Implementing and Administering Cisco Solutions (CCNA) v2.2

Course Duration: 40 Hours **Course Code: CCNA v2.2**

1. Course Overview

The **Implementing and Administering Cisco Solutions (CCNA) v2.2** course provides comprehensive knowledge and hands-on skills required to install, configure, operate, and troubleshoot small to medium-sized enterprise networks. This course covers networking fundamentals, IP connectivity, network access, IP services, security fundamentals, automation, and programmability. It is designed to prepare professionals for the **Cisco Certified Network Associate (CCNA)** certification exam, ensuring a strong foundation for a career in networking.

2. What You'll Learn?

By the end of this course, you will be able to:

- Understand the fundamentals of networking and Cisco solutions.
- Configure and verify VLANs, inter-switch connectivity, and Layer 2 protocols.
- Implement IPv4 and IPv6 addressing and routing.
- Manage security threats with access control lists and secure network device access.
- Implement IP services such as DHCP, NAT, and NTP.
- Gain hands-on experience with automation, programmability, and network management.
- Prepare effectively for the CCNA certification exam.

Phone: +91-999-911-1686 **Mail Us:** info@ssdntech.com

3. Target Audience

This course is ideal for:

- Network administrators and support engineers.
- Entry-level network engineers and technicians.
- Professionals pursuing the Cisco CCNA certification.
- Anyone seeking a foundational understanding of enterprise networking.

4. Pre-Requisites

- Basic computer literacy.
- Familiarity with fundamental networking concepts.
- No formal prerequisites; however, prior experience with IT or networking basics is recommended.

5. Course Content

Module 1: Networking Fundamentals

- Role and impact of networking
- OSI and TCP/IP models
- IPv4 and IPv6 fundamentals

Module 2: Network Access

- VLANs and trunking
- STP concepts
- EtherChannel configuration

Module 3: IP Connectivity

- Routing concepts

- Static and dynamic routing
- OSPF configuration

Module 4: IP Services

- DHCP, NAT, and NTP
- DNS operations
- QoS concepts

Module 5: Security Fundamentals

- Security threats and vulnerabilities
- Device hardening techniques
- Access Control Lists (ACLs)

Module 6: Automation and Programmability

- Controller-based networking
- REST APIs and JSON
- Cisco DNA Center basics

Module 7: Network Management and Troubleshooting

- Monitoring tools and protocols
- Troubleshooting methodologies
- Best practices in enterprise networking