-SM Enhancements
- Rendezvous Point Distribution Solutions
- IP Multicast Security

Further Information:

For More information, or to book your course, please call us on 00 966 92000 9278

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