



Lab 1.2.6 Network Baseline Discovery

Objective

In this lab, you will establish the baseline for the configuration and operation of your network. You will complete the following tasks:

- Determine network topology and device configurations
- Complete network configuration tables
- Update the base network diagram for your workgroup to include data link layer switch features and network layer addressing

After completing this exercise, you will be able to:

- Document the topology of a network
- Identify data link layer addresses and implemented features in a network
- Identify network layer addresses and implemented features, including routing protocols used in a network

Job Aids

These job aids are available to help you complete the laboratory exercises:

- A base network diagram
- An empty network configuration table
- A table containing addressing information and passwords
- Telnet settings for accessing the device

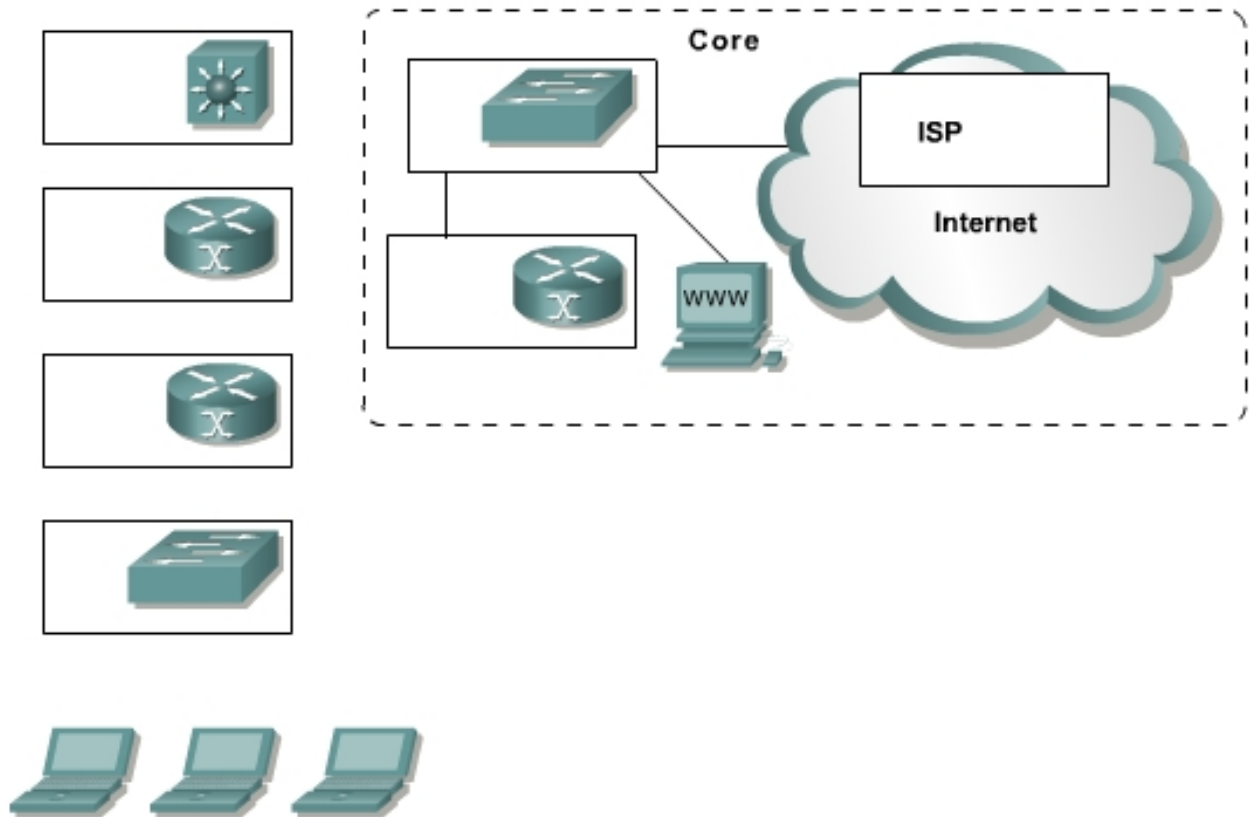
Command List

In the Network Baseline Discovery laboratory exercise, you may find the following list of commands helpful. The list includes both router and switch commands. The majority of commands used in this exercise should be familiar to you from previous experience or from the Cisco BSCI, BCMSN, and BCRAN courses.

Table 1: Helpful Network Discovery Commands

Command	Description
<code>show access-lists</code>	Shows configured access-lists
<code>show cdp neighbors [detail]</code>	Displays CDP neighbor information
<code>show controllers <type number></code>	Displays controller information and status
<code>show etherchannel summary</code>	Displays EtherChannel port-channel summary status, including Layer 2 or Layer 3 port and interface information
<code>show frame-relay map</code>	Displays Frame Relay mapping status
<code>show frame-relay pvc</code>	Displays Frame Relay PVC information and status
<code>show interface port-channel <channel></code>	Displays port-channel status, including Layer 2 or Layer 3 port and interface information
<code>show interfaces trunk</code>	Shows trunking interfaces
<code>show ip bgp summary</code>	Shows summary Border Gateway Protocol (BGP) status
<code>show ip protocols</code>	Displays routing protocol status
<code>show ip route</code>	Displays IP routing table information
<code>show protocols</code>	Displays Layer 3 addresses and interface status
<code>show running-config</code>	Displays device configuration information
<code>show spanning-tree</code>	Displays Spanning Tree Protocol information, including port status
<code>show version</code>	Displays general hardware and software information
<code>show vlan</code>	Displays VLAN information
<code>show vtp status</code>	Displays VLAN Trunking Protocol (VTP) status, including domain name and revision number
<code>telnet <ip-address></code>	Uses Telnet to connect to an IP address
<code>traceroute <ip-address></code>	Runs Traceroute to an IP address

Baseline Network Diagram



Network Configuration Table (Router)

Device Name, Model	Interface	MAC Address	IP Address / Subnet Mask	IP Routing Protocol(s)	Notes/Comments

Device Name, Model	Interface	MAC Address	IP Address / Subnet Mask	IP Routing Protocol(s)	Notes/Comments

Device Name, Model	Interface	MAC Address	IP Address / Subnet Mask	IP Routing Protocol(s)	Notes/Comments

Device Name, Model	Interface	MAC Address	IP Address / Subnet Mask	IP Routing Protocol(s)	Notes/Comments

Network Configuration Table (Switch)

Catalyst Name, Model. Management IP Address	Port	Speed	Duplex	STP State Fwd / Blk	Portfast / Trunk	Ether Channel (L2 or L3)	VLAN	IP Address

Catalyst Name, Model. Management IP Address	Port	Speed	Duplex	STP State Fwd / Blk	Portfast / Trunk	Ether Channel (L2 or L3)	VLAN	IP Address

Catalyst Name, Model. Management IP Address	Port	Speed	Duplex	STP State Fwd / Blk	Portfast / Trunk	Ether Channel (L2 or L3)	VLAN	IP Address

Step 1

Coordinate with others in your workgroup to gather detailed information about all devices within your workgroup. Complete the network configuration tables and transfer details to your topology diagram.

Connect to the console port of one device.

Step 2

Enter the router and switch commands as needed to determine baseline information.

Document the device in the network configuration tables, sharing the information with your workgroup.

Step 3

Connect to additional devices as needed.

Add details to your network diagram documenting the physical connections, device names, and Layer 3 addressing of your workgroup.

Step 4

Verify connectivity across the workgroup network to the core devices.

Step 5

Ask the instructor to verify that your documentation is complete and accurate.