

## Sun Certified Network Administration (SCNA)

Network Administration for the Solaris Operating System (Solaris OS) course provides students with the knowledge and skills necessary to perform network administration tasks, such as configuration and troubleshooting of a local area network (LAN). This course also provides hands-on experience with topics, such as Internet Protocol (IP) routing, Domain Name System (DNS), Dynamic Host Configuration Protocol (DHCP) and IP version 6 (IPv6).

\*Group rates available – Inquire for more details\*

**Duration:** 40 hours

### **Objective**

This course prepares students for the Sun Certified Network Administrator

### **Audience**

Students who can benefit from this course are experienced system administrators who are or will be responsible for administering Sun systems in a networked environment that includes LANs and the Solaris OS.

### **Prerequisites**

- Install, configure, and maintain a Solaris OS product line server
- Change system run levels
- Read and edit system resource files

### **Included Labs**

Labs to be provided by the trainer

### **Course Content**

- Configure routing and routing tables
- Configure subnet masks, including variable length masks
- Configure DHCP clients and servers
- Configure DNS
- Configure a Network Time Protocol (NTP) server and client
- Configure a system as an IPv6 host or router
- Configure IPv6-over-IPv4 tunnels
- Troubleshoot network problems

### **Module 1 - Introducing the TCP/IP Model**

- Describe network model fundamentals
- Describe the layers of the TCP/IP model
- Describe basic peer-to-peer communication and related protocols

## Module 2 - Introducing LANs and Their Components

- Describe network topologies
- Describe LAN media
- Describe network devices

## Module 3 - Describing Ethernet Interfaces

- Describe Ethernet concepts
- Describe Ethernet frames
- Use network utilities

## Module 4 - Describing ARP and RARP

- Describe ARP
- Describe RARP

## Module 5 - Configuring IP

- Describe the Internet layer protocols
- Describe the IP datagram
- Describe IP address types
- Describe subnetting and VLSMs
- Describe the interface configuration files
- Administer logical interfaces

## Module 6 - Configuring Multipathing

- Increase network throughput and availability
- Implement multipathing

## Module 7 - Configuring Routing

- Identify the fundamentals of routing
- Describe route table population
- Describe routing protocol types
- Describe the route table
- Configure static routing
- Configure dynamic routing
- Describe classless inter-domain routing (CIDR)
- Configure boot time routing
- Troubleshoot routing

## Module 8 - Configuring IPv6

- Describe IPv6
- Describe IPv6 addressing
- Describe IPv6 auto configuration

- Describe IPv6 unicast address types
- Describe IPv6 multicast address types
- Enable IPv6
- Manage IPv6
- Configure IPv6-over-IPv4 tunnels
- Configure IPv6 multipathing

### **Module 9 - Describing the Transport Layer**

- Describe Transport layer fundamentals
- Describe UDP
- Describe TCP
- Describe TCP flow control

### **Module 10 - Configuring DNS**

- Describe the DNS basics
- Configure the DNS server
- Troubleshoot the DNS server using basic utilities

### **Module 11 - Configuring DHCP**

- Describe the fundamentals of DHCP
- Configure a DHCP server
- Configure and manage DHCP clients
- Configure for dynamic DNS
- Configure a DHCP server to support JumpStart clients

### **Module 12 - Configuring NTP, Configuring Solaris IP Filter Firewall**

- Identify NTP basics
- Configure an NTP server
- Configure an NTP client
- Troubleshoot NTP
- IP Filter firewall basics
- Configure IP Filter firewall