



IoT Security Technician Skill Zone – CSSIA.ORG

2. Information Communication Technologies

2.11 Network Management

1. Describe the purpose of network management tools and protocols in maintaining an IoT environment.
2. Use network management tools to analyze network traffic patterns (e.g. SNMP).
3. Demonstrate an understanding of a variety of network types including; 802.11/Wi-Fi, SCADA, ZigBee, and others.
4. Troubleshoot connectivity issues using network management tools.
5. Diagnose hardware issues using network management tools.

Network Management

Network Management refers to the concepts and processes used to protect an organizations communication network.

Network Management includes protection of the LANs, WANs, wireless networks, peripheral networks and virtual networks. Network management includes control of the devices, controls, communication protocols and media that make up an organizations enterprise infrastructure. In today's IoT environments this would include physical and virtual servers, switches, routers, firewalls, hosts and end point devices.

The IoT security technician must be familiar with the tools used to analyze network communications, identify potential vulnerabilities and control access to sensitive devices. They must be familiar with tools like packet analyzers, scanners and intrusion detection systems.

2.11 INFORMATION COMMUNICATION TECHNOLOGIES – NETWORK MANAGEMENT



Existing Course Cross Reference

Cisco Networking Academy Courses

[Introduction to Cybersecurity](#)

[Cisco Cybersecurity Essentials](#)

[CCNA Routing and Switching](#)

[CCNA Security](#)

[Mobility Fundamentals](#)

[NDG Linux I & II](#)

[CCNP Routing and Switching](#)

Cisco Partner Courses

[Security+ \(CSSIA.ORG\)](#)

[IoT and ICS Security Controls \(CSSIA.ORG\)](#)

[ICS and SCADA Security \(CSSIA.ORG\)](#)

[CISSP \(CSSIA.ORG\)](#)

Curriculum Resources

Videos

[YouTube.com – Configuration Management](#)

[YouTube.com – Cisco Nessus Configuration Management](#)

Web Links

[Configuration Management: Best Practices White Paper](#)

[SANS Institute InfoSec Reading Room, Secure Configuration Management Demystified](#)

[NIST Special Publication 800-82 Section 6.2](#)

Textbooks

Practical Internet of Things Security

Chapter 1, 2, 3, 4, 5, 6, 7

Internet of Things

Chapter 2, 3, 11, 12, 13, 15

Raspberry Pi Networking Cookbook

Chapter 5

Assessment Resources

Labs

None

Quizzes/Exams

[CSSIA CISSP Course](#)

Security Operations – Chapter Exam

Quizlet.com

[Configuration Management Flashcards](#)

[Configuration Planning and Management flashcards](#)