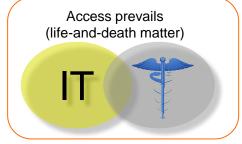
Forcepoint Risk Adaptive Security for Healthcare

Ozgur Danisman, MBA, CISSP, CISA, CISM

Head of Sales Engineering / Emerging Markets

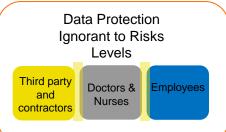


SECURITY IN HEALTHCARE...





Non-patchable systems and devices







Escalated security concerns

Shift to Cloud



Mobile initiatives and medical devices





BYOD

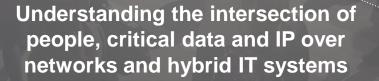
Portable Medical Devices



THE INTERSECTION OF PEOPLE AND DATA















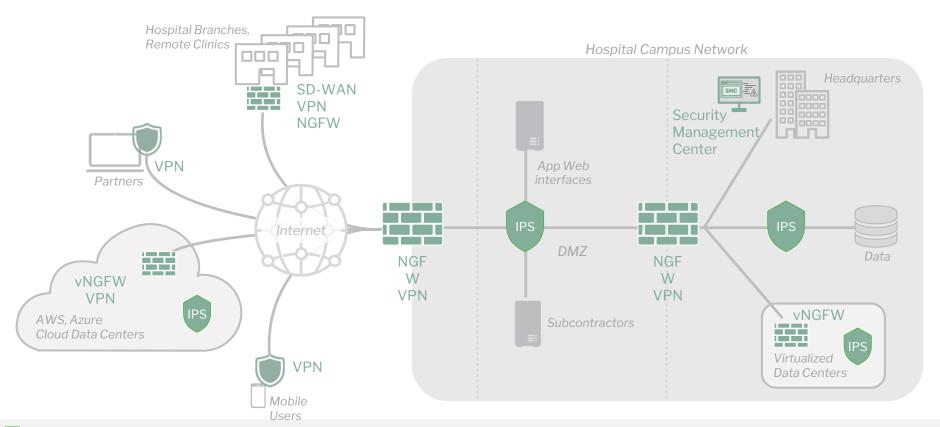
Forcepoint Security Portfolio for Healthcare



OUR VISION

Understand and respond to user intent to stop cybercrime before it occurs

One Network Security System, Many Uses



Network Security Must Defend Against Layers within Layers





Evasions

"camouflage"

- App (HTTP, SQL, etc.)
- Obfuscation
- etc.) Encoding
- **TCP**
- Overlapping
- Extraneous

IP

- Out of Order
- Fragmentation



Exploits

"delivery vehicles"

Unpatched
Vulnerabilities
(SMB, Web, DB, etc.)

Zero-Days



Malware

"theft & compromise"

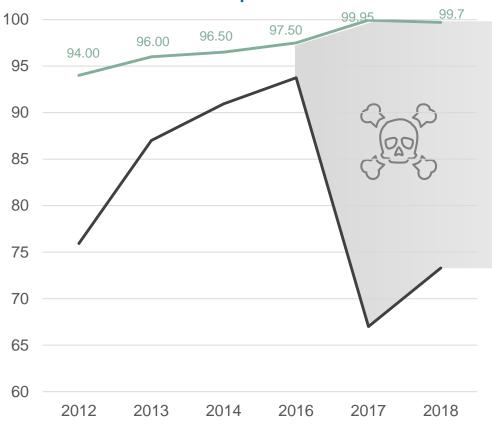
Ransomware

Data Theft

User Compromise System Corruption



The Evasion Gap - Most Vendors Leave Networks Exposed



Forcepoint

NSS Test Average

Many NGFW & IPS fail to stop evasions

Exploit Kits now make evasions easy

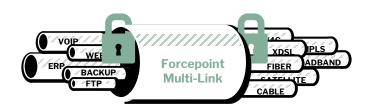
- Metasploit
- Shadow Brokers leaked toolkit

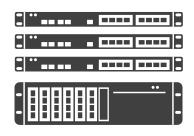
Attacks combining techniques to spread

Learning from WannaCry → Petya



High Availability & Scalability for Critical Networks







Clustered Networks

- Active-Active, transportindependent, multi-ISP
- Direct-to-Cloud high performance
- No external routers needed

Clustered Firewalls

- Active-Active, mixed devices/versions
- Scales to 16 nodes
- No external load balancers needed

Replicated Management

Policy-driven connectivity & security

Failover for rapid recovery

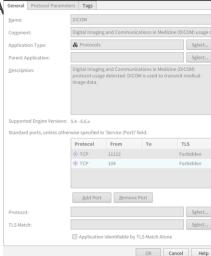
Distributed logs for ongoing visibility

Healthcare Application Aware Segmentation Best Practices

Practices Group systems logically by trust levels, risk factors and security classifications independent of physical location. Each segment can have unique policies.

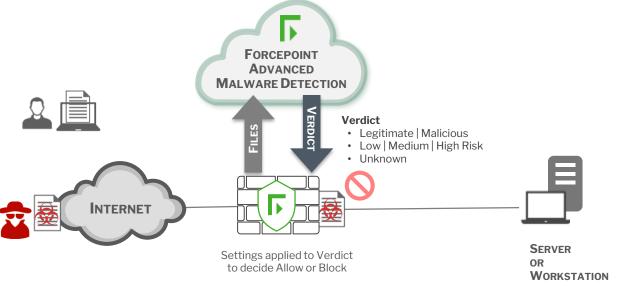
- Intra-segment traffic is allowed by default
- Inter-segment traffic is controlled by firewall and denied by default

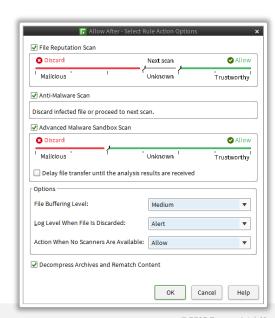
Traffic between segments is controlled based on Applications (e.g. DICOM), Users, IPS, ECA General Protocol Parameters Tags



Forcepoint Advanced Malware Detection (AMD)

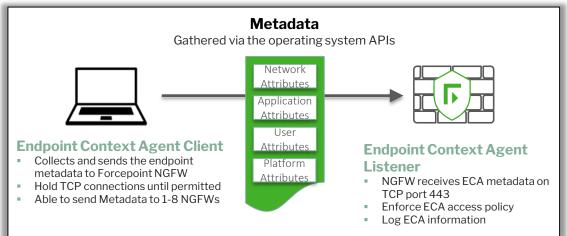
- Advanced Persistent Threats, Zero-Day Threats, and Advanced Malware
- Provide deep content inspection analyzes for unknown objects
- Available in Cloud and On-Premise





Whitelist Critical Client Applications on NGFW

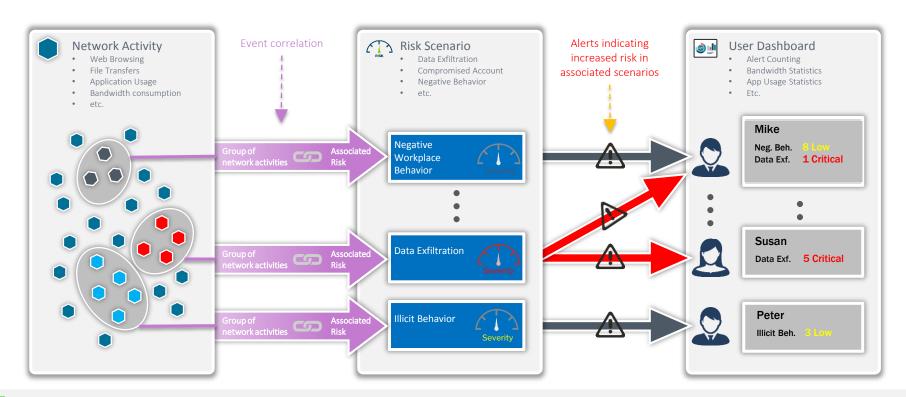
with Endpoint Context Agent (ECA



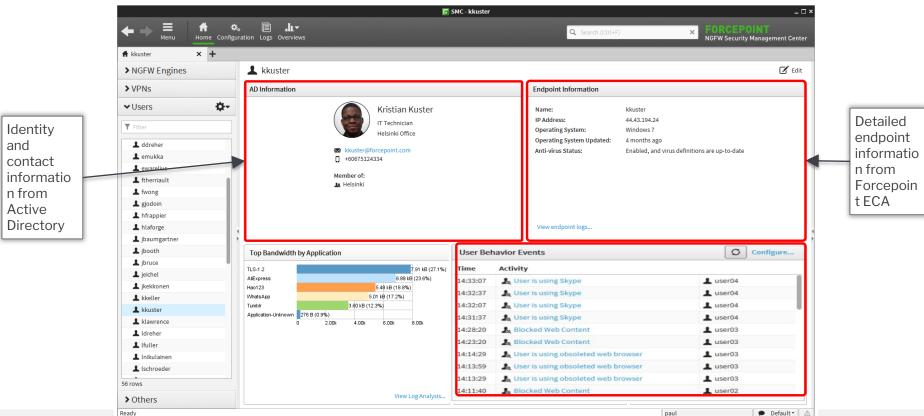
P۱	/4 Access	IPv6 Access	Inspection	IPv4	NAT	IPv6 NA	ıΤ				
	ID :	Source		Destination		Service	Action	Authentication	QoS Class	Logging	
	Automatic Rules Insert Point										
	5.1	± ANY			± A	NY	ANY	→ Continue			Transient No Closing Executable Enforced
	5.2	ECA-Interne	et_Explorer_	11	±Α	NY	ANY	Allow			
	5.3	ECA-Interne ECA-Interne	et_Explorer_ et_Explorer_ et_Explorer_ et_Explorer_ et_Explorer_	4 5 6 7 8	±± Al	NY	◆ ANY	Discard			
	5.4	± ANY			±Α	NY	ANY	Allow			
Ì	Discard all										

4	CATEGORY	METADATA
	Application Attributes	Executable binary name read from the signed executable file (String) Executable checksum(SHA-256/MD5) Executable product name (String) Executable version (String) Fingerprint of the signer certificate or
	Actibaces	public key Signature check result from OS (OK, not OK or not checked) Signer name (String)
		AV status BIOS serial number
		Endpoint load (CPU, memory, disk)
		Full computer name
	Platform Attributes	Listening sockets, their interfaces and ports
		Local FW settings
ı		OS updates
		OS version
		User login/logout event
		User Domain Name (String)
ı	User Attributes	User Group Information (String Array)
ı		User ID (String)
1		User Type

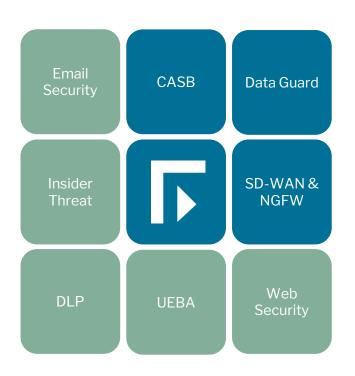
User Behavior Alerts



User Dashboard Drilldown



Forcepoint Security Portfolio for Healthcare



OUR VISION

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Forcepoint Approach to Data Protection



Single console management across all channels for optimal visibility and control





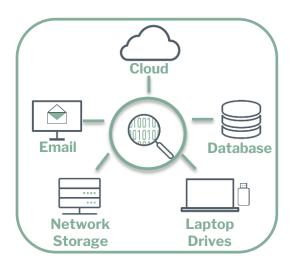




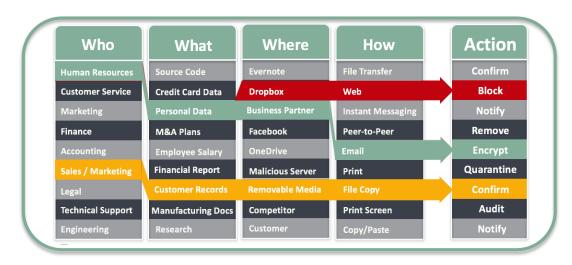


INVENTORY

Data Discover



Map and Manage Personal Data Flows



Have clear visibility on your data and enforce end to end governance

DATA LEAKAGE PROTECTION EVOLUTION



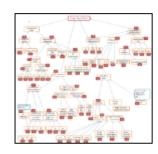












2003

Data Fingerprints Pre-defined IP and Compliance Policies

Endpoint fingerprints

OCR and Cumulative (DRIP) DLP

2010

Apple OS X DLP endpoint Insider Threat DLP Detection

2015

Insider Threat

Incident Risk Ranking

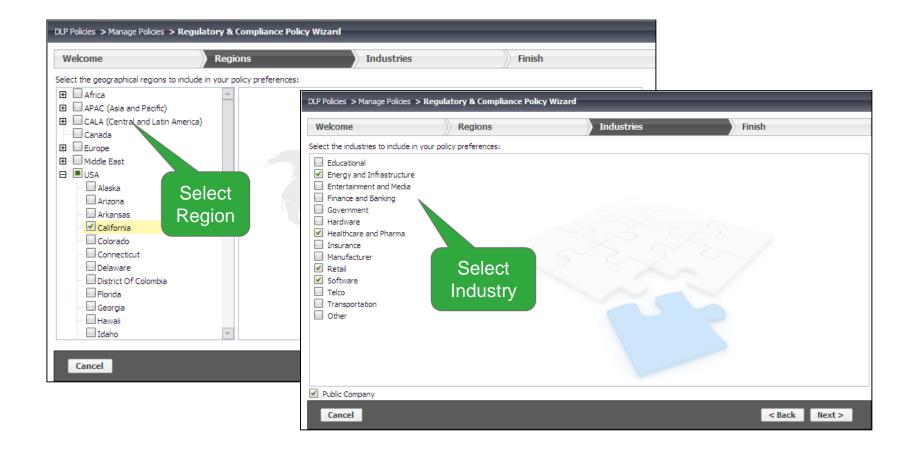
Dynamic Data Protection

2018

DLP SECURES SENSITIVE DATA IN USE & IN MOTION

Who	What	Where	How	Action
Doctors	Source Code	Evernote	File Transfer	Confirm
Customer Service	Credit Card Data	Dropbox	Web	Block
Marketing	еРНІ	Business Partner	Instant Messaging	Notify
Finance	M&A Plans	Facebook	Peer-to-Peer	Remove
Accounting	Employee Salary	OneDrive	Email	Encrypt
Sales / Marketing	Financial Report	Malicious Server	Print	Quarantine
Legal	Patient Records	Removable Media	File Copy	Confirm
Technical Support	Manufacturing Docs	Competitor	Print Screen	Audit
Engineering	Research	Customer	Copy/Paste	Notify

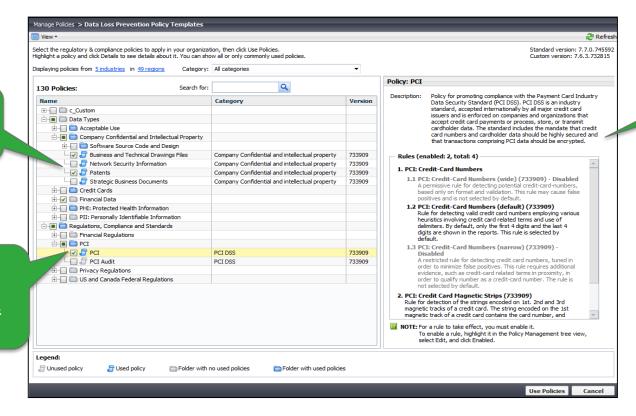
IP AND COMPLIANCE POLICIES



IP AND COMPLIANCE POLICIES

Types of IP to secure

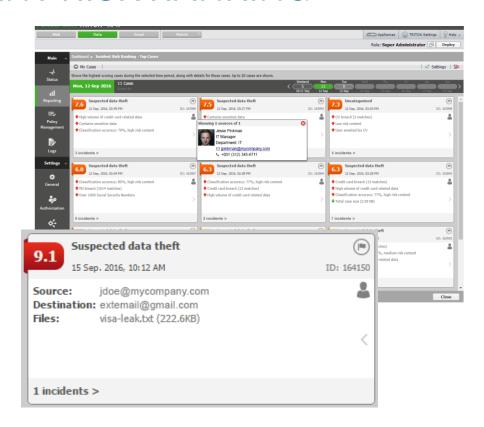
Common
Healthcare
Compliance &
Regulations



Explanation

INTEGRATED DLP INCIDENT RISK RANKING

- DLP industry's first Security Analytics Capability
- Incidents are clustered together into Cases
 - A Case can be a single incident or series grouped together
 - Each case gets a risk score of 0-10
- Incident Risk Ranking allows you to see and react to the most urgent cases



TRADITIONAL DATA LEAKAGE PROTECTION

STATIC POLICIES BASED ON PRE-DEFINED RULES



Kate is giving a presentation to senior leadership and tries to copy her slides to a USB stick

Traditional DLP Policy

Policy: **block** files from being copied to USB drives, alert gets sent to IT

USER IMPACTS

Kate is frustrated because simple tasks are blocked

Kate will find another way to solve her problem

The data protection system becomes ineffective

ADMINISTRATOR IMPACTS

The admin needs to track down the alert

Thousands of alerts come in overwhelming the security admin team

The security team turns off the DLP policy because there are too many false positives

STATIC VS DYNAMIC POLICIES IN ACTION

ACTIONS VARY BASED ON THE RISK LEVEL OF PEOPLE AND THE VALUE OF DATA

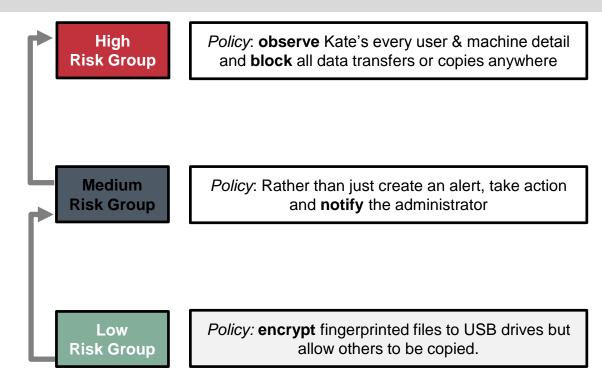


Kate is giving a presentation to senior leadership and tries to copy her slides to a USB stick

Kate begins to bulk copy files to her local machine at off hours.

She gets a supplier's query about an order she doesn't remember placing and then logs into the supplier's website to check on it

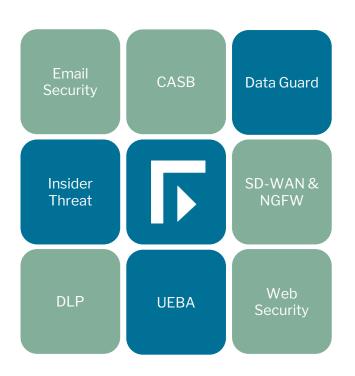
Kate begins accessing highly sensitive drug formula data and attempts to copy it off the corporate network



CLOUD ADOPTION OUTCOMES IMPORTANT TO OUR NHS CUSTOMER



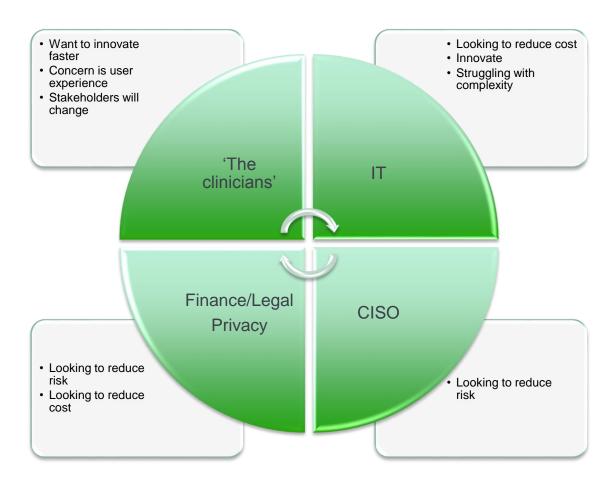
Forcepoint Security Portfolio for Healthcare



OUR VISION

Understand and respond to user intent to stop cybercrime before it occurs

STEP 1: ASSEMBLE KEY STAKEHOLDERS

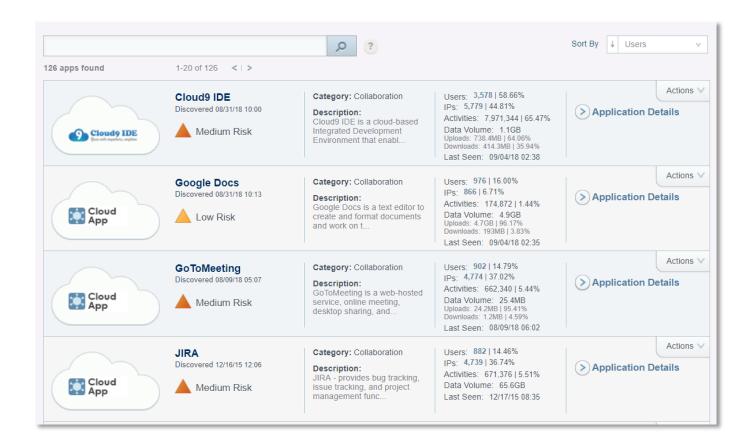




Step 2: GAIN CLOUD USAGE VISIBILITY

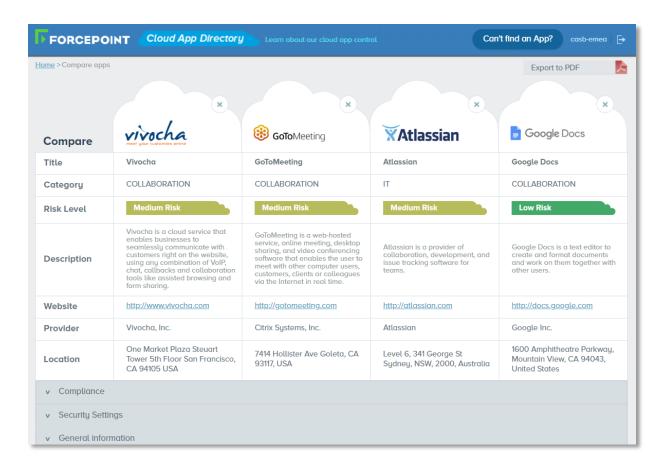


STEP 2: GATHER THE SHADOW IT USAGE DATA



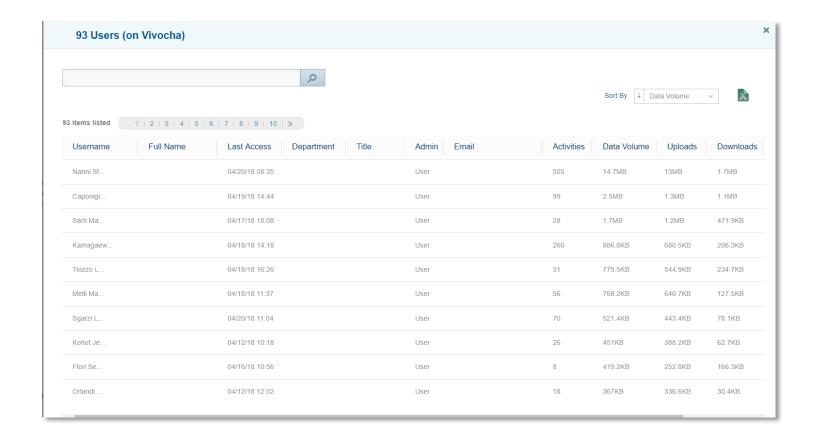


STEP 3: MATCH CLOUD APP WITH CUSTOMISED RISK



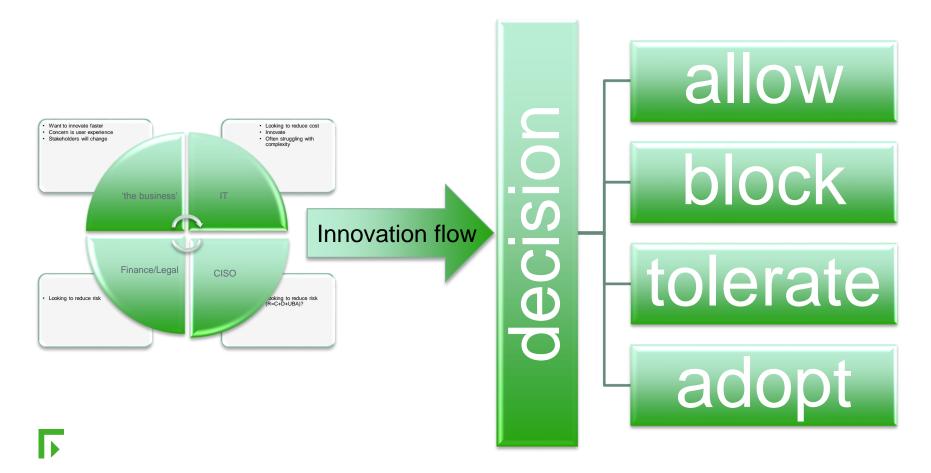


STEP 4: GO ASK THE USERS ABOUT THEIR USE

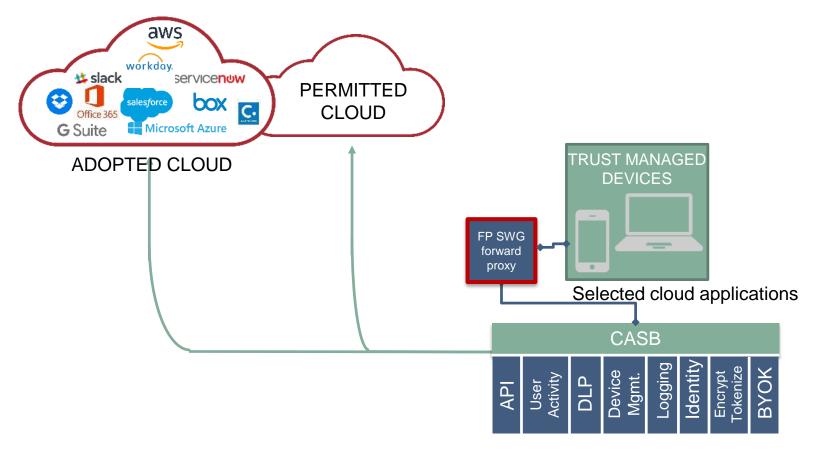




STEP 5: CLOUD GOVERNANCE TEAM TO DECIDE



REDUCING THE RISK OF CLINICIANS 'SHADOW IT'





0365 PROJECT: WHAT DID THE STAKEHOLDERS WA

"I need to prevent malware attacks using O365"

> "I need to control Privileged users such as Admins"

"I need to give clinicians unmanaged device access"

"I need to stop outsiders accessing our cloud assets"

"I need to provide safe cloud file sharing and collaboration"

I'm the CISO

I manage network

I'm a clinician and I just want to get my job done



Forcepoint Solutions Help Organizations **Accelerate Digital Transformation**

Transforming Networks

Enable Direct-to-Cloud Connectivity and Security for Remote Offices

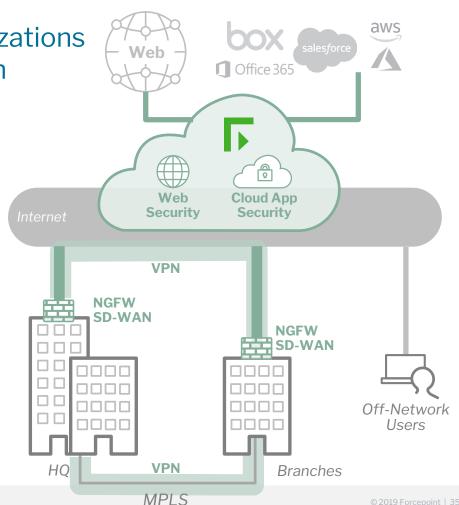
Modernize Hybrid IT Networks

Transforming Security

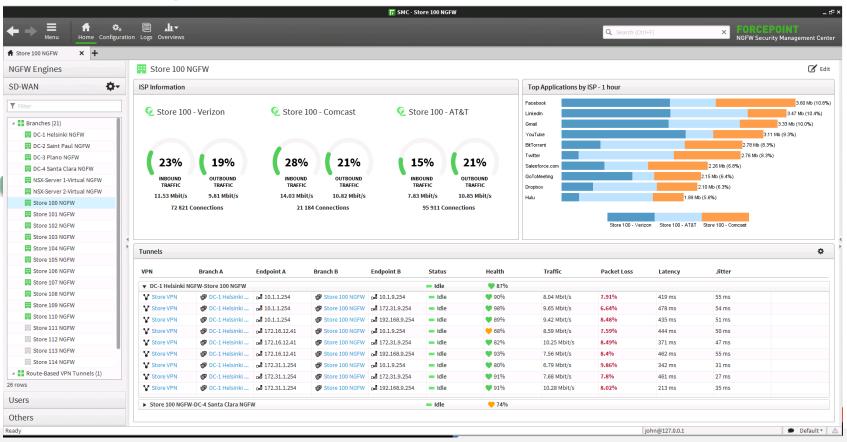
Secure the Adoption of SaaS and **Public Clouds**

Protect Off-Network Users

Deploy a Converged Security from the Cloud



Full Visibility into SD-WAN Connections



The top 5 0365 problems THAT FORCEPOINT CASB solves out of the box Attackers stealing credentials Audit and control and weak O365 Users **oversharing** inappropriate Admin security policy e.g. data in OneDrive actions long password Employees and Discovery and reset time 3rd-parties accessing control of Personal Office365 from Data in O365 for **GDPR** purposes **BYOD** devices

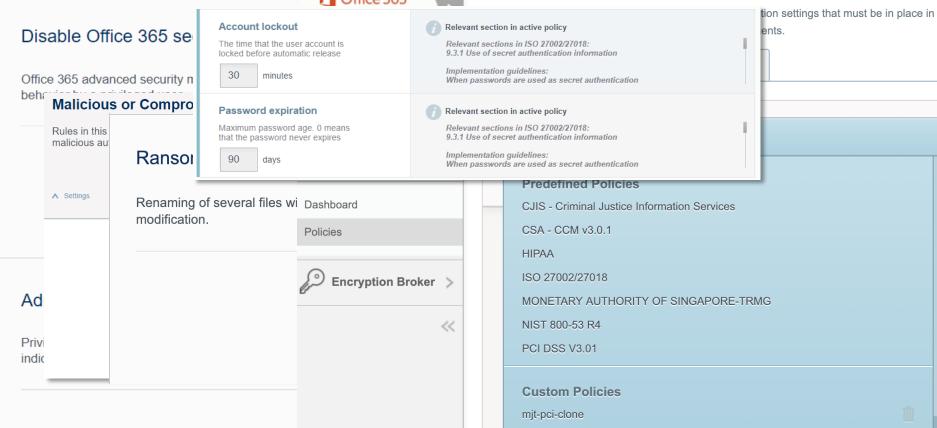
EXAMPLE OUT OF

Office 365

! Asset governance API / Web connection is not configured. Configure asset conne

User Risk Dashboard > Data Classification Dashboard > Governance Policies

Governance Policies



Human Point System is Here Today

DLP
Web &
Email
Security

Add critical data & IP exfiltration protection to web and email security



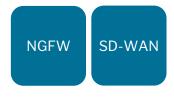
Integrate SaaS visibility into core Web Security



More robust detection of anomalous activity



Uniform means to protect data on-premises & cloud



Enable Secure Cloud Adoption

