

Domain 4: Communication and Network Security

4.1 - Assess and implement secure design principles in network architectures

Open System Interconnection (OSI) and Transmission Control Protocol/Internet Protocol (TCP/IP) models

Internet Protocol (IP) networking (e.g., Internet Protocol Security (IPSec), Internet Protocol (IP) v4/6)

Secure protocols

Implications of multilayer protocols

Converged protocols (e.g., Fiber Channel Over Ethernet (FCoE), Internet Small Computer Systems Interface (iSCSI), Voice over Internet Protocol (VoIP))

Micro-segmentation (e.g., Software Defined Networks (SDN), Virtual eXtensible Local Area Network (VXLAN), Encapsulation, Software-Defined Wide Area Network (SD-WAN))

Wireless networks (e.g., Li-Fi, Wi-Fi, Zigbee, satellite)

Cellular networks (e.g., 4G, 5G)

Content Distribution Networks (CDN)

4.2 - Secure network components

Operation of hardware (e.g., redundant power, warranty, support)

Transmission media

Network Access Control (NAC) devices

Endpoint security

4.3 - Implement secure communication channels according to design

Voice

Multimedia collaboration

Remote access

Data communications

Virtualized networks

Third-party connectivity