### RS/Conference2022

San Francisco & Digital | June 6 – 9

SESSION ID: PART2-W01

Importance of Cybersecurity Mesh Platform in Securing Digital Acceleration

**John Maddison** 

Fortinet
CMO and EVP Products and Solution



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### **How Did We Get Here**



### **Cybersecurity Historical Prospective**

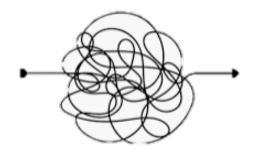


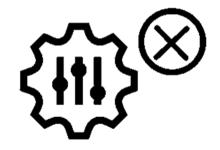
	2000 - 2010	2011-2020	2020+
Cybersecurity Technology	Signature Based Protection	Detection and Response	AI & Automation
	Antivirus Antispam URL Filtering	EDR Sandbox NDR	ML/AI Operations
Infrastructure	New Threat Vectors	Expanded Attack Surface	Distributed Attack Surface
	Files Email Web	WFA Mobile Cloud	OT/loT 5G Edge
Industry	Endpoint Security	Network Security	Platform Security
	Endpoint	Network	Endpoint identity Network Native

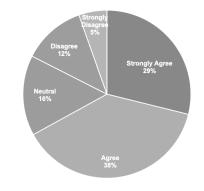


### **Current State – No Synergy**

In other words: lack of foundation to capitalize on today's advanced technologies delivering centralized and automated Detection to Response at machine speed









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#### **Complexity**

Security and networking Point product complexity

#### Many Silver Bullet(s)

Hard to balance best of breed with integrated and synergetic security

#### **Silo Operations**

Security tools and teams that work in silos, and require manual work

#### **Overwhelmed Humans**

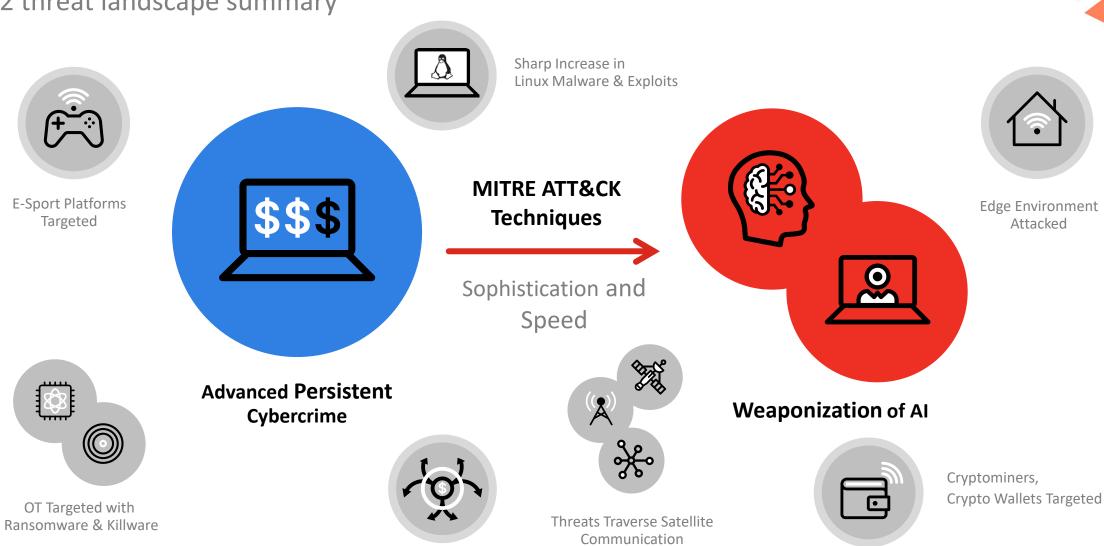
Skill shortage + high volume threat = overwhelmed security teams



### Why Should We Shift to Prioritize Synergy Over Silver Bullets?

Aggressive, Destructive Ransomware

2022 threat landscape summary

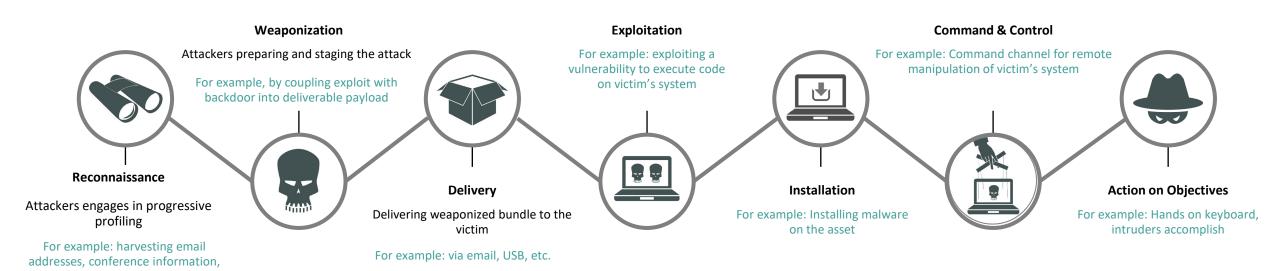




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### Why Should We Shift to Prioritize Synergy Over Silver Bullets?

- Attacks are a progressive sequence of well coordinated, automated morphing events.
- WE are fighting against time, that can be shorten only by AI-powered automation.
- The foundation to effective automation is cybersecurity ecosystem level Synergy.



#### **Time to Detection AND Prevention**



etc.

### **Current Problem to Be Solved**

Gain the ability to operate at machine capacity and speed against machines







The Mesh architecture levels up the battlefield and highlight a path to Autonomous Security Posture



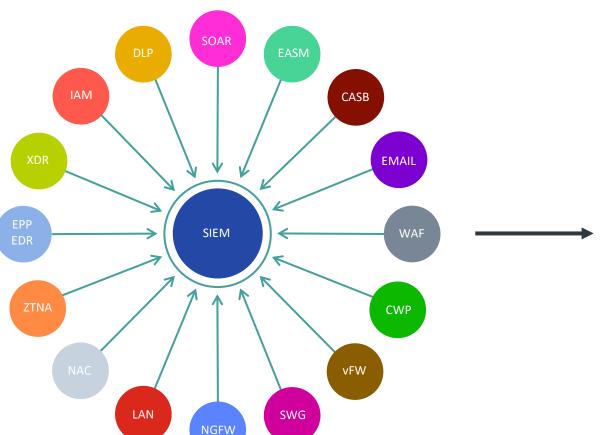
### **Consolidation of Security Point Product Vendors**

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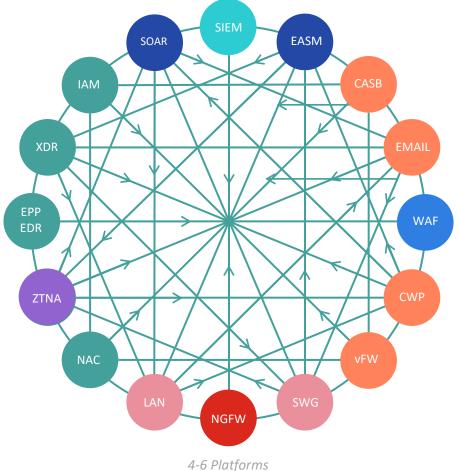
Gartner Cybersecurity Mesh Architecture (CSMA)

### **Cybersecurity Point Products**

20 Vendors



#### **Cybersecurity Platform Approach**







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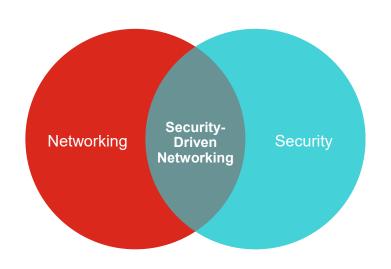
# A Path to Autonomous Security Posture

### **Autonomous Security Posture**

What needs to be done

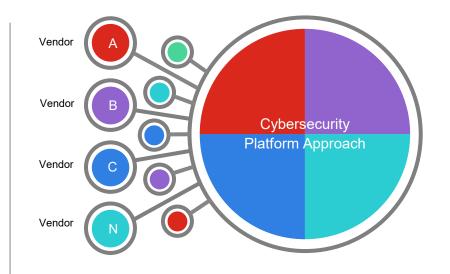


#### **Reduce Complexity**



Convergence of Networking and Security

#### **Create Synergy**



Consolidation of Security Point Product Vendors

#### **Centralize & Automate**



Al Powered Network and Security
Operations



### Convergence vs. Consolidation

What are the differences?



**Vendors** 

1

1-3

Teams





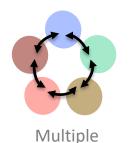
Consoles





**Products** 





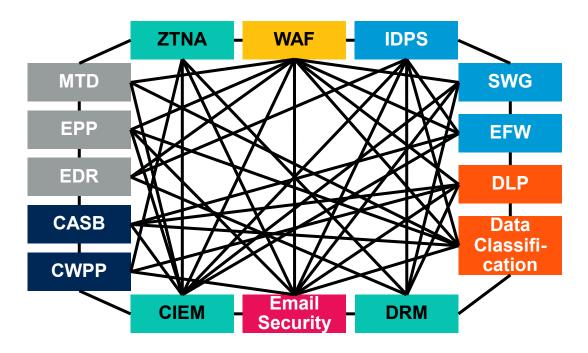


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### **Gartner Cybersecurity Mesh Architecture**



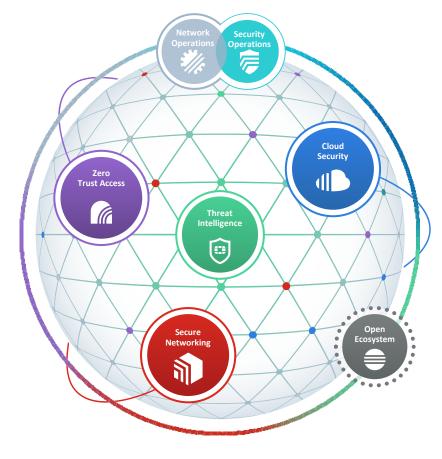
### **Gartner**



**Executive Guide to Cybersecurity Mesh, 2022** Felix Gaehtgens, James Hoover, Henrique Teixeira, Claudio Neiva, Michael Kelley, Mary Ruddy, Patrick Hevesi. As of October 2021.

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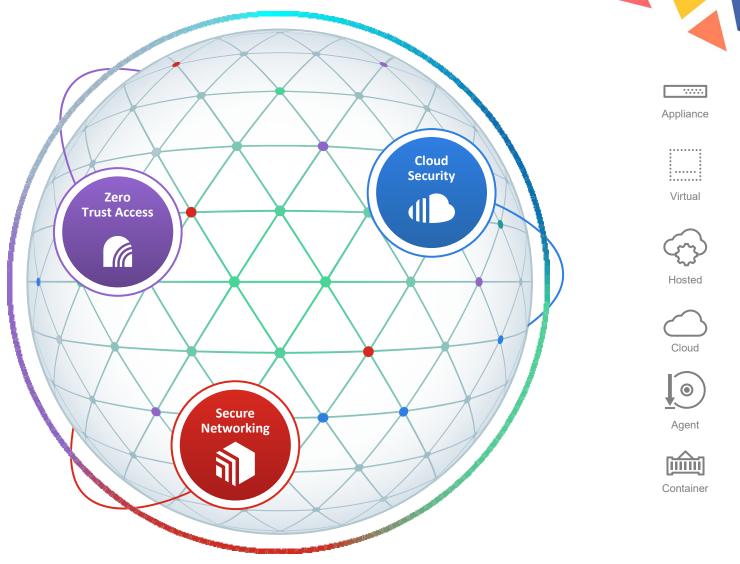




**Fortinet Security Fabric** 

#### **Broad**

visibility and protection of the entire digital attack surface to better manage risk.





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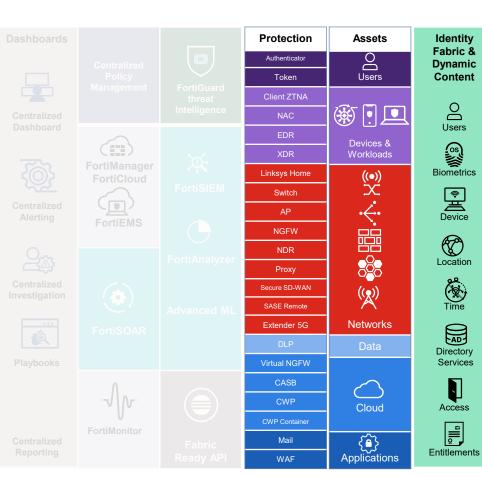
### **Under the Hood**

Implementing a Cybersecurity Mesh Fabric Architecture



# Broad

- Have broad reach across the attack surface for detection, signals,
   IoC, incident and enforcement close to the protected assets
- Gain coverage across the attack cycle with domain expertise
- Share context and intelligence to provide granular risk and Identity score





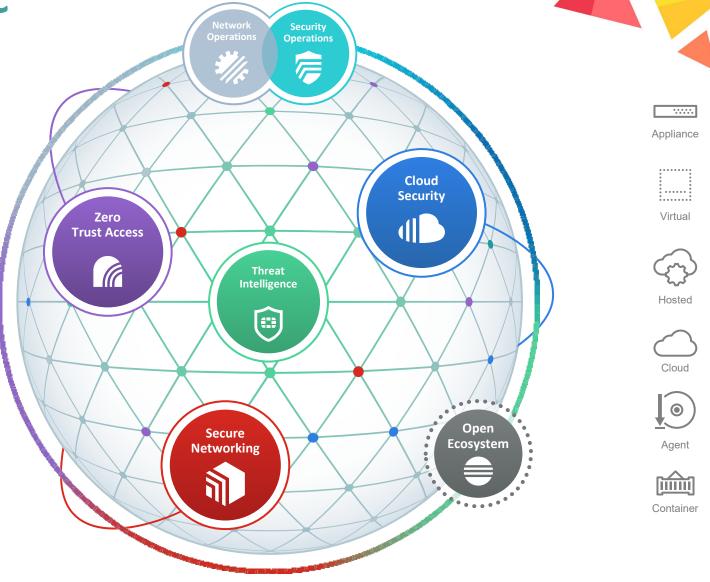
**Fortinet Security Fabric** 

#### **Broad**

visibility and protection of the entire digital attack surface to better manage risk.

#### **Integrated**

solution that reduces management complexity and shares threat intelligence.





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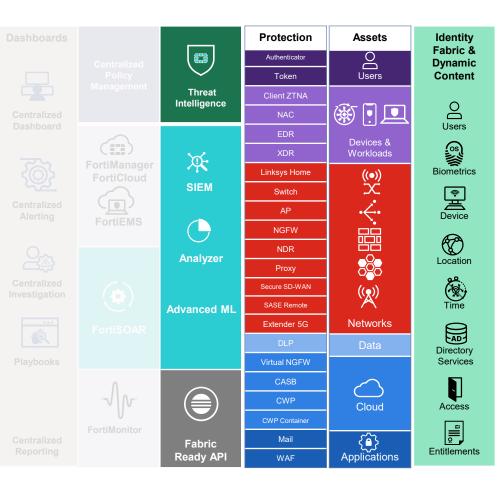
### **Under the Hood**

Implementing a Cybersecurity Mesh Fabric Architecture



# Integrated

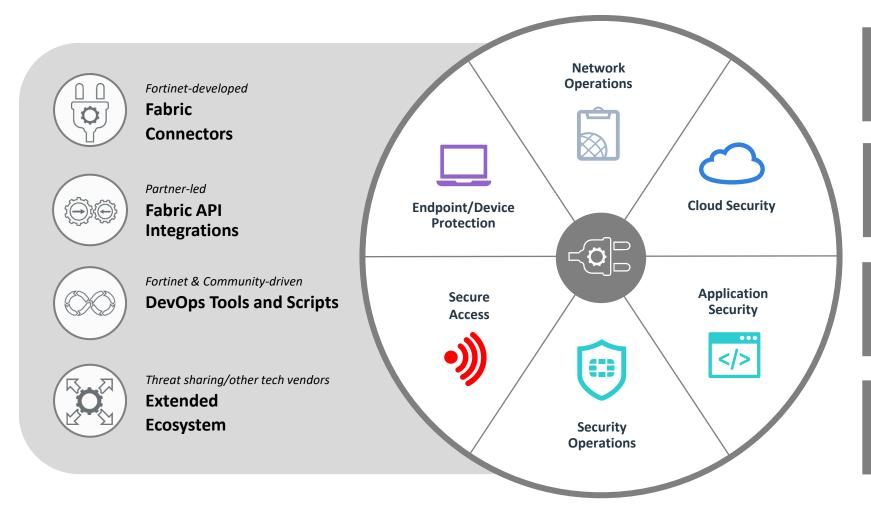
- Normalize security and networking data to create a complete view across your organization's attack surface and attack cycle
- Enrich your data
- Create a central point of correlation, and leverage multiple forms of ML (centralized, distributed, and federated) to build proactive and centralized intelligence.





### **Ecosystem Is A Must**

A cybersecurity mesh should work with an extensive ecosystem of integrated solutions



Increased Customer Confidence
Pre-validated, documented joint solutions

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#### **Faster Time To Value**

Speed deployment of Fortinet solutions into a multivendor environment

#### **Improved Fabric Visibility and Protection**

Provide greater end-to-end visibility and more effective/coordinated protection

#### **Facilitate Security Fabric Adoption**

Facilitate future consolidation and adoption of Security Fabric solutions

Over **500** integrated and automated vendor solutions for better end-to-end protection across your digital environment



**Fortinet Security Fabric** 

#### **Broad**

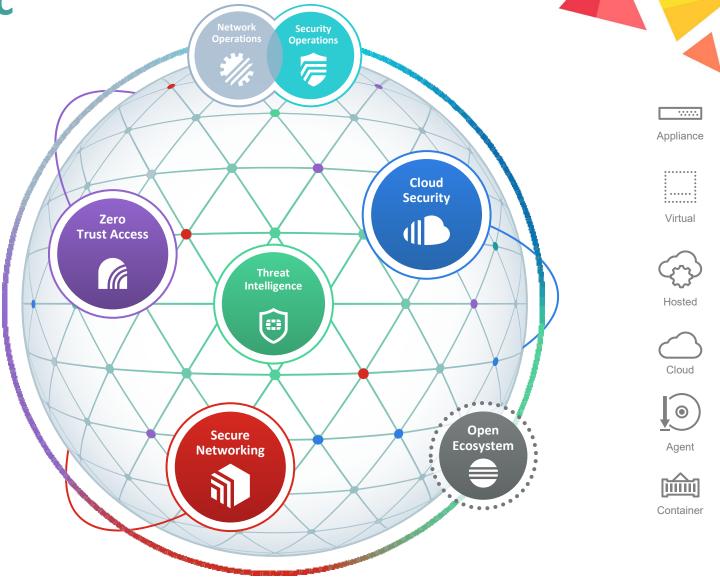
visibility and protection of the entire digital attack surface to better manage risk.

#### **Integrated**

solution that reduces management complexity and shares threat intelligence.

#### **Automated**

self-healing networks with AI-driven security for fast and efficient operations.





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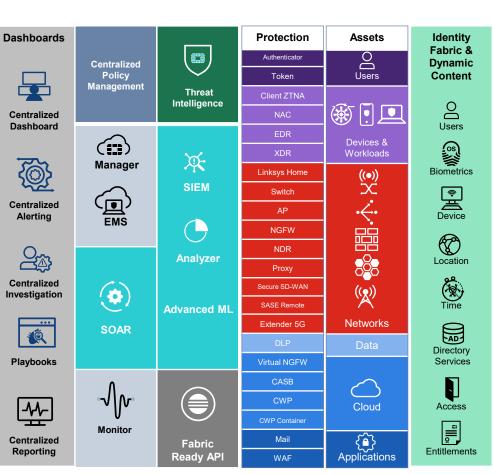
### **Under the Hood**

Implementing a Cybersecurity Mesh Fabric Architecture



# Automated

- Automate your ability to trigger coordinated and synergetic responses (predictive and reactive) across endpoints, applications, networks, and clouds
- Provide a **single pane of glass** for incidents, IoC, Scores, attack campaigns, etc.
- Deliver centralized and unified policy (think hybrid)
- Orchestrate and push new intelligence across the fabric

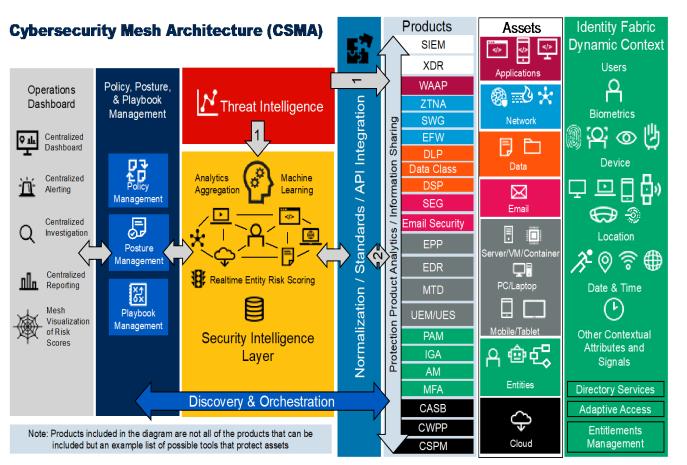


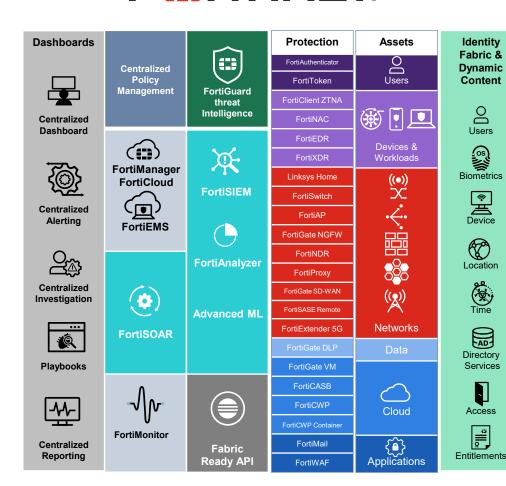


### Implementing a Cybersecurity Mesh Architecture



### **Gartner**





Source: Gartner "Cybersecurity Mesh Architecture", Felix Gaehtgens. April, 2022

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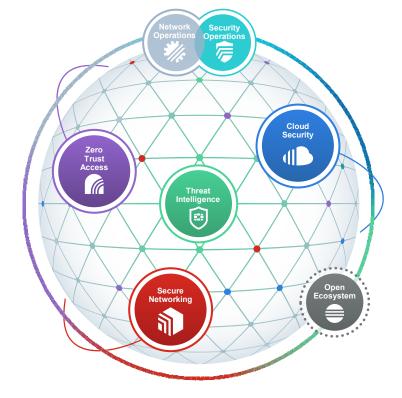
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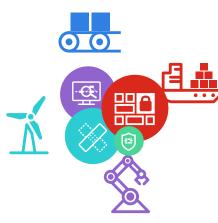
### **Cybersecurity Mesh Examples**













Zero Trust Edge



### Work from Anywhere – Multi-Vendor Solution

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#### Inconsistent Security and Complex to Manage



Threat Intel Multi-Vendor



Firewall Policy Vendor E



Cloud FW Policy Vendor F



**ZTNA Policy** Vendor B

Vendor D

Home Networking

لطها



Home Policy Vendor D



**EDR Policy** Vendor A



SASE Policy Vendor G



**SD-WAN Policy** Vendor C

#### ۹ $\nabla$ Web Vendor A Vendor B \* ф Anti-Botnet Vendor A Vendor C **∰** IOT Vendor B Vendor D









Travel

Vendor A EDR





Vendor C







Vendor F Cloud FW



Vendor G SASE











### Fabric Solution – Work from Anywhere

Consistent, enterprise-class security in all locations

**Unified Security Framework** 



**Al-Powered Security Operations** 



**Al Powered Network Operations** 



**Single User Based** License

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Subscriptions

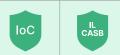












**Client ZTNA** 



**EDR** 





Linksys HomeWRK











WAN



**NGFW** 

















# Fabric Solution – Harmonizing Enterprise Security with Cloud Native















Internet Gateway



East West Virtualization



DMZ & Proxy



Workload Protection



Azure Security Center



Defender for Cloud



Azure Information Protection



Extended Security Updates



AWS Security Hub



**Guard Duty** 



Inspector



**AWS WAF** 



Security Command Center



Cloud Security Scanner





Cloud Armor





WAF



EDI



DevSec

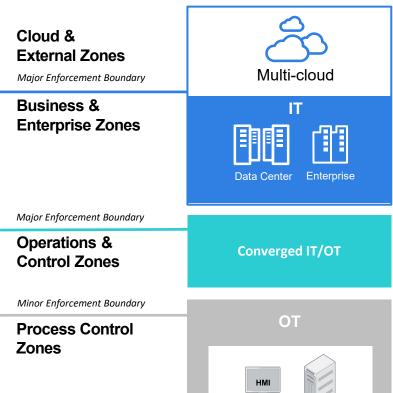




### Fabric Solution – Operational Technology

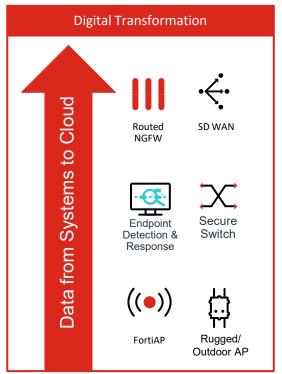


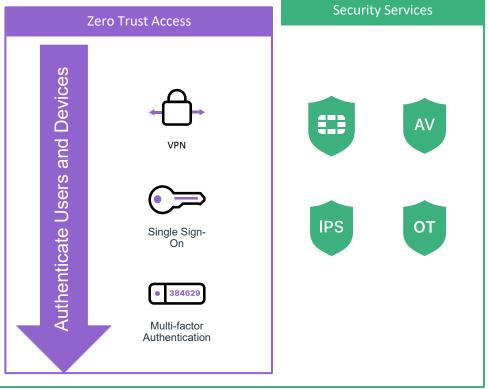
Most commonly deployed Fabric Solution













Major Enforcement Boundary

Safety Zone

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### 2022+ Focus Areas

Act Early(er)
Play Smart(er)
Win Fast(er)



### **Act Early(er)**





#### Don't show any weakness

Starting as early as the reconnaissance phase

#### **Early Risk Reduction**

- External attack surface management
- Brand protection
- EDR



#### Always be looking

For potential gaps – and fix them

#### **Cybersecurity Assessments**

- Vulnerability
- Targeted incident readiness assessments
  - (ransomware, phishing, email)



#### People are your vulnerability

- asses and "patch" them well

#### **CyberSafe Training**

- Cybersecurity hygiene
- Social engineering
- Anti-phishing

Strive to Know More – Adversary Centric Intelligence (ACI)





- Provides a view on what adversaries are seeing (EASM)
- Provides a view on what adversaries are doing (Brand Protection)\*
- Provides a view on what adversaries are planning (ACI)\*

Supports mitigating / remediating actions earlier reducing the impact and cost of cyber attack









Pre-Attack

External
Attack
Surface
Monitorin



Reconnaissance





Weaponization



Delivery



Exploitation



Installation





Command & Control

Action on Objectives



Remediation Cost



# External Attack Surface Management (EASM)

EASM will helps identify servers, credentials, public cloud service misconfigurations and third-party partner software code vulnerabilities that could be exploited by malicious actors.

Vulnerabilities /
Configuration Errors /
Exposed Services

#### **Security Issues**





Outlines Comprehensive discovery of assets such as Domains / IP / ASN / Subdomains / Certificates



External
Attack Surface
Monitoring



**Recommendations** 

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Recommended actions



Change / Delta Comparison

Comparison with previous scanning results to identify recent changes



# **Brand Protection** (BP)

Brand Protection(BP) detect activity early and taking action such as web-site or application takedown, Brand Protection helps organizations to protect their brand value, trust, integrity, and reputation.



## Brand Monitoring & Protection





### **Credentials Monitoring**

Monitor Leaked / Breached Credentials



#### **Typosquatting**

Monitor similar looking domain names



#### Rogue Apps Monitoring

Track Rogue Mobile Applications



#### Social Media

Montior dicsussions against brand in social media



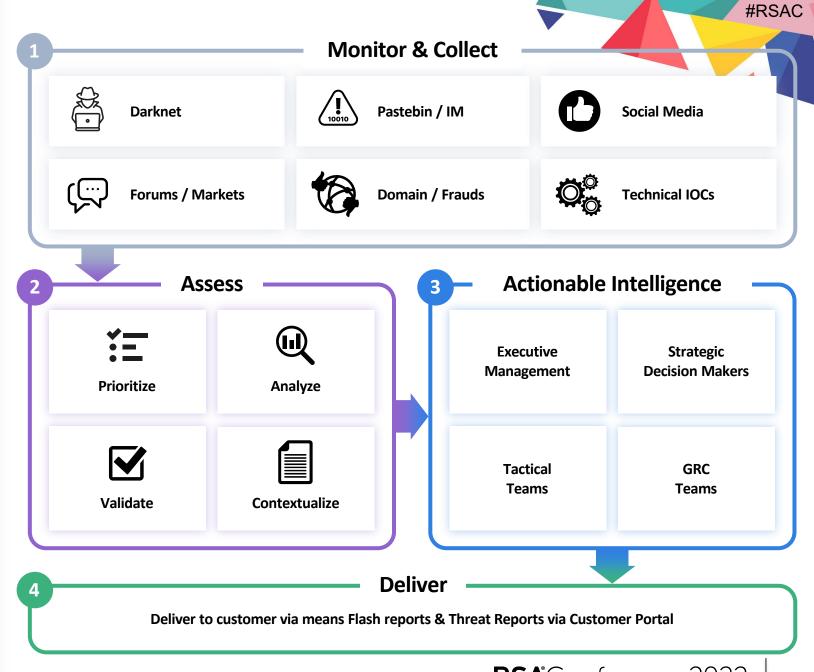
### Phishing Monitoring

Track phishing campaigns against brands



### Adversary Centric Intelligence (ACI)

Adversary Centric Intelligence (ACI) includes threat actor insights to help organizations proactively assess risks, look for vulnerabilities in the existing setup and increase the security awareness of their staff.





### Play Smart(er)





# Invest in Threat Intelligence

- Strive to create the bigger picture
- Normalized and centralized security data
- Global threat intelligence feeds
- Activate security features
- Make sure your logs have meaningful data in them



#### Slow Adversary Down

- Decrypt
- Zero Trust and segmentation
- Honeypot technology
- Network detection and response



# Transform Data to Intelligence

Correlate and leverage multiple forms of ML (centralized, distributed and federated) to build proactive, predictive and centralized intelligence



### Win Fast(er)





#### **Automate**

- Smart ML (Local & Cloud delivered)
- Proactive & Unified policy
- Think hybrid
- Invest in Playbooks
- Outbreak Detection



#### **SOC Augmentation**

- Soc as a Service
- Client Level Forensics
- MDR
- IR
- Outbreak Alerts

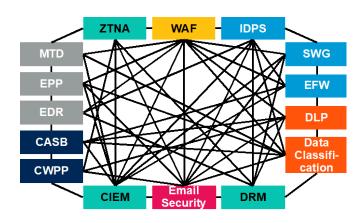


# Practice makes you Better (& faster)

- Educate
- Tabletop Training
- Playbook Development
- Attacks Simulation



#### **Gartner**

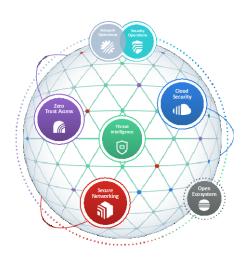


"By 2024, organizations adopting a cybersecurity mesh architecture to integrate security tools to work as a collaborative ecosystem will reduce the financial impact of individual security incidents by an average of 90%"

"Top Strategic Technology Trends for 2022: Cybersecurity Mesh, Felix Gaehtgens, James Hoover, Henrique Teixeira, Claudio Neiva, Michael Kelley, Mary Ruddy, Patrick Hevesi, 18 October 2021"

Executive Guide to Cybersecurity Mesh, 2022
Felix Gaehtgens, James Hoover, Henrique Teixeira, Claudio Neiva, Michael Kelley,
Mary Ruddy, Patrick Hevesi. As of October 2021





### To implement a cybersecurity mesh architecture today, look for:

- Deep visibility across all edges
- Centrally managing distributed solutions
- Consistent enforcement of policies
- Real-time global threat intelligence across
   Security Fabric deployments
- Automating actionable responses
- Broadest, most integrated open ecosystem



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Q&A



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### End

