

Module 9– Objectives and Key Instruction Points

Objectives:

Provide students an understanding of the types of basic tools available for network administration. Provide a basic explanation of how basic tools work and their value network administration.

The guiding question is ““What concepts and skills do students need to be successful building an IT environment suitable for the CDC?”

Video Segment 1 –

1. Networking Tools
 - a. Diagnostic
 - i. Host troubleshooting
 1. Configuration
 2. Connectivity
 - ii. Traffic Analysis
 - b. Security testing
 - i. Profiling
 - ii. Vulnerability Assessment
2. Network tools
 - a. ifconfig/ipconfig
 - b. Netstat
 - c.
3. Network connectivity testing tools
4. Traffic analysis
5. Security testing – Profiling
6. Security testing – Vulnerability Scanning

Activities

Name	Objectives	Content ideas
Activity1	Diagnostic exercises	Approach 1: Provide VMs that have a number of networking issues. Develop exercises that utilize the tools mentioned within the module to sort out the issues. Approach 2: Develop mock exercises that have students use the tools mentioned within the module
Activity 2	Security testing	Develop exercises that have the students use nmap and a vulnerability scanner against their current environment. Results interpretation will have to be

		limited given the complexity of vulnerability analysis. The vulnerability tool may need to be provided within a VM if installation is overly complicated.
--	--	---

Activity design

Handouts

Title:

Objectives:

Length: X pages

Notes:

Title: Network Administration Tools Catalog

Objectives: A one-stop catalog of tools available on Windows and Unix. Each catalog entry should contain: Purpose description, operational options, output interpretation examples. The catalog should contain the tools mentioned in the module.

Length: X pages

Notes:

References to reliable information may be necessary for complicated tools like Wireshark and Nessus.