Security: A Coordinated Approach

Steve Hanna

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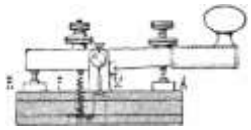
Information Security Timeline

Integrity Protection

Physical Security
Identification
Authentication
Access Control
Authorization

Encryption

Electronic
Computers



Electronic
Communications

Remote
Access
Control

Packet
Switching

NAC DLP
Vulnerability
Scanners
IDS IPS
VPN Firewall
DAC MAC RBAC

public-key
crypto
PKI Kerberos

Antivirus/malware
Virus Worm Rootkit

@

email spam anti-spam

Prehistoric 1900 B.C. A.D. 1820 1940 1950 1960 1970 1980 1990 2000

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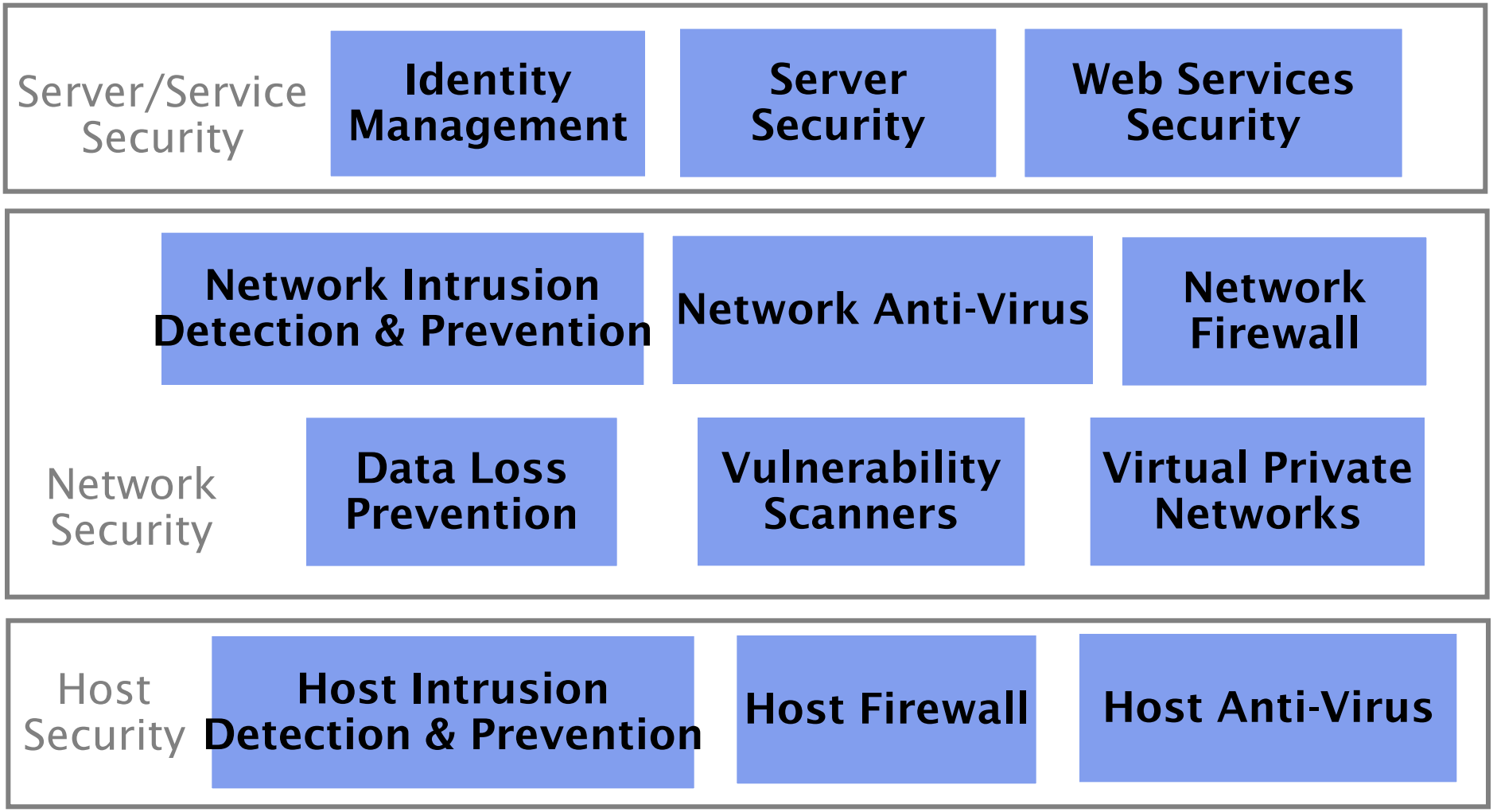
Information Security Past



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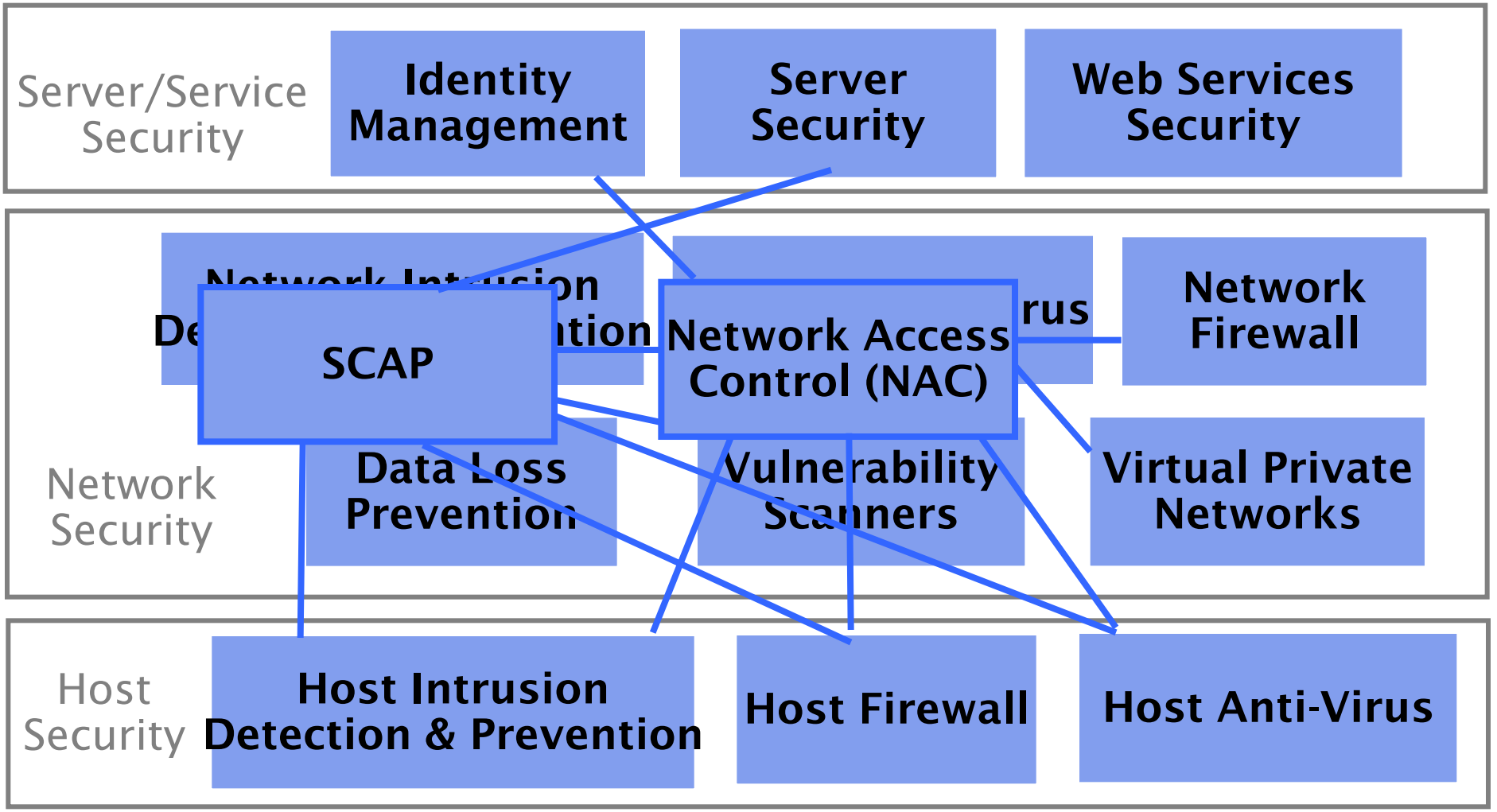
Information Security Present



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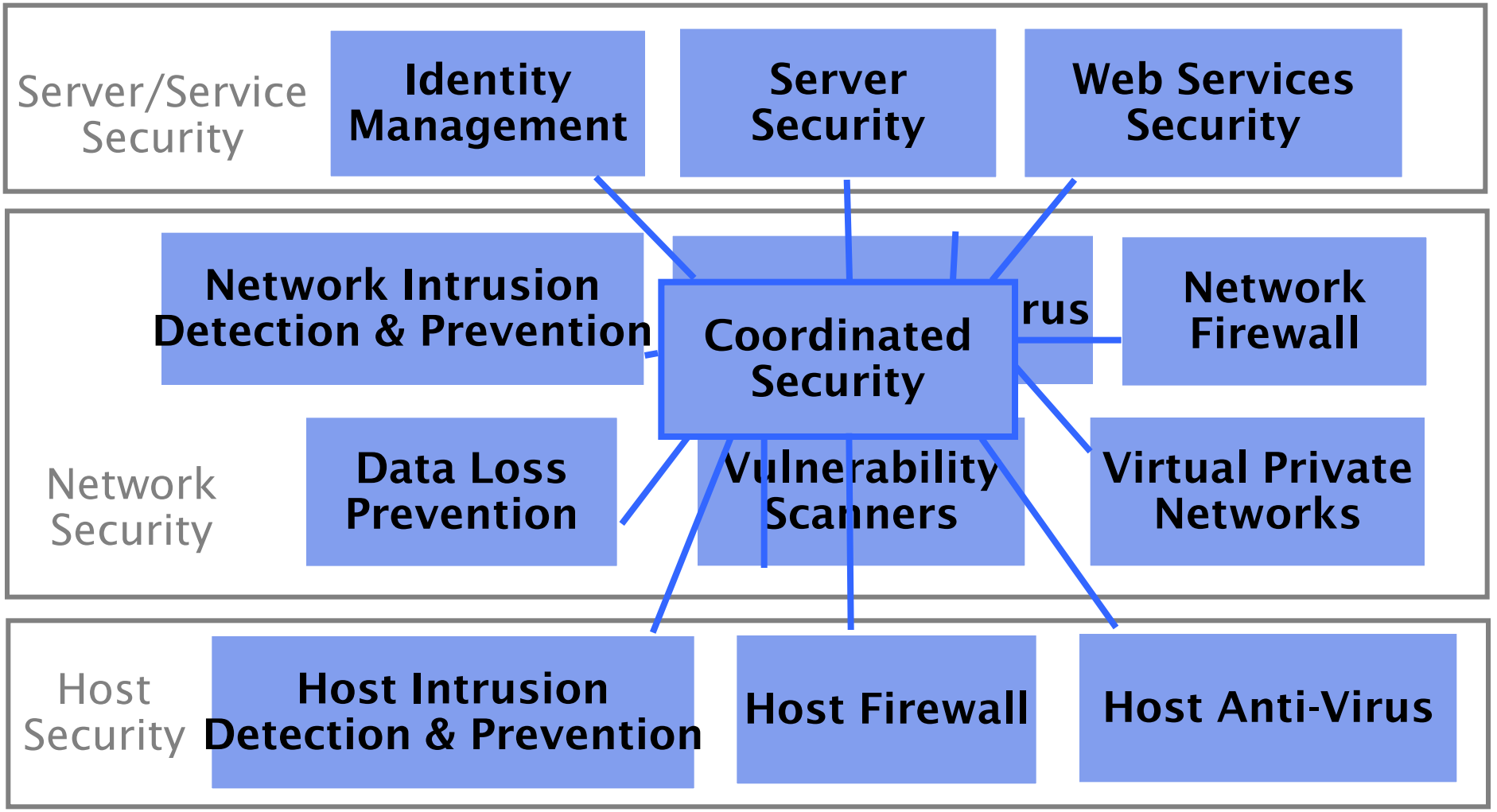
Information Security Future



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Ad Hoc Defense

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A More Secure Alternative

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Trusted Clients

Security Built In

- Trusted Platform Module (TPM)
- Mobile Trusted Module (MTM)

Features

- Authentication
- Encryption
- Attestation

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Trusted Servers

Security Built In

- Trusted Platform Module (TPM)
- Secure Virtualization
- Secure Cloud

Features

- Authentication
- Encryption
- Attestation

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Trusted Storage

Security Built In

- Self Encrypting Drive (SED)

Features

- Encryption
- Authentication
- Secure Erasure

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Trusted Networks

Security Built In & Coordinated

- Trusted Network Connect (TNC)

Features

- Authenticate
- Health Check
- Behavior Monitor
- Enforce

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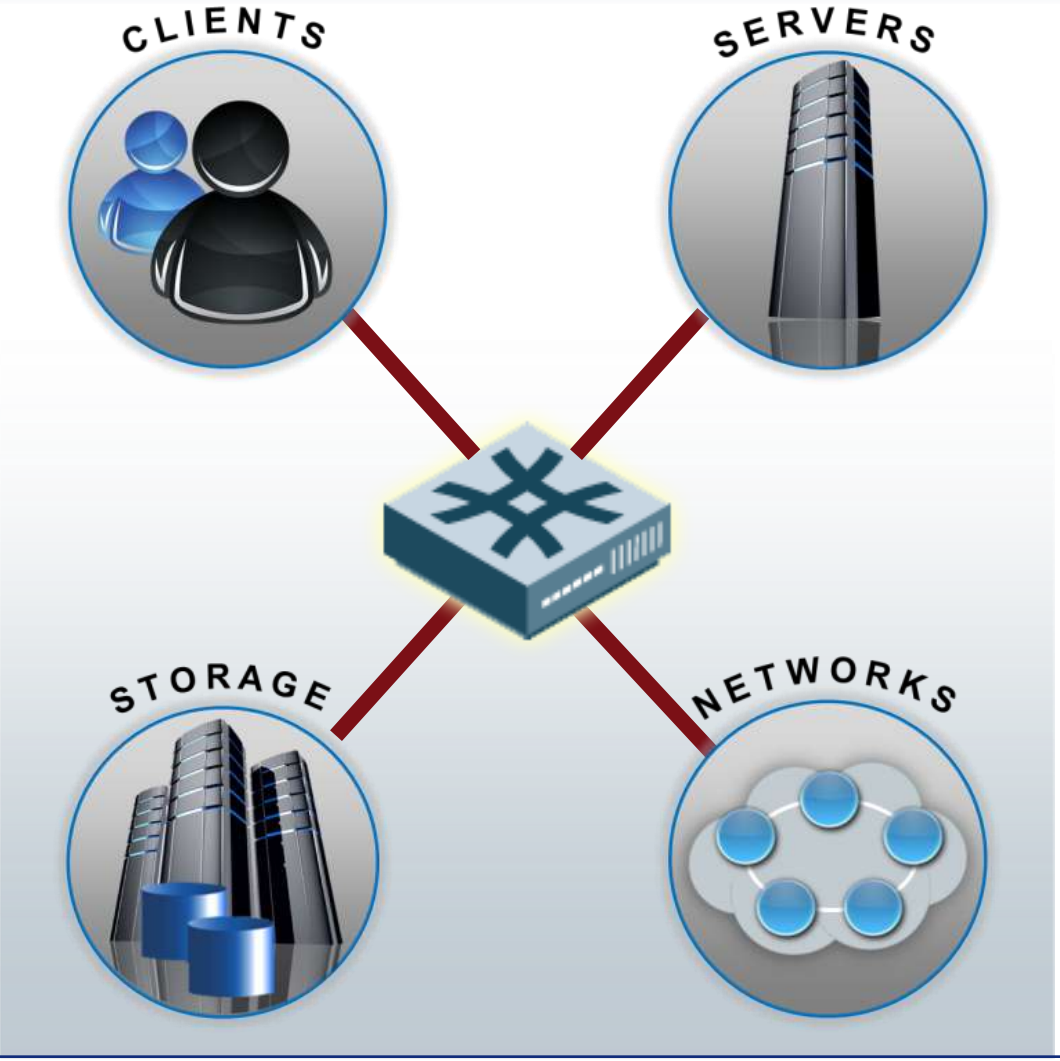
Coordinated Security



Share

- Who, What, When, Where, Privileges
- Threats
- Policies
- Cooperative Defense

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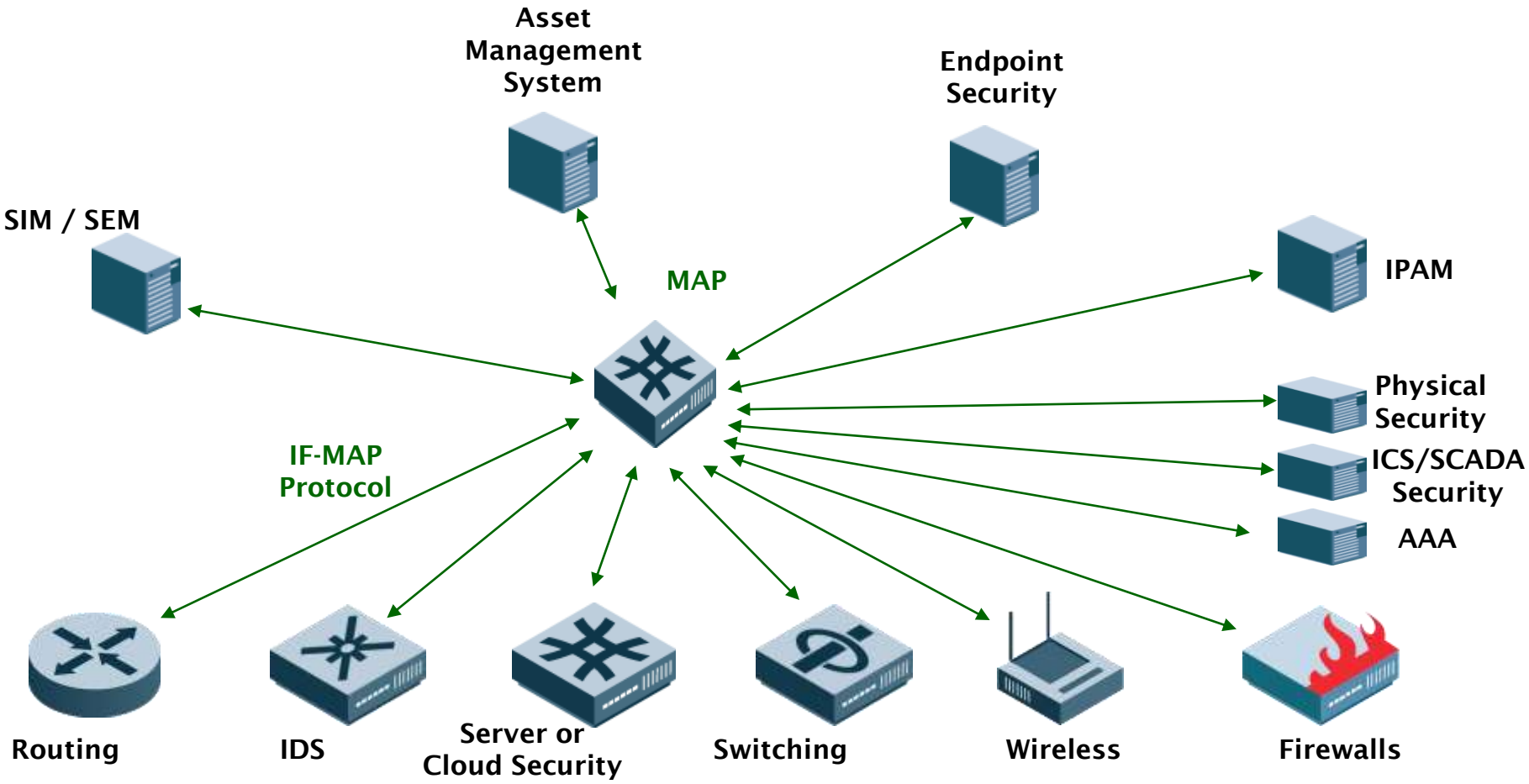
All Through Open Standards



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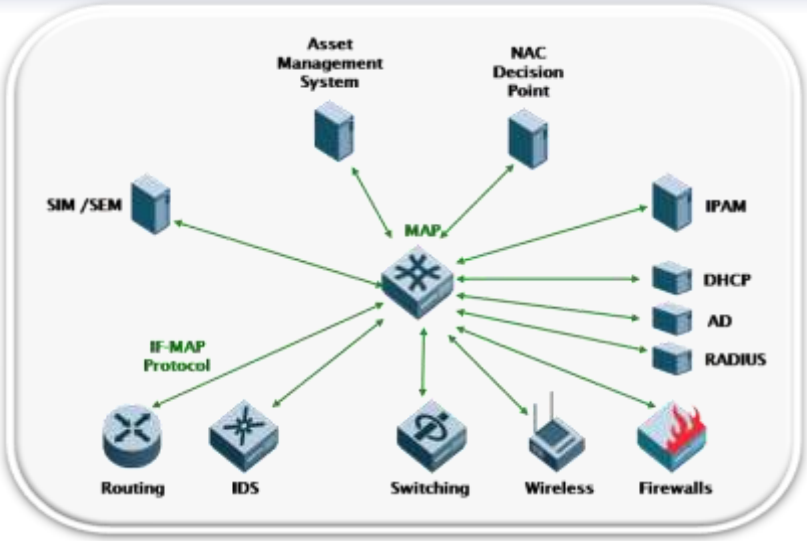
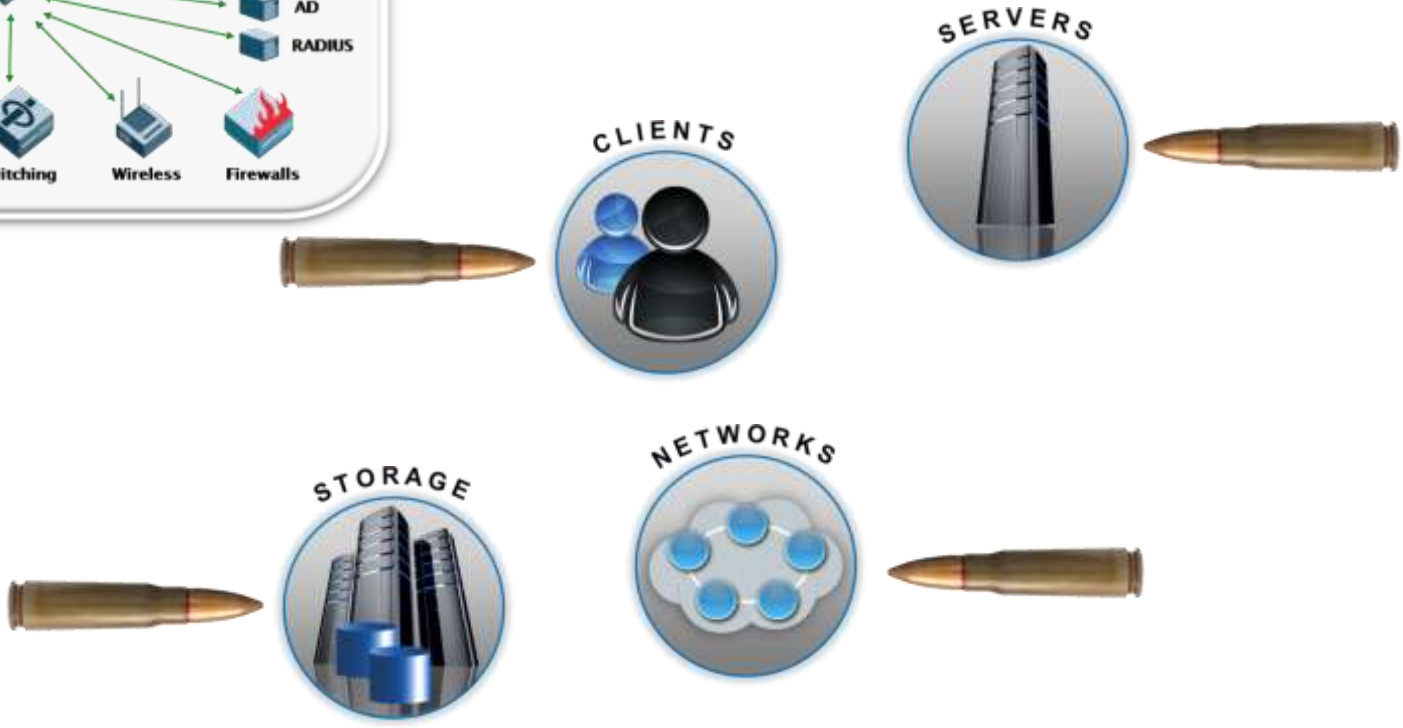
Benefits



Stronger security



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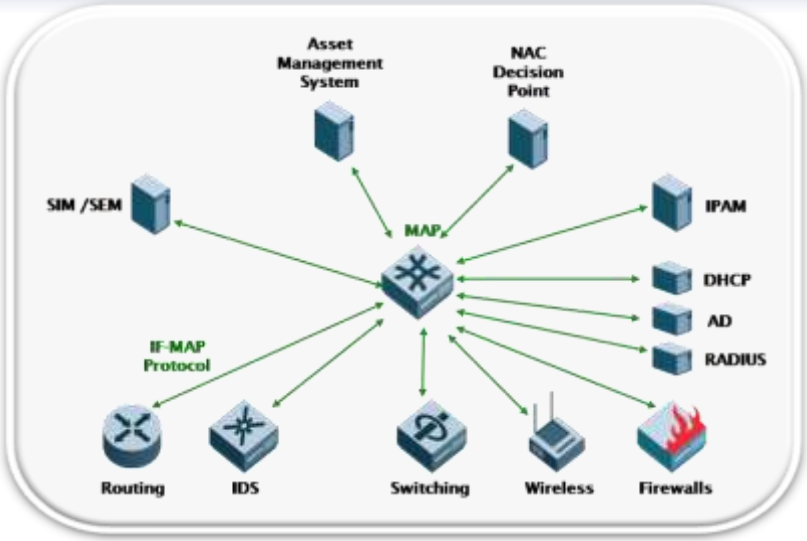
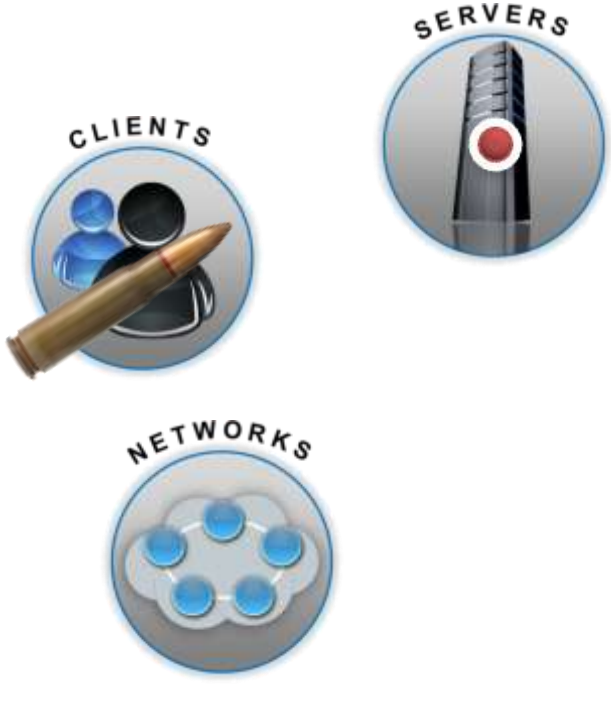
Benefits



Faster Response



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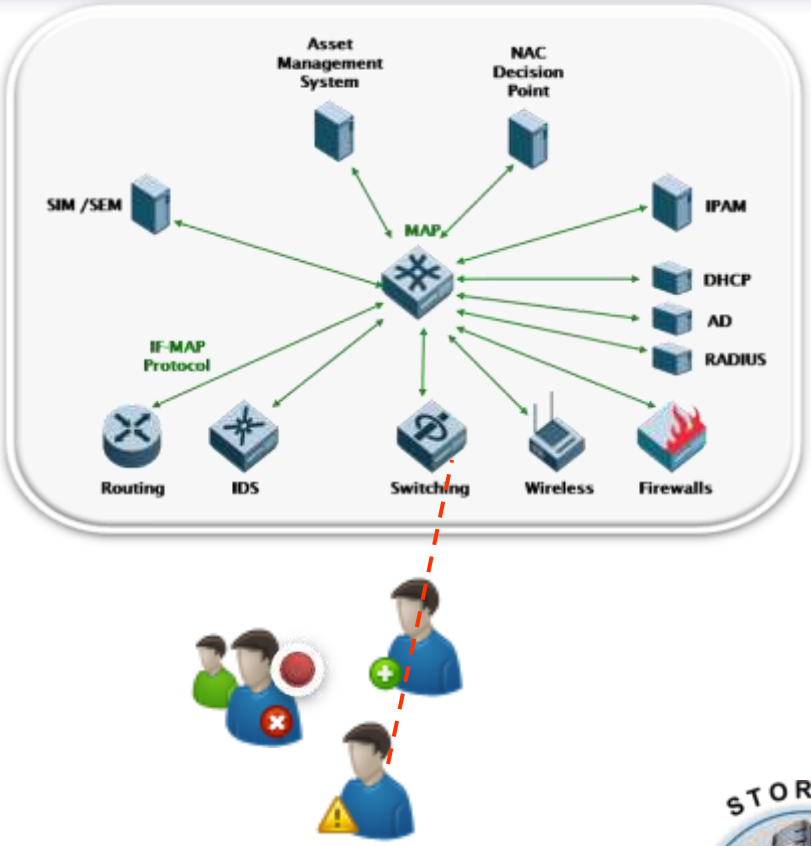
Benefits



More flexibility

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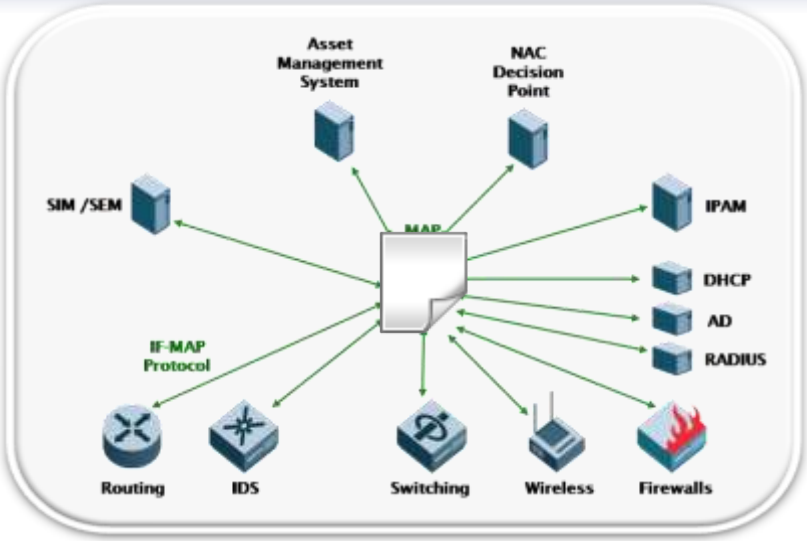
Benefits



Single security policy

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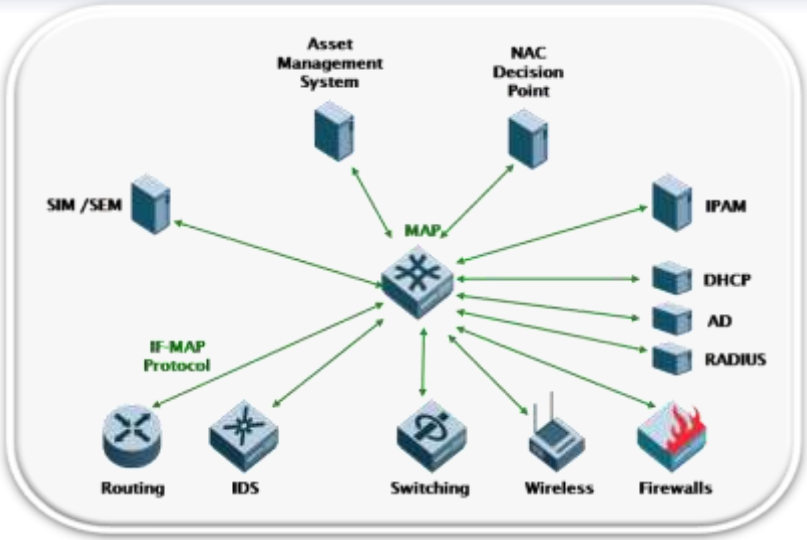
Benefits



Product choice

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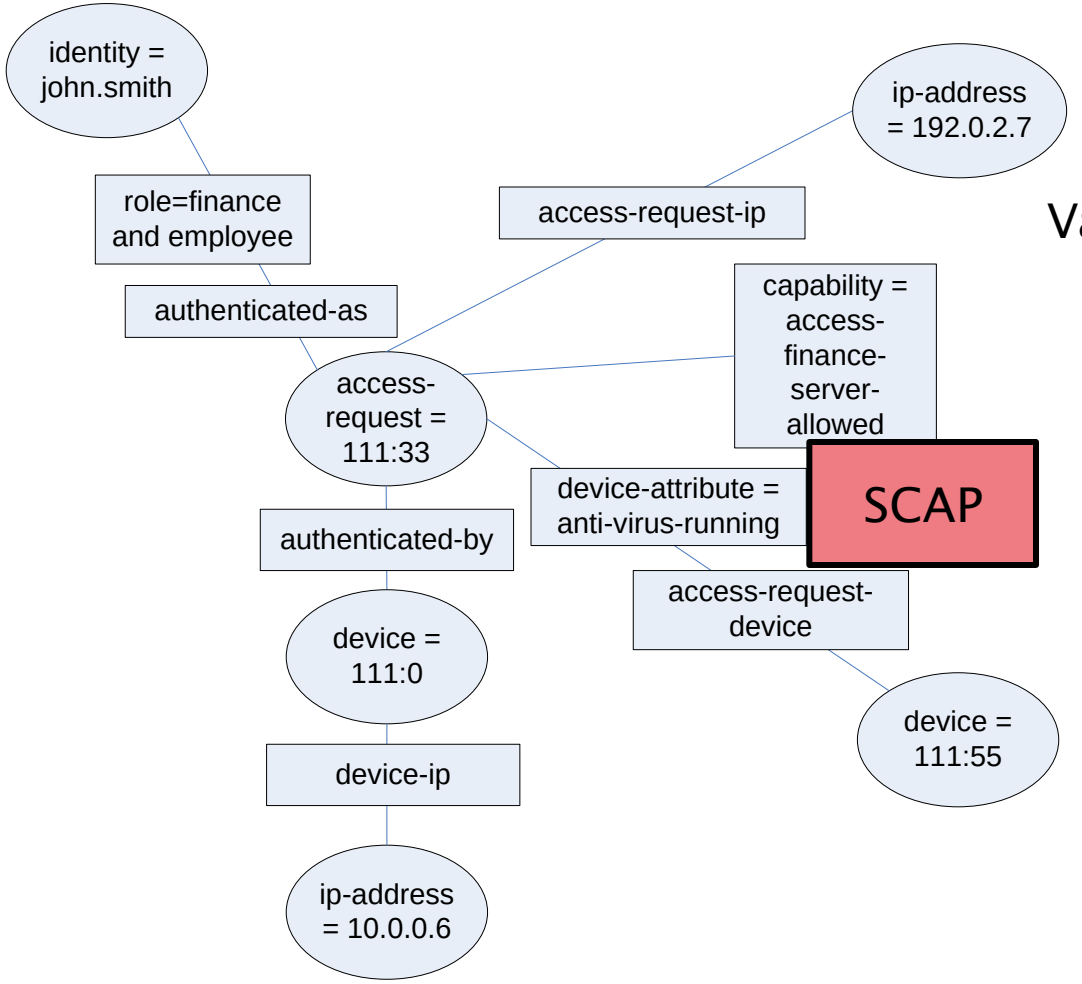
Typical IF-MAP Graph



Variants:

- Network Sensors
- Location-Awareness
- ICS/SCADA
- Smart Grid
- Mobile Devices
- BYOD
- Cloud
- Multi-Domain

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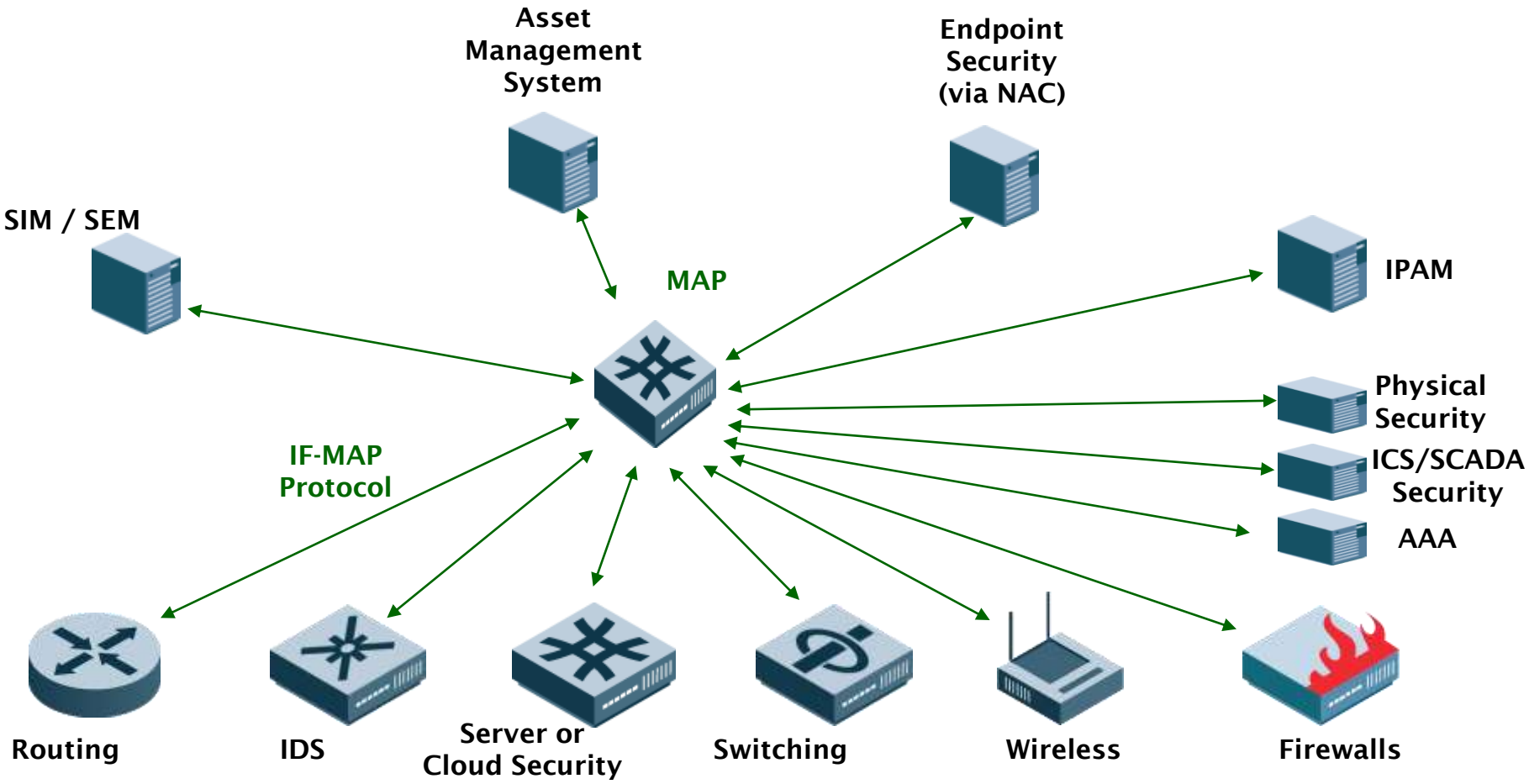
Through Open Standards



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For More Information

Trusted Computing Group (TCG)

http://www.trustedcomputinggroup.org

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