



## Lab 1.3.5 End-System Baseline Discovery

### Objective

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

- Determine end-system network configuration
- Determine end-system connectivity
- Complete end-system network configuration tables

After completing this exercise, you will be able to:

- Identify network layer addresses on PC end-systems
- Demonstrate connectivity between end-systems and network devices

### Job Aids

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

- An empty end-system network configuration table

### Command List

You may find the following list of commands helpful in the procedure of discovering information about end-systems. The list includes only PC 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 PC Discovery Commands**

| Command                                 | Description  |
|---|--|
| <code>arp -a</code>                     | Displays Address Resolution Protocol (ARP) information |
| <code>ipconfig /all</code>              | Displays IP information                                |
| <code>ping &lt;ip-address&gt;</code>    | Pings an IP address                                    |
| <code>route print</code>                | Displays active routes                                 |
| <code>telnet &lt;ip-address&gt;</code>  | Uses Telnet to connect to an IP address                |
| <code>tracert &lt;ip-address&gt;</code> | Runs Tracert to an IP address                          |
| <code>ccnp4_server</code>               | Connect via HTTP to a Web host                         |

## End-System Configuration Table

| Device Name | Switch Name and Interface | IP Address and Mask | MAC Address of NIC | Default Gateway | VLAN Membership | DNS Server |
|-------------|---------------------------|---------------------|--------------------|-----------------|-----------------|------------|
|             |                           |                     |                    |                 |                 |            |
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### Step 1

Gather detailed information about each PC within your workgroup that will be required to complete the end-system configuration table.

Enter command prompt commands to determine the required information.

### Step 2

Test connectivity throughout the network:

- Ping the CCNP4\_Server from every workstation.
- Ping between workstations (all combinations).
- Telnet into CCNP4\_Server from every workstation.
- Access HTTP services on CCNP4\_Server from every workstation.
- Access FTP services on CCNP4\_Server from every workstation.

Share compiled information with your workgroup.

### Step 3

If all connectivity tests are successful, fill in the end-system configuration table. If full connectivity is not achieved, review the documented information and troubleshoot. Be sure to check configured IP addresses, default gateways, and server software settings. Once full connectivity is achieved, fill in the end-system configuration table.

#### Step 4

1. What command is entered at the command prompt to find the workstation IP address?

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2. What command is used to ping from Workstation 2 to Workstation 3?

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3. Is it possible to find the MAC address of Workstation 3 by entering appropriate commands on Workstation 2?

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4. How do you find the MAC address of the default gateway at the command prompt?

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#### Step 5

Demonstrate connectivity to your instructor and present your documentation.