

Network Security for Certified in Cybersecurity

Network Infrastructure



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Infrastructure

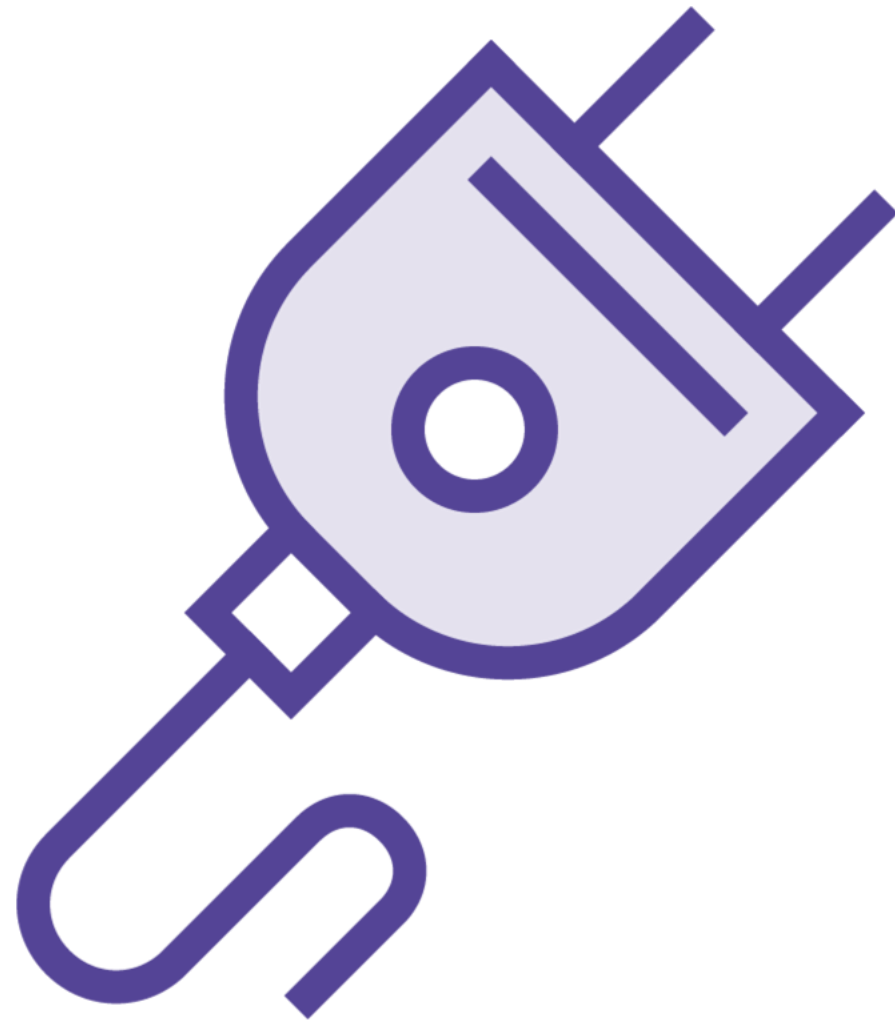


Power



Physical security

Power



Clean and reliable power

Single points of failure

- Common power supply



UPS



Uninterruptible Power Supply (UPS)

- Capacity
- Testing
- Age

Generators



Physical Network Security

Conduits

Redundancy

Wiring closets



Fire



Prevent

Detect

Suppress



Secure Wireless Connections

WLAN

WEP, WPA,
WPA2, WPA3

Optical

Microwave Satellite

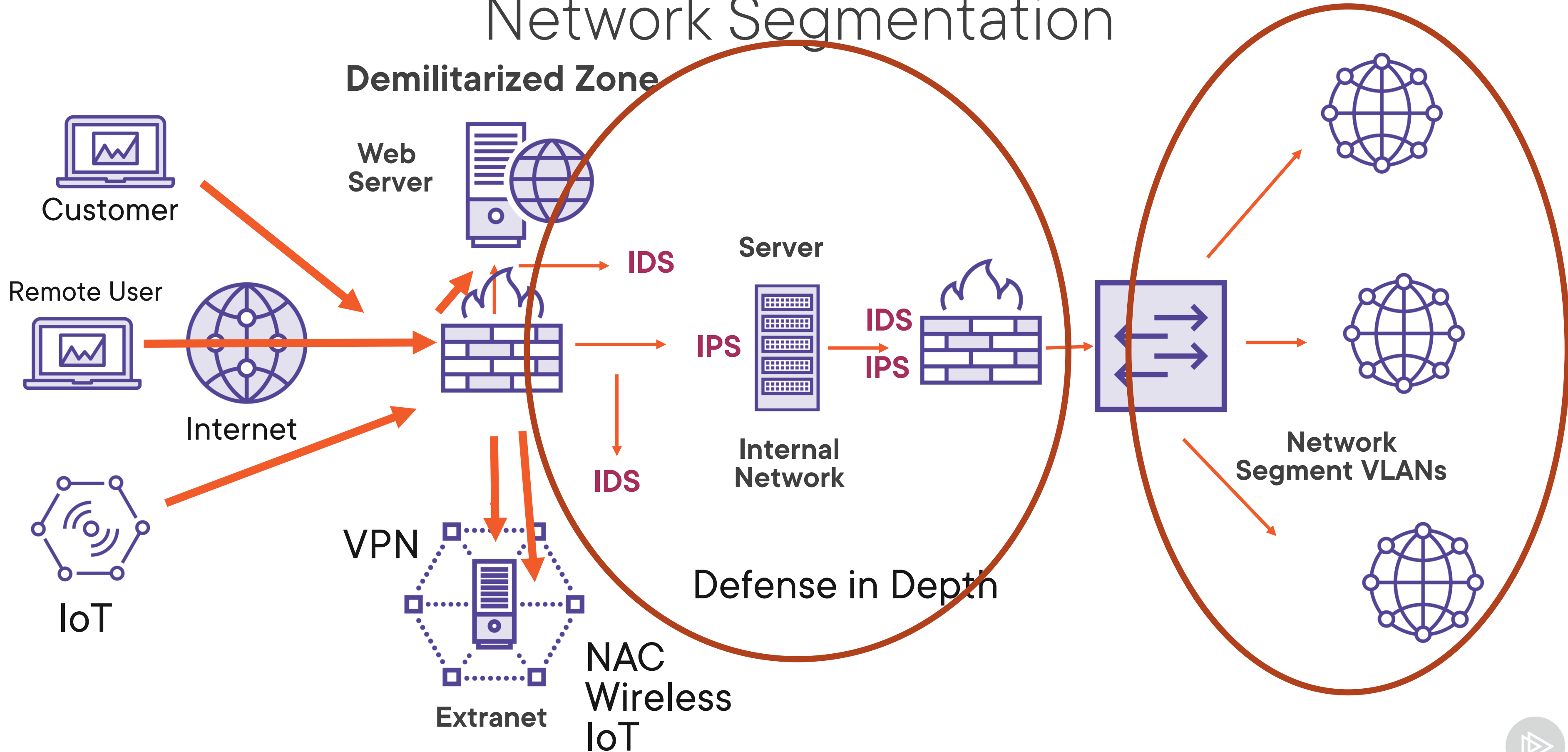
Line of sight



Network Security Design

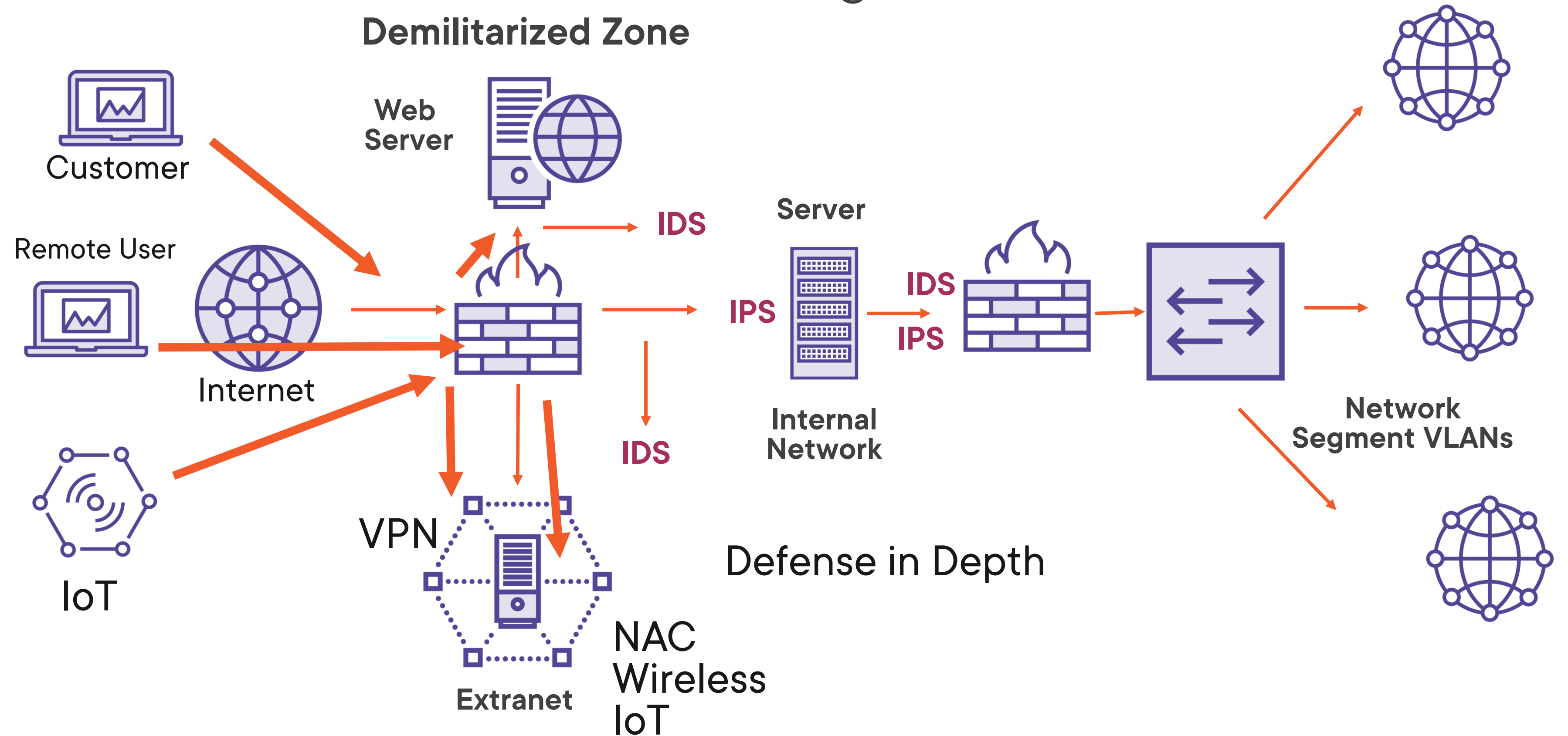


Network Segmentation

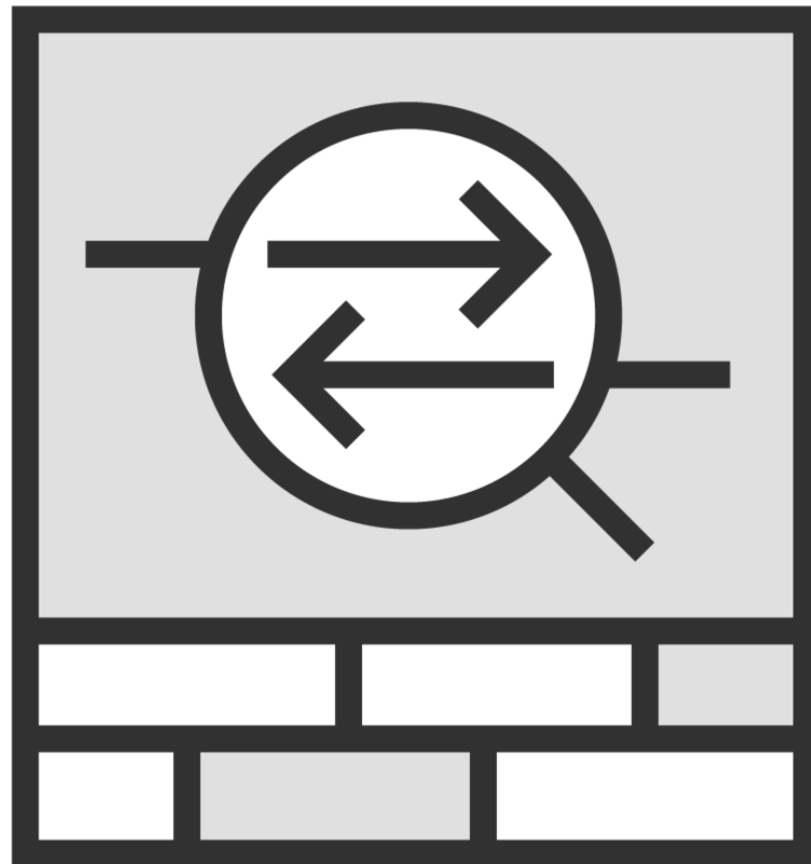


Network Segmentation

Demilitarized Zone



End-point Security



Zero trust

Firewalls

- VPN vulnerability

Anti-virus

- Signatures

Service Models



**Cloud Software as a
Service (SaaS)**



**Cloud Platform as a
Service (PaaS)**



**Cloud Infrastructure as a
Service (IaaS)**



Managed Security



Contracts:

- Services provided
- Equipment

Memorandum of Understanding (MOU)

Memorandum of Agreement (MOA)

Service Level Agreements (SLAs)

Managed Security Service Provider (MSSP)



Key Points Review



Network Security is challenging since:

- Networks are always changing
- Attacks are always evolving
- Experienced staff can be hard to find

Security happens by design – not by chance

