

Session 1-5

Characterizing the Existing Network

Steps in Gathering Information

- Use tools to obtain information
- Use existing documents if available
- Get access to log in the network devices
- Follow the following steps to gather information:
 - **Step 1.** Identify all existing organization information and documentation.
 - **Step 2.** Perform a network audit that adds detail to the description of the network.
 - **Step 3.** Use traffic analysis information to augment information on applications and protocols used.

Steps in Gathering Information

Look for site information such as

- Site names, Site addresses,
- Site contacts, site hours of operation,
- Building and room access.
- Network infrastructure information includes
 - Locations and types of servers and network devices,
 - Data center and closet locations,
 - LAN wiring, WAN technologies and circuit speeds, and power used.

Steps in Gathering Information

- Logical network information includes
 - IP addressing,
 - routing protocols,
 - network management, and
 - security access lists used.
- You need to find out whether voice or video is being used on the network.

Network Audit Tools

Three primary sources of information when performing network audit:

- Existing documentation
- Existing network management software tools
- New network auditing tools

Network Audit Tools

The network audit should provide the following information:

- Network device list
- Hardware models
- Software versions
- Configuration of network devices
- Auditing tools output information
- Interface speeds
- Link, CPU, and memory utilization
- WAN technology types and carrier information

Network Audit Tools

- Network assessment tools include the following
 - Manual assessment – show commands
 - Existing management and auditing tools
 - CiscoWorks
 - NetFlow
 - Network-Based Application Recognition
 - Third-party tools fx Yellowjacket
 - Additional tools with emphasis on VoIP, wireless, and security
 - AirMagnet Analyzer Pro