ENCOR

Implementing Cisco Enterprise Network Core Technologies

Description:

The goal of this course is to develop the core networking skills needed to configure, troubleshoot, and manage Enterprise wired a wireless network. It also requires you to understand and implement security principles within the Enterprise networks and introduces you to overlay network design by using solutions like SD-Access and SD-WAN. The course also lays focus implementing on automation and programmability in Enterprise networks.

Students will be able to:

- Implement VLANs and trunks.
- Implement different spanning-tree versions like STP, RSTP, and MST.
- Configure Etherchannels / Link aggregation.
- Use routing protocols including EIGRP, OSPF, and BGP.
- Know Cisco wireless technologies
- Know multicast protocols like PIM dense, sparse, and sparse-dense mode.
- Network designs and architectures
- Configure NAT/PAT and first hop redundancy protocols like HSRP, VRRP, or GLBP.
- Know Quality of Service (QoS) topics like queuing, policing, and shaping.
- Know how to monitor and troubleshoot your network.
- Know to secure your routers and switches.
- Know how network automation impacts traditional network management.
- Know Different virtualization technologies.
- And many other topics

Course requirements:

- experience with implementation of Enterprise LAN networks
- basic understanding of Enterprise routing and wireless connectivity
- basic understanding of python scripting

This course is intended for:

- Students preparing to take the CCNP Enterprise
- Network administrators
- Network engineers
- Systems engineers

Literature:

All participants will get original Cisco student and lab guides.

Hardware:

Labs are practised on Cisco delivered Virtual lab environment. Classrooms are equipped with high-performance computers with Internet access and the possibility of wireless connection.

Syllabus:

- Examining Cisco Enterprise Network Architecture
- Understanding Cisco Switching Paths
- Implementing Campus LAN Connectivity
- Building Redundant Switched Topology
- Implementing Layer 2 Port Aggregation
- Understanding EIGRP
- Implementing OSPF
- Optimizing OSPF
- Exploring EBGP
- Implementing Network Redundancy
- Implementing NAT
- Introducing Virtualization Protocols and Techniques
- Understanding Virtual Private Networks and Interfaces
- Understanding Wireless Principles
- Examining Wireless Deployment Options
- Understanding Wireless Roaming and Location Services
- Examining Wireless AP Operation
- Understanding Wireless Client Authentication
- Troubleshooting Wireless Client Connectivity
- *Introducing Multicast Protocols*
- *Introducing QOS*
- Implementing Network Services
- Using Network Analysis Tools
- Implementing Infrastructure Security
- Implementing Secure Access Control
- *Understanding Enterprise Network Security Architecture* *
- *Exploring Automation and Assurance Using Cisco DNA Center* *
- *Examining the Cisco SD-Access Solution* *
- *Understanding the Working Principles of the Cisco SD-WAN Solution* *
- *Understanding the Basics of Python Programming* *
- *Introducing Network Programmability Protocols* *
- *Introducing APIs in Cisco DNA Center and vManage* *

* *Points in italics are defined as self-study according to the Cisco's company official curriculum.*

Contact us
OKsystem a.s., Na Pankráci 1690/125, 140 00 Prague 4
(+420) 236 072 111 skoleni@oksystem.cz www.okskoleni.cz