Complexity is the Enemy of Security Take it Out

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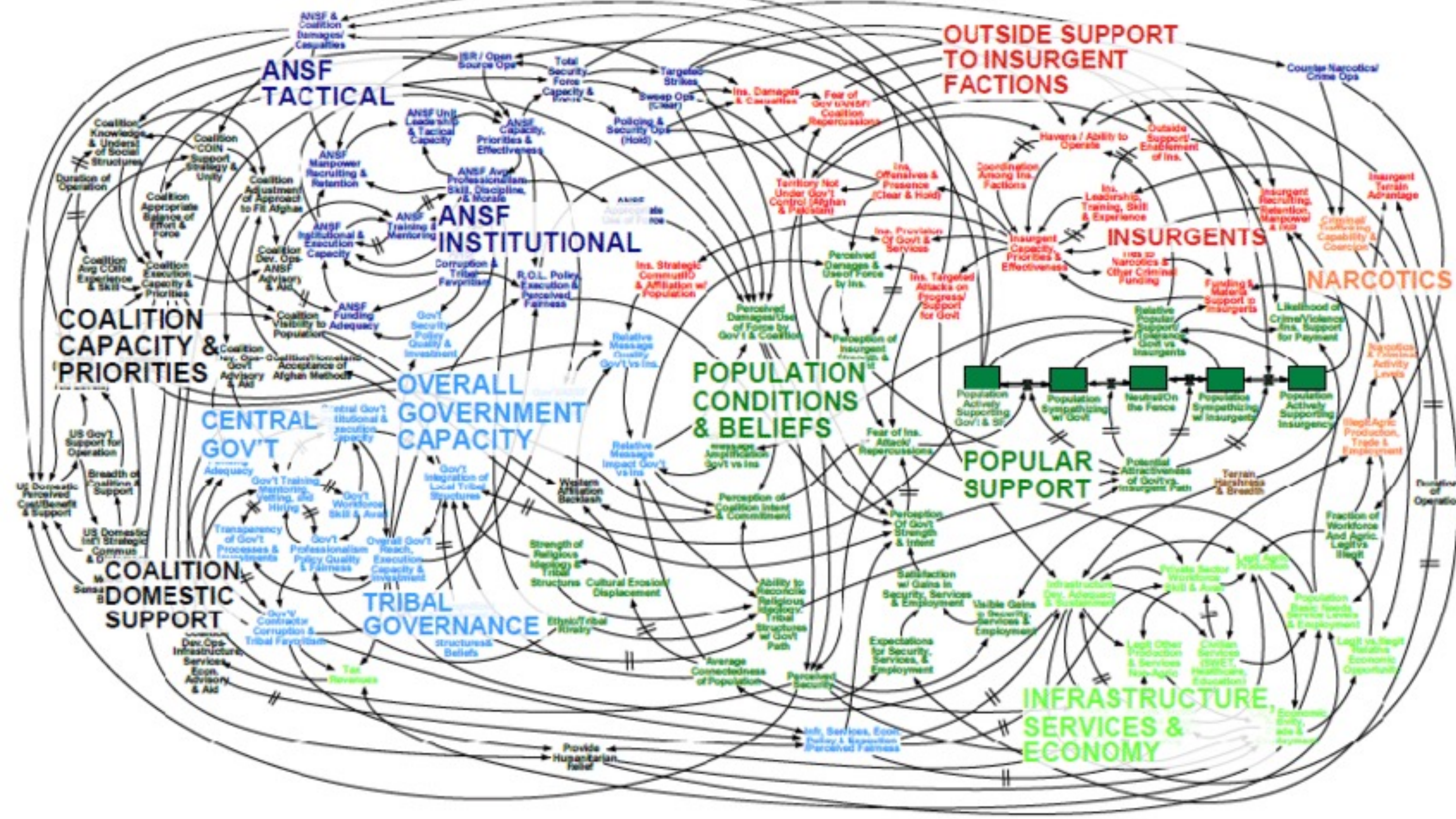
Akamai
Experience the Edge

“Talent wins games, but teamwork and intelligence win championships.”
Michael Jordan


ANSF TACTICAL
ANSF INSTITUTIONAL
OUTSIDE SUPPORT TO INSURGENT FACTIONS
INSURGENTS
NARCOTICS
COALITION CAPACITY & PRIORITIES
OVERALL GOVERNMENT CAPACITY
CENTRAL GOV'T
POPULATION CONDITIONS & BELIEFS
POPULAR SUPPORT
COALITION DOMESTIC SUPPORT
TRIBAL GOVERNANCE
INFRASTRUCTURE, SERVICES & ECONOMY
ANSF & Coalition Damages/ Casualties
ISR / Open Source Ops
Targeted Strikes
Sweep Ops (Clear)
Policing & Security Ops (Hold)
Counter Narcotics/ Crime Ops
Havens / Ability to Operate
Insurgent Terrain Advantage
Population Actively Supporting Gov't & SF
Population Sympathizing w/ Gov't
Neutral/On the Fence
Population Sympathizing w/ Insurgents
Population Actively Supporting Insurgency
Perception of Coalition Intent & Commitment
Perceived Security
Provide Humanitarian Relief
Tax Revenues
Ethnic/Tribal Rivalry
Cultural Erosion/ Displacement

RSA 2023

599 Speakers

605 Vendors

76 ?

RSAConference2023

San Francisco | April 24 – 27 | Moscone Center

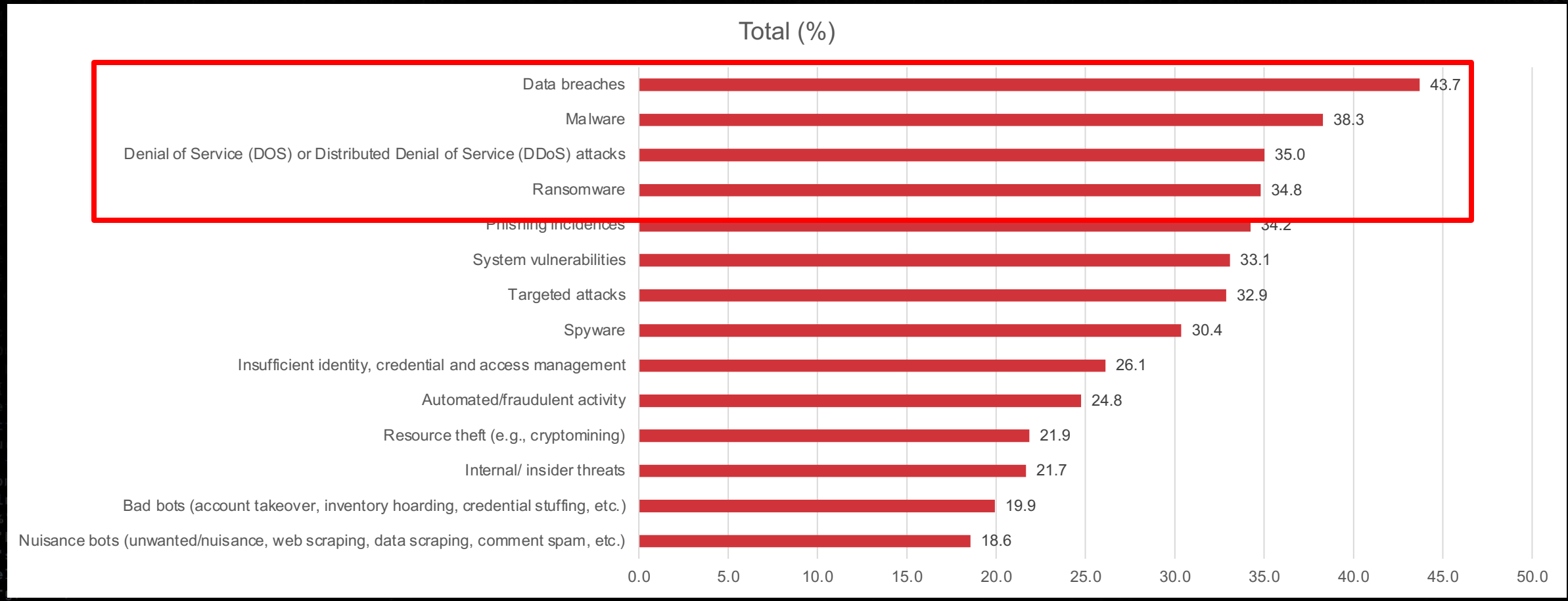
1/19/2023

SOUTH EXPO

Goals for Transformation

- Faster
- Better
- Cheaper
- Secure

Triple Extortion Threat
Immediate Impacts

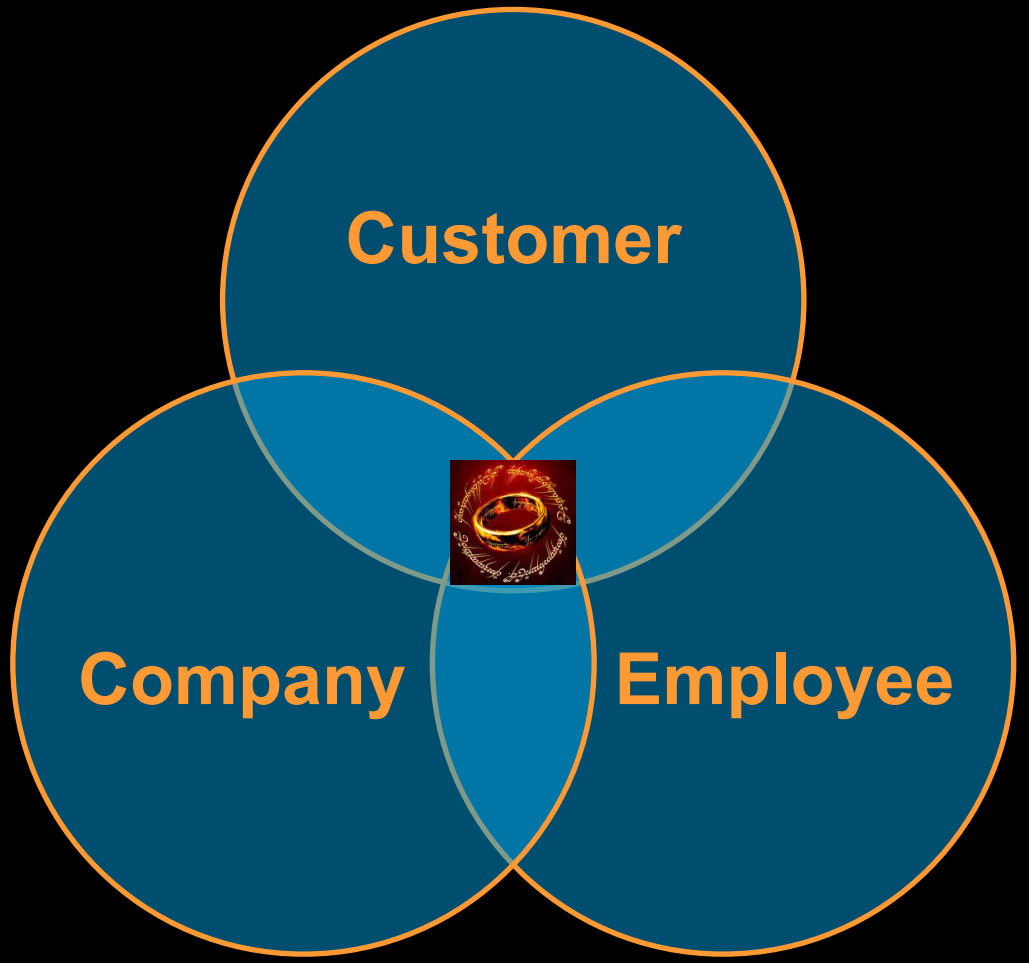


Source: Global – Outsourced Cybersecurity Services (MSS, MDR, DDoS) Survey, IDC, December, 2021

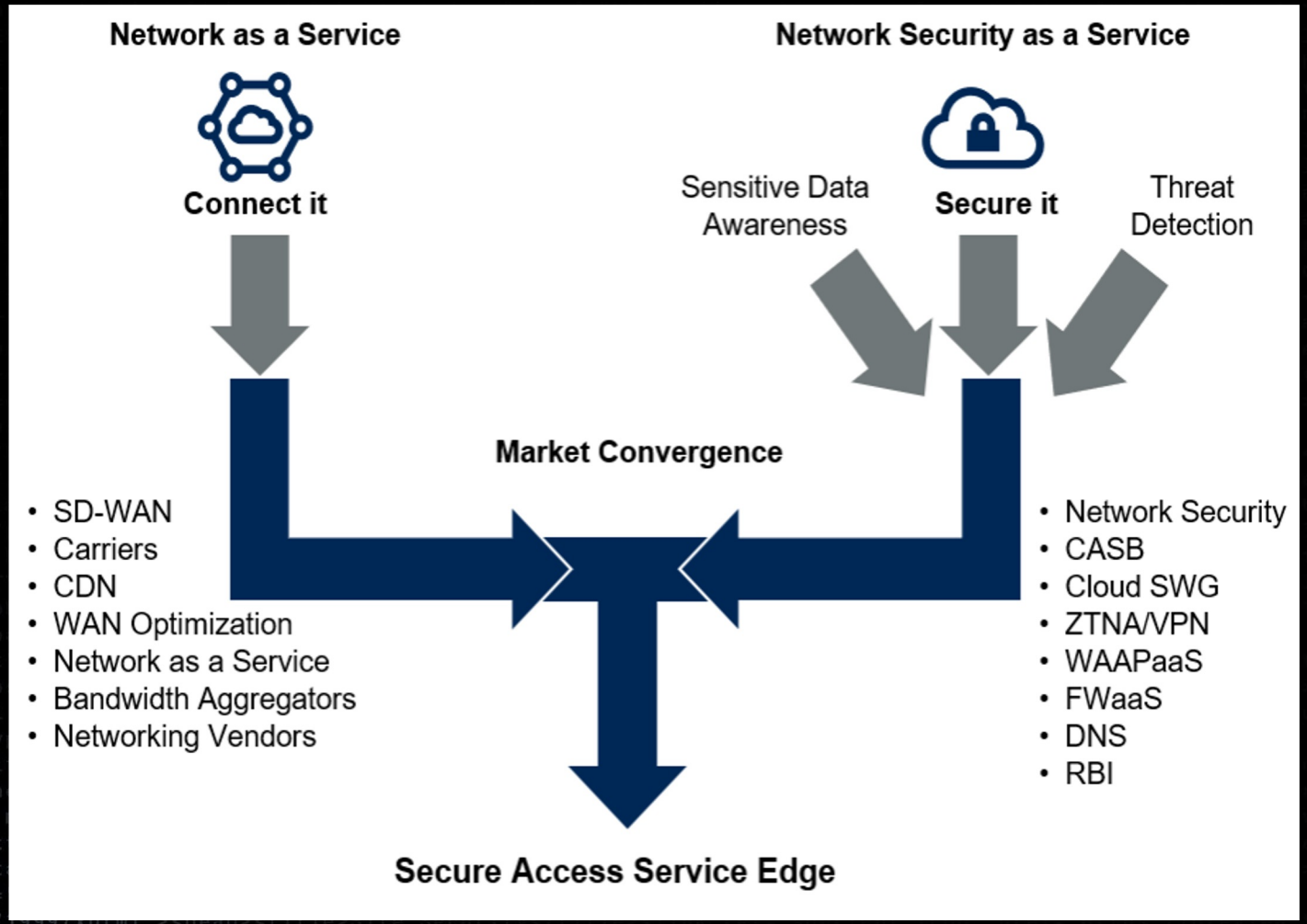
Environment components

North-South

East-West



Future of Network Security Is in the Cloud

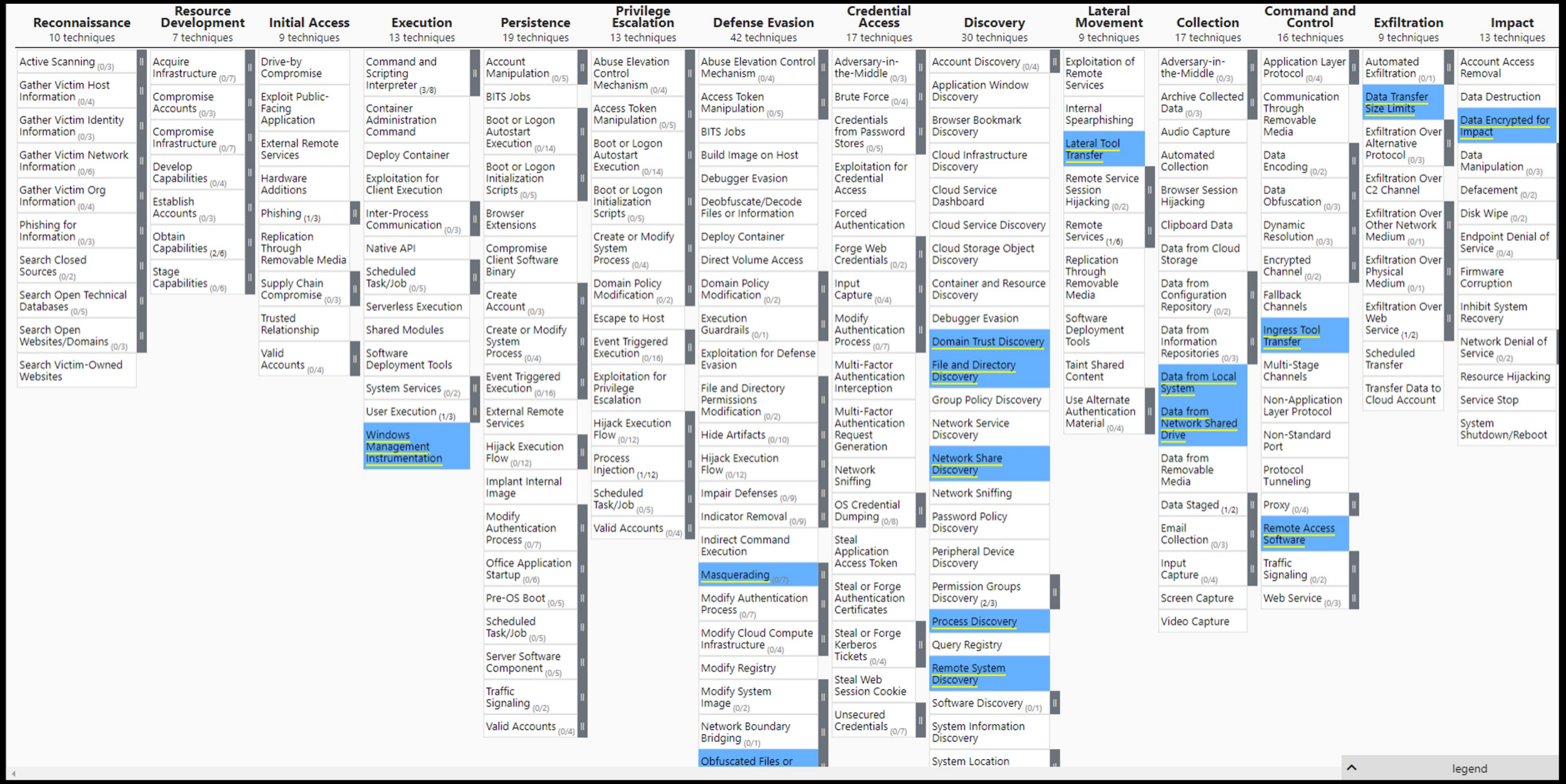


Benefits:

- Reduce complexity
- Simplify vendor management

Zero Trust Edge

MITRE ATT&CK


Reconnaissance
10 techniques
Active Scanning (0/3)
Gather Victim Host Information (0/4)
Gather Victim Identity Information (0/3)
Gather Victim Network Information (0/6)
Gather Victim Org Information (0/4)
Phishing for Information (0/3)
Search Closed Sources (0/2)
Search Open Technical Databases (0/5)
Search Open Websites/Domains (0/3)
Search Victim-Owned Websites
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Compromise Accounts (0/3)
Compromise Infrastructure (0/7)
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Establish Accounts (0/3)
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9 techniques
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Exploit Public-Facing Application
External Remote Services
Hardware Additions
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Supply Chain Compromise (0/3)
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Software Deployment Tools
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Windows Management Instrumentation
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BITS Jobs
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Boot or Logon Initialization Scripts (0/5)
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Compromise Client Software Binary
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Create or Modify System Process (0/4)
Event Triggered Execution (0/16)
External Remote Services
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Implant Internal Image
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Office Application Startup (0/6)
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Valid Accounts (0/4)
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13 techniques
Abuse Elevation Control Mechanism (0/4)
Access Token Manipulation (0/5)
Boot or Logon Autostart Execution (0/14)
Boot or Logon Initialization Scripts (0/5)
Create or Modify System Process (0/4)
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Event Triggered Execution (0/16)
Exploitation for Privilege Escalation
Hijack Execution Flow (0/12)
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Scheduled Task/Job (0/5)
Valid Accounts (0/4)
Defense Evasion
42 techniques
Abuse Elevation Control Mechanism (0/4)
Access Token Manipulation (0/5)
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Domain Policy Modification (0/2)
Execution Guardrails (0/1)
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File and Directory Permissions Modification (0/2)
Hide Artifacts (0/10)
Hijack Execution Flow (0/12)
Impair Defenses (0/9)
Indicator Removal (0/9)
Indirect Command Execution
Masquerading (0/7)
Modify Authentication Process (0/7)
Modify Cloud Compute Infrastructure (0/4)
Modify Registry
Modify System Image (0/2)
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Obfuscated Files or
Credential Access
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Adversary-in-the-Middle (0/3)
Brute Force (0/4)
Credentials from Password Stores (0/5)
Exploitation for Credential Access
Forced Authentication
Forge Web Credentials (0/2)
Input Capture (0/4)
Modify Authentication Process (0/7)
Multi-Factor Authentication Interception
Multi-Factor Authentication Request Generation
Network Sniffing
OS Credential Dumping (0/8)
Steal Application Access Token
Steal or Forge Authentication Certificates
Steal or Forge Kerberos Tickets (0/4)
Steal Web Session Cookie
Unsecured Credentials (0/7)
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Browser Bookmark Discovery
Cloud Infrastructure Discovery
Cloud Service Dashboard
Cloud Service Discovery
Cloud Storage Object Discovery
Container and Resource Discovery
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Domain Trust Discovery
File and Directory Discovery
Group Policy Discovery
Network Service Discovery
Network Share Discovery
Network Sniffing
Password Policy Discovery
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Query Registry
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System Information Discovery
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Lateral Tool Transfer
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Remote Services (1/6)
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Automated Collection
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Data from Configuration Repository (0/2)
Data from Information Repositories (0/3)
Data from Local System
Data from Network Shared Drive
Data from Removable Media
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Ingress Tool Transfer
Multi-Stage Channels
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Traffic Signaling (0/2)
Web Service (0/3)
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Exfiltration Over Alternative Protocol (0/3)
Exfiltration Over C2 Channel
Exfiltration Over Other Network Medium (0/1)
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Transfer Data to Cloud Account
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Data Destruction
Data Encrypted for Impact
Data Manipulation (0/3)
Defacement (0/2)
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Inhibit System Recovery
Network Denial of Service (0/2)
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Service Stop
System Shutdown/Reboot
legend

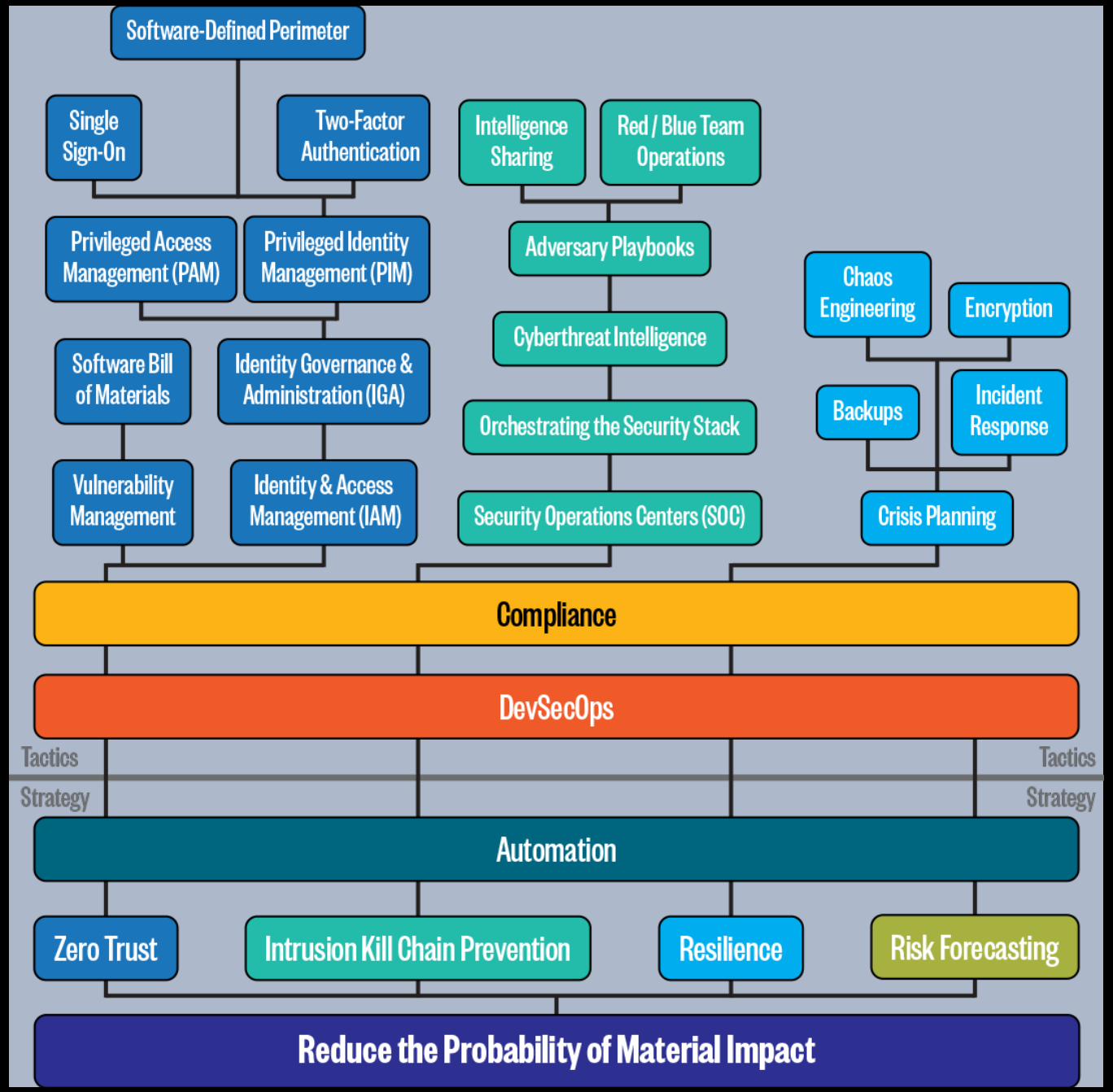
What are the risks and impacts

- Operational
- Brand / Trust
- Compliance
- Revenue

Focus on material impacts

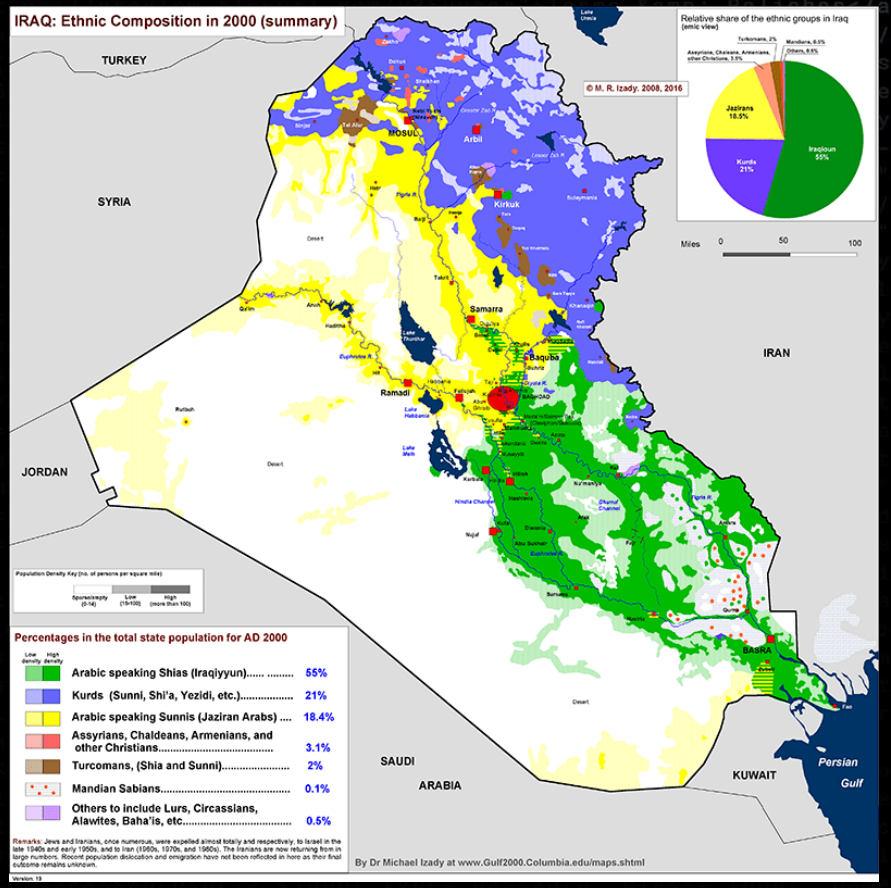
Reduce the probability of material impact due to a cyber event over the next three years

From: Cyber First Principles



The journey

- Framework vs Guiding Principle
- Culture (in house vs managed)
- Reduce tools + tech dept > automate
- Compliance (byproduct)



KISS (keep it simple stupid)

Next steps

- Consolidate tools
- Optimize current capabilities
- Solve with current partners
- Buy tools that play well with others

Tech / Process / People

Akamai Threat Hub:

www.akamai.com/our-thinking/threat-research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Notes

- Mindset What is next step
- Exercise
- Why does is happen – entropy
- Use case – M&A
- Models hide complexity