

Chapter 20

Operating System
Networking and Network
Troubleshooting

Episode 20.01

Episode **Understanding DNS**
title:

Objective:

- 2.3 Summarize services provided by networked hosts.
- 2.4 Explain common network configuration concepts
 - Server roles
 - DNS

L3s

- 1:05 - www.totalsem.com (175.16.44.3)
- 1:10 www.totalsem.com
- 1:20 - Objective term - Domain Name System (DNS)
- 1:26 - Fully Qualified Domain Name (FQDN) Example: www.totalsem.com
- 1:56 - Hosts file
- 8:15 - FQDNs have a 256-character limit

L3s

- 8:33 - Objective term - Spam gateway/spam management
- 9:17 - Objective term - Domain-based Message Authentication, Reporting, and Conformance (DMARC)
- 9:55 - Objective term - DomainKeys Identified Mail (DKIM)
- 10:28 - Objective term - Sender Policy Framework (SPF)

Episode 20.08

Episode **Beyond wifi**
title:

Objective:

L3s

OBJ - Storage Area Network (SAN)

SAN is a network of storage devices

NAS is storage on a network

Network Attached Storage (NAS)

Fibre Channel Protocol

Internet SCSI

Network Attached Storage (NAS)

NAS is storage on a network

Storage Area Network (SAN)

Dedicated network that provides data storage services to other networks and network nodes

Episode 20.13

Episode **Advanced Router Configuration**
title:

Objective: 210 Given a scenario, apply security settings on SOHO wireless and wired networks

- Router settings
 - Configure secure management access
- Wireless specific
 - Configuring guest access

L3s

- 0:29 - Quality of Service (QoS)
- 3:55 - Objective term - Universal Plug and Play (UPnP)
- 5:04 - Link Layer Discovery Protocol
- 5:21 - Objective term - Simple Network Management Protocol (SNMP)

SOHO Routers

Secure Access Management

- Implementing a policy of strong and completely unique passwords
- Enabling firewall settings
- Disabling or highly limiting remote management access

Guest Network

- Provides a separate and isolated Wi-Fi connection

Episode 20.14

Episode **Advanced Router Configuration**
title:

Objective: 210 Given a scenario, apply security settings on SOHO wireless and wired networks

- Router settings
 - Configure secure management access
- Wireless specific
 - Configuring guest access

L3s

-SDN separates the control plane from the data plane on networked devices

Human error

An error in manual configurations or reconfigurations can be devastating when it's on one of the critical routing or switching equipment



Episode 20.15

Episode **Network Troubleshooting**
title:

Objective:

5.5 Given a scenario, troubleshoot network issues

- Common symptoms

- Jitter
- Poor VoIP quality
- Port flapping
- Authentication failures

L3s

- 0:27 - No connectivity
- 1:25 - IP conflict
- 2:17 - Objective term - Limited connectivity
- 2:54 - Rogue DHCP server
- 3:14 - Objective term - Intermittent connectivity
- 3:45 - Unavailable resources
- 4:12 - Objective term - Slow transfer/network speeds

L3s

Jitter

Poor Voice over IP (VoIP)

Port flapping

Authentication failures