Course Name: BSCI (Building Scalable Cisco Internetworks v3.0)

Course Code: 5140

Course Overview: In this comprehensive Cisco course, you will develop an advanced set of skills to help you optimize the configuration and deployment of a Cisco router-based internetwork. Learn the complex concepts and commands necessary to configure Cisco routers for scalable operation in large and/or growing internetworks. Whether your goal is to take your Cisco routing skills to the next level or to achieve CCNP or CCIP certification, this is the right course for you.

Course Length: 5 days

Who should attend:
- Network administrators,
- Network specialists and technicians who configure and support large internetworks
- Individuals seeking CCNP, CCIP, and CCDP certifications.

You will learn:
- Converged network requirements of various network and networked applications within the Cisco network architectures
- Advanced IP address configuration techniques to optimize your network
- Implement and verify EIGRP operations
- Build a scalable multi-area network with OSPF
- Configure integrated IS-IS in a single area
- Manipulate routing and packet flow
- Implement and verify BGP for enterprise ISP connectivity
- Implement and verify multicast forwarding using PIM and related protocols
- Network reconfiguration to adapt to new technologies, including IPv6
- How IPv6 functions in order to satisfy the increasingly complex requirements of hierarchical addressing
- IPv6 routing protocols

Prerequisites:
- CCNA certification or familiarity with internetworking technologies
- Tthe ability to perform basic configuration of Cisco routers is required.
- Knowledge of IP, including the ability to perform IP subnetting on non-octal boundaries
- The ability to configure IP standard and extended access lists, distance vector routing protocol operation
- Configuration, serial interface configuration, and the ability to interpret a Cisco routing table. Prerequisite knowledge can be acquired from successfully completing ICND (Interconnecting Cisco Network Devices) or CCNA Boot Camp.

Course Fee: Call for quote

Customizable: No

Course Content:
Network Requirements

Configuring EIGRP
- Introducing EIGRP
- Implementing and Verifying EIGRP
- Configuring Advanced EIGRP Options
- Configuring EIGRP Authentication
- Using EIGRP in an Enterprise Network

Configuring OSPF
- Introducing the OSPF Protocol
- OSPF Packet Types
- Configuring OSPF Routing
- OSPF Network Types
- Link State Advertisements
- Configuring OSPF Route Summarization
- Configuring OSPF Special Area Types
- Configuring OSPF Authentication

The IS-IS Protocol
- Introducing IS-IS and Integrated IS-IS Routing
- IS-IS Routing Operation
- Configuring Basic Integrated IS-IS

Manipulating Routing Updates
- Operating a Network Using Multiple IP Routing Protocols
- Configuring and Verifying Route Redistribution
- Controlling Routing Update Traffic
- Implementing Advanced IOS Features: Configuring DHCP

Configuring Basic BGP
- Explaining BGP Concepts and Terminology
- Explaining EBGP and IBGP
- Configuring Basic BGP Operations
- Selecting a BGP Path
- Using Route Maps to Manipulate Basic BGP Paths

Implementing IP Multicast
- Explaining Multicast

- IGMP and Layer 2 Issues
- Explaining Multicast Routing Protocols
- Multicast Configuration and Verification

Implementing IPv6

- Introducing IPv6
- Defining IPv6 Addressing
- Implementing Dynamic IPv6 Addresses
- Using IPv6 with OSPF and Other Routing Protocols
- Using IPv6 with IPv4