

Network Administration for the Solaris 10 Operating System (SA-300-S10)

The Network Administration for the Solaris 10 Operating System 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), IP version 6 (IPv6) and the Solaris IP Filter firewall.

Who Can Benefit

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 Operating System (Solaris OS).

Prerequisites

To succeed fully in this course, students should be able to:

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

Upon completion of this course, students should be able to:

- Configure the Network Interface layer
 - Configure the network (Internet and Transport layers)
 - Configure and manage network applications
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Related Courses

Before:

- [Advanced System Administration for the Solaris 10 Operating System \(SA-202-S10\)](#)

After:

- [Solaris System Performance Management \(SA-400\)](#)
 - [Administering Security on the Solaris Operating System \(SC-300\)](#)
 - [Using LDAP as a Naming Service \(IN-351\)](#)
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Course Content

Module 1 - Introducing the TCP/IP Model

- Describe network model fundamentals
- Describe the layers of the Transmission Control Protocol/IP (TCP/IP) model
- Describe basic peer-to-peer communication and related protocols
- Identify TCP/IP 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 Address Resolution Protocol (ARP)
- Describe Reverse ARP (RARP)

Module 5 - Configuring IP

- Describe the Internet layer protocols
- Describe the IP datagram
- Describe IP address types
- Describe subnetting and variable length subnet masks (VLSMs)
- Describe the interface configuration files
- Administer logical interfaces

Module 6 - Configuring IP Network Multipathing

- Describe IP multipathing
- Implement IP multipathing

Module 7 - Configuring Routing

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

Module 8 - Configuring IPv6

- Describe IPv6
- Describe IPv6 addressing
- Describe IPv6 autoconfiguration
- Describe IPv6 unicast address types
- Describe IPv6 multicast address types
- Enable IPv6
- Manage IPv6
- Configure 6to4 routing
- Configure IPv6 multipathing

Module 9 - Describing the Transport Layer

- Describe Transport layer fundamentals
- Describe User Datagram Protocol (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
- Troubleshoot a DHCP server
- Troubleshoot a DHCP client

Module 12 - Configuring NTP

- Identify NTP basics
- Configure an NTP server
- Configure an NTP client
- Troubleshoot NTP

Module 13 - Configuring the Solaris IP Filter Firewall

- Identify Solaris IP Filter firewall basics
- Configure Solaris IP Filter firewall