Chapter 17

Integrating Network Devices

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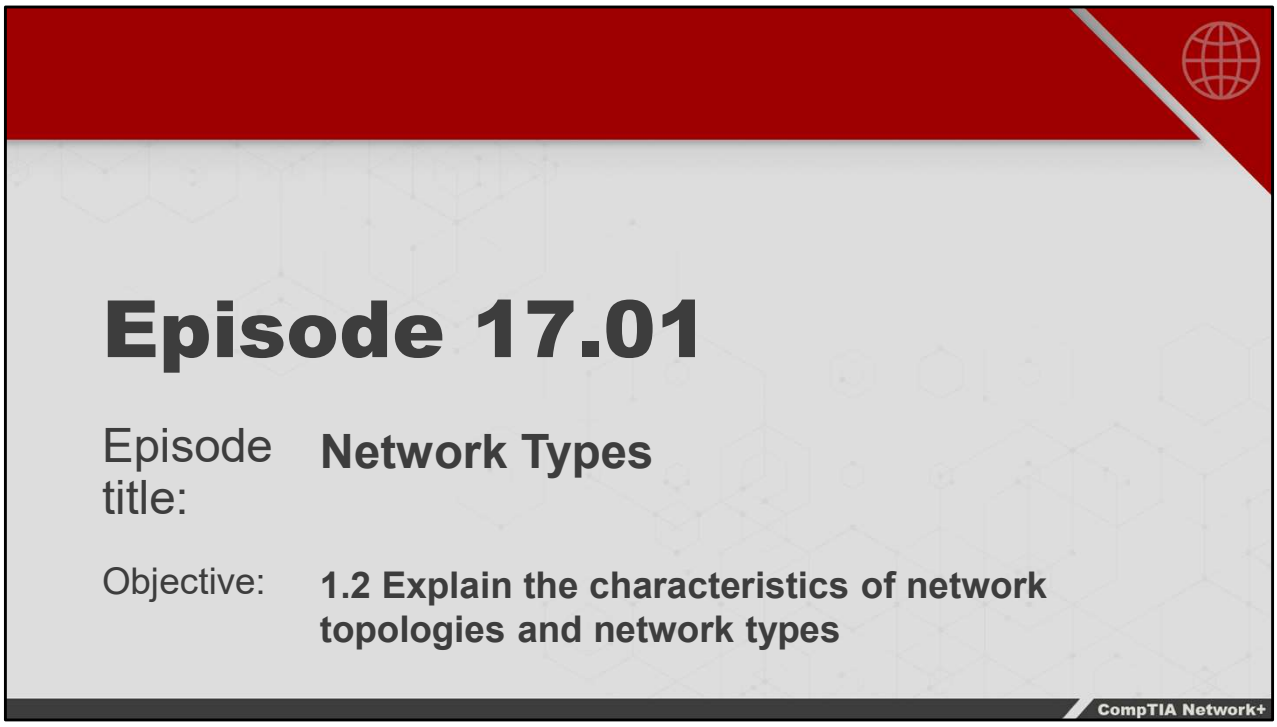
Episode 17.01
Episode title:
Network Types
Objective:
1.2 Explain the characteristics of network topologies and network types
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Key Terms

- Local area network (LAN)
- Campus area network (CAN)
- Metropolitan area network (MAN)
- The Internet
- Intranet = private network
- Wireless local area network (WLAN)
- Personal area network (PAN)

Quick Review

- Know the differences between all the “area network” acronyms
- Geographical: LAN, WAN, CAN, MAN, Internet
- Wireless: WLAN, PAN


Episode 17.02
Episode title:
Internet of Things (IoT)
Objective:
2.1 Compare and contrast various devices, their features, and their appropriate placement on the network
4.3 Given a scenario, apply network hardening techniques
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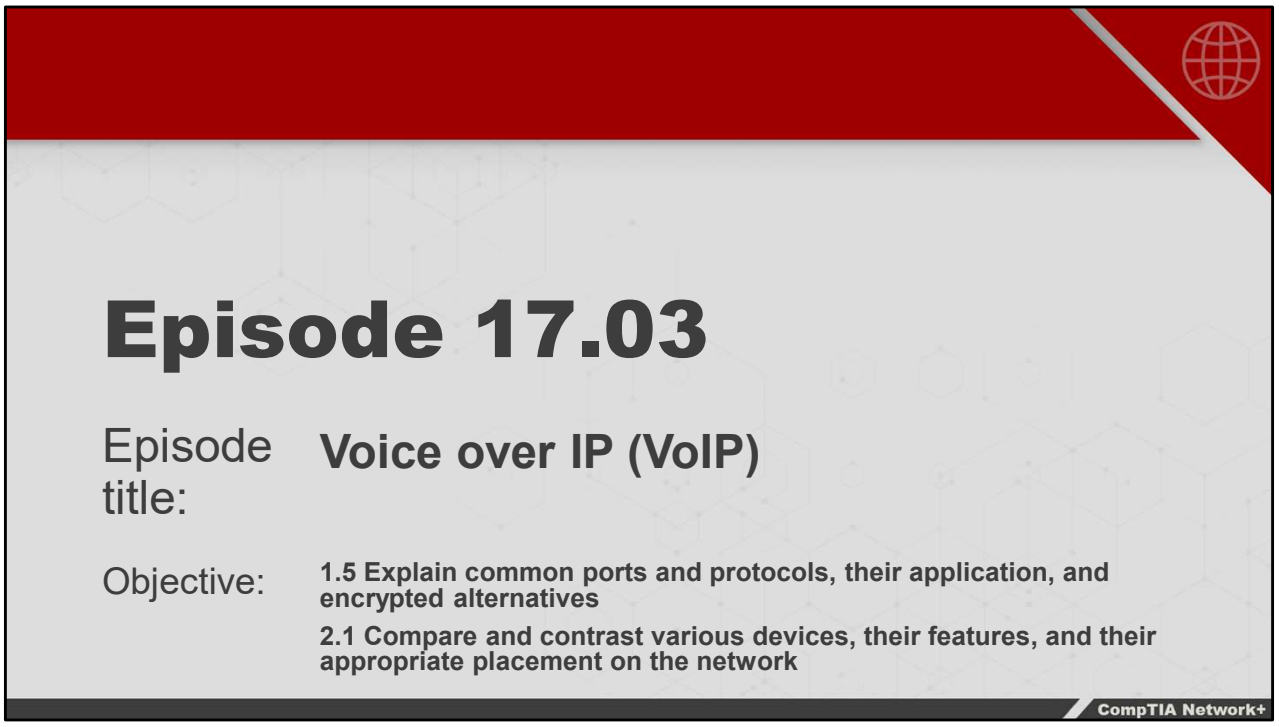
Quick Review

- The Internet of Things (IoT) describes the huge variety of devices you can access and control via the Internet, and devices that connect directly to Internet resources
- Hardening techniques include using a separate SSID, creating a long PSK, putting the device(s) on a separate VLAN, periodically updating firmware, and using access control lists (ACLs)


Episode 17.03
Episode title:
Voice over IP (VoIP)
Objective:
1.5 Explain common ports and protocols, their application, and encrypted alternatives
2.1 Compare and contrast various devices, their features, and their appropriate placement on the network
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Key Terms

- Voice over IP (VoIP)
- Medianet

Quick Review

- Unified communication combines VoIP phones, video, fax, chat, and more into a single system
- Key components of UC are the UC device, UC server, and the UC gateway
- Ports: RTP [5004, 5005 (TCP)], SIP [5060, 5061 (TCP)] H.323 (1720 (TCP)]. MGP [2427 (Both)]


Episode 17.04
Episode title:
Industrial Control Systems and SCADA
Objective:
2.1 Compare and contrast various devices, their features, and their appropriate placement on the network
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Key Terms

- Industrial control systems (ICS)
- Supervisory control and data acquisition system (SCADA)

Quick Review

- Industrial control systems control machines with sensors and actuators connected to an ICS server
- Supervisory control and data acquisition (SCADA) systems handle ICS over a large area
- Key pieces: programable logic controller, human machine interface, and remote terminal unit