



# McAfee Unified Cloud Edge

# Device-to-Cloud Data and Threat Protection

Manong Antawn
Senior Support Engineer @ McAfee
Solution Architect
University Lecturer/Researcher

Inquire Now

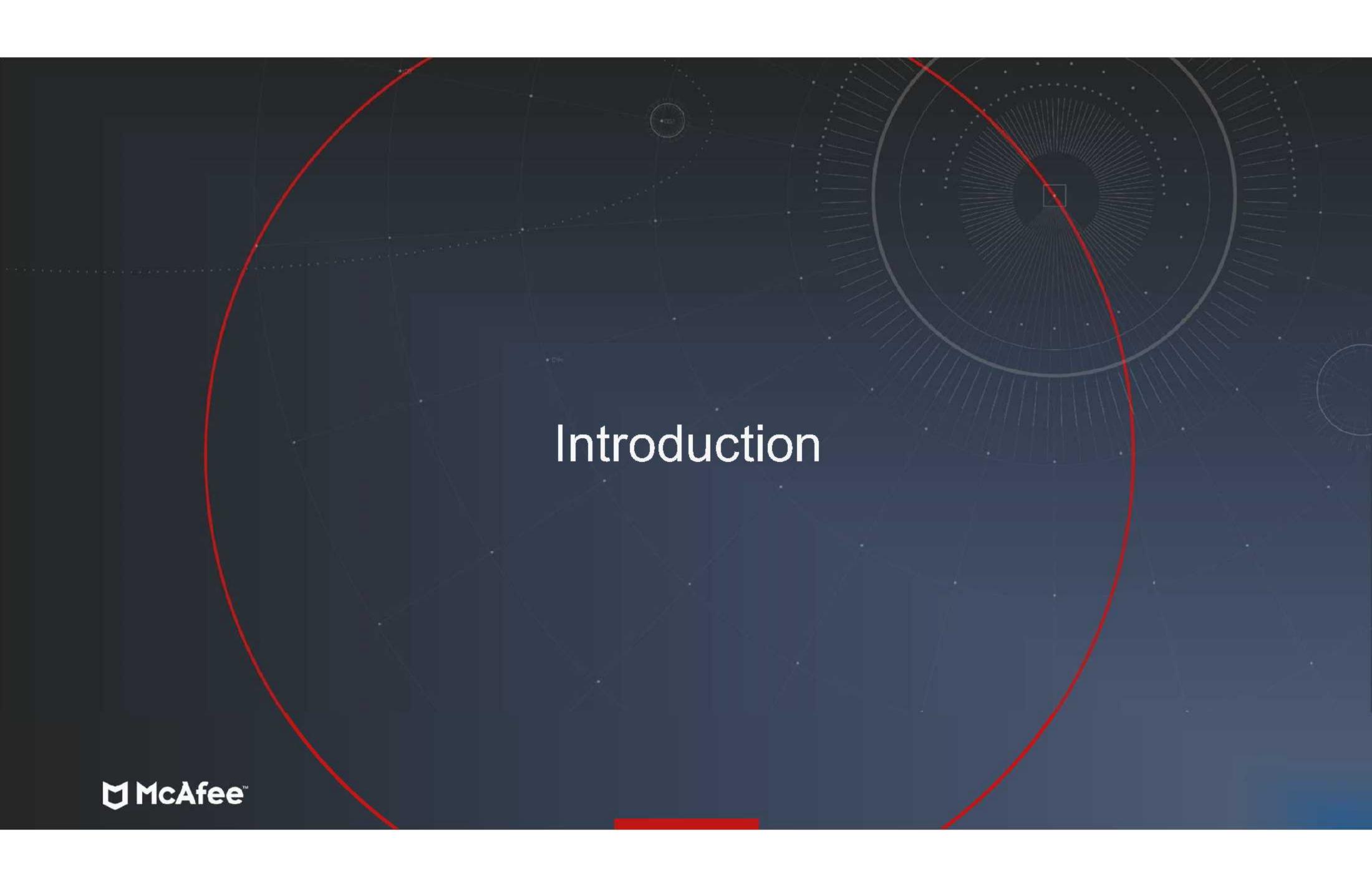
### Content

Summary

Introduction
McAfee Unified Cloud Edge
Architecture
Use Cases

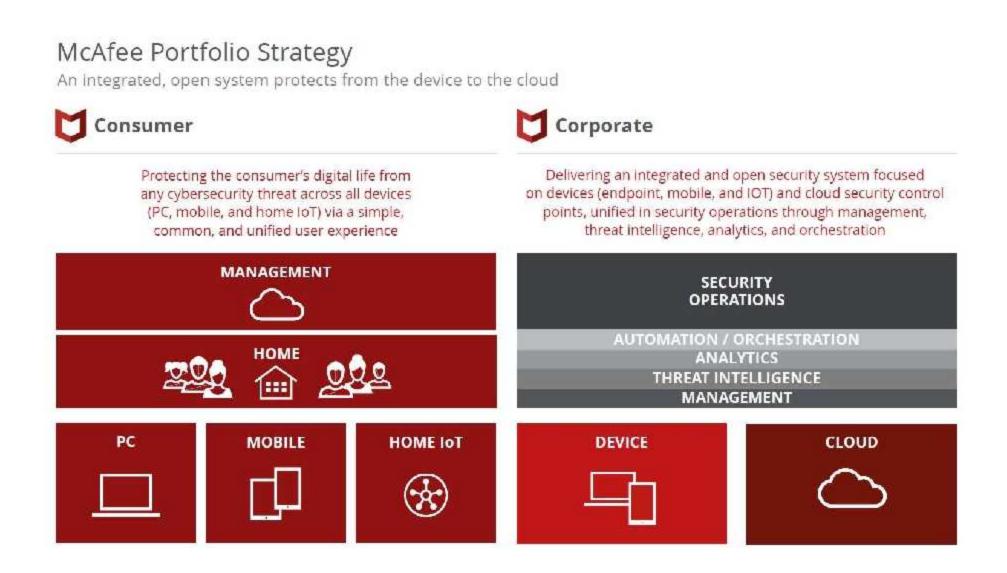
Date, specific business group

MCAFEE CONFIDENTIALITY LANGUAGE



# CyberSecurity Importance

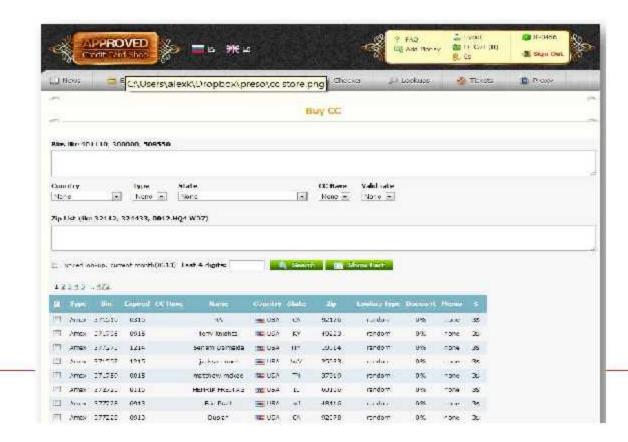
- Protecting personal and sensitive information
- It enables people to carry out their jobs, education and research
- Supporting critical business processes



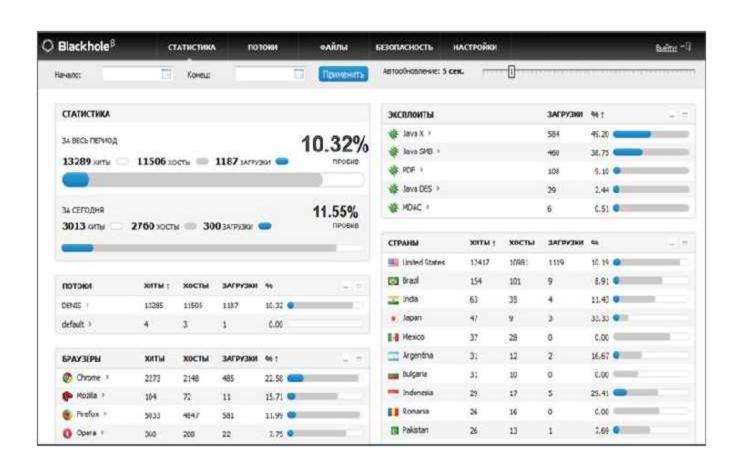
### Motivations of the Attack

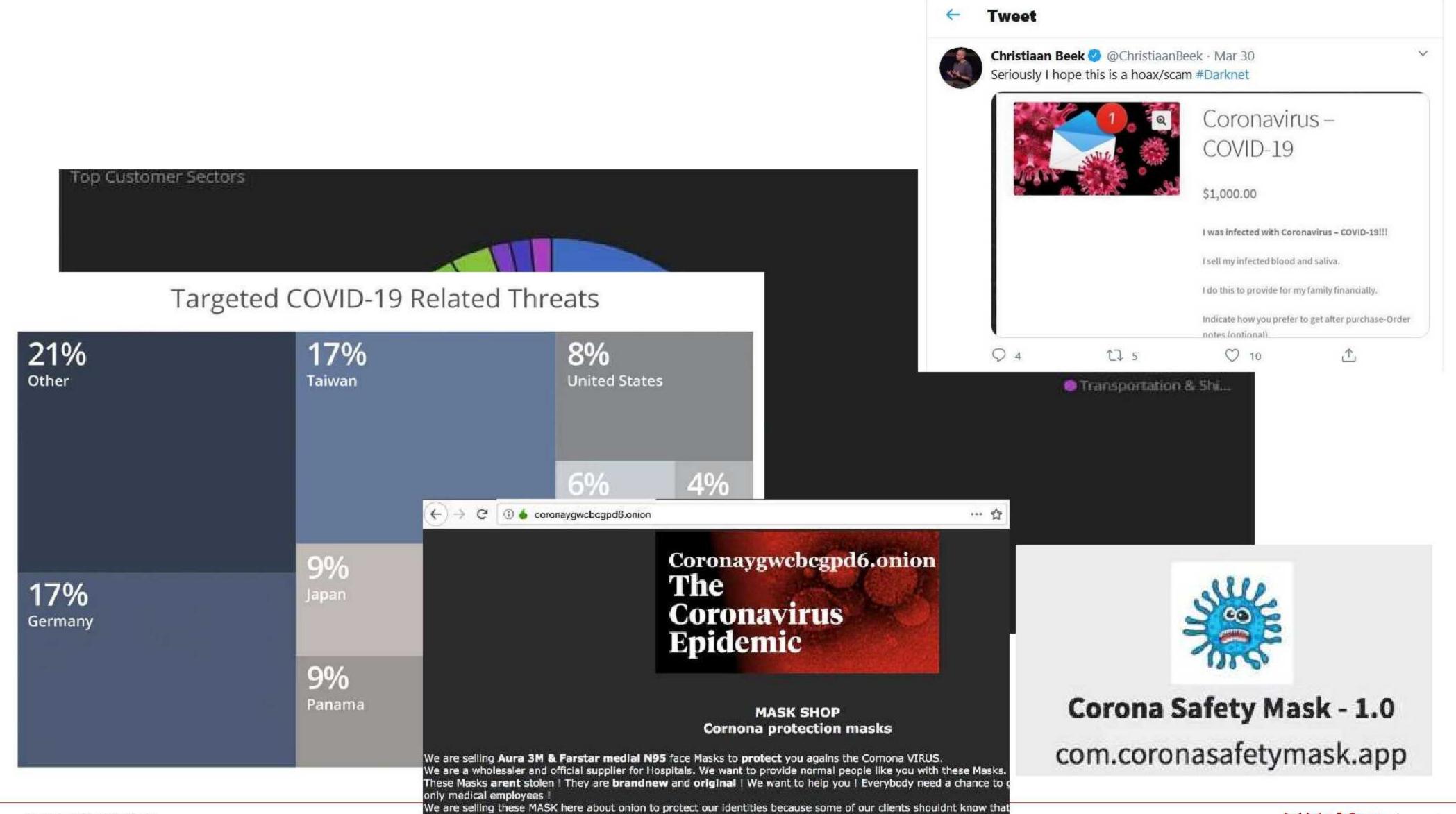


- Financial / Monetary Gain
- Revenge/ Curiosity or Intellectual Challenge
- Social Or Political Point
- Espionage or Activism
- National Security





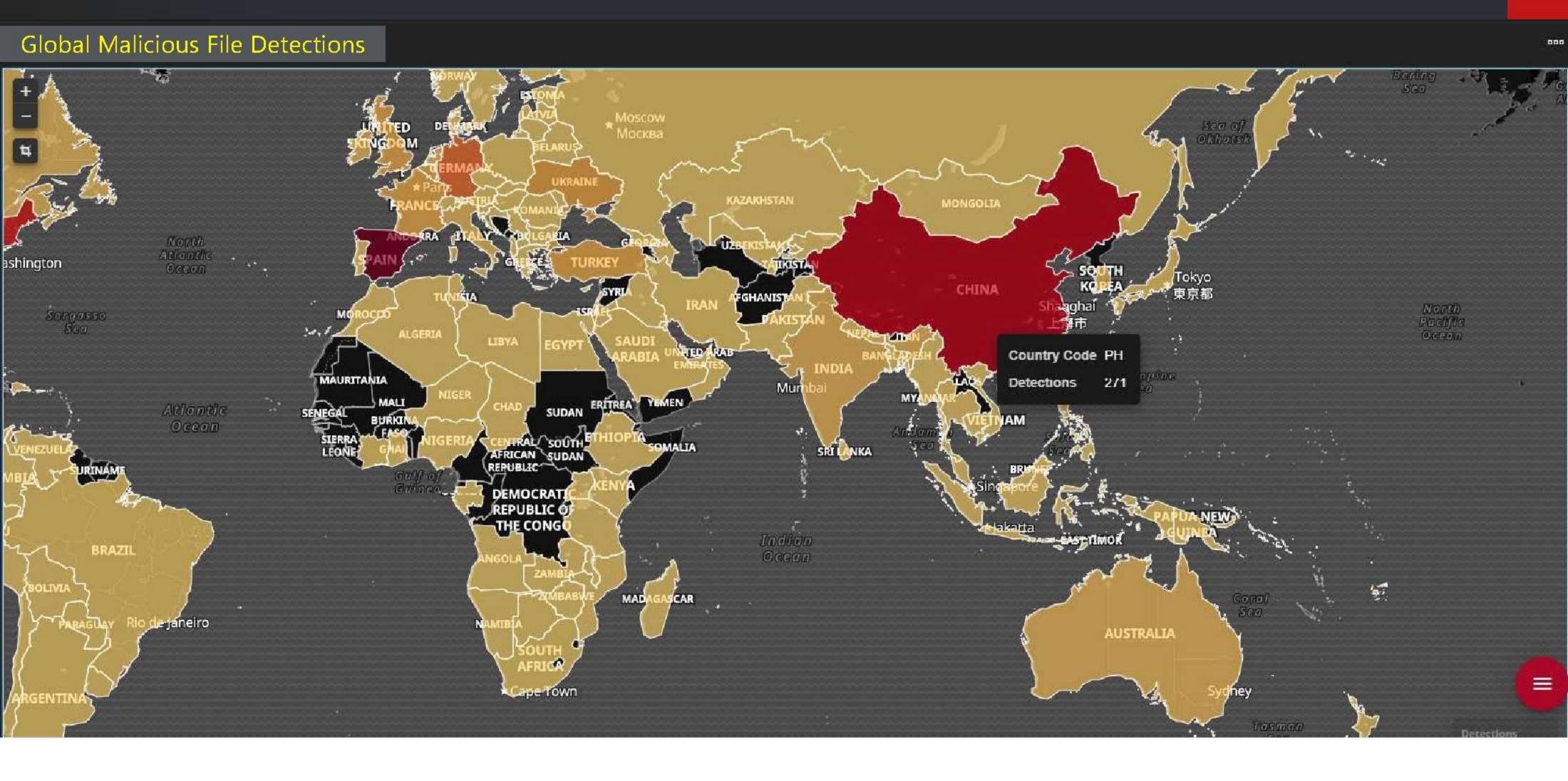




These Masks will come in new closed packets and are usable till end of 2024.

One Packet contain 10 Masks!

# Covid-19

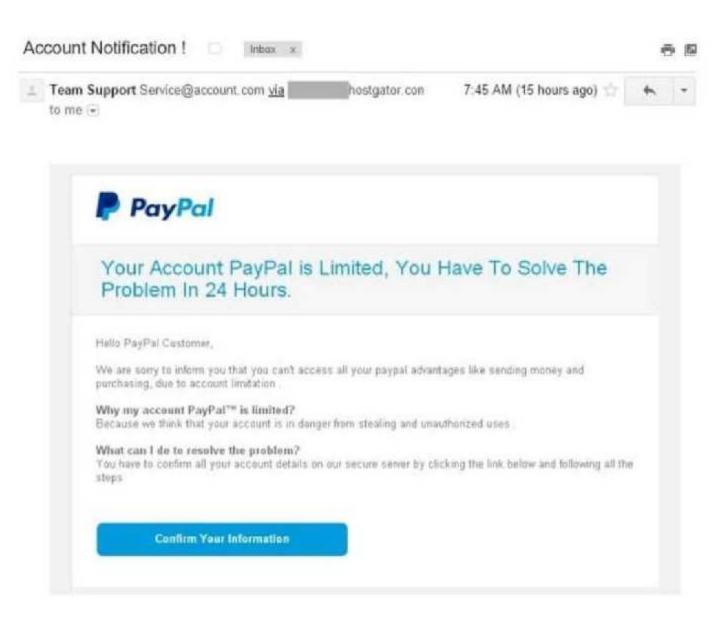


# Social Engineering

- Social engineering is the practice of obtaining confidential information by manipulation of legitimate users.
- A social engineer will commonly use e-mail, the internet, or the telephone to trick people into revealing sensitive information or get them to do something that is against policy.

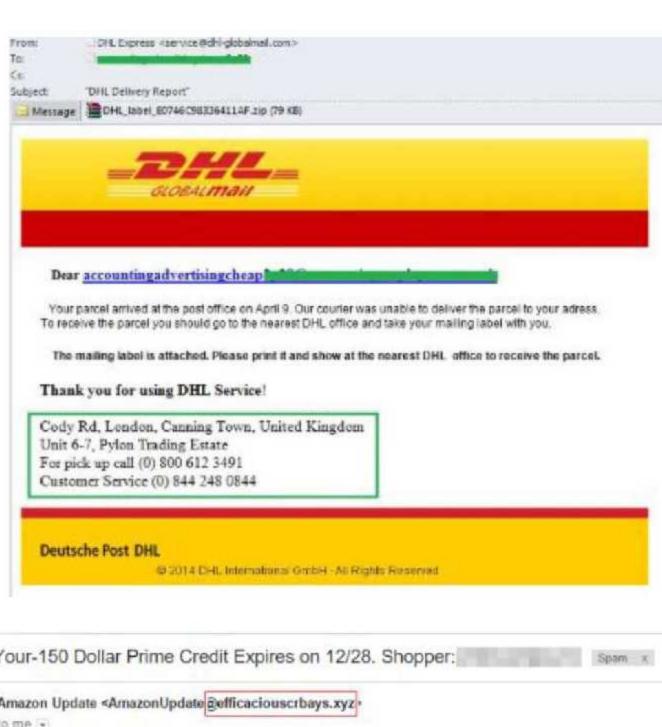


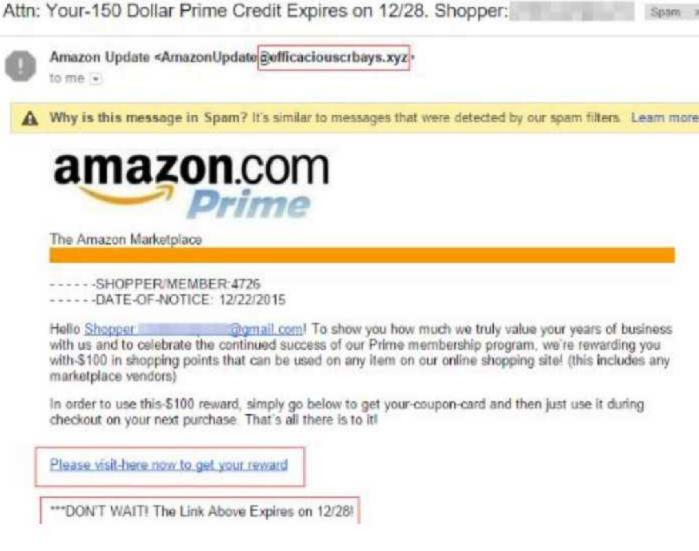
**Phishing** - is the fraudulent attempt to obtain sensitive information such as usernames, passwords, and credit card details by disguising oneself as a trustworthy entity



# **Deceptive Phishing**

- Most common type
- Steals information by imitating a legitimate provider.
- To avoid, look out for generic salutations, grammar mistakes, spelling errors found on the malicious email.
- Users must also inspect URLs carefully and check for legitimacy.





McAfee

# **Spear Phishing**

- Most common on social media sites.
- Email from recognized sender.
- Uses personalized information.
- To avoid, limit sharing of sensitive personal information



Thomas Edison <thomas.edison@gmail.com> ... 3:58 PM (3 minutes ago)









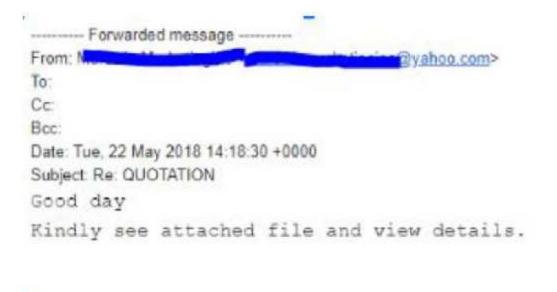
Hope all is well in the lab. We're having a great time in sunny Florida. I just had a lightbulb moment which I'm going to start working on right away: I shall tell you all about it when I'm back.

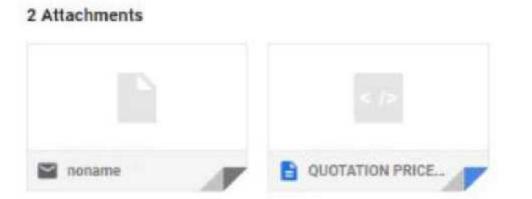
In the meantime, our supplier Filament Co. has asked that invoices be paid into a new account (details below). The next payment is due tomorrow so please make sure to wire funds to:

Account name: Xxxx Xxxxxx Account number: 1234 5678 Bank name: Xxxxxxxxx Xxxx Bank address: 123 Main St, XXX

Yours very truly,

Thomas





# Whaling

- Targets executives in the organization.
- This is a type of spear phishing that focuses on a high-ranking target within an organization.
- This scam is mostly used for fraudulent financial transfers.

McAfee



### Vishing

- Contacts target using phone.
- This type of scam is used to steal sensitive data/funds.
- To avoid, don't give personal information over the phone and avoid calls from unknown numbers.





#### This is how hackers hack you using simple social engineering

oracle mind • 1M views • 4 years ago

Simple Social Engineering Trick with a phone call and crying baby.



#### Real Future What Happens When You Dare Expert Hackers To Hack You Episode 8

Lexihut Professional Advisory Platform • 188K views • 4 years ago

This Documentary Is about cyber hacking and how easily hackers can fish for your information and thus can have the power to ...



#### Hacking challenge at DEFCON

Conflict International • 80K views • 3 years ago

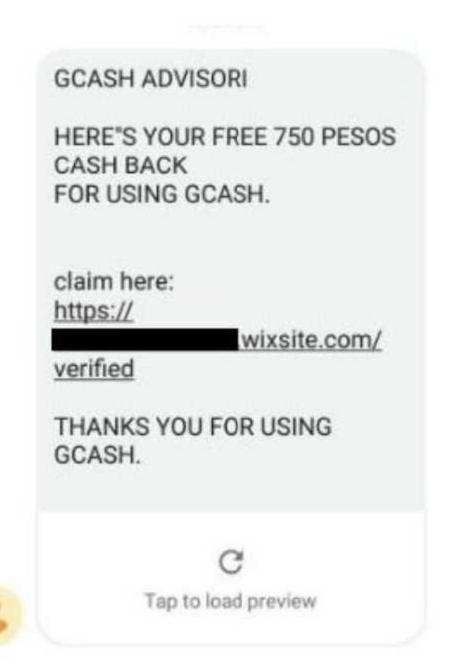
Watch what happens when journalist Kevin Roose challenges hackers to hack him. CREDIT: FUSION MEDIA NETWORK 2015.

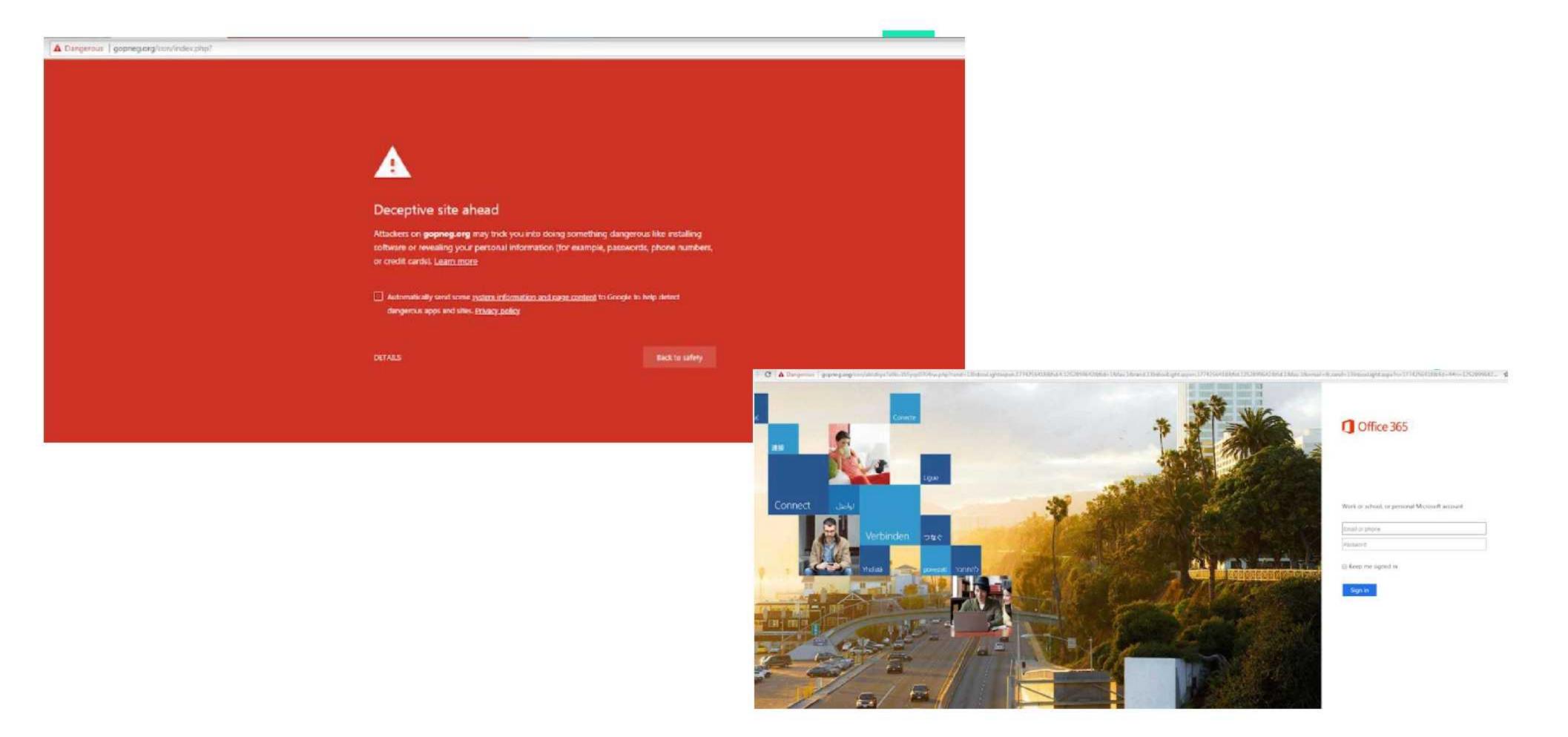
# PLEASE ENTER YOUR CREDIT CARD NUMBER.

# SMS Phising/Smishing

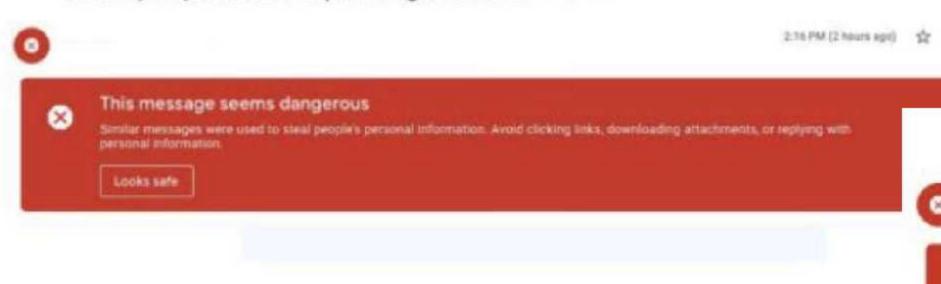
- Contact target using SMS or text message.
- This type of scam is also used to steal sensitive data and funds.

You are the lucky selected winner worth of P580,000.00. From GMA7 Wowowin, to claim this prize, call me now. I'm Atty. Henry Ching, DTI Permit#0553s'2019.









The world has never faced a crisis like COVID-19. The pandemic is impacting communities everywhere. It's never been more urgent to support the global response. The humanity, solidarity and generosity of people and organizations everywhere is also unprecedented. But we can't stop now.

The World Health Organization (WHO) is leading and coordinating the global effort with a range of partners, supporting countries to prevent, detect, and respond to the pandemic. Donations support WHO's work, including with partners, to track and understand the spread of the virus; to ensure patients get the care they need and frontline workers get essential supplies and information; and to accelerate research and development of a vaccine and treatments for all who need them.

See below for more ways to give, Via BTC (Bitcoin). Every donation helps support lifesaving work for the world.

Re: COVID-19 Adjustment! D Span x



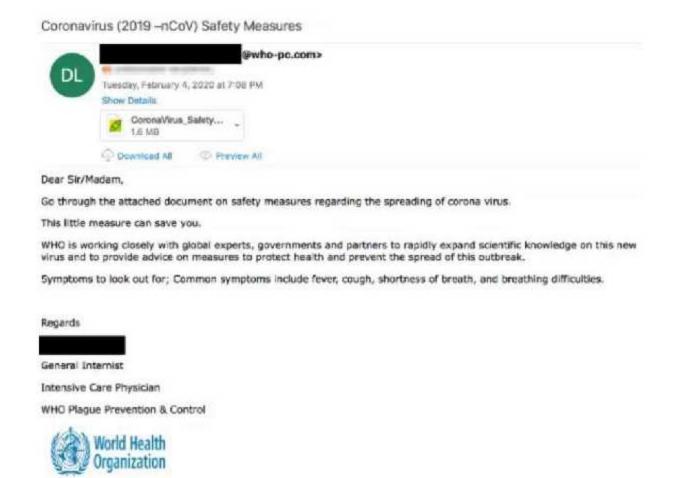


#### Dear Staff

**帝** 图

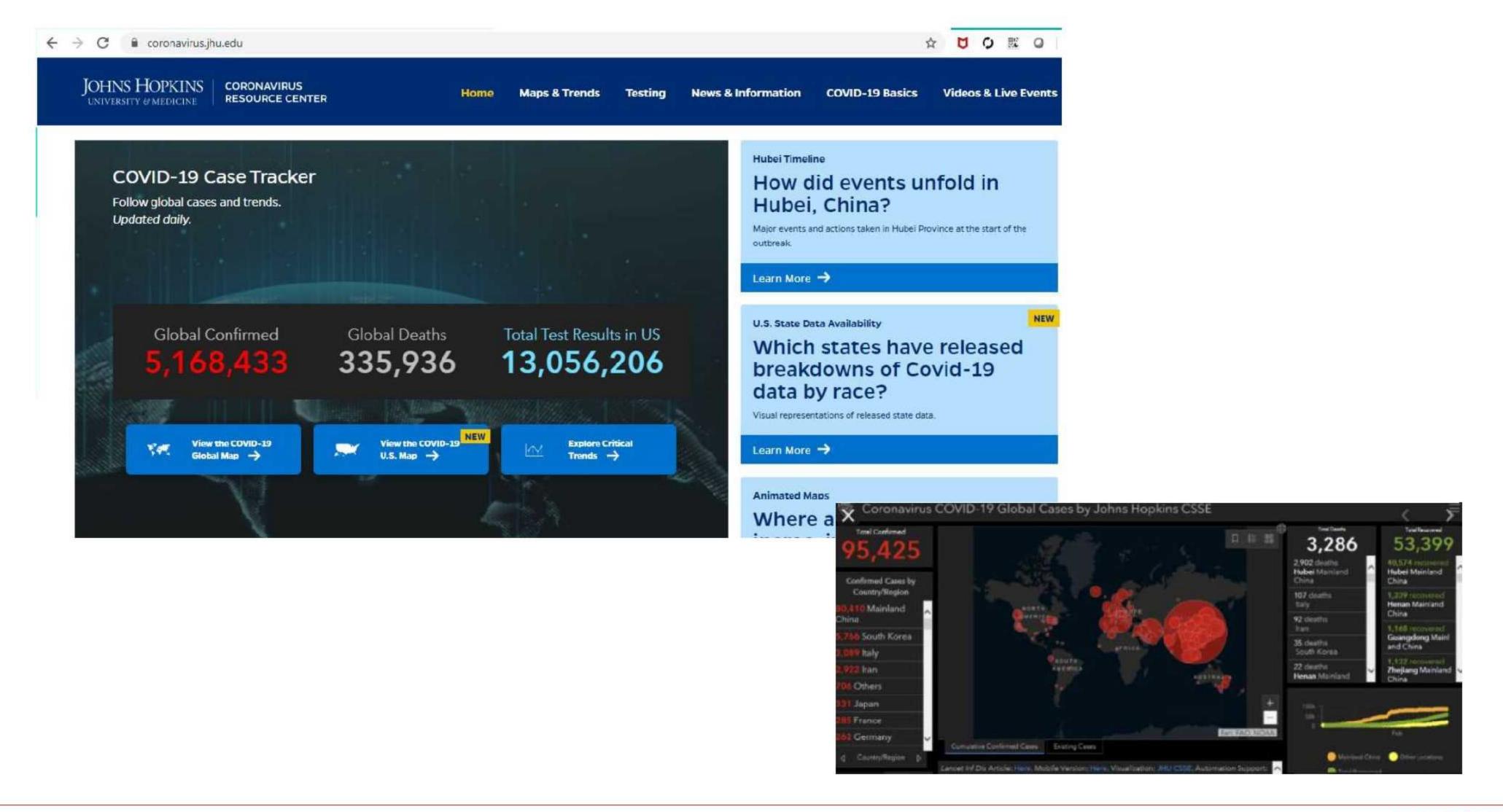
New notification ,Please due to COVID-19, all staff & Employee are expected to kindly Click PROCEED and complete the required directive to be added to March and April benefit payroll directory as compilation is ongoing and will last within 48hours.

#### Thank you, Admin Department



McAfee

1:20 PM (3 hours ago)



McAfee

# Phising scams exploiting fear of this pandemic are on the rise.

Many of these contains information regarding the COVID-19 virus



# In time of Social Distancing, we are all Vulnerable

McAfee 19

# Work Is No Longer Where We Go, But What We Do

Security needs to follow the user and happen inside the cloud itself

Users will access data from anywhere, with any device, and will try to use any service available to them to allow productive and flexible work.

A new approach to cloud security is needed as current approaches are inflexible, create friction, and are not optimized for the cloud age.



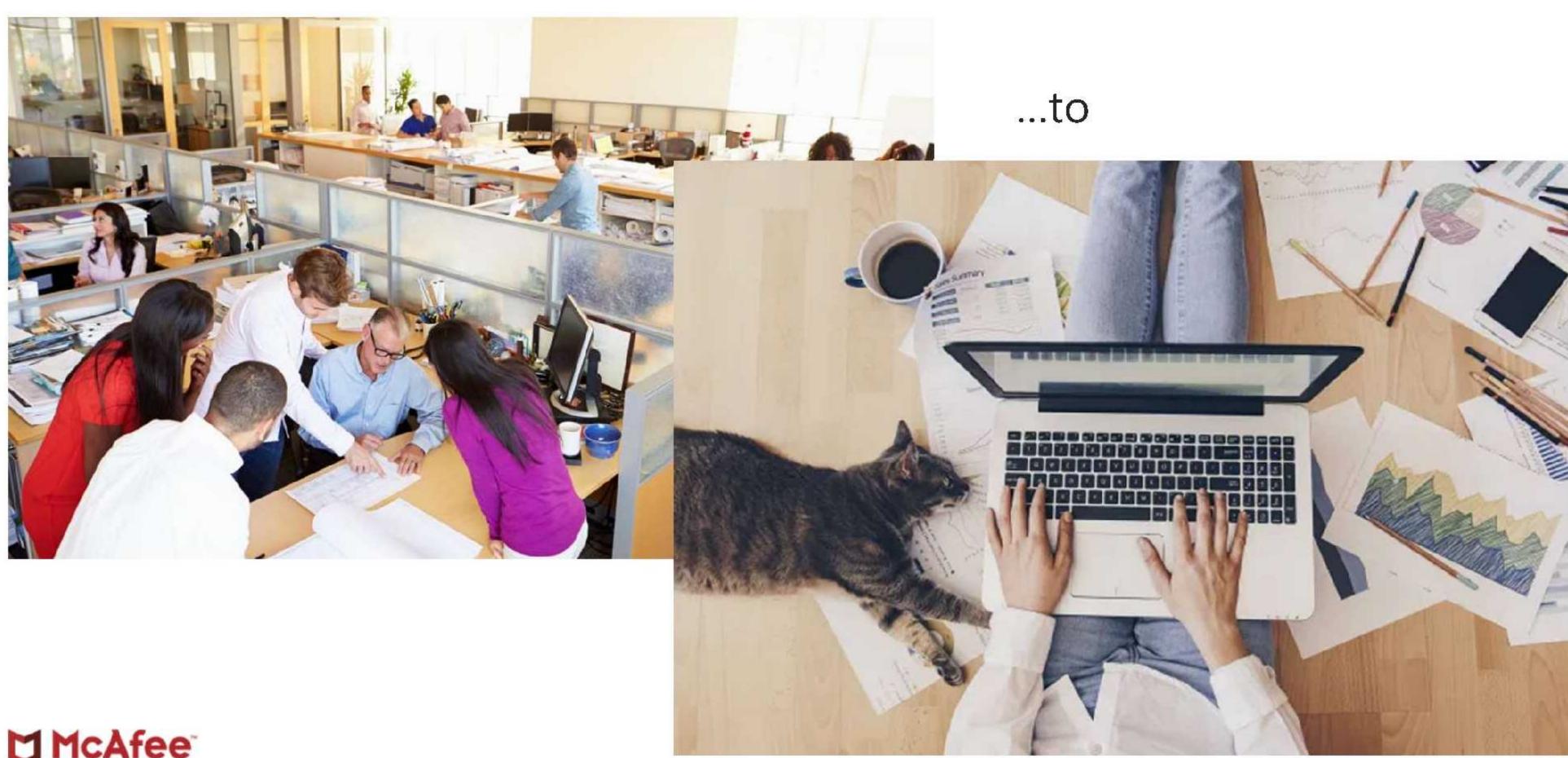
Date, specific business group

MCAFEE CONFIDENTIALITY LANGUAGE

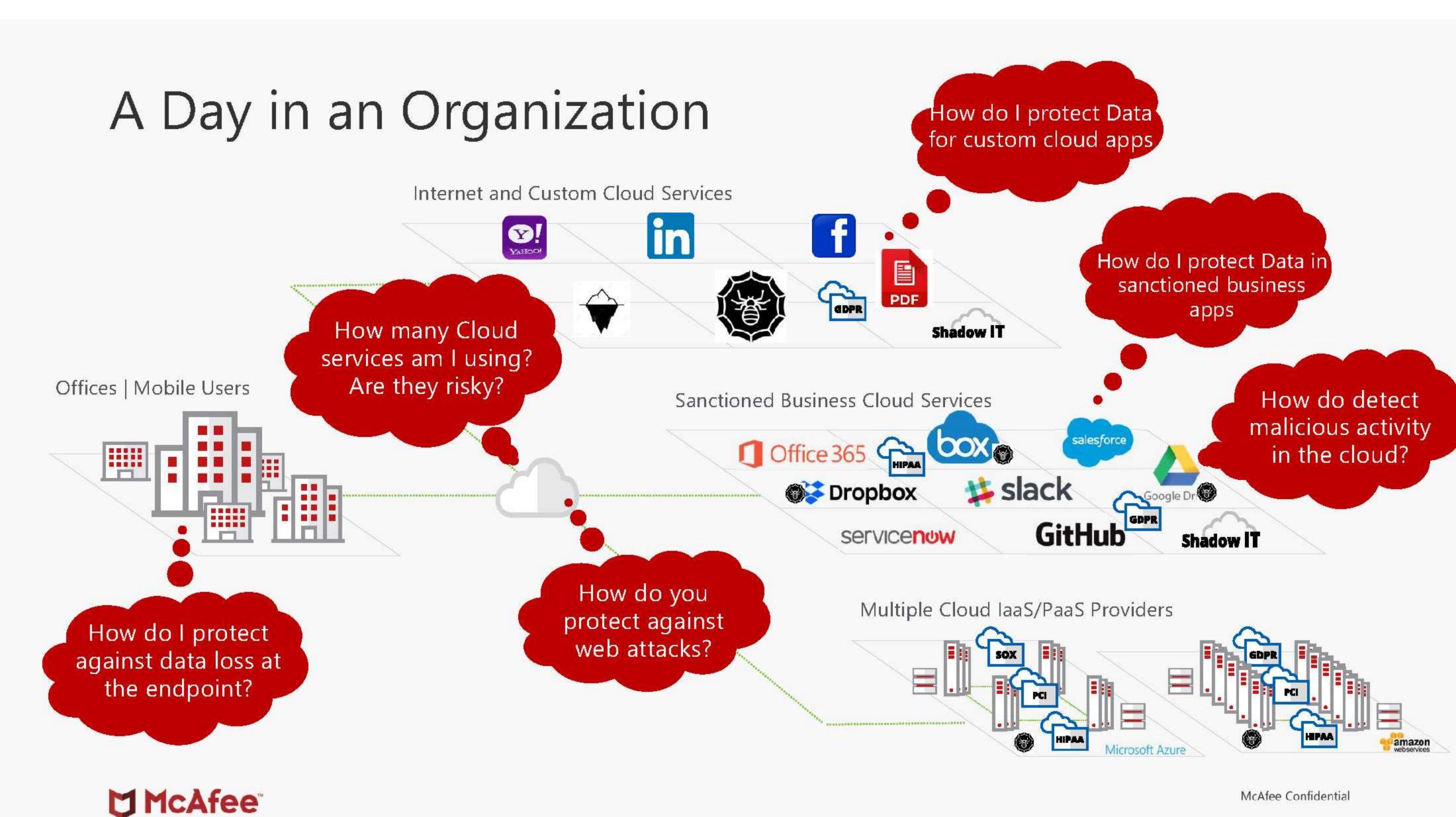
20

# The New Reality of Modern Work

From...

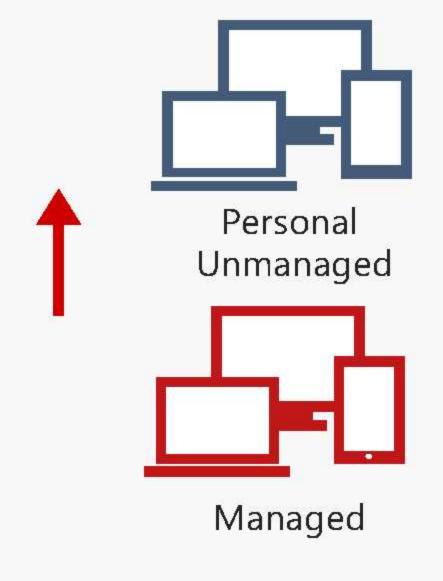




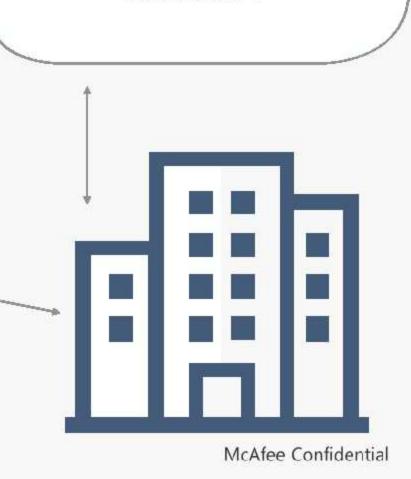


# The Problem

Work from home is here to stay and it is accelerating



...Rapidly increasing the amount of traffic outside of managed corporate networks



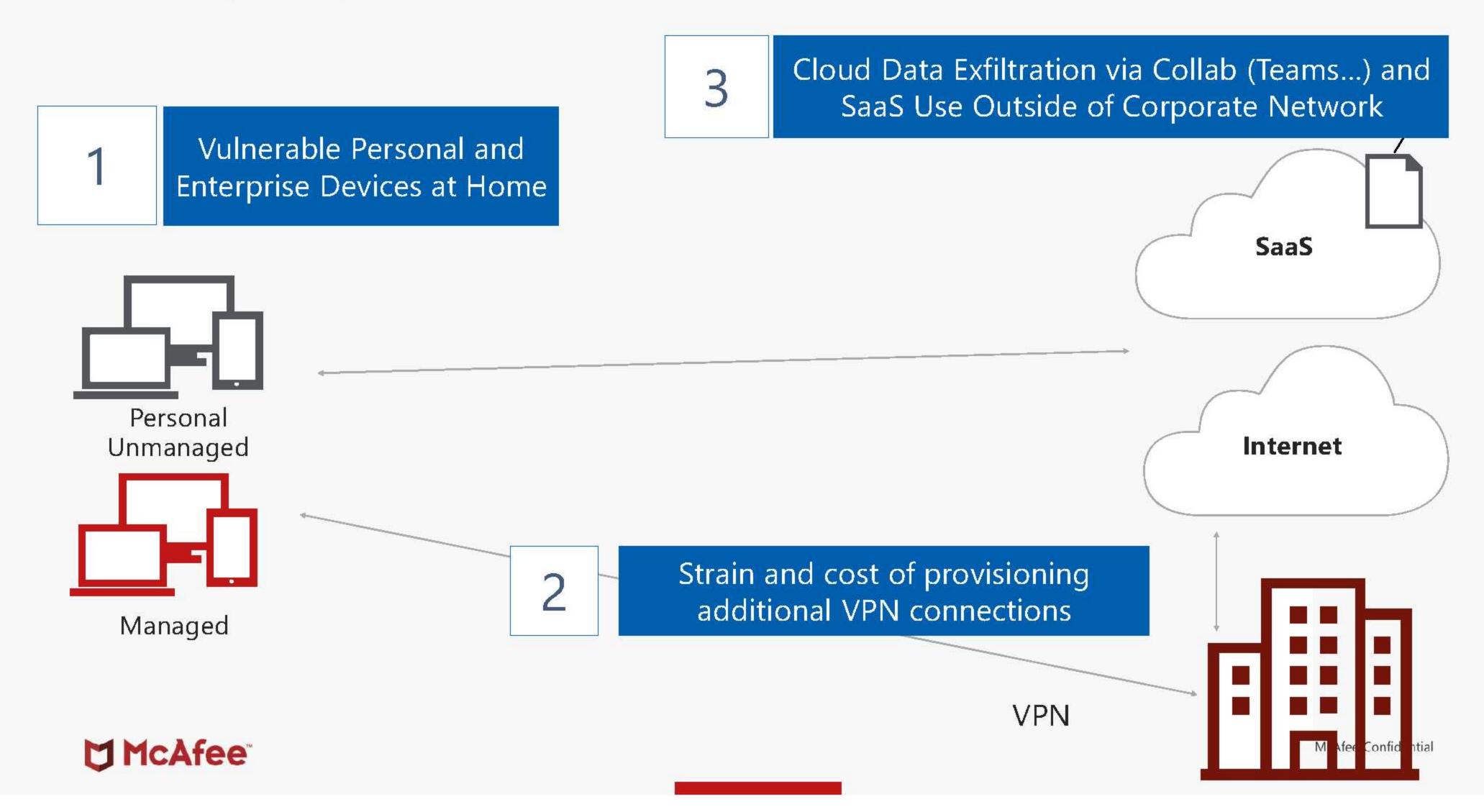
**VPN** 

Internet

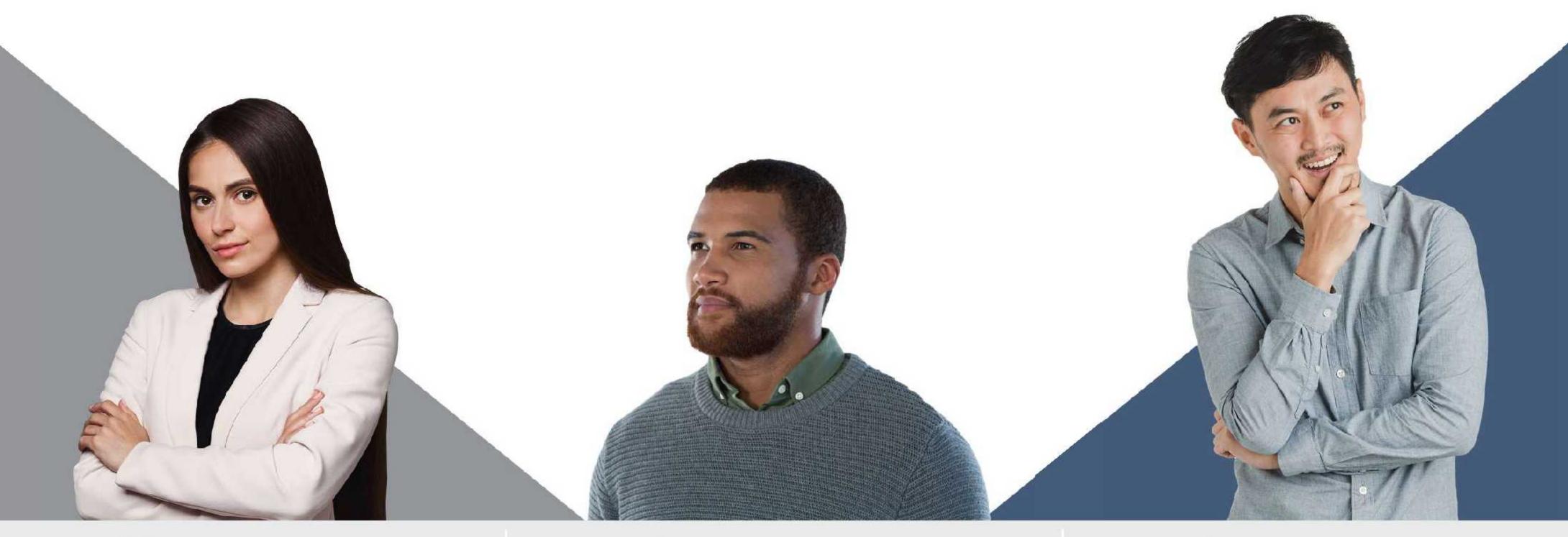
SaaS



# Security Implications



# Meet Maria, Dave, and Lee from GetItDone Financials



Maria
Account Executive

**Dave**IT Security Manager

**Lee** Network Manager





# Maria

**Account Executive** 

- Manages named accounts
- Loves technology and runs a blog for working moms
- Breaks glass and gets things done
- Always makes quota

# Maria—Sharing and Collaboration



# Maria—Copying Sensitive Data to a USB







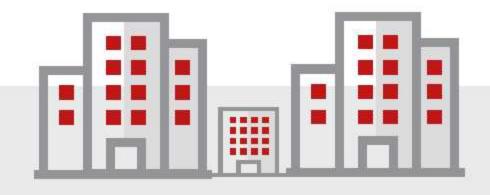
Sensitive data copied to local USBs and personal drives can be lost or stolen

# Maria—Working at Home





Email synced to a personal device is **gone** forever



Maria—Uploading Sensitive Data to an Unsanctioned Service at Work

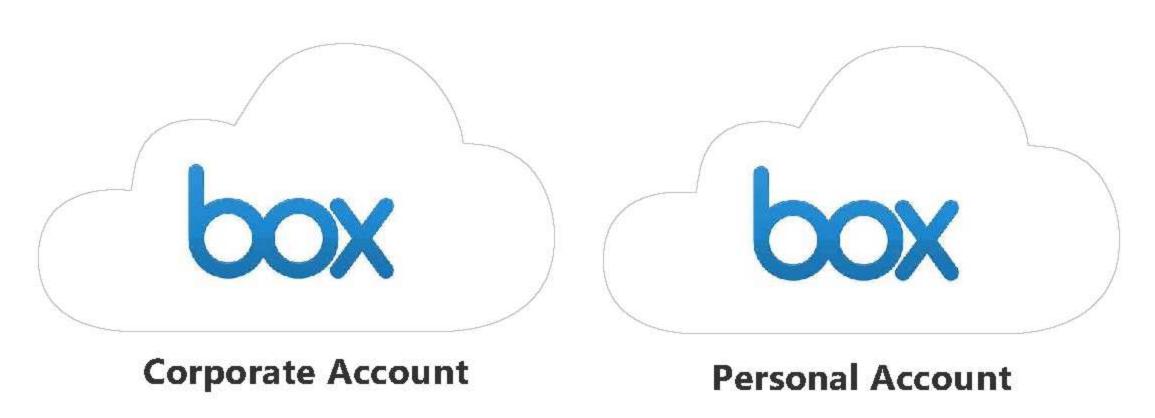




Sensitive data uploads to Shadow IT increases risk of data loss

# Maria—Accessing a Personal Box Account at Work





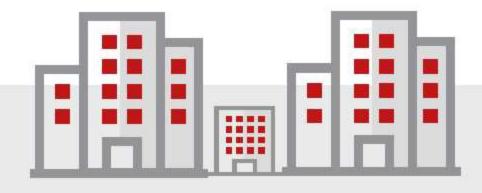
Personal accounts lack enterprise control

Maria—Downloads Malware While at Home





Shadow IT accessed at home increases risk of **malware** download



Maria—Downloads Malware from

Sanctioned Cloud Service





Malware from sanctioned services can be downloaded and shared

# Negative Consequences of Maria's Use Cases

# Data can leak from cloud and devices by:

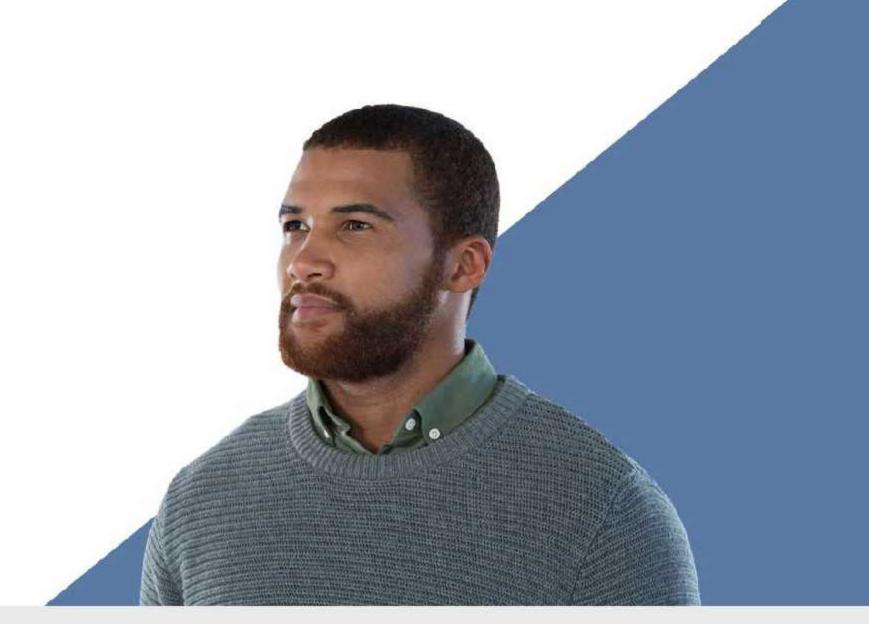
- Bypassing network controls
- User unintentional actions
  - Collaborating
  - Accessing data from personal devices
  - Using personal accounts
  - Using high-risk services
  - Ignoring coaching from IT
- Malware from sanctioned or shadow services



### **Dave**

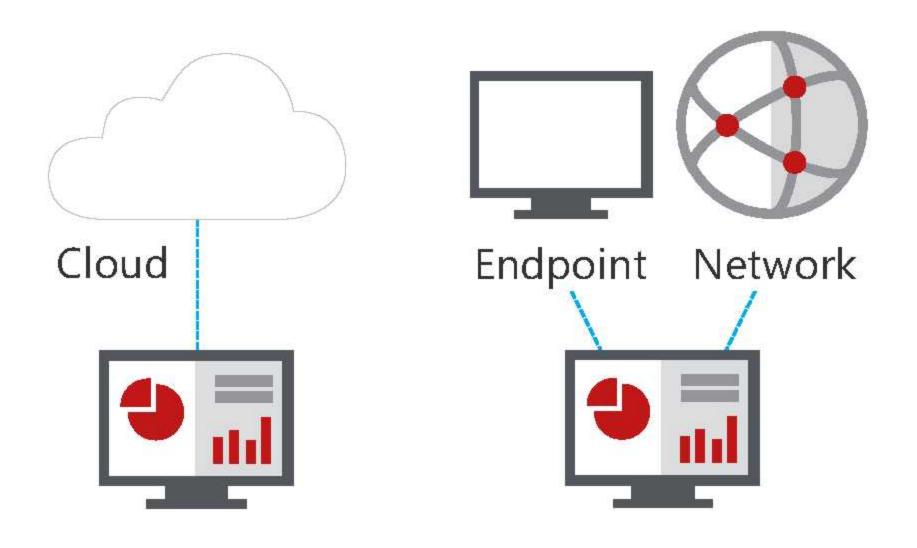
**IT Security Manager** 

- Manages multiple security tools to keep the company compliant and out of the news
- Ensures the uptime, performance and security of managed devices
- Resolves 100% of the helpdesk tickets
- Always finds ways to improve efficiency
- Proud to be the IT hero

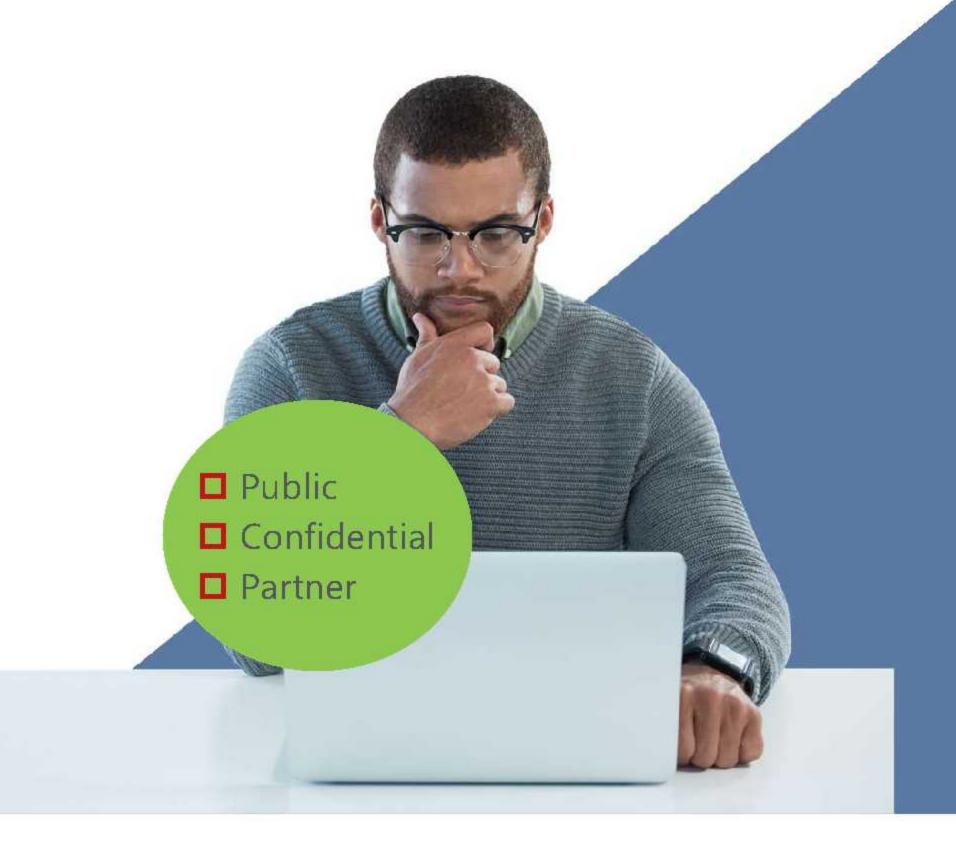




# Dave—Duplicating Data Classifications from On-prem to Cloud

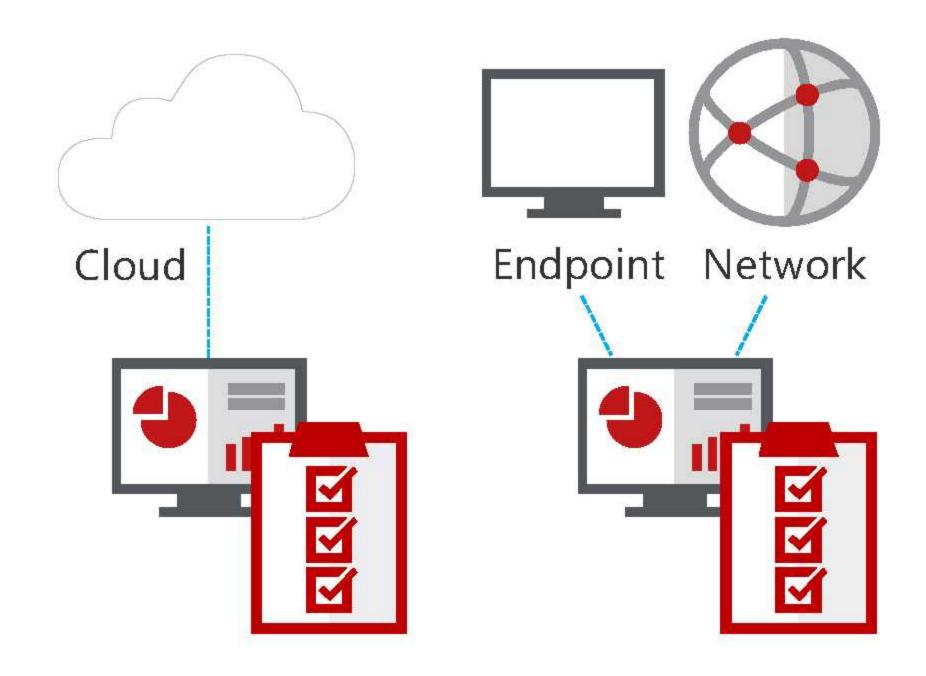


Weeks wasted rebuilding content rules to protect data in the cloud





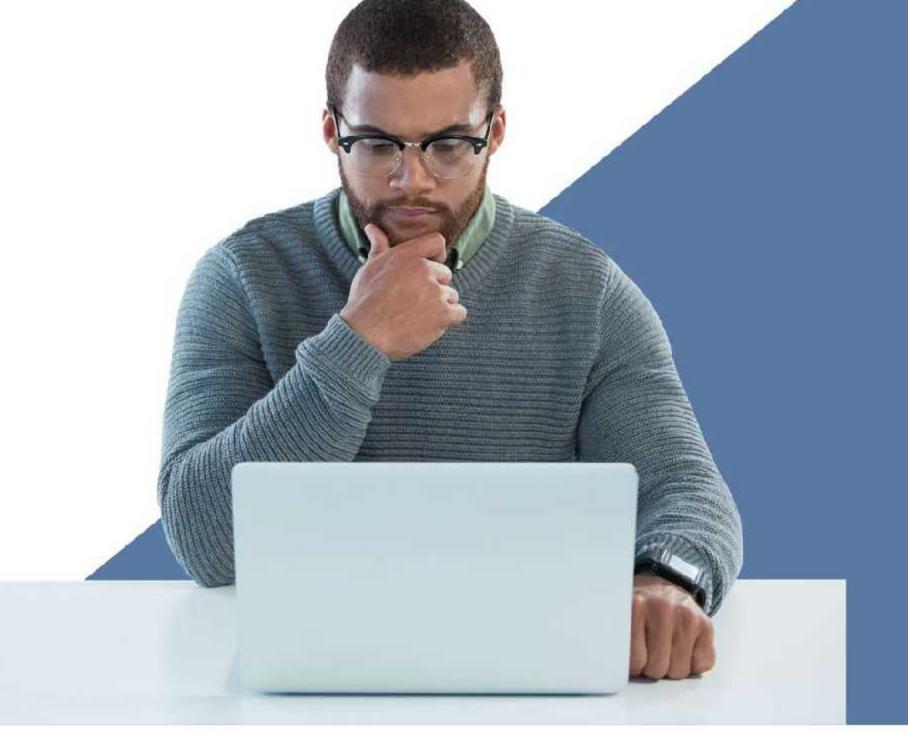
# Dave—Managing Two Different Workflows for DLP Incidents



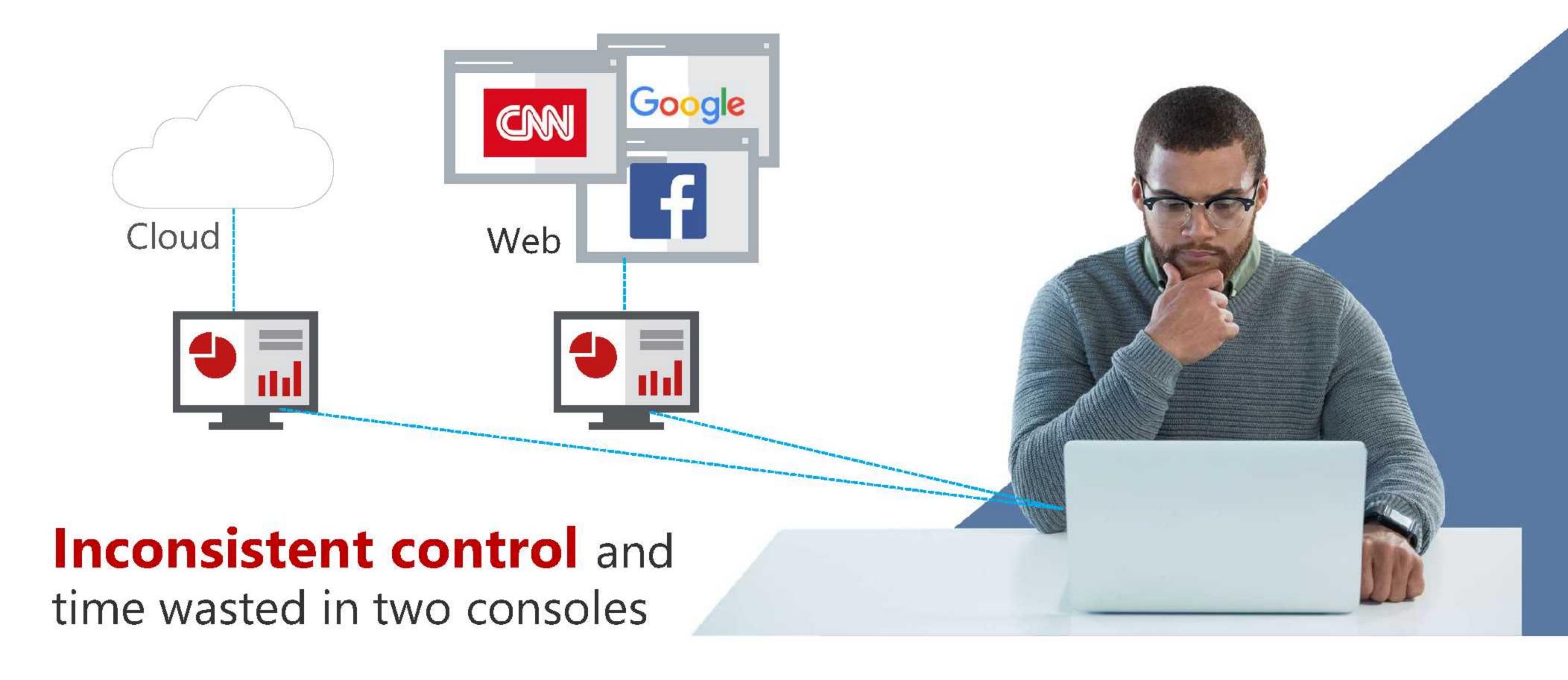
# **Complexity and mistakes**

with two DLP workflows





# Dave—Managing Disconnected Cloud and Web Security Policies



**☐** McAfee

#### Negative Consequences of Dave's Use Cases

#### Complexity and control gaps from:

Separate management consoles

 Manually duplicating and extending on-prem security controls to the Cloud

- Data classifications
- Policy engines
- Workflows
- Siloed risk databases
- Incident reports







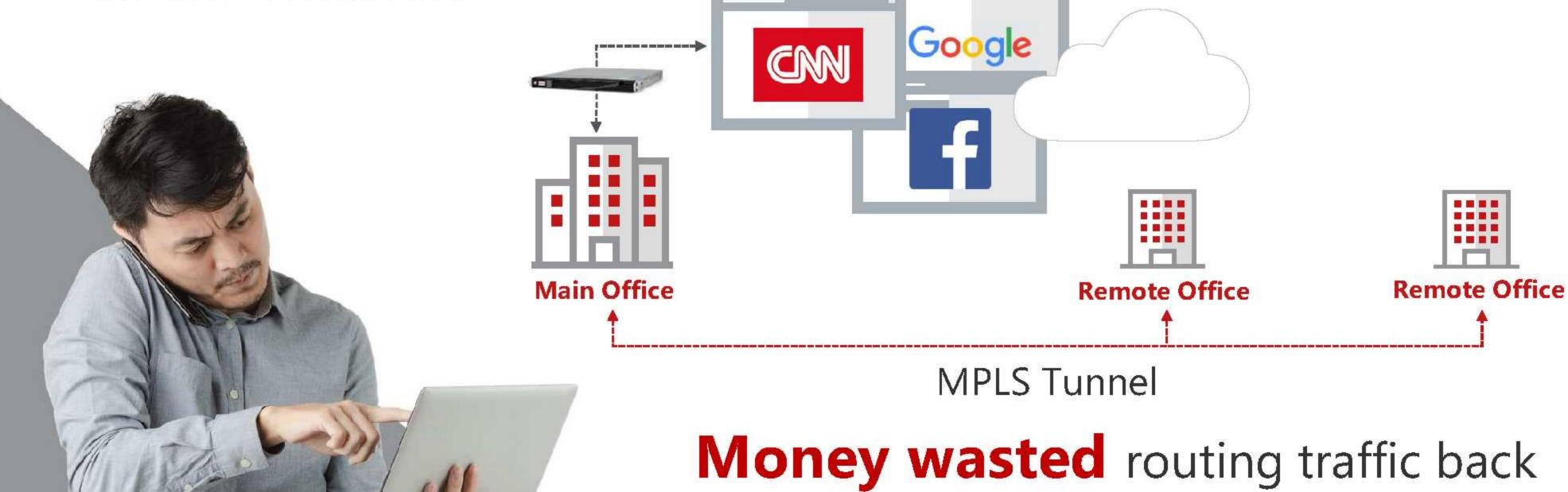
#### Lee

Network Manager

- Loses sleep over network outages
- Executive pressure to simplify architecture and lower costs
- Still manages data center hardware
- Always on call for emergencies

Lee—Pays for MPLS Tunnels to Connect Remote Offices

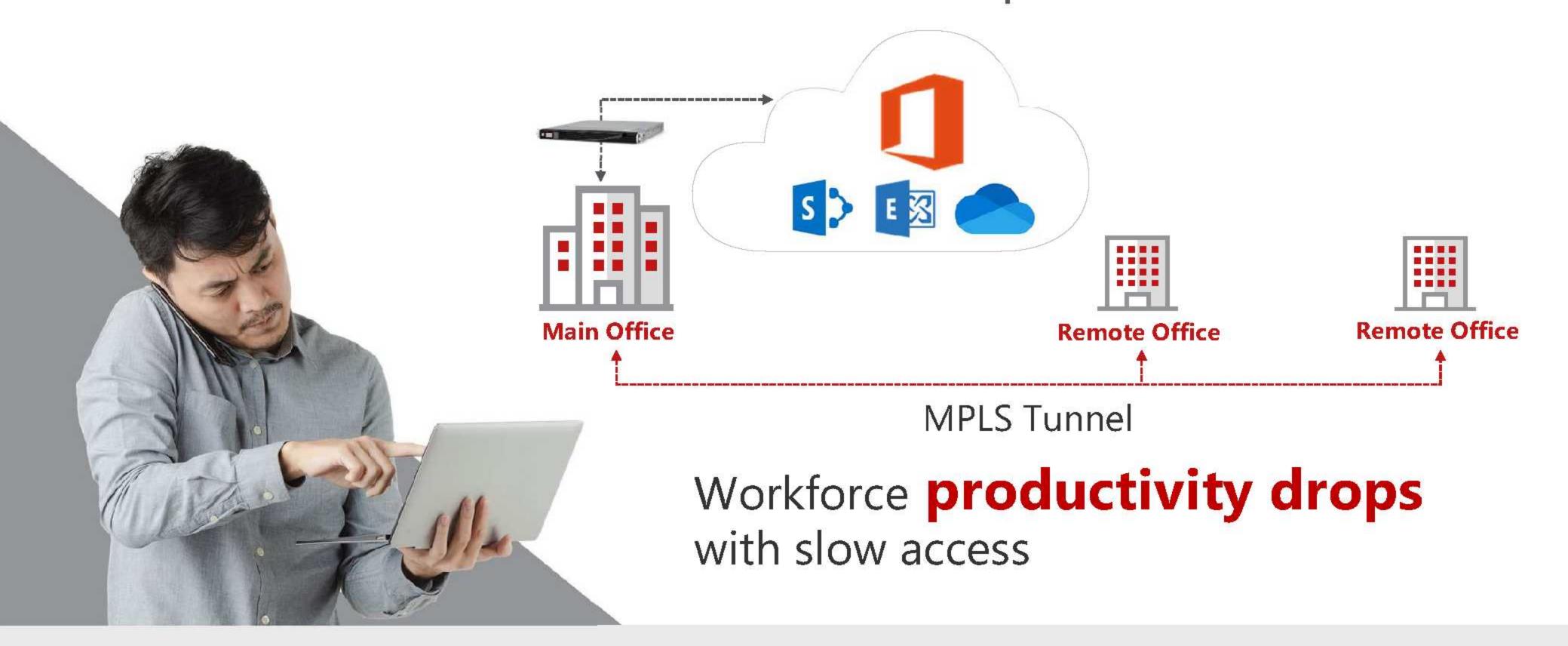
to the Internet



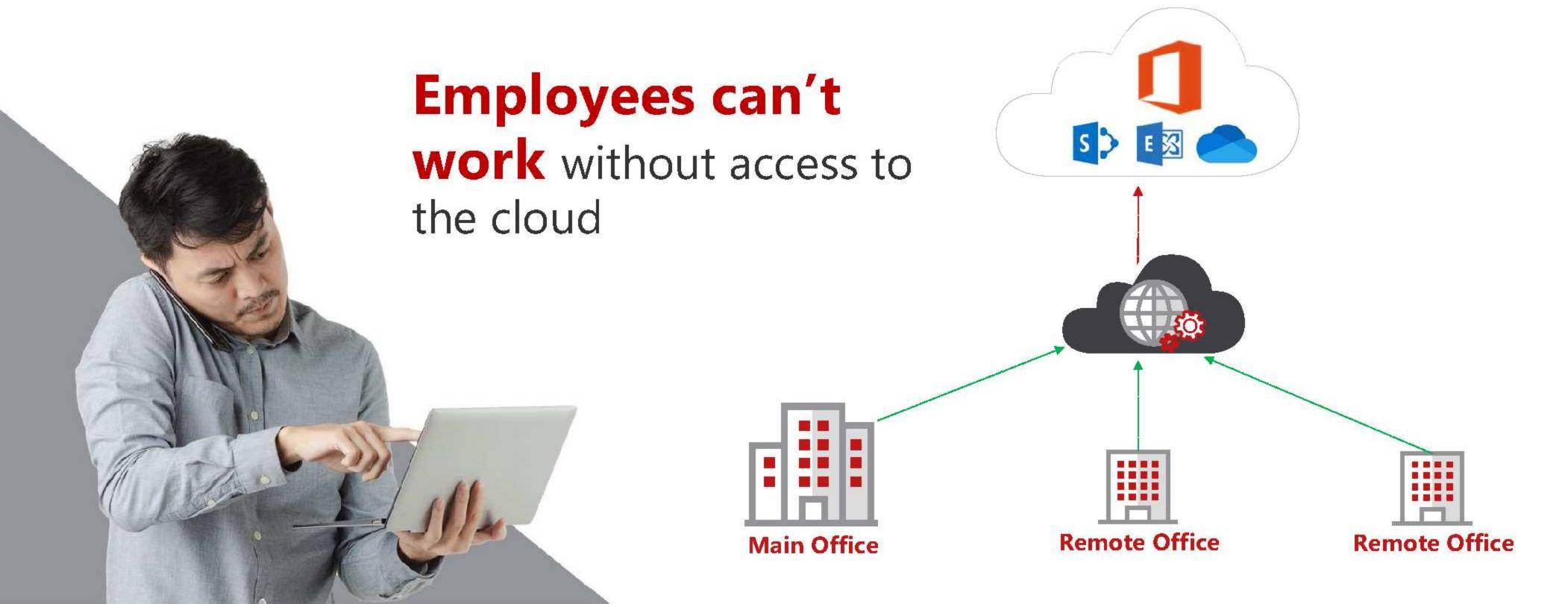
to HQ then out to the cloud



#### Lee—Network Slows When Traffic Spikes



#### Lee—No Access when Cloud Proxy Has Outage



#### Negative Consequences of Lee's Use Cases



#### Cost and risk to uptime driven from:

- Outdated MPLS tunnels
- Aging proxy hardware
- New cloud proxy with poor SLA

#### Current Methodology for Data Security







Web

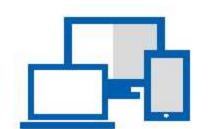


Cloud

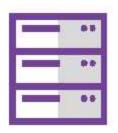
Unified on-prem DLP		Gap: visibility or control of data in the cloud		
Gap: protection for mobile workforce	On–prem Web Gateway	SaaS Web Services	Gap: Cloud to Cloud traffic	
Gap: insights & policies	not shared outside of Cloud	CA	SB	

# Unified Cloud Edge –

Unifies Data Protection and Cloud Threat Prevention



**Endpoint** 



Network



Web



#### McAfee Unified Cloud Edge (UCE)



Common policies & insights



Closed-loop Remediation



Merged business risk and threat database



Tenant restriction for cloud app access



Unified incidents, workflows and investigations

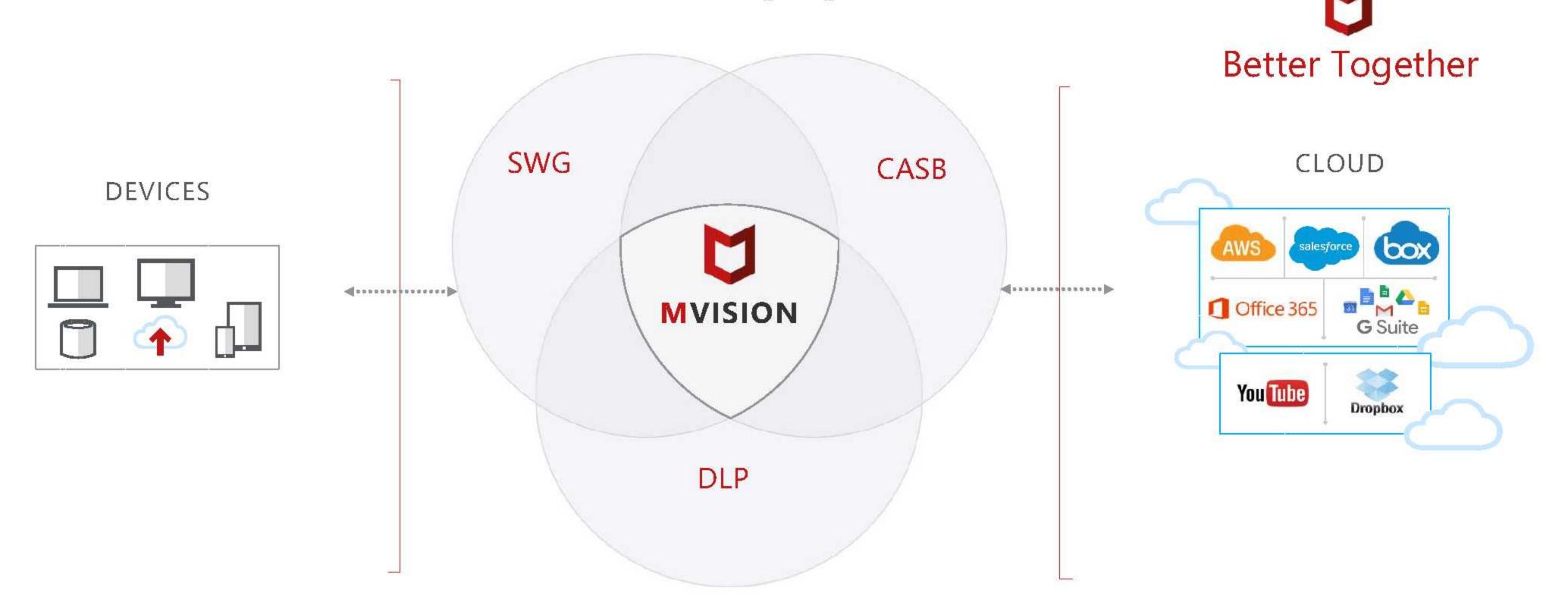


Complete context awareness



# What is Unified Cloud Edge (UCE)?

A Device-to-Cloud Solution: Converging Web, DLP and CASB.



Integrated = Complexity • Converged = Simplicity

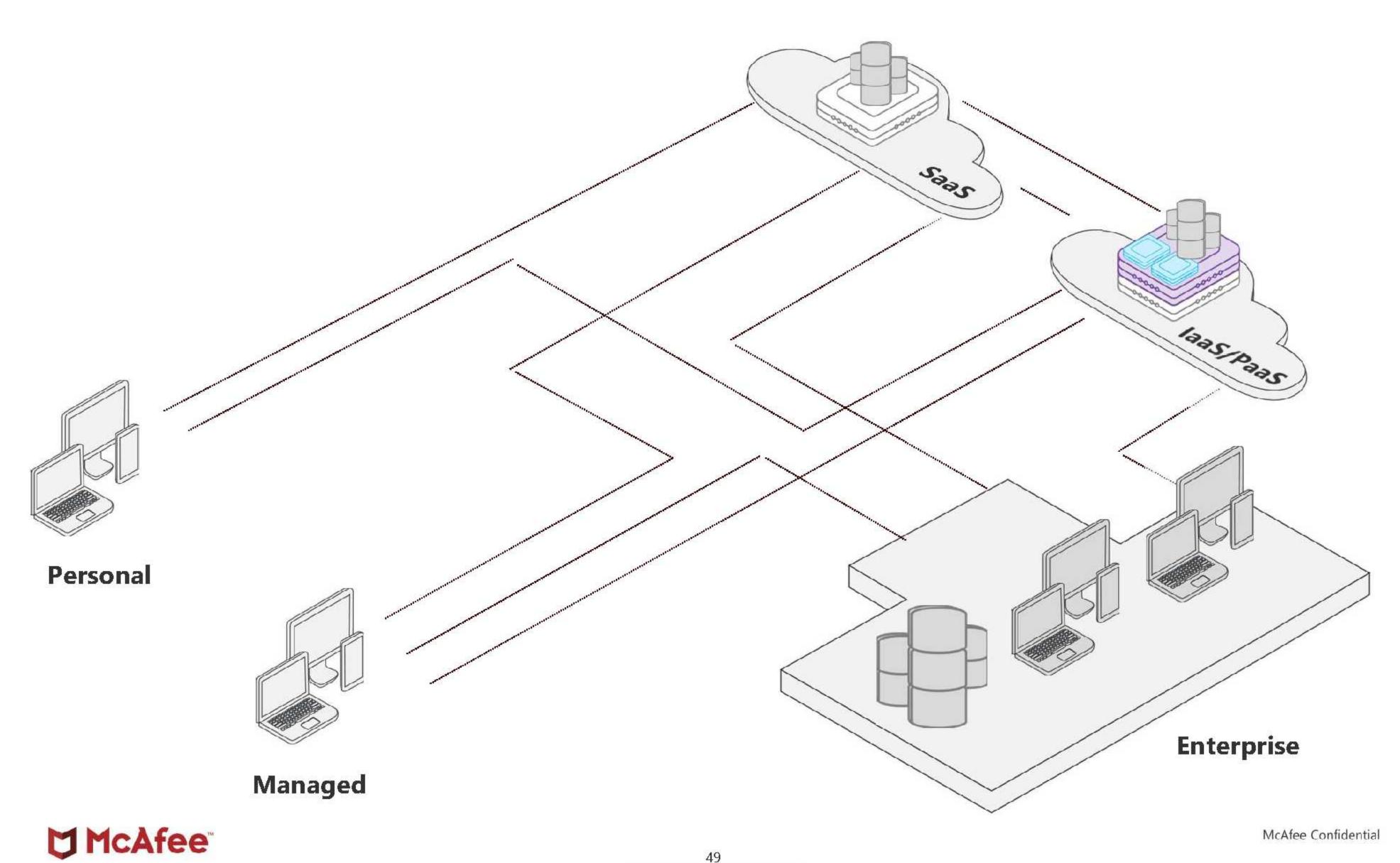


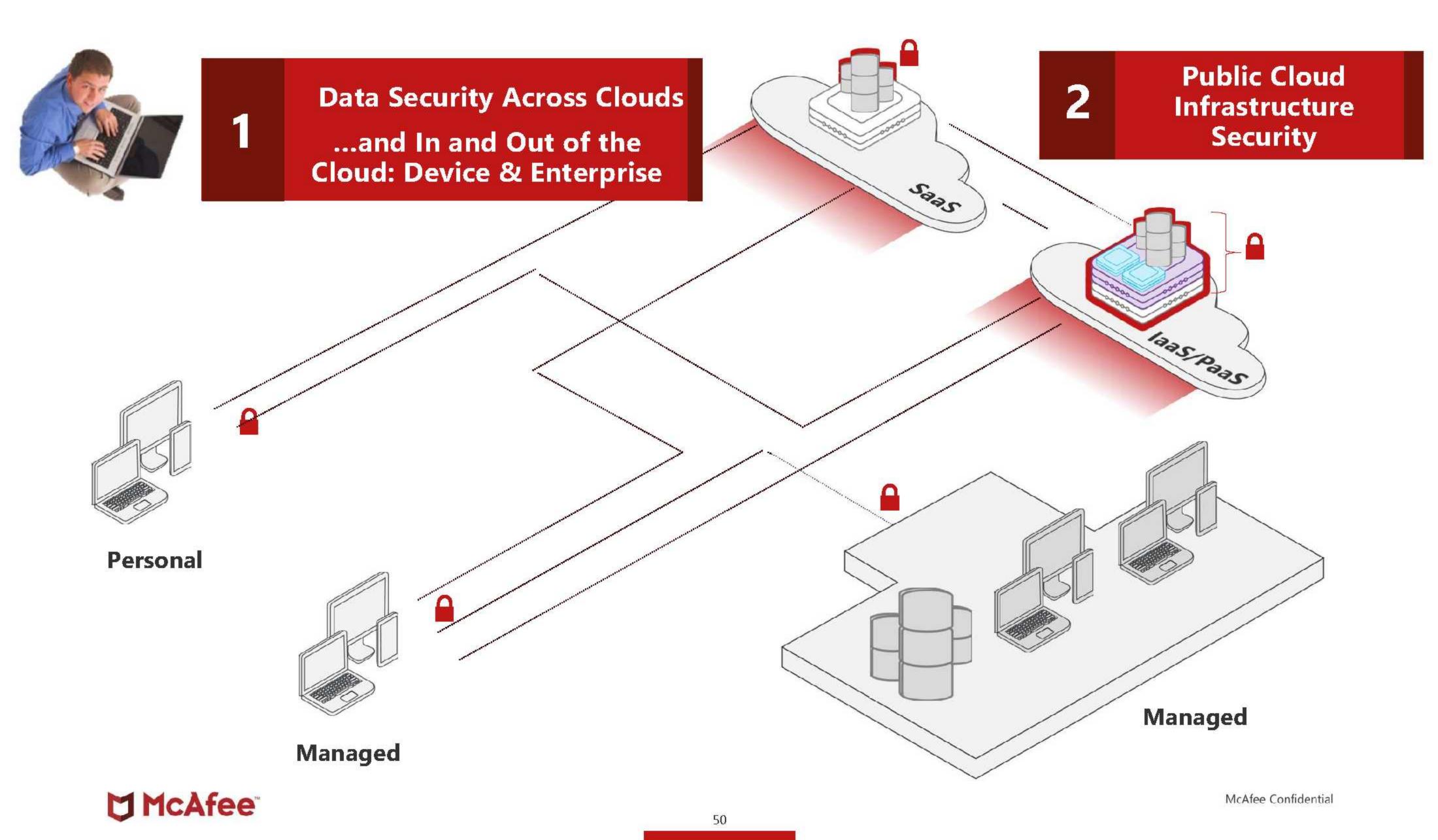
## What is Unified Cloud Edge

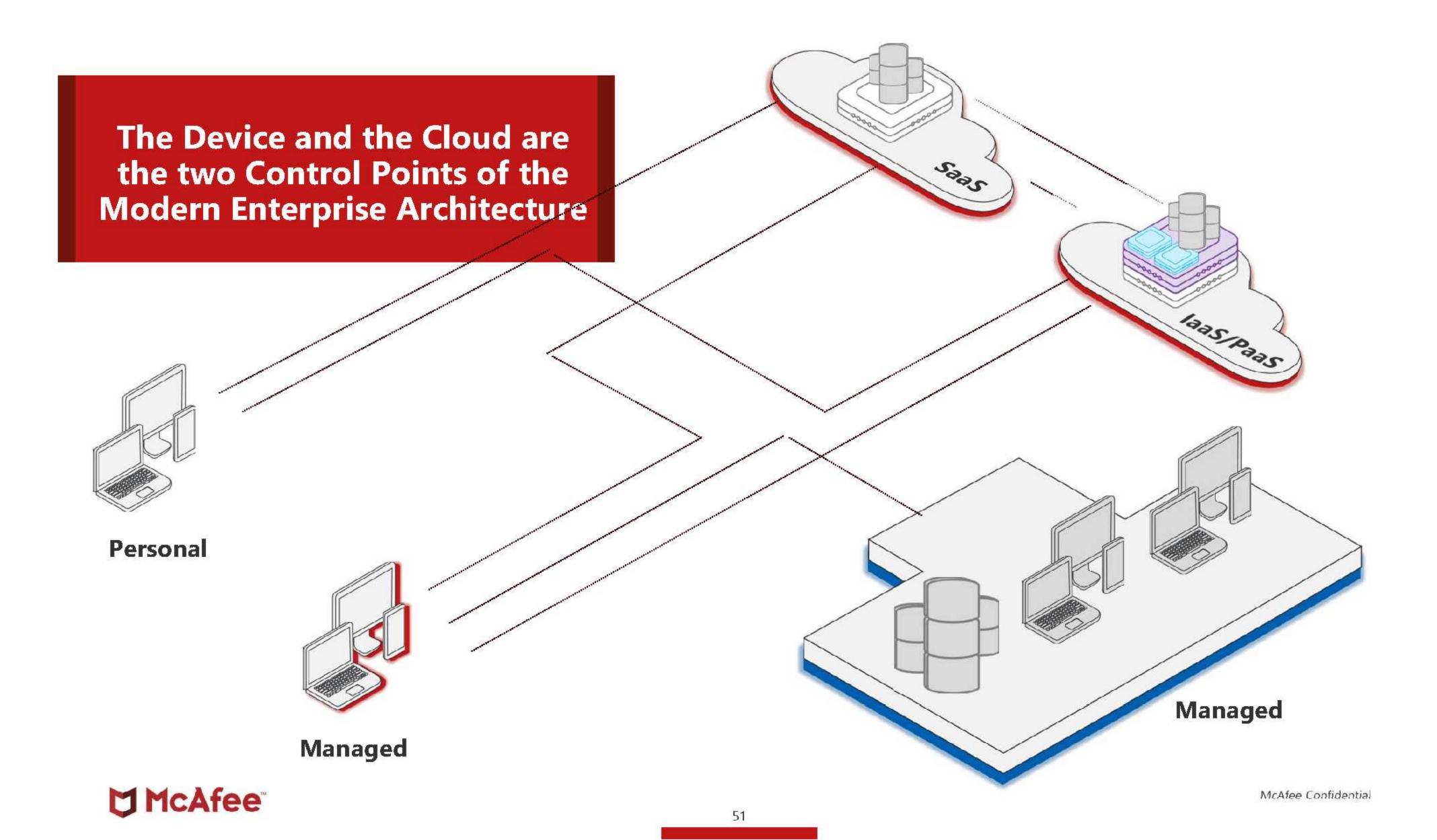
McAfee Unified Cloud Edge is a product for cloud-native security that enables consistent data and threat protection controls from device to cloud. It consists of three core technologies that are converging into a single solution:

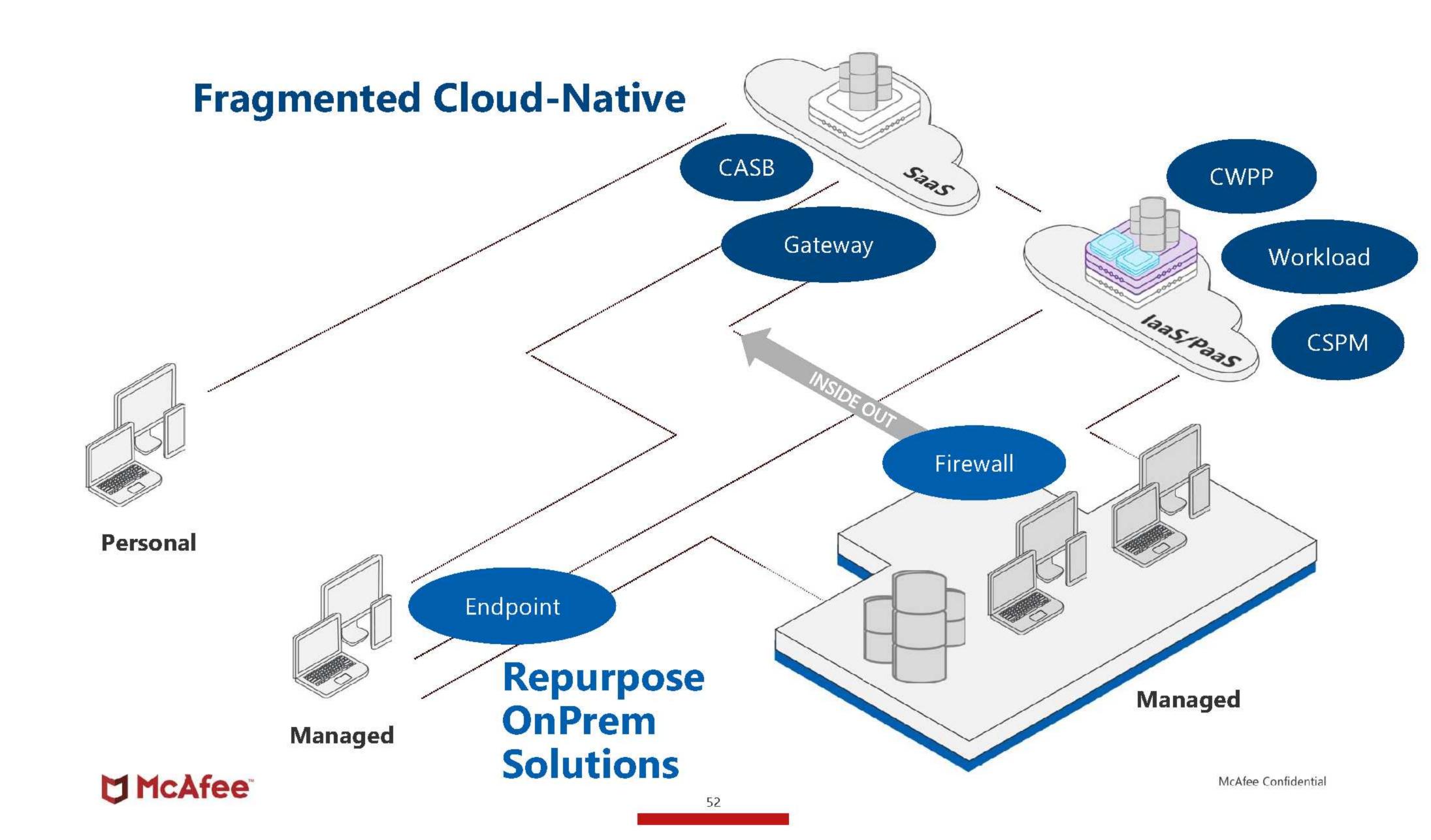
- Cloud Access Security Broker (McAfee® MVISION Cloud): Direct API and reverse proxy-based visibility and control for cloud services
- Secure Web Gateway (McAfee® Web Protection): Proxy-based visibility and control over web traffic and unsanctioned cloud services
- Data Loss Prevention (McAfee® DLP Endpoint): Agent-based visibility and control over sensitive data

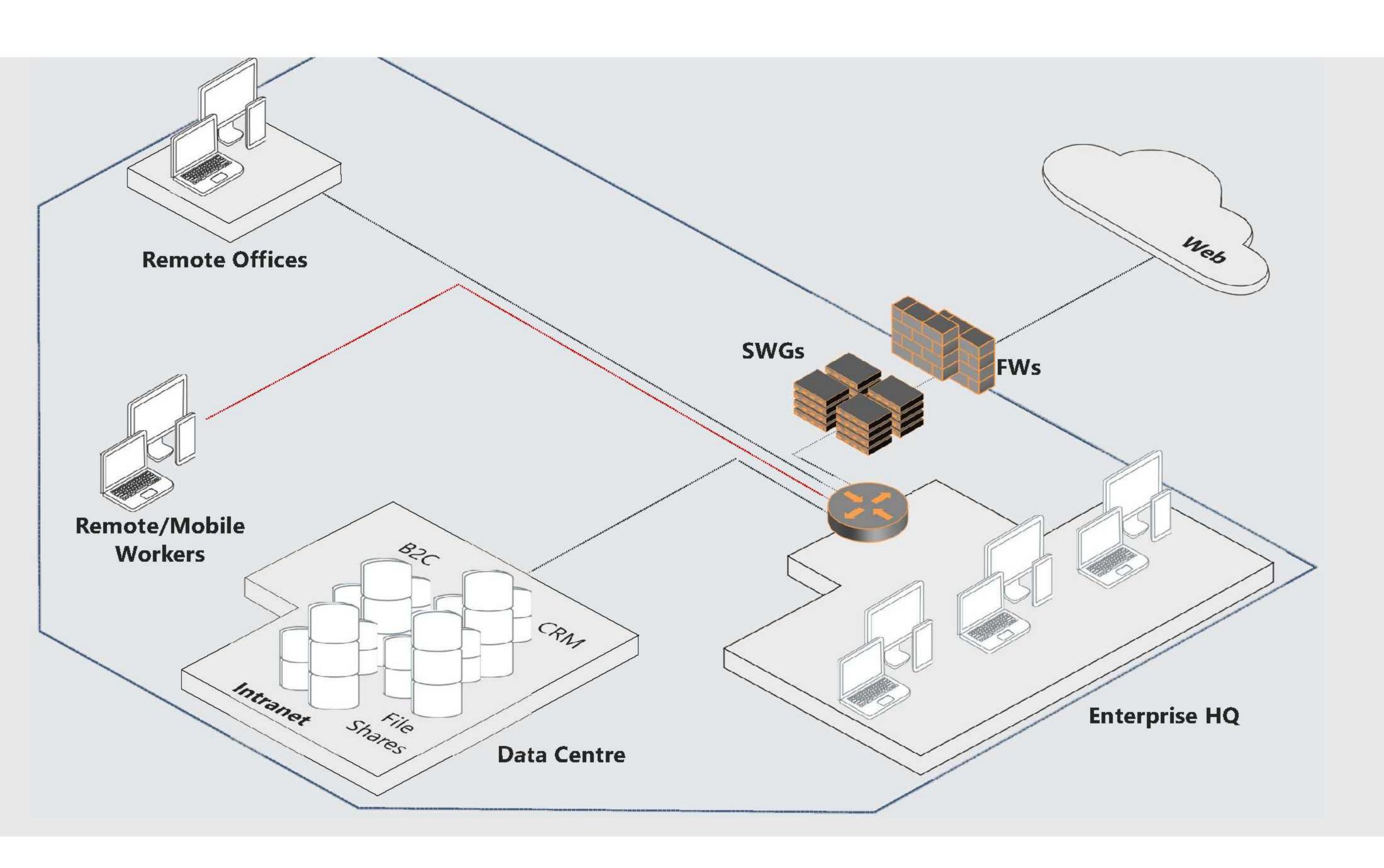


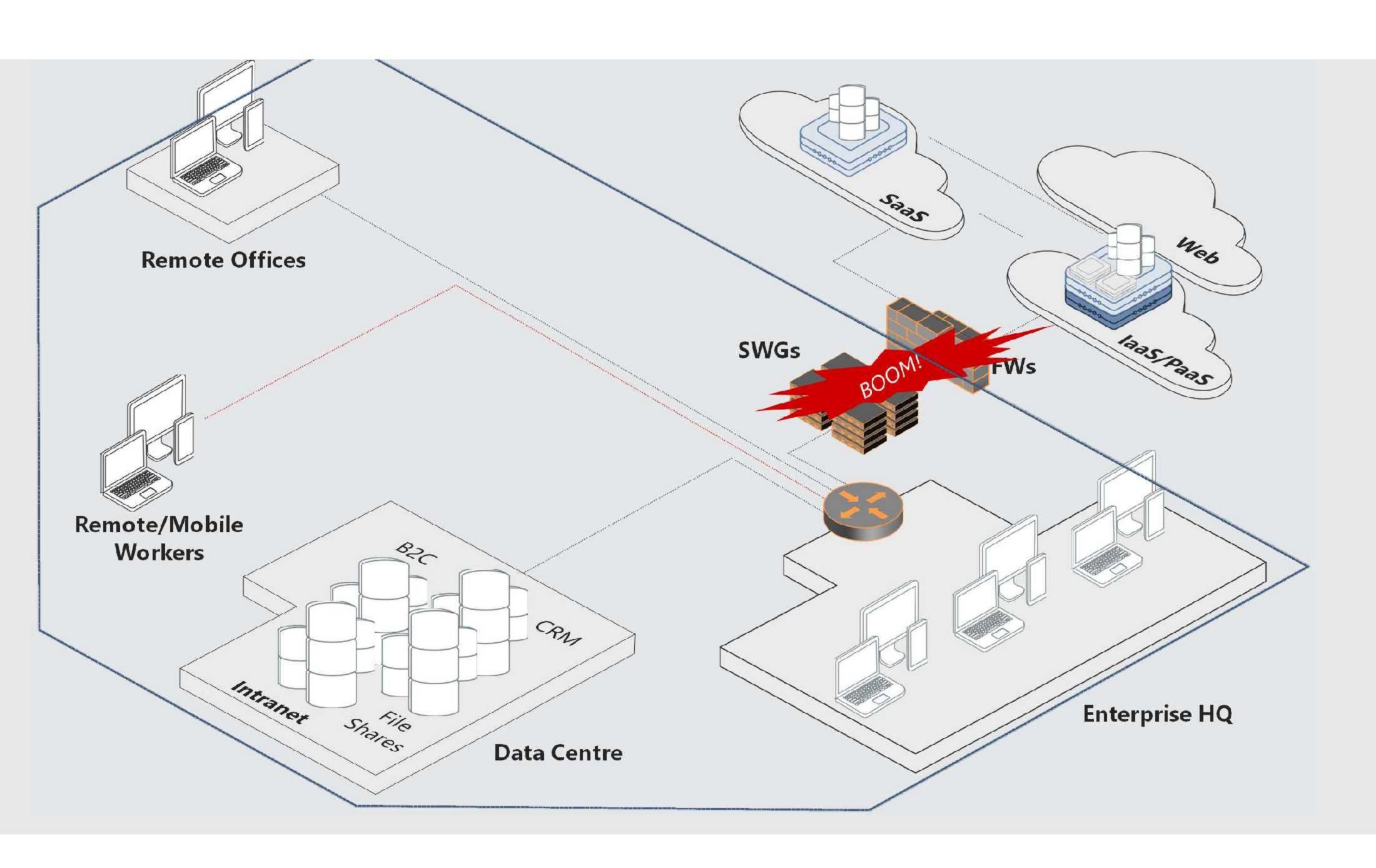












# The McAfee Strategy

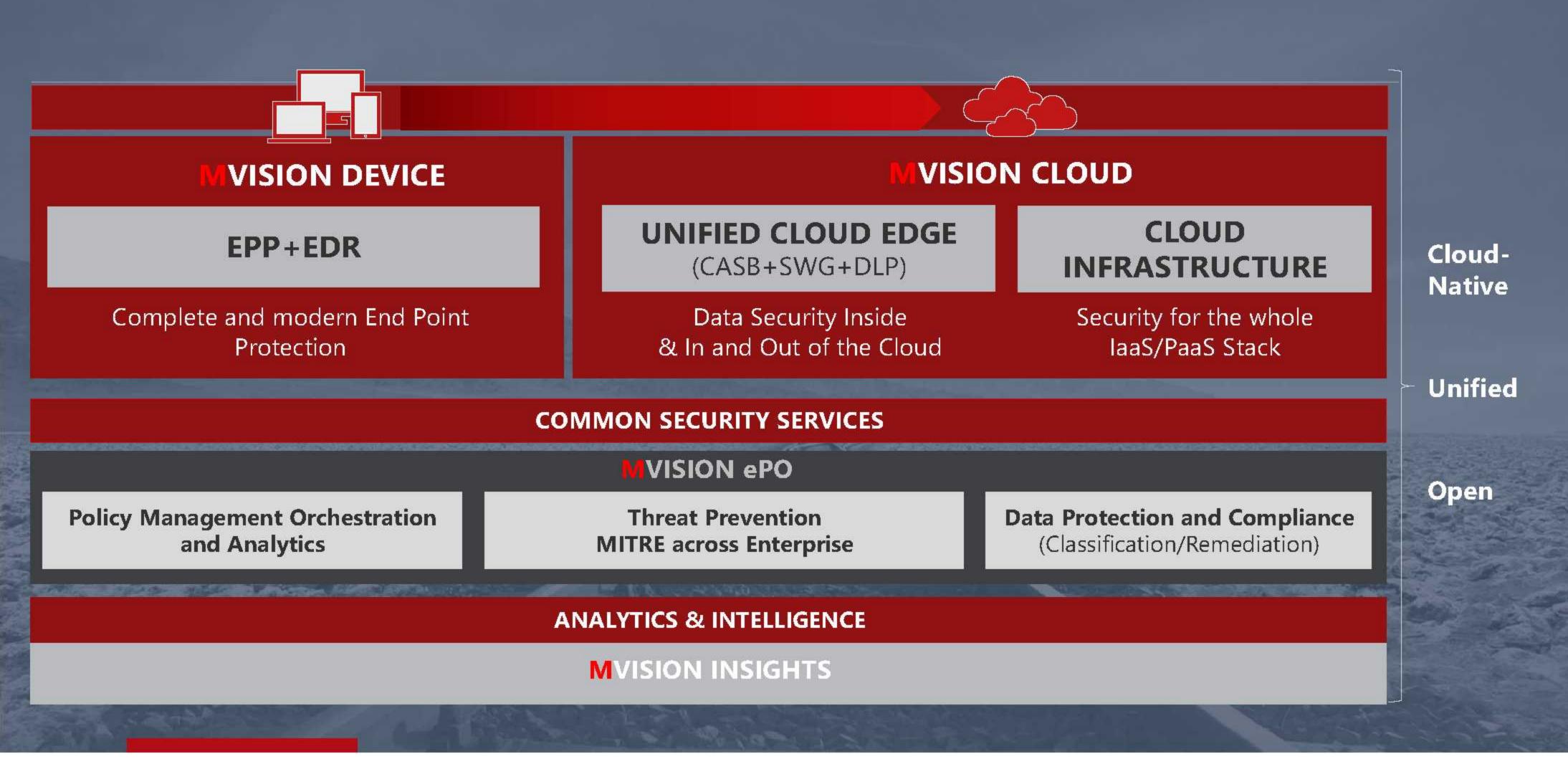
To Protect Data and Defend Against Threats where Modern Work Gets Done: **On Devices and in the Cloud** 



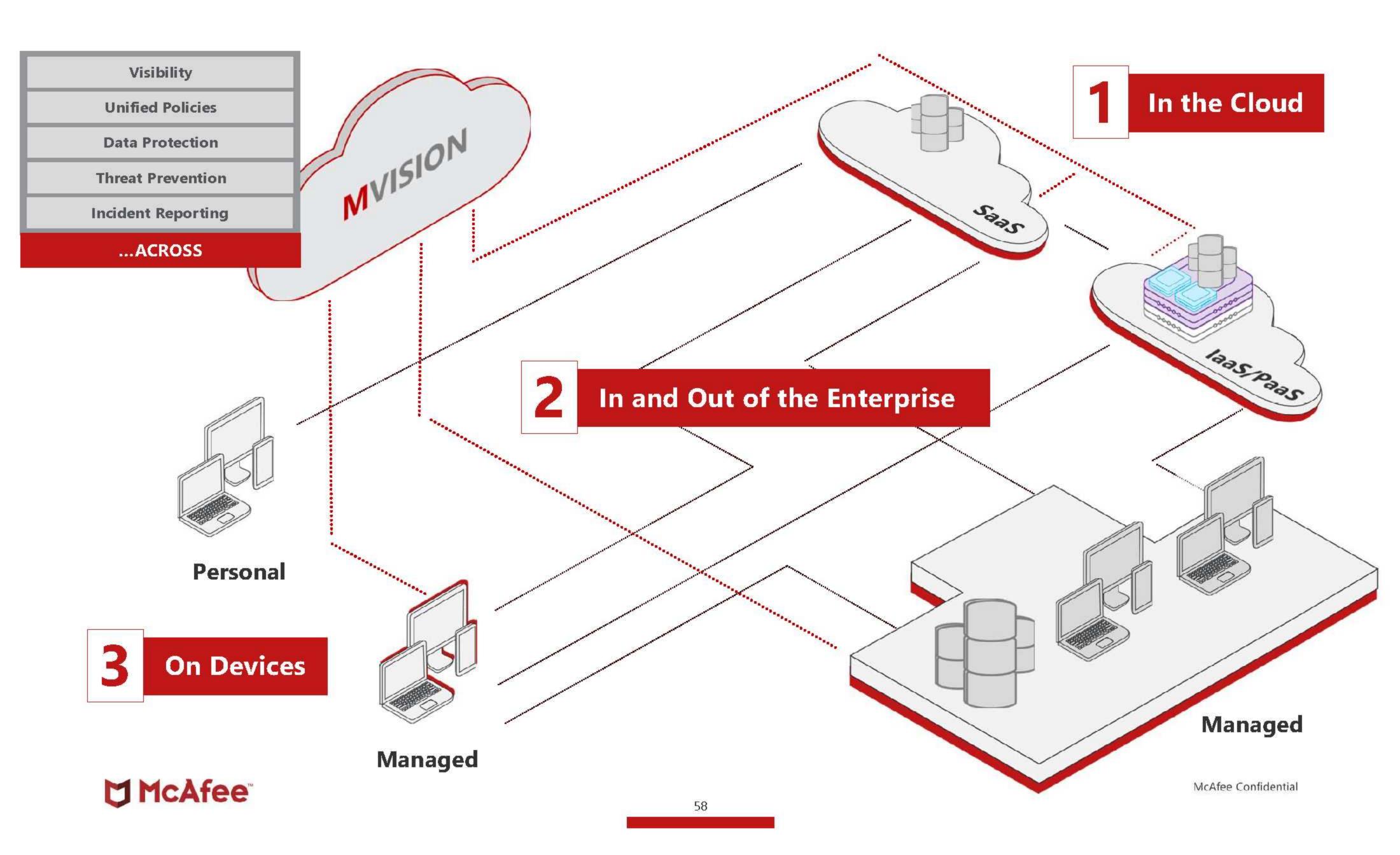
**McAfee** 

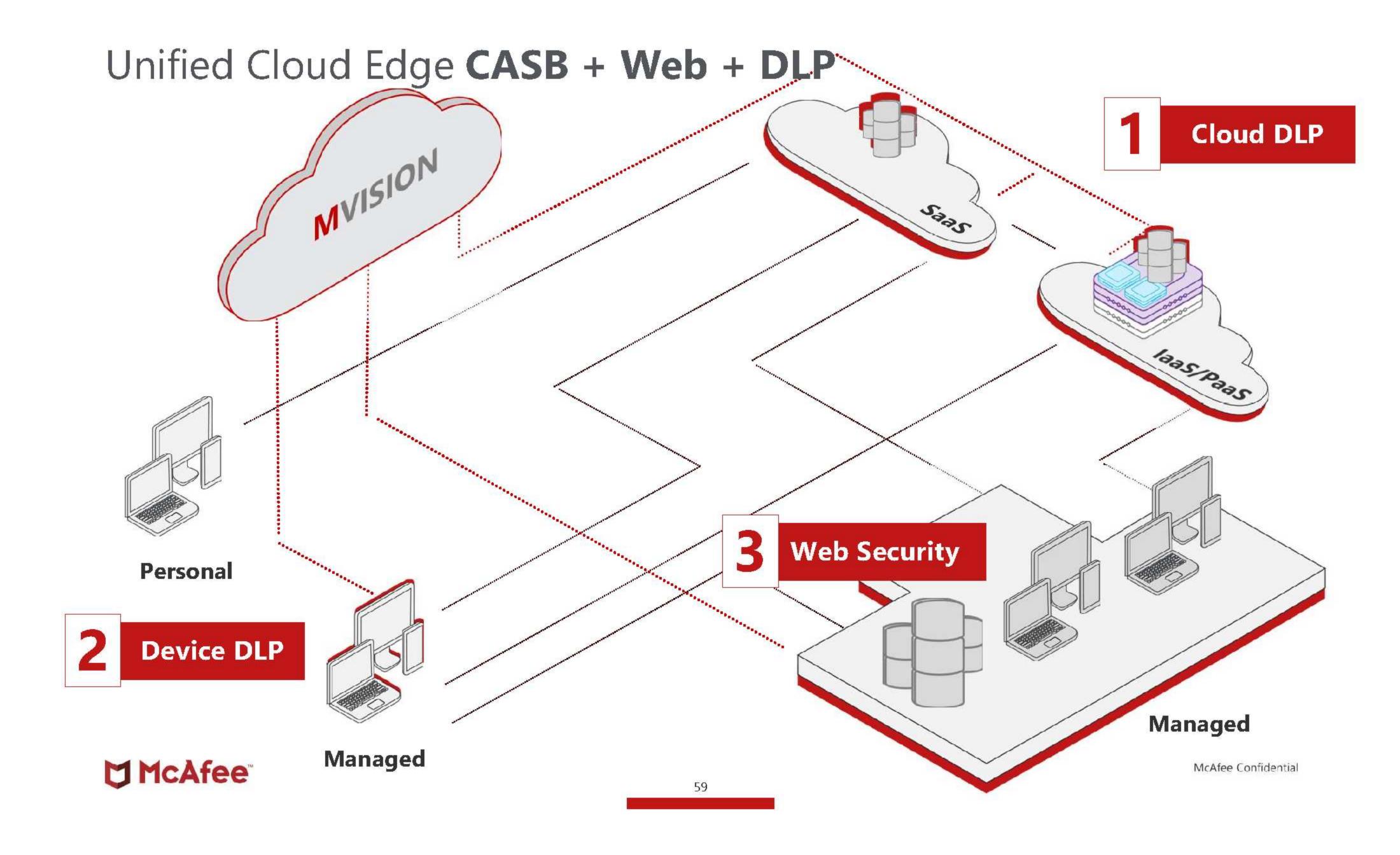
Device to Cloud

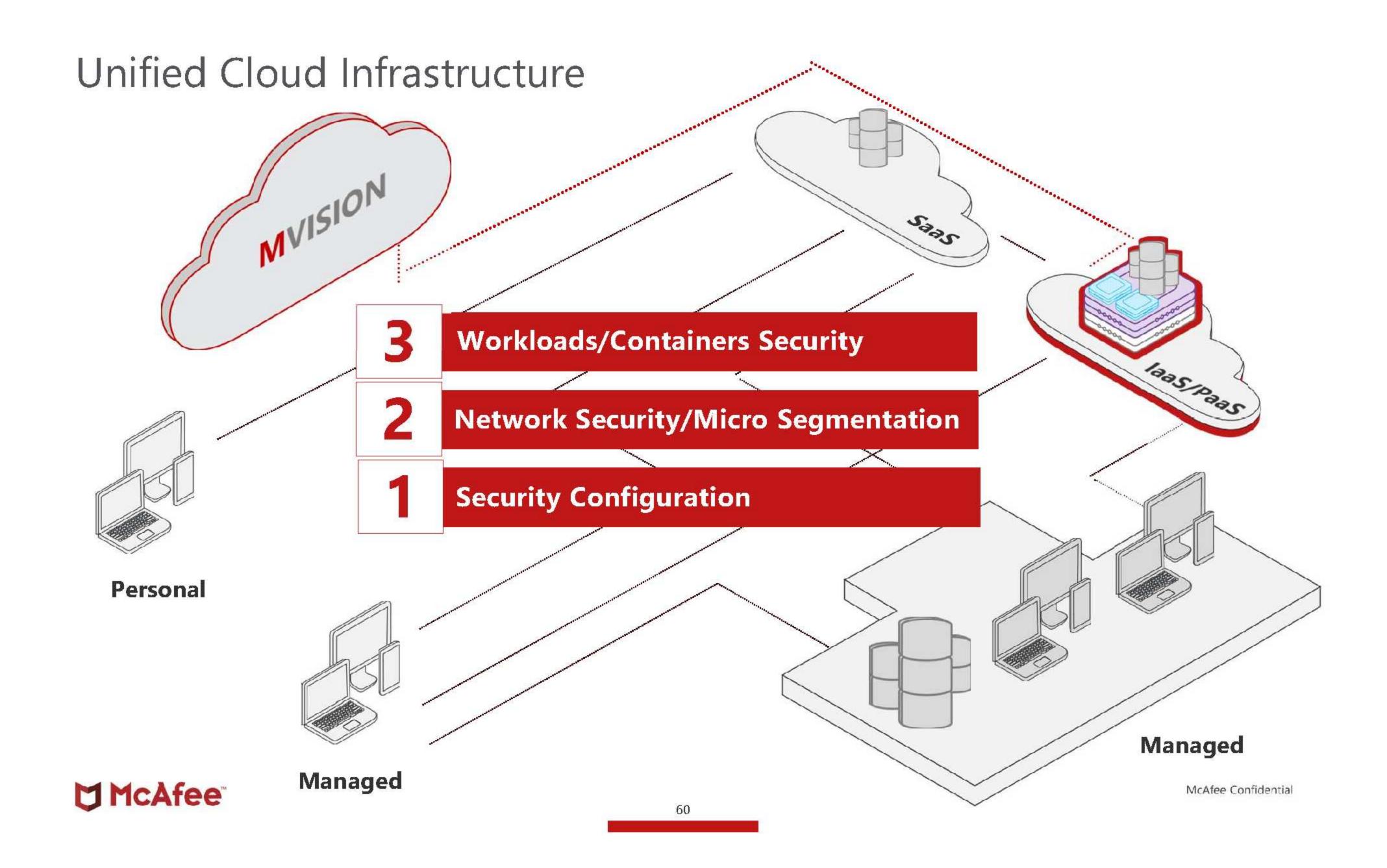
# McAfee Device-to-Cloud Security Platform







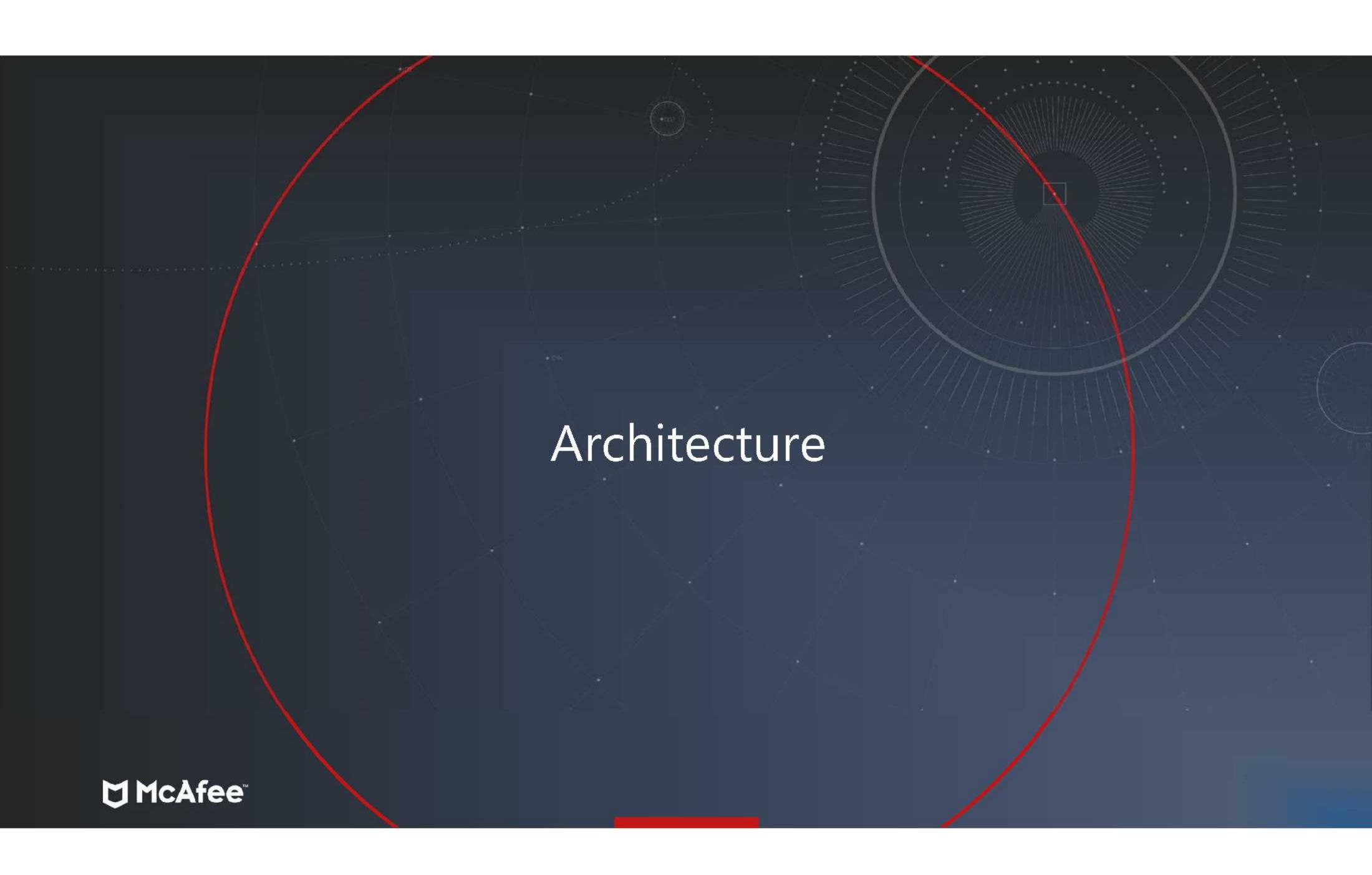




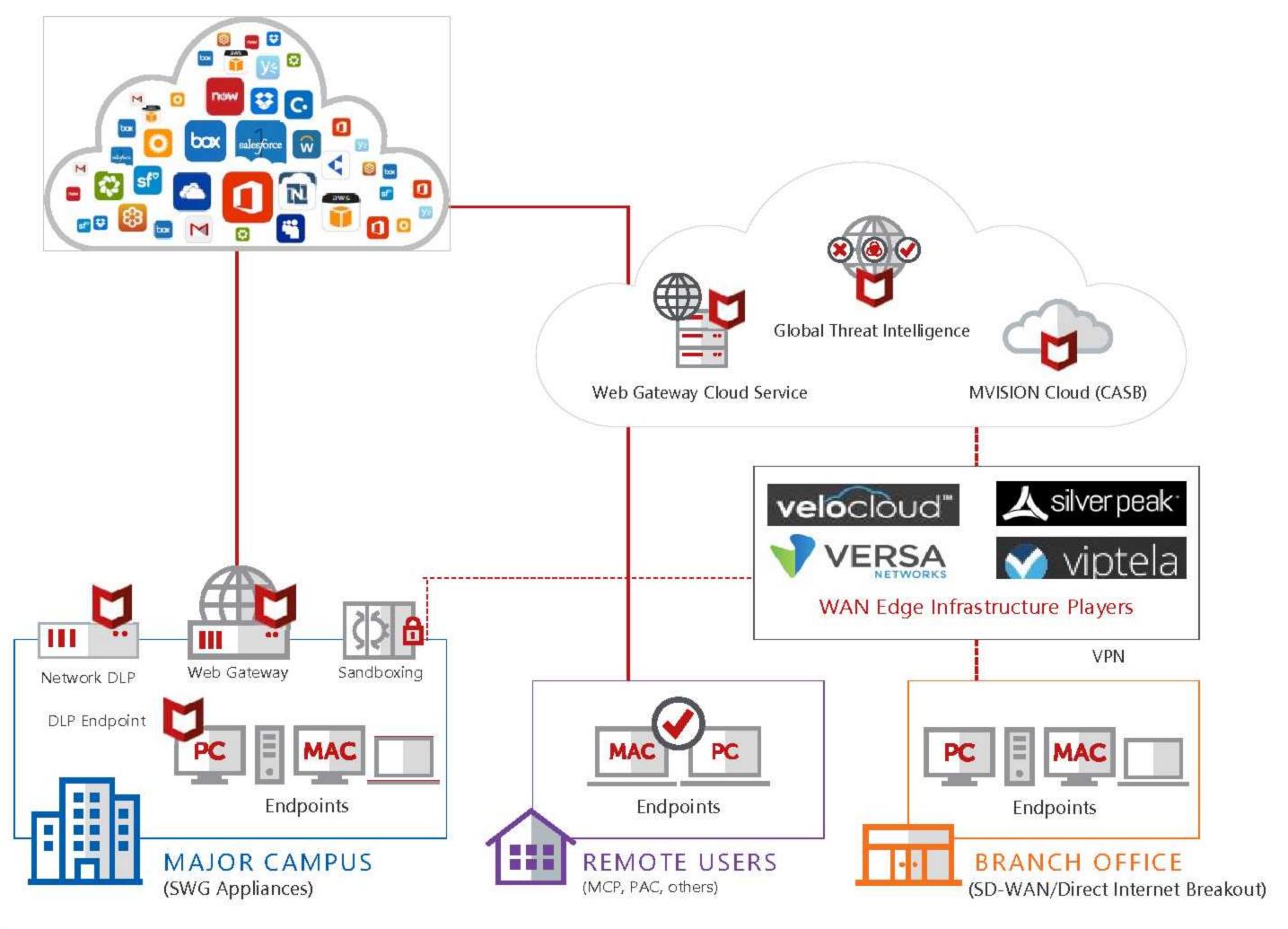
# Endpoint 2992 **End Point Protection** laas pas **EDR Personal** Managed Managed

McAfee Confidential

McAfee"

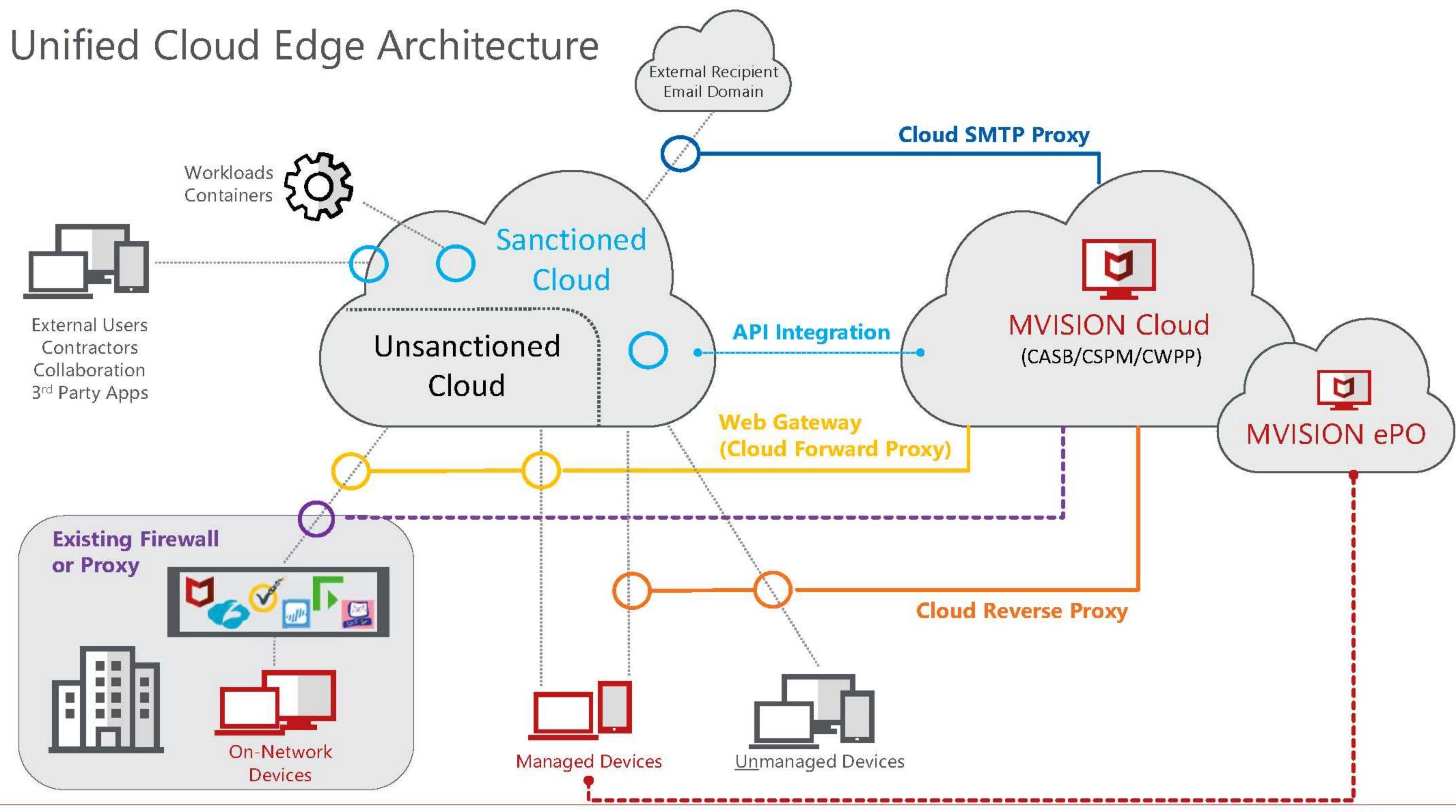


#### Unified Cloud Edge Architecture



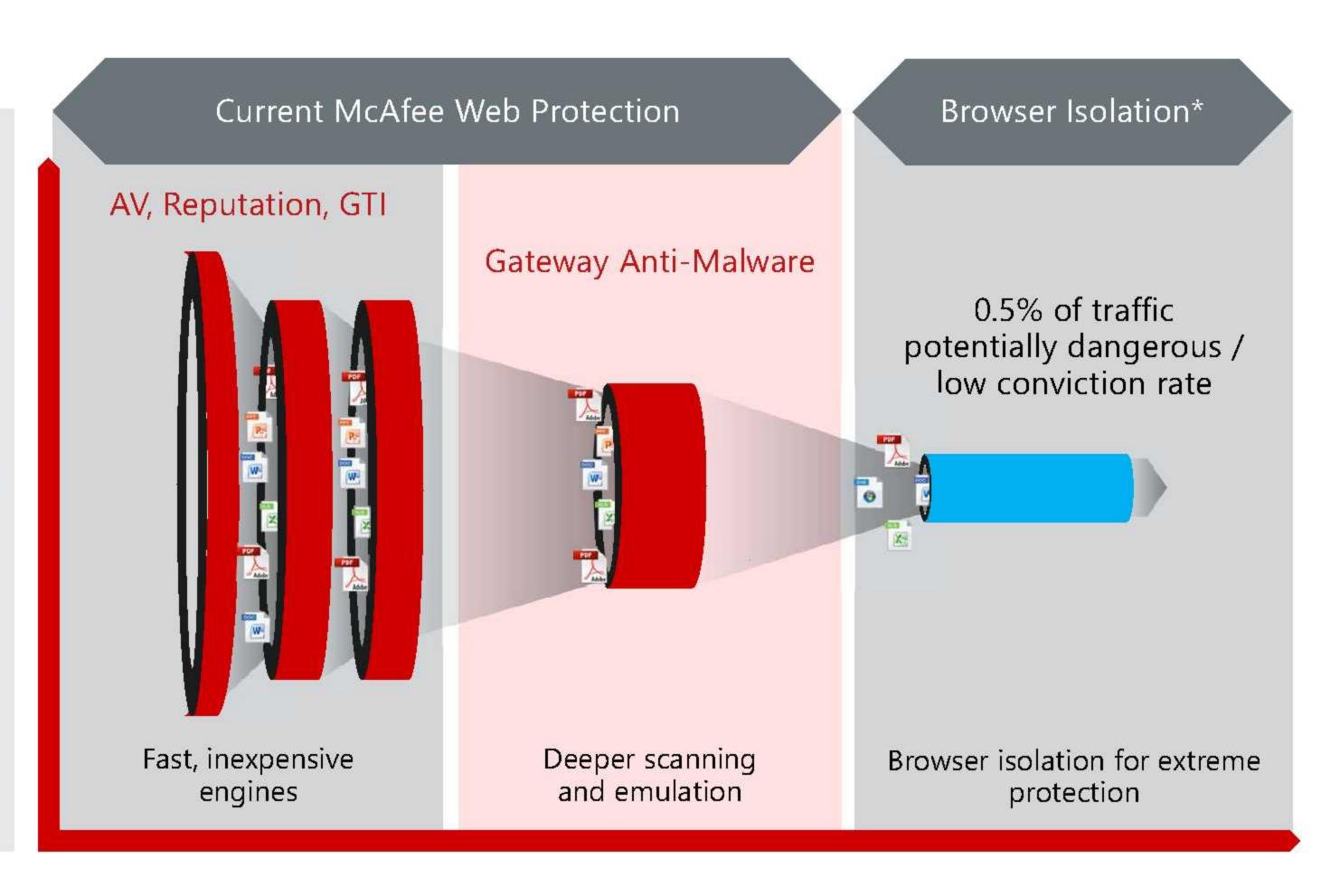


McAfee Confidential



# Layered Threat Prevention, including Browser Isolation

- Provide best-in-class threat effectiveness for web borne threats
- Deliver strong performance and user experience by isolating only risky or uncategorized websites where access is needed
- Converge
   management and
   policy into a unified
   user interface for
   simplicity of
   deployment





McAfee Confidential

#### **UCE** Infrastructure

Web Gateway Cloud Service (CASB Forward Proxy)

- Cloud-based filtering using Web Gateway technology
- High availability SLA of 99.999%
- 53 points of presence in 44 countries
  - trust.mcafee.com
- Data center peering used for improved performance
- Authentication: IP-based, SAML, and MCP Agent
- Two Malware Engines:
  - GTI Signature-based from 1+ Billion Sensors
  - Zero-Day Heuristics GAM Engine
- Native TLS 1.3 and HTTP/2 for SSL Inspection, no downgrading
- Web Gateway = CASB Forward Proxy
  - No Proxy Chaining or Splitting Traffic!!



#### 99.999% Service Availability = True Cloud-grade Infrastructure

# Service availability publicly documented on <a href="https://trust.mcafee.com">https://trust.mcafee.com</a>

Service Availability*	Last 7 Days	Last 30 Days	Last 90 Days
Global Routing Manager (GRM)	100%	100%	100%
North America Proxy Service**	100%	100%	99.999%
Europe Proxy Service**	100%	100%	100%
Asia Proxy Service**	100%	100%	100%
Global Proxy Service**	100%	100%	99.999%

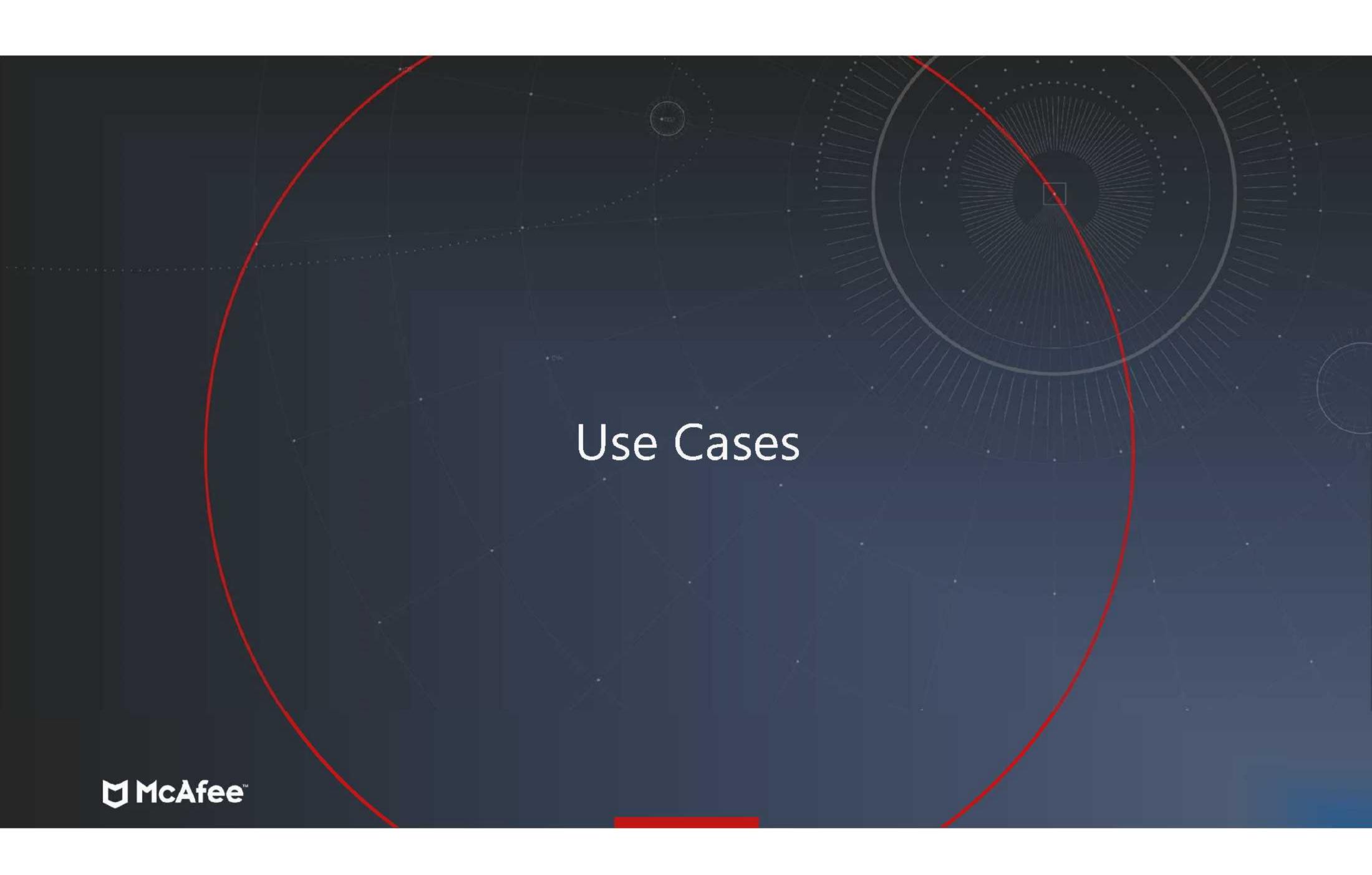
#### Why five 9's matter

Difference in allowed downtime based on uptime SLA

	99.999% uptime	99.99% uptime	99.9% uptime
Day	0.9 sec	9 sec	86.4 sec
Week	6 sec	1min	10 min
Month	26 sec	4 min	44 min
Year	5 min	52 min	525 min



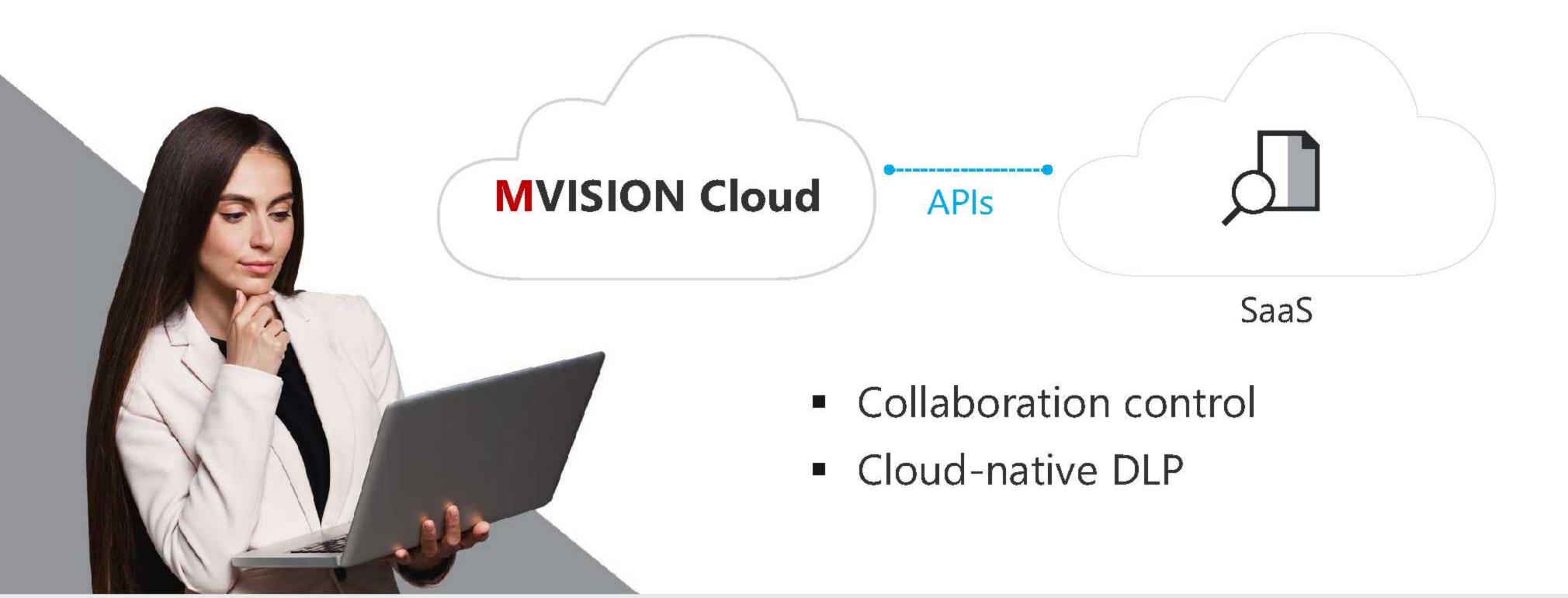
<sup>\*</sup>February 2020 Snapshot



# How a **Unified Cloud Edge** Addresses Cloud Security Use Cases

**™** McAfee

#### Maria—Collaboration Control and DLP



## Maria—Endpoint DLP







- Stop data loss to USB devices
- Block email attachments with sensitive data at the endpoint

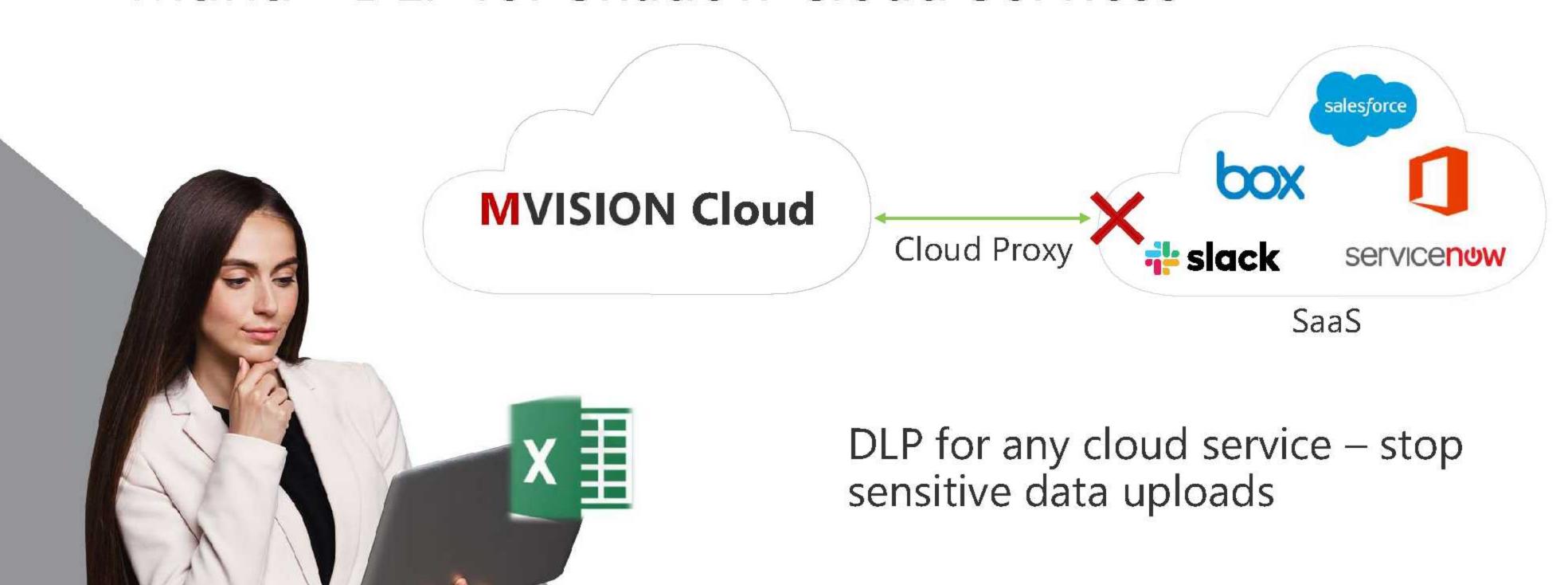
#### Maria—Contextual Access Control



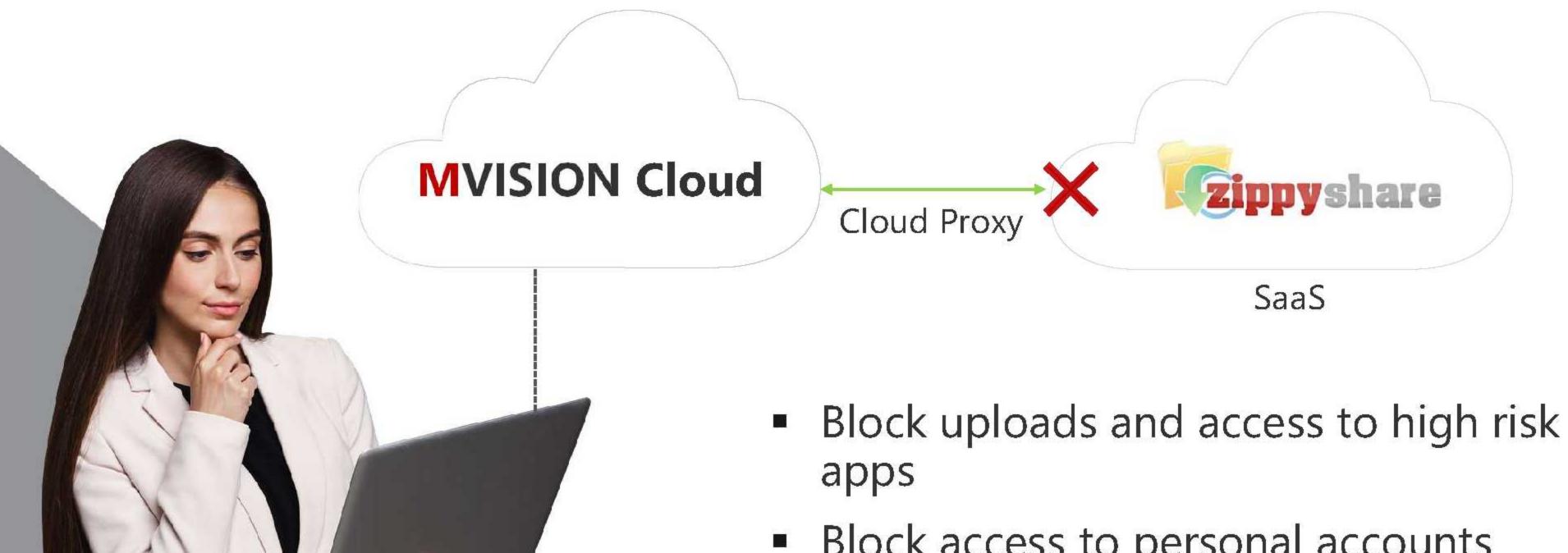
McAfee\*

McAfee Confidential

## Maria—DLP for Shadow Cloud Services



## Maria—Cloud Application Control and Tenant Restrictions



- Block access to personal accounts

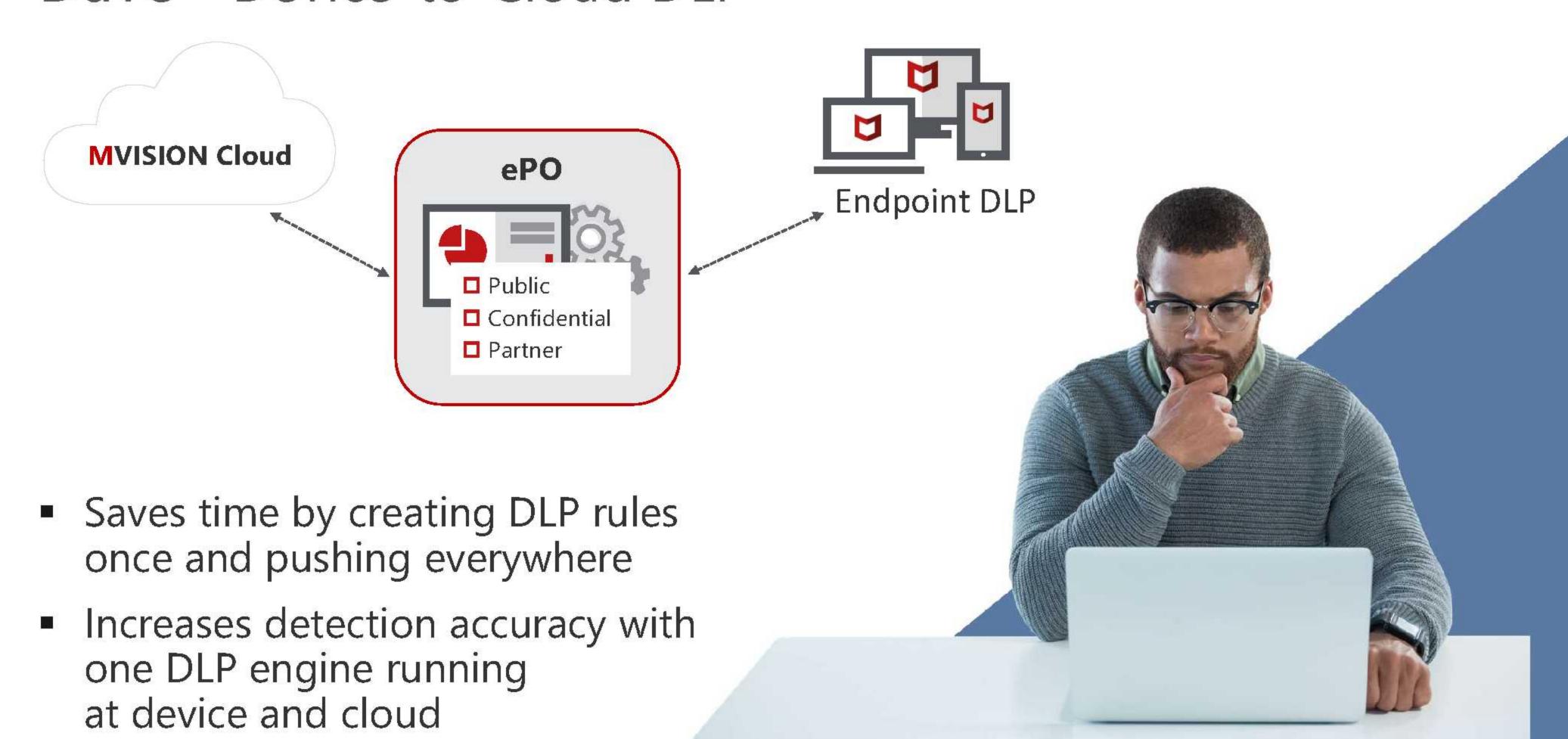
## Maria—Zero-Day Malware Prevention



Stop zero-day malware download from any cloud service or website

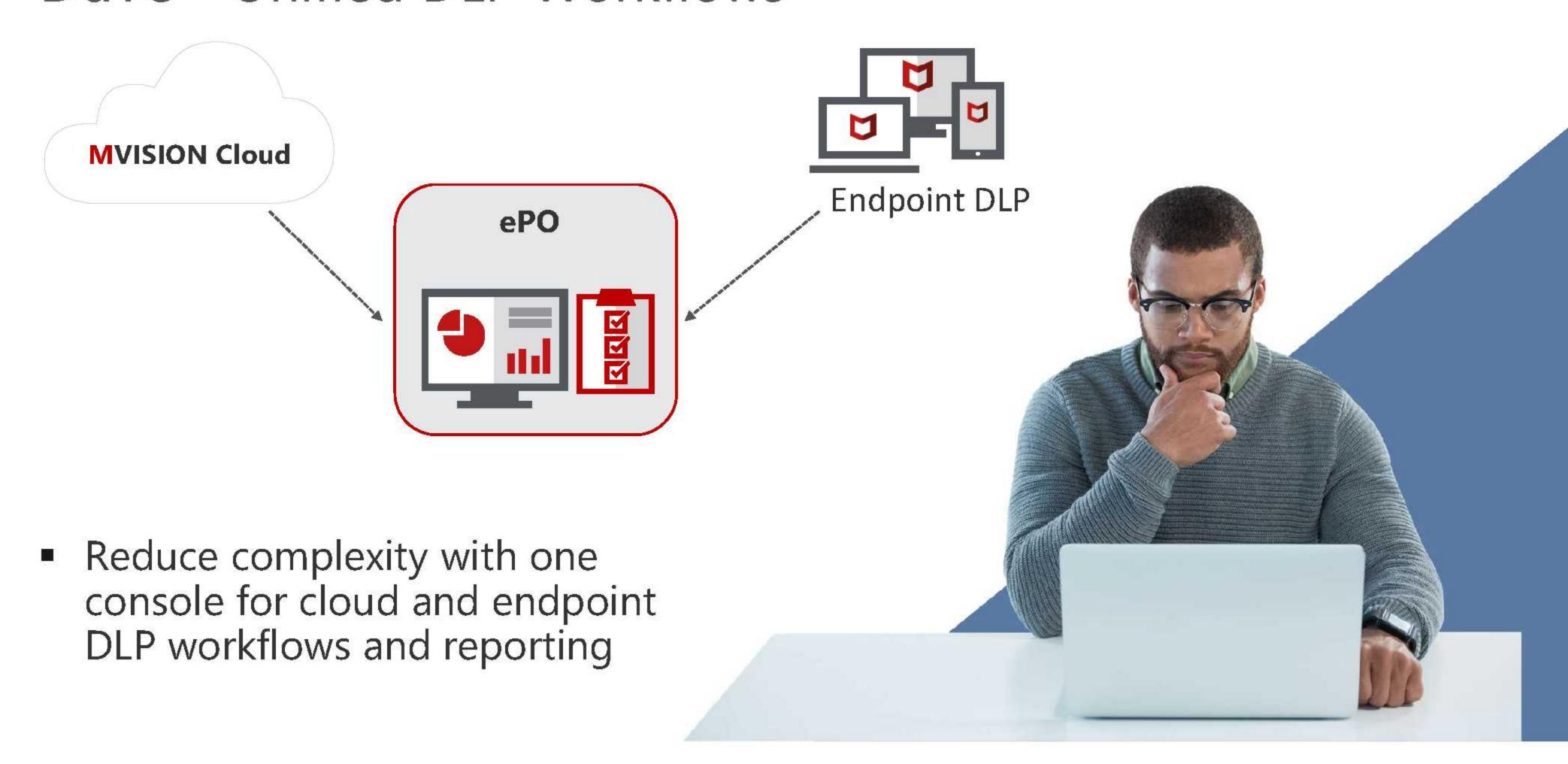


### Dave—Device-to-Cloud DLP





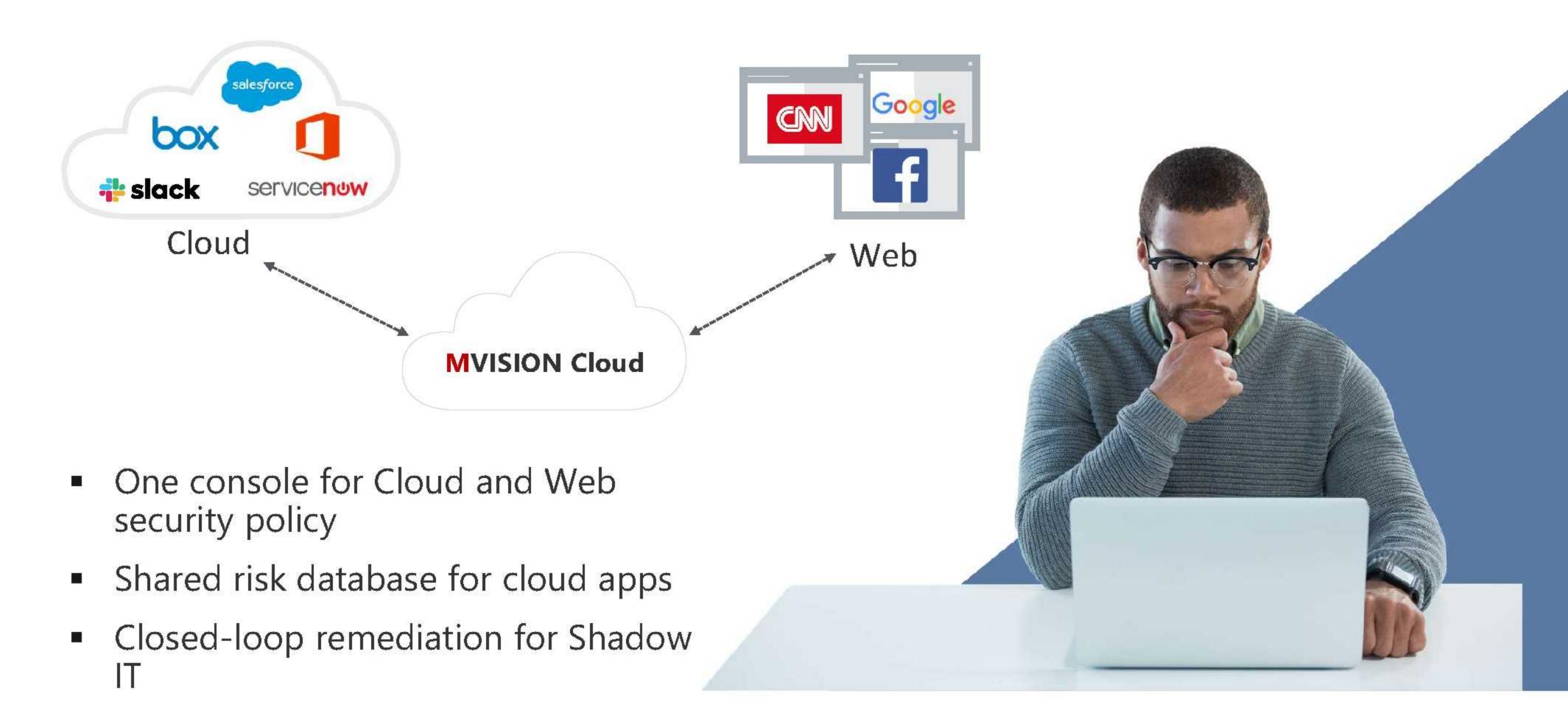
## Dave—Unified DLP Workflows



McAfee\*

McAfee Confidential

## Dave—Unified Cloud and Web Security



McAfee\*

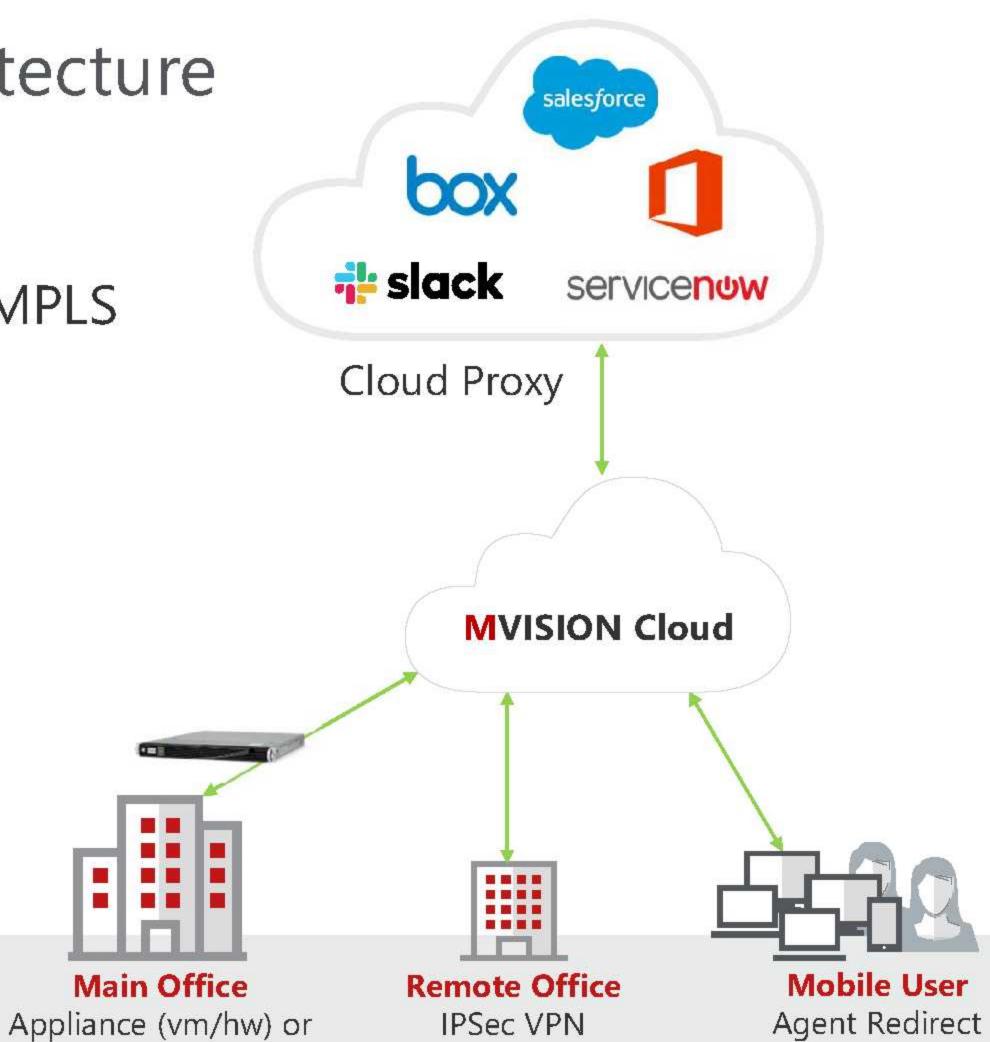
## Lee—Cloud-Native Proxy Architecture

No hardware needed

Reduced or eliminated MPLS

Infinitely scalable

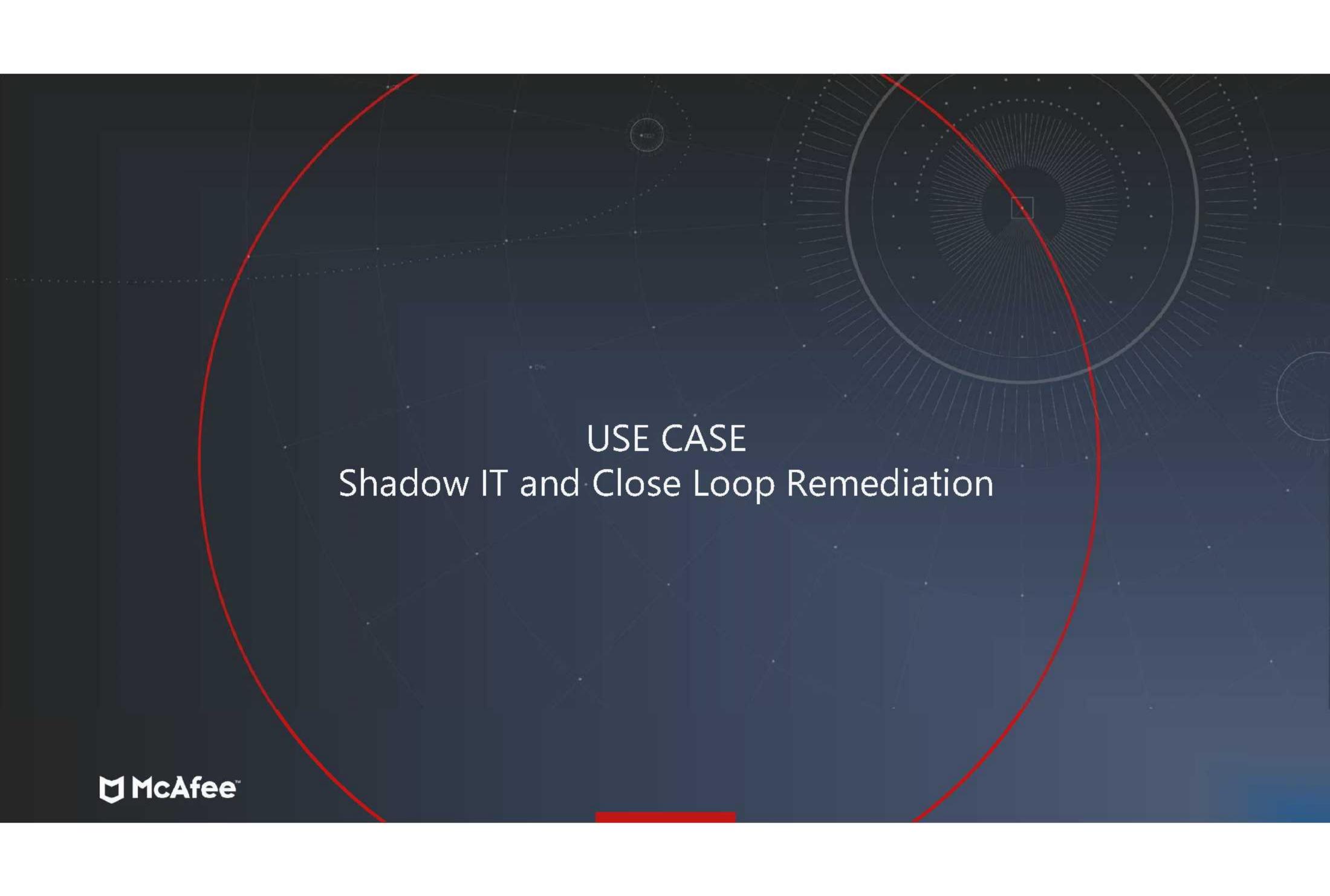
99.999% availability



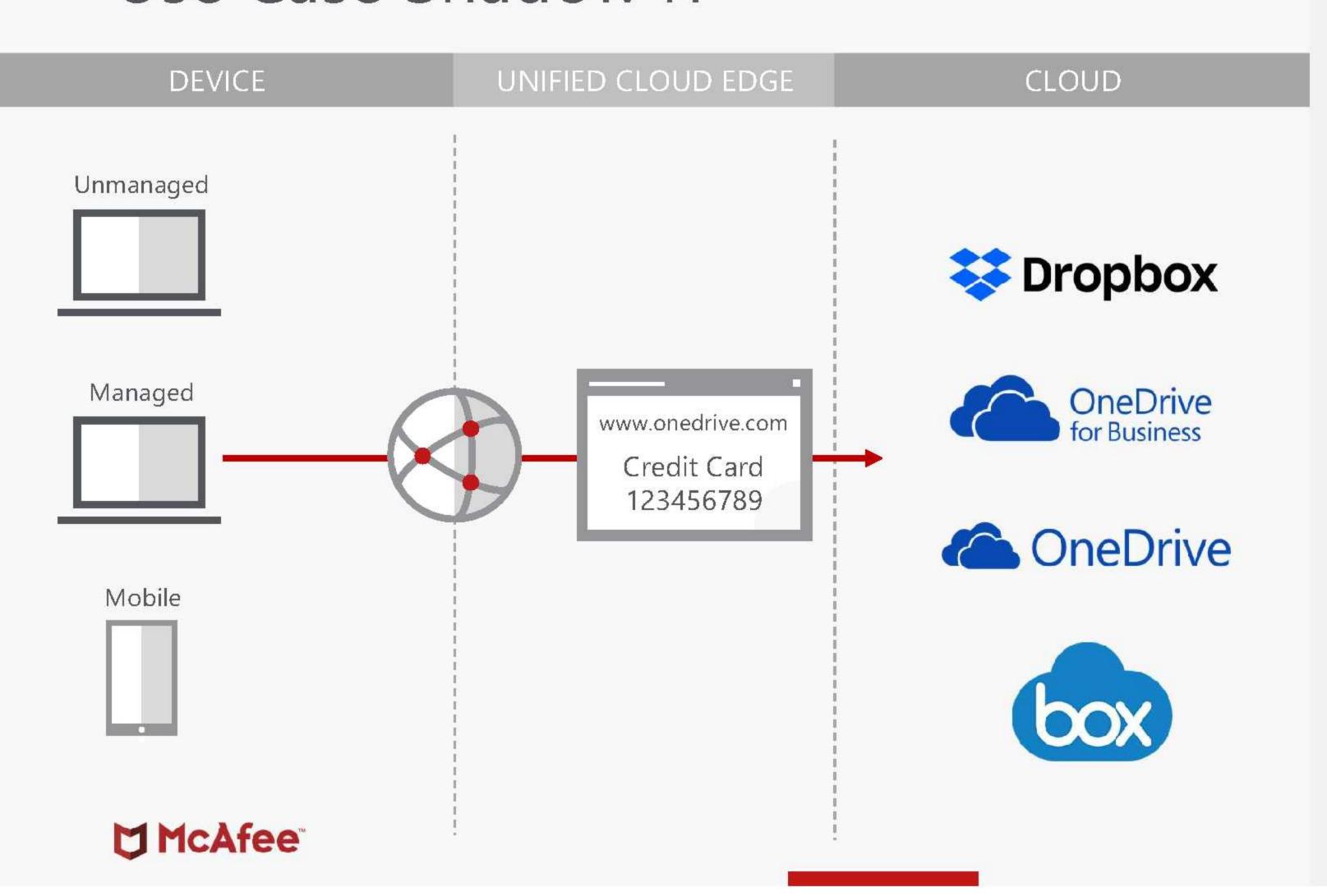


McAfee Confidential

IPSec VPN



### Use Case Shadow IT



#### RISK

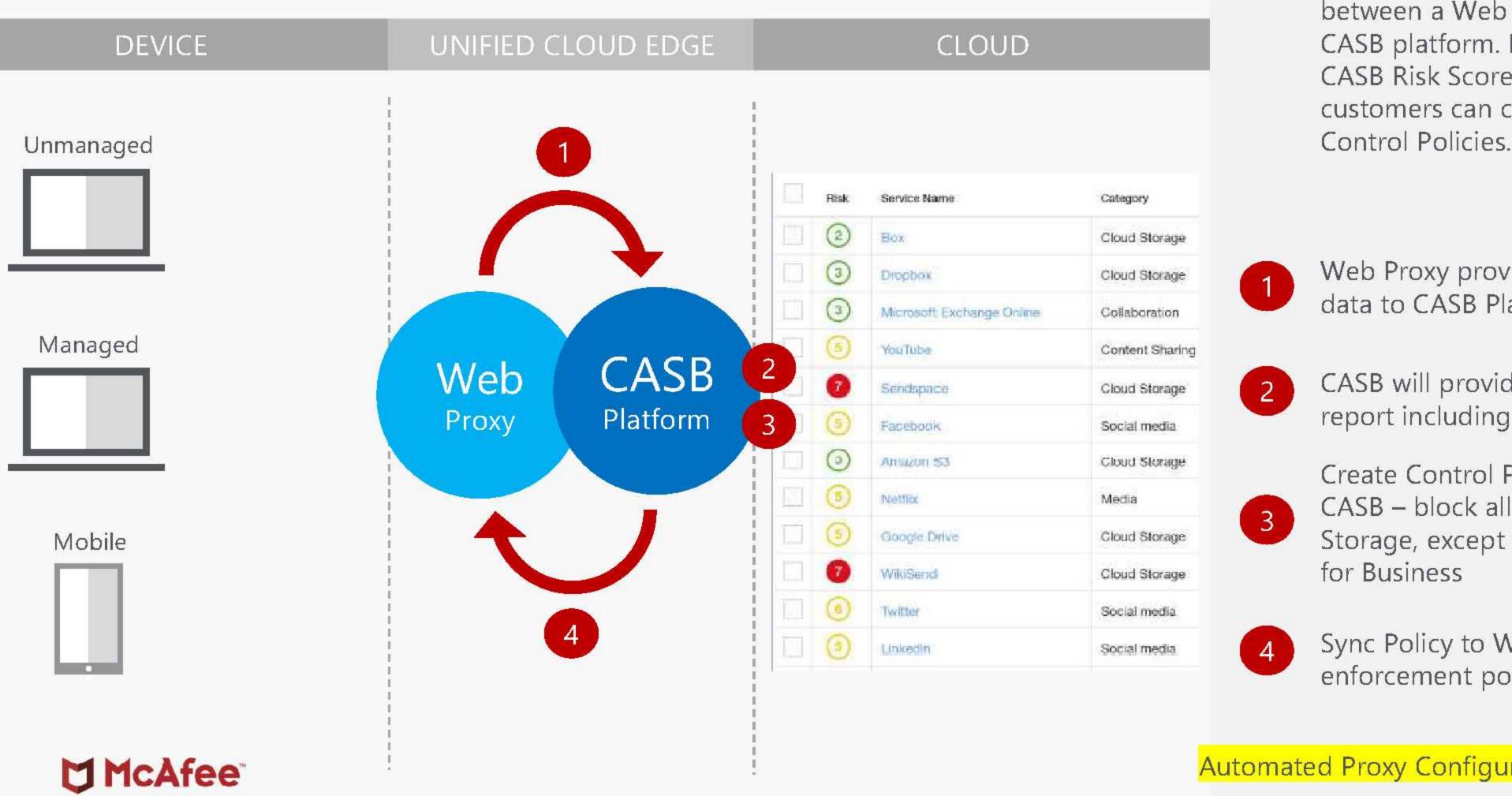
Uncontrolled Data Loss due to lack of visibility and control for Shadow IT applications.

#### CHALLENGE

IT lost control. Users just need a Browser and Credit Card to sign up for a new Cloud Services.

A standalone Web Proxy is not able to Stop all traffic. Only if the user uses the Browser only.

## Use Case Shadow IT



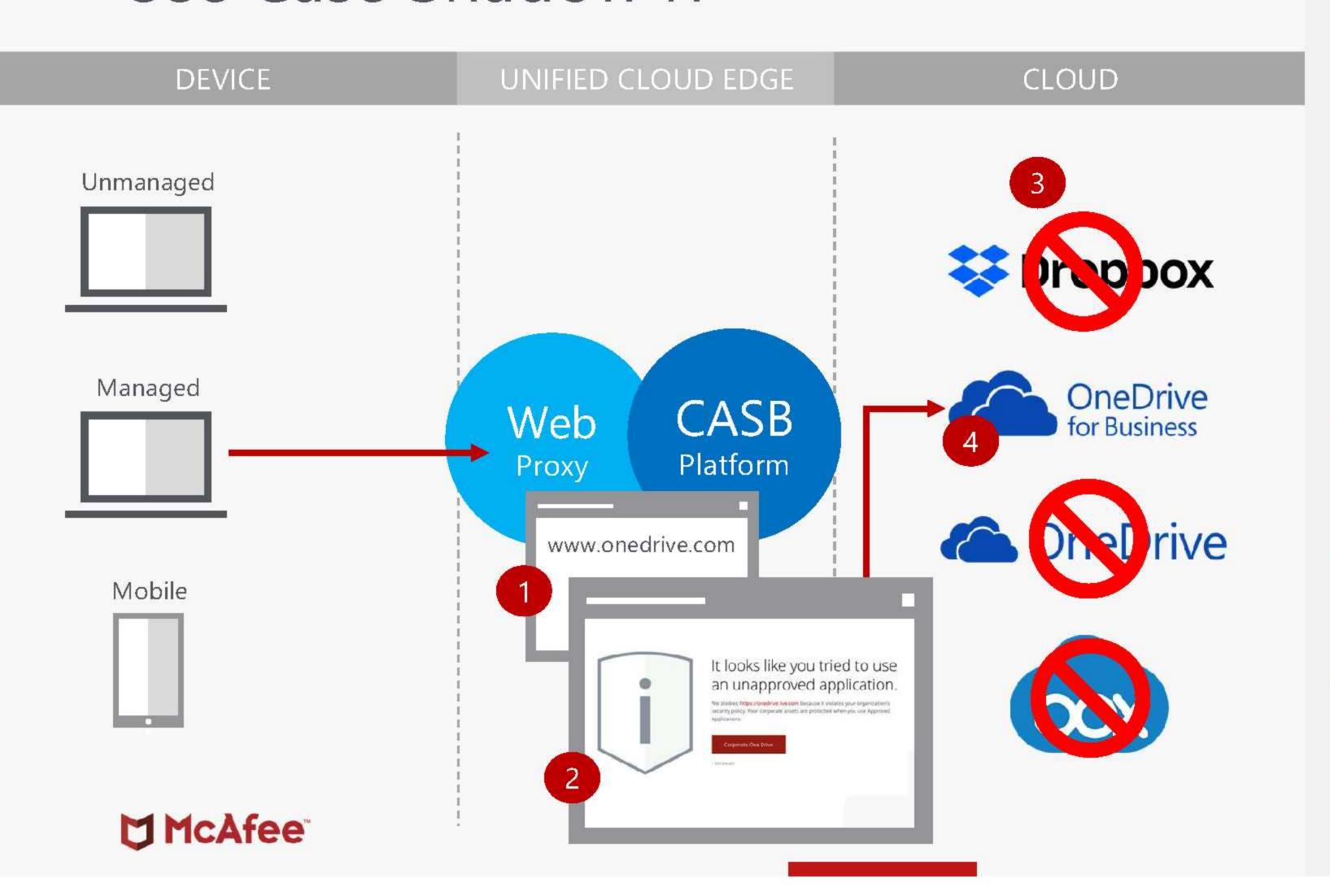
#### SOLUTION

Building a Close Loop Remediation process between a Web Proxy and CASB platform. Based on **CASB Risk Scores** customers can create

- Web Proxy provides all data to CASB Platform
- CASB will provide Shadow IT report including Risk Score
- Create Control Policy in CASB – block all cloud Storage, except OneDrive
- Sync Policy to Web Proxy as enforcement point

**Automated Proxy Configuration** 

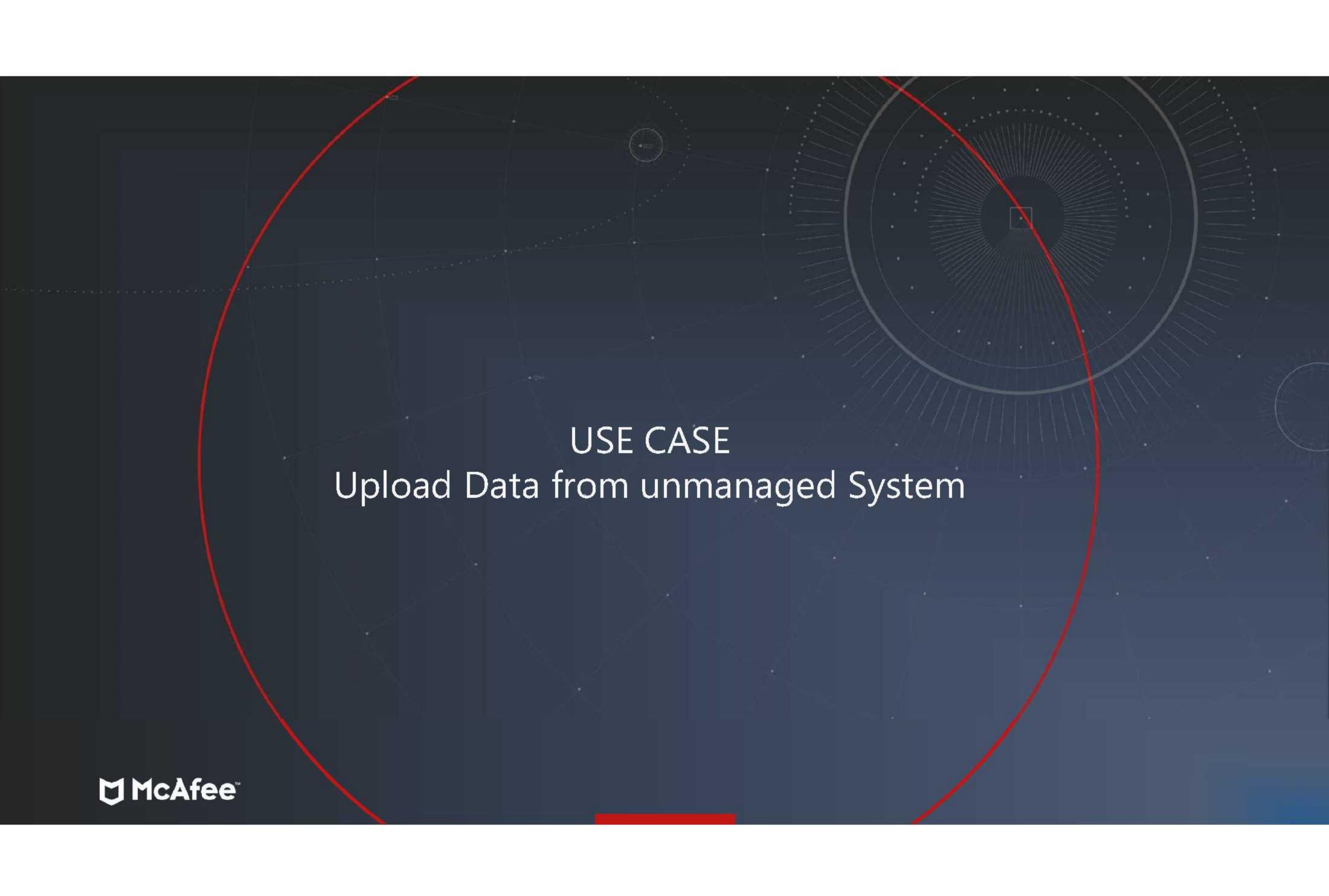
## Use Case Shadow IT



#### **RESULT**

Users cannot use any service anymore. For any blocked service they get a customized Block page and a corporate approved alternative service.

- User opens Browser to download OneDrive
- McAfee Web Proxy will bring up Block Page with link to corporate OneDrive
- User can use OneDrive for Business only, all other Services will be blocked
- User can upload Data securely to approved Cloud Storage Service



# Data Upload from unmanaged System

UNIFIED CLOUD EDGE CLOUD DEVICE OneDrive for Business Unmanaged McAfee"

#### RISK

High Risk for malware infections

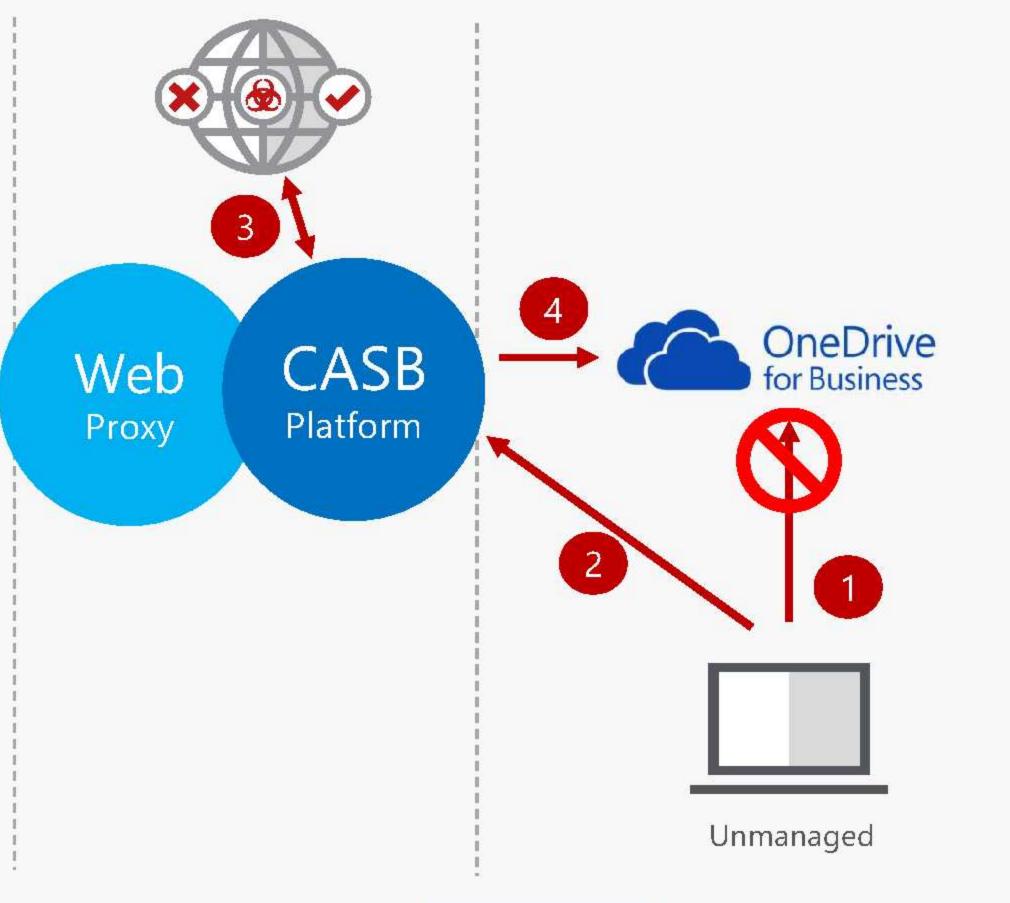
#### CHALLENGE

No Control in place. User bypasses any Web Control or VPN. The User can upload documents which might be infected without any Threat protection or Data control to a Corporate Cloud Storage

# Data Upload from unmanaged System

**McAfee** 

DEVICE UNIFIED CLOUD EDGE CLOUD



#### SOLUTION

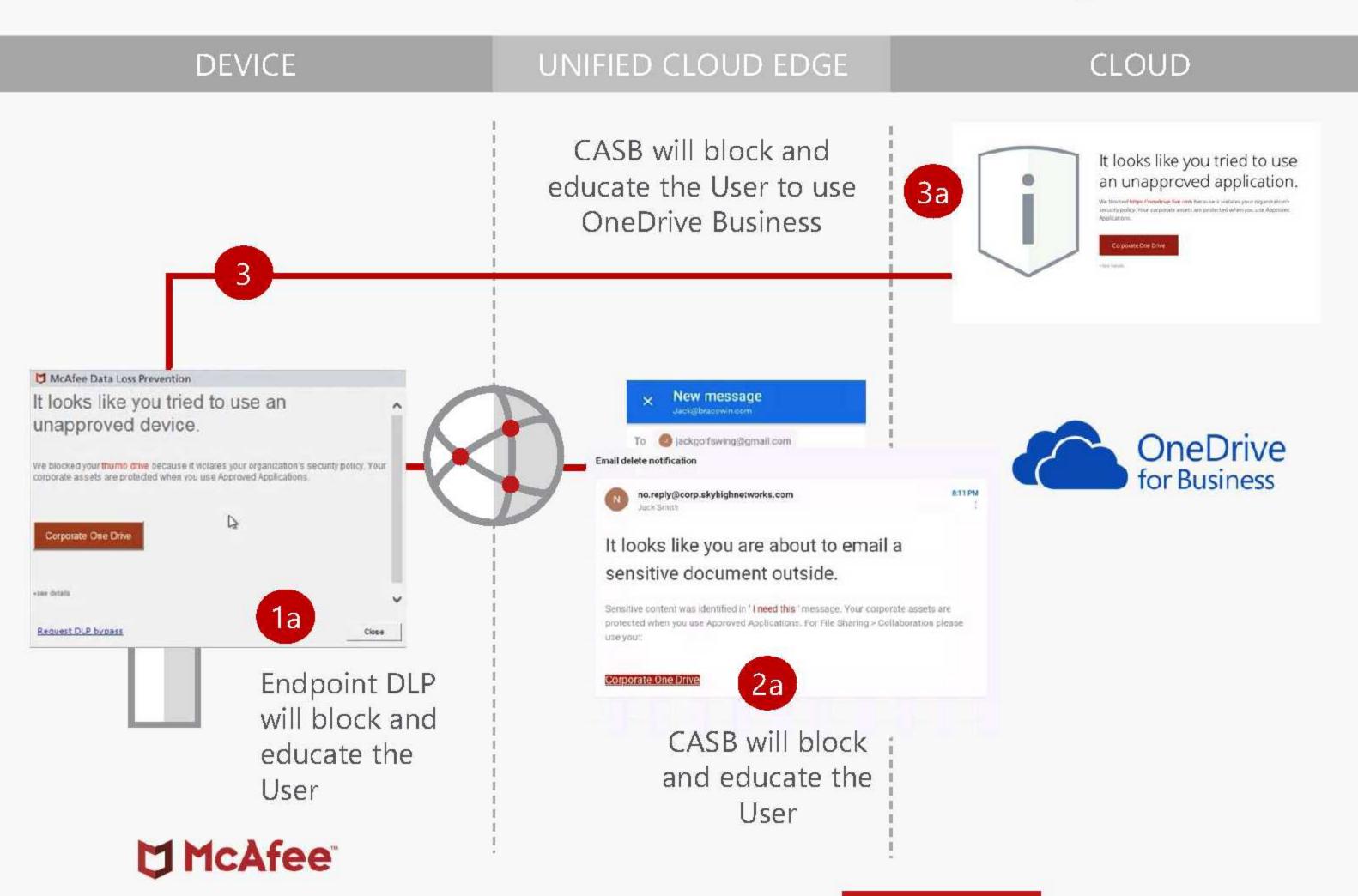
- User will go directly to OneDrive for Business URL
- Based on 2-Factor

  Authentication request will
  be redirected through

  CASB Platform
- 3 CASB Platform will provide Threat Protection based on GTI Threat Intelligence
- Document will be uploaded securely



# Protect Confidential Data Everywhere

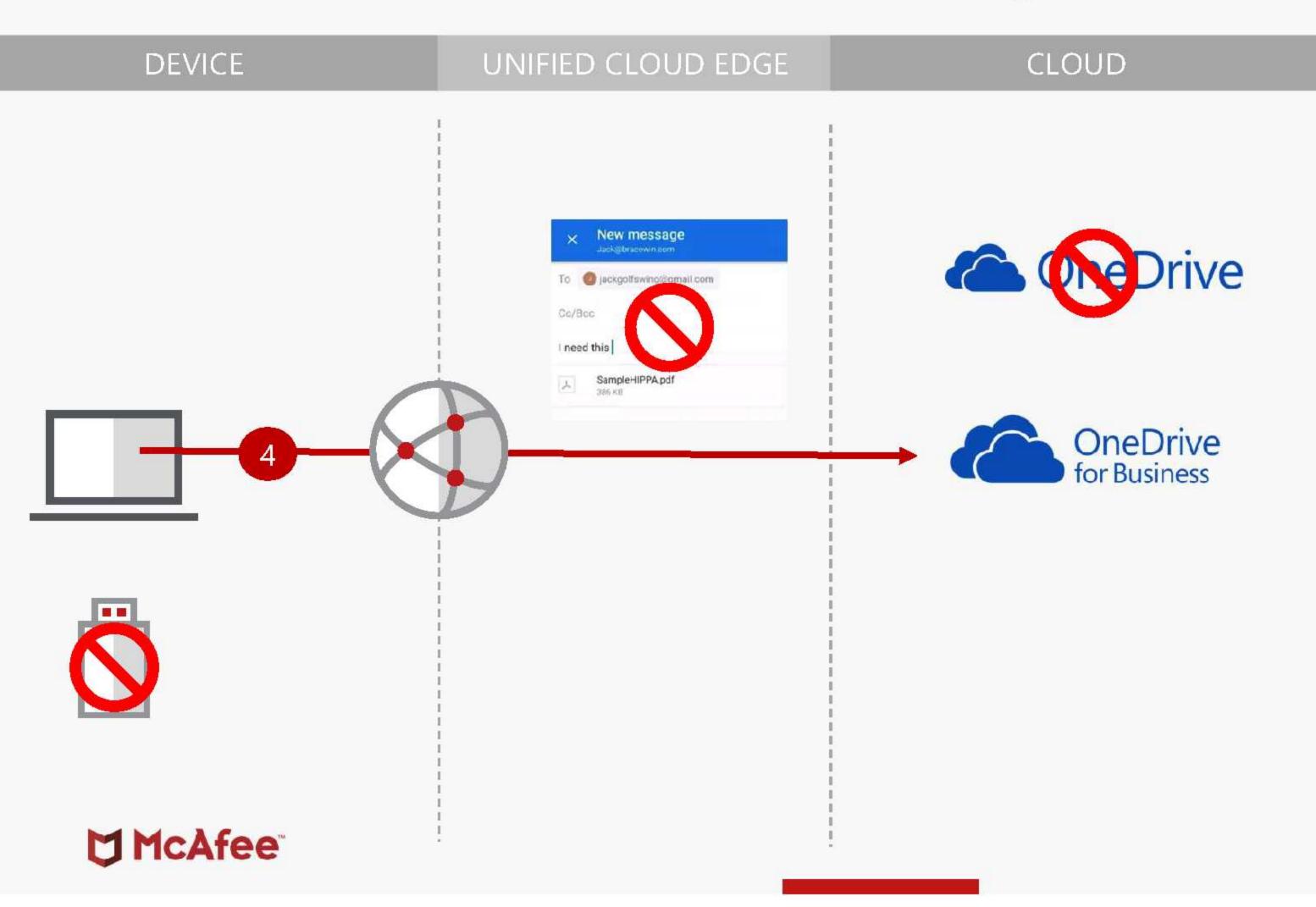


#### **RISK**

User has multiple ways to export confidential data. Especially with Cloud Email and non-approved Cloud Storage Services.

- User tries to export sensitive document to USB
- User tries to send same document to private Email
- User wants to upload some document to Personal OneDrive

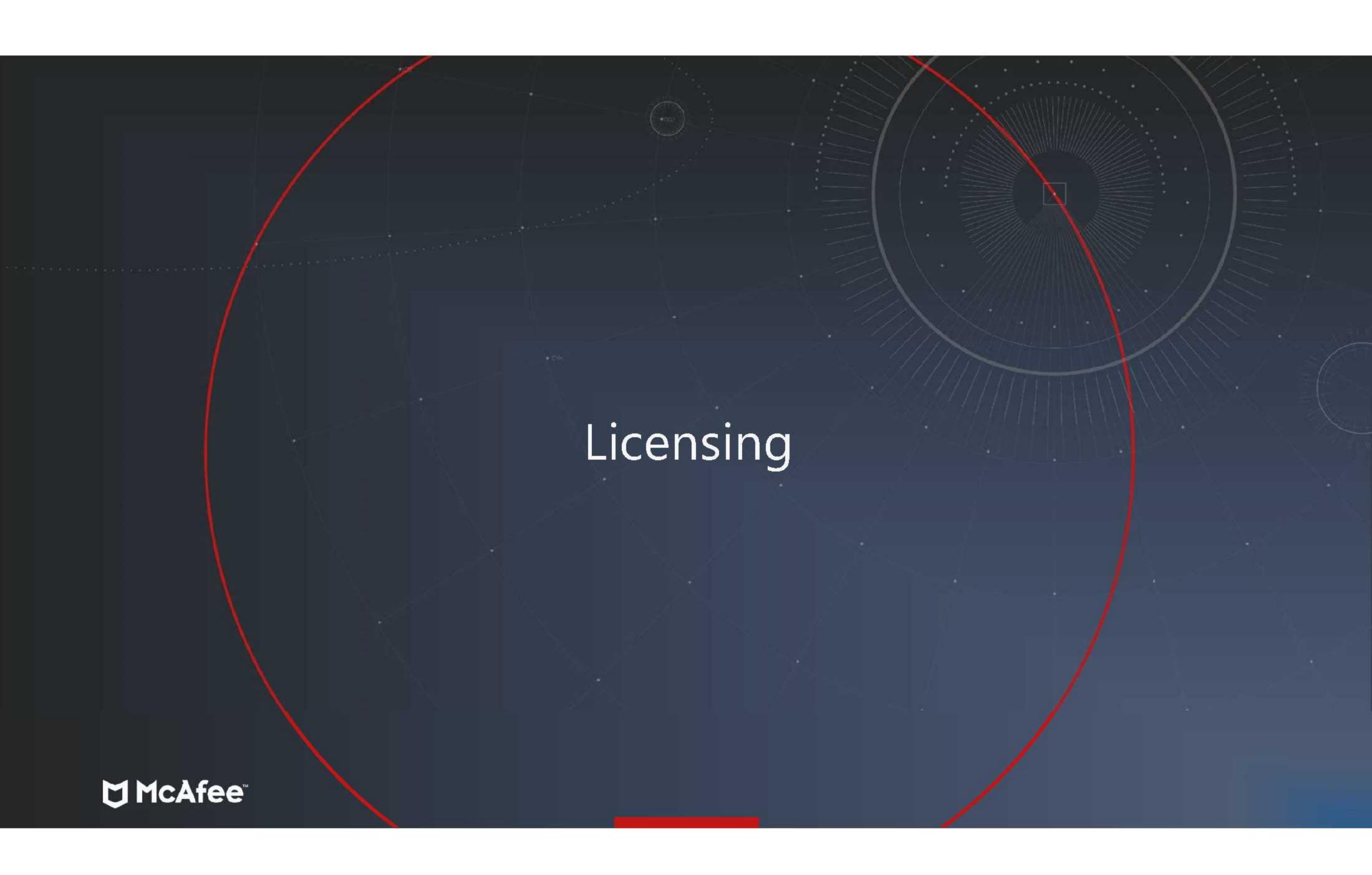
# Protect Confidential Data Everywhere



#### **RISK**

User has multiple ways to export confidential data. Especially with Cloud Email and non-approved Cloud Storage Services.

- User tries to export sensitive document to USB
- User tries to send same document to private Email
- User wants to upload some document to Personal OneDrive
- User can upload document to corporate OneDrive



### **UCE** Offering

### Unified Cloud Edge Basic

• **Per User** - provides new customer access to UCE. It includes CASB Shadow, Web Gateway Cloud Service, McAfee Web Security, Gateway Edition Software and Gateway Anti-Malware. In addition it includes access to McAfee Client Proxy and Content Security Reporter.

### Unified Cloud Edge Advanced

• Per User - All components of UCEB and entitlements for endpoint DLP (DLPe) and 2.5 sanctioned apps for CASB. It also provides access to ePO and MVISION ePO to manage DLPe.

Leading SKUs

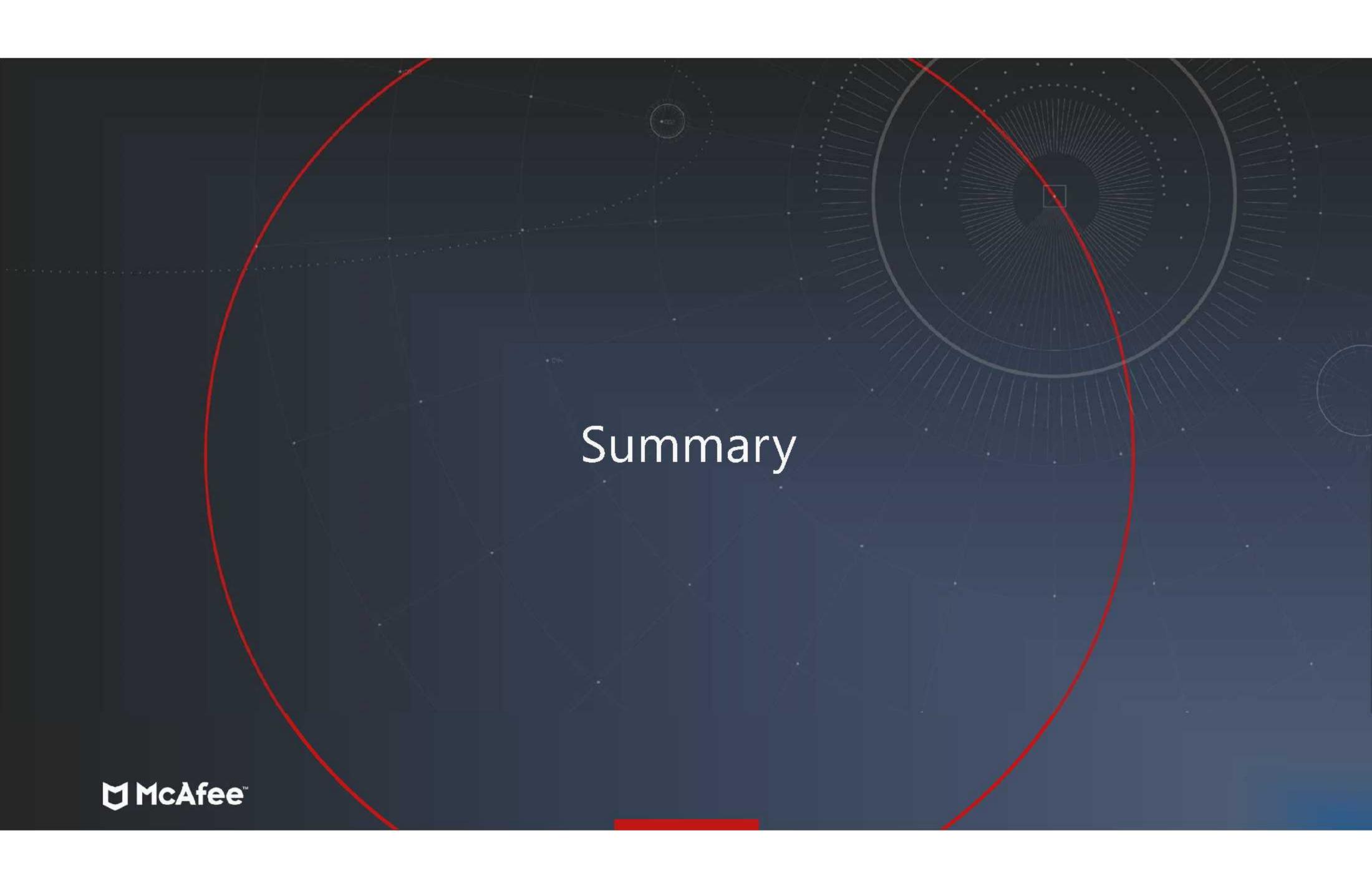
## What are the Differences Between the Bundles?

	Shadow IT	WSG	WPS	UCE-B	UCE-A
Gateway Web Protection		х	X	×	×
Gateway Edition Software		x	x	×	x
Gateway Anti-Malware			x	×	×
Web Gateway Cloud Service			x	×	x
McAfee® Web Gateway (MWG) On-premises		×	х	X (Web Gateway licences)	X (Web Gateway licenses)
Policy Synchronization (Hybrid)			х		
Shadow IT	x			x	х
Sanctioned App (2.5)					х
Data Protection on the Endpoint (DLPe)					×
McAfee® Client Proxy (MCP)		х	×	×	×
McAfee® Mobile Cloud Service			×	×	×
Content Security Reporter		х	х	x	Х



All features are available for the on-premises McAfee ePO™ platform.

For MVISION ePO, MCP is available and DLPe on the roadmap



## How UCE Evolves Your Security Posture

Cloud-native architecture increases scale and resilience while lowering TCO

Prevent cloudnative breach attempts with unified incident management Consistent data protection at the device, through the web, and within the cloud

Convergence of CASB, SWG, and DLP technologies reduces complexity

**McAfee** 

# UCE 3 **Cloud Data Protection** CASB Protect Personal and/or **MVISION UCE** Additional Corporate Device SaaS Web Gateway Unmanaged Internet Secure Direct to Web Browsing Managed McAfee\*





To Protect Data and Defend Against Threats where Modern Work Gets Done: **On Devices and in the Cloud** 



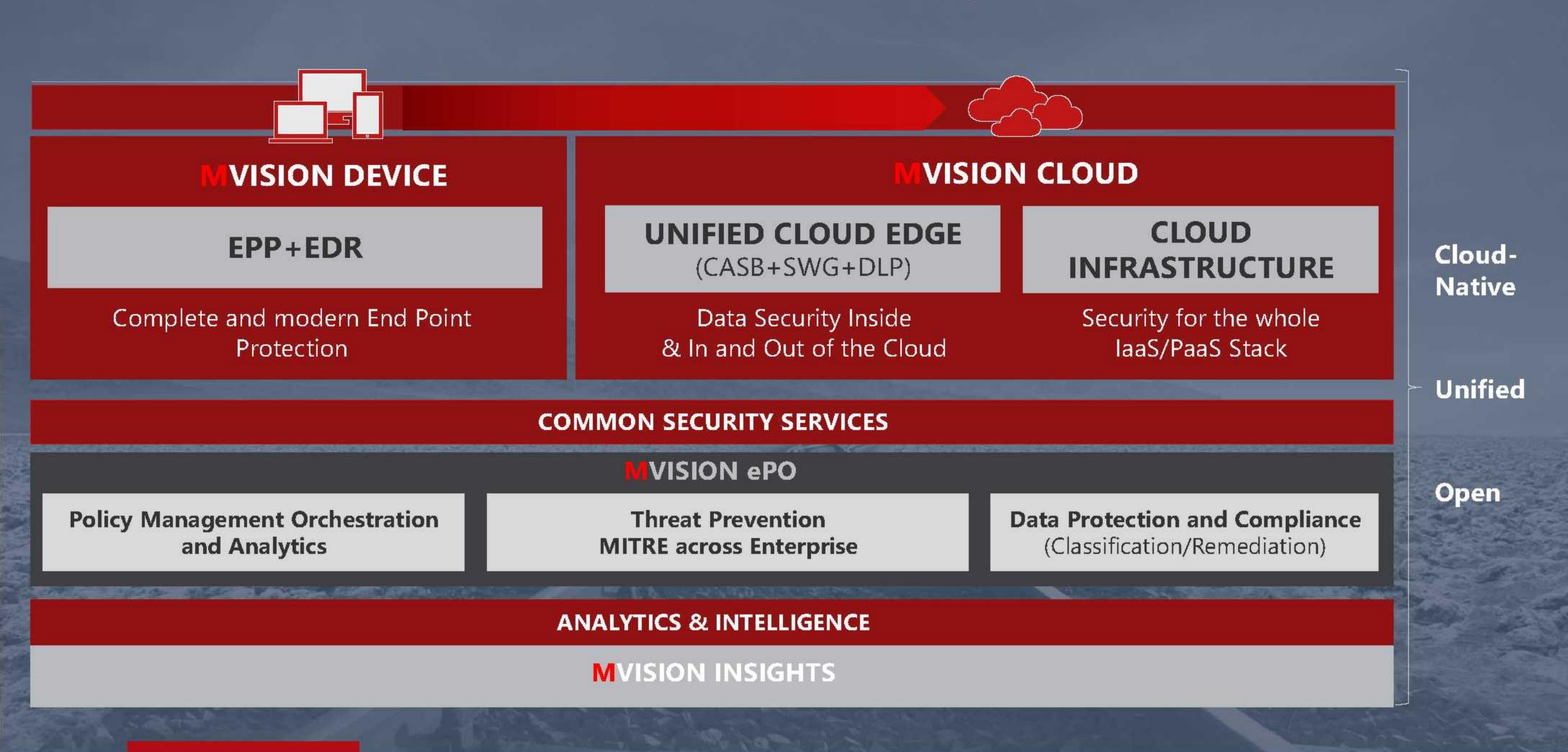
Device

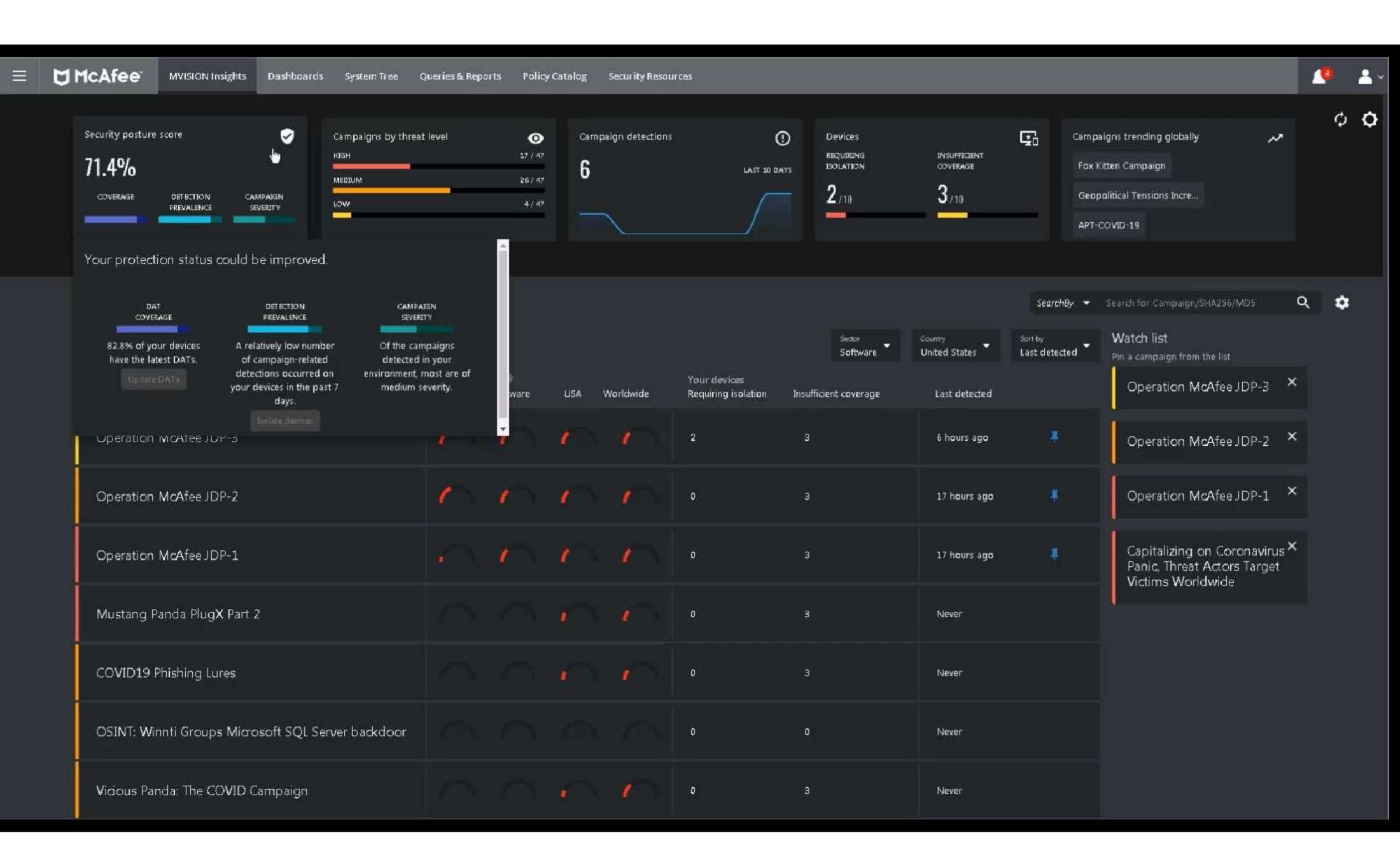


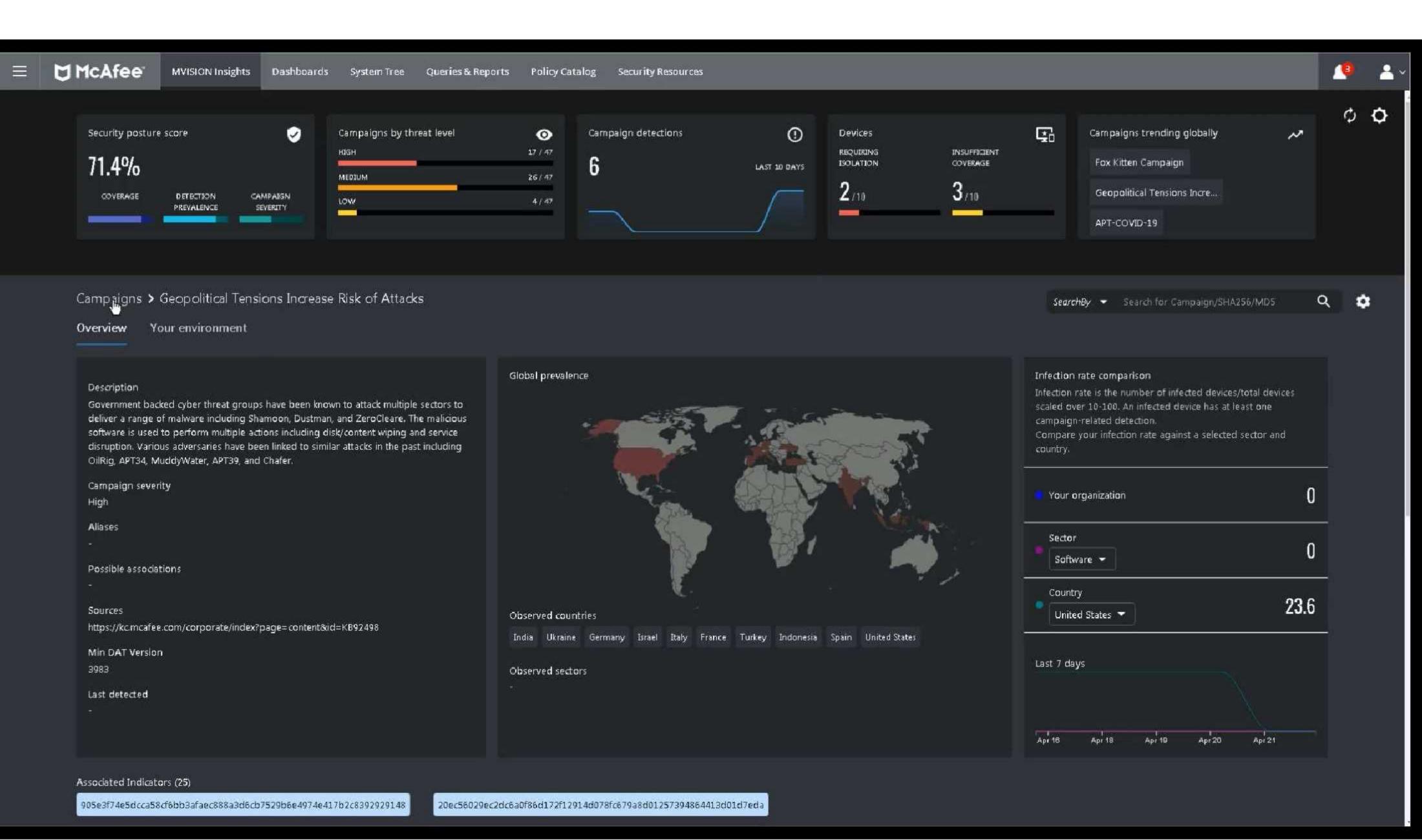
Cloud

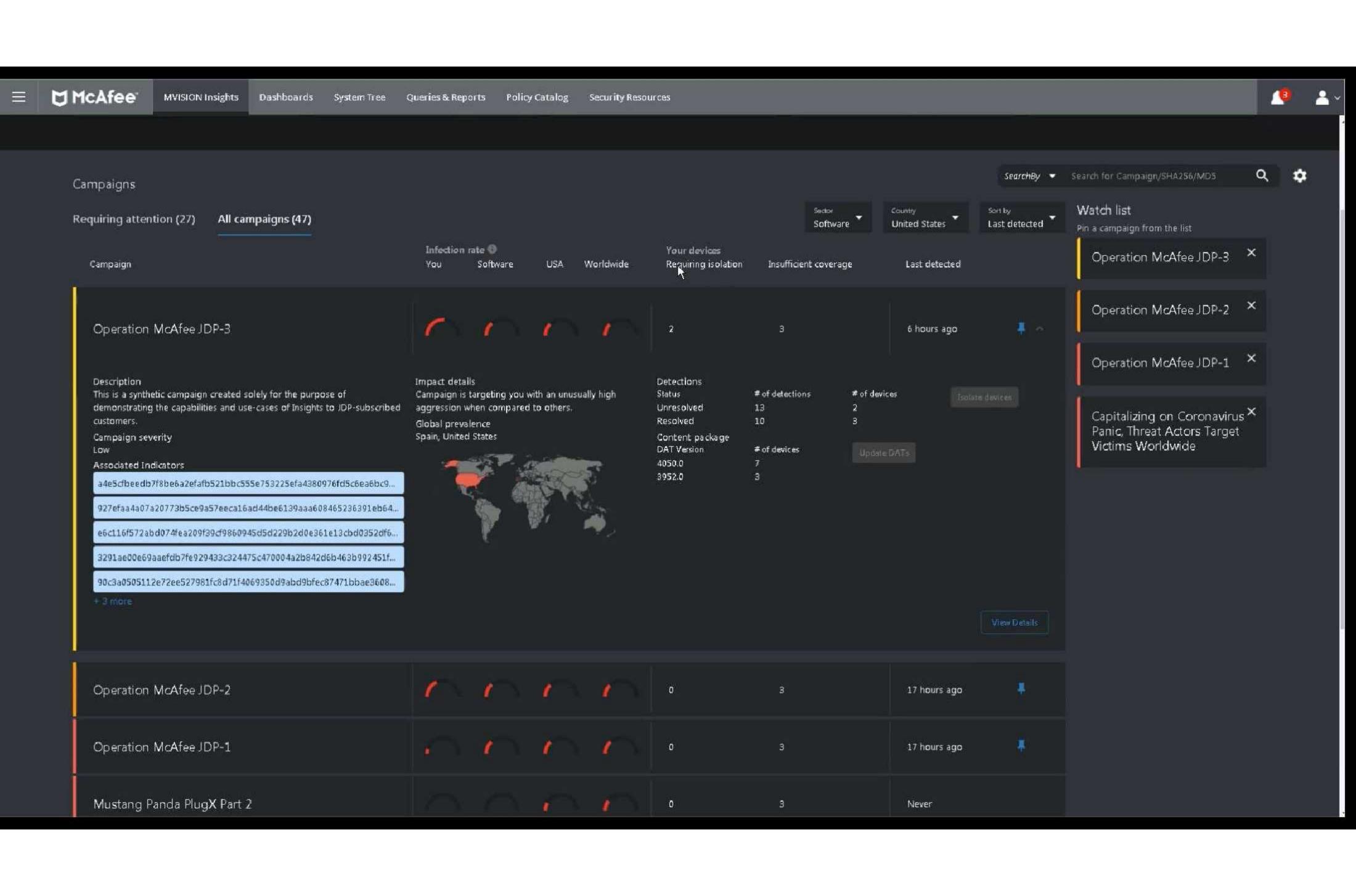
**™** McAfee

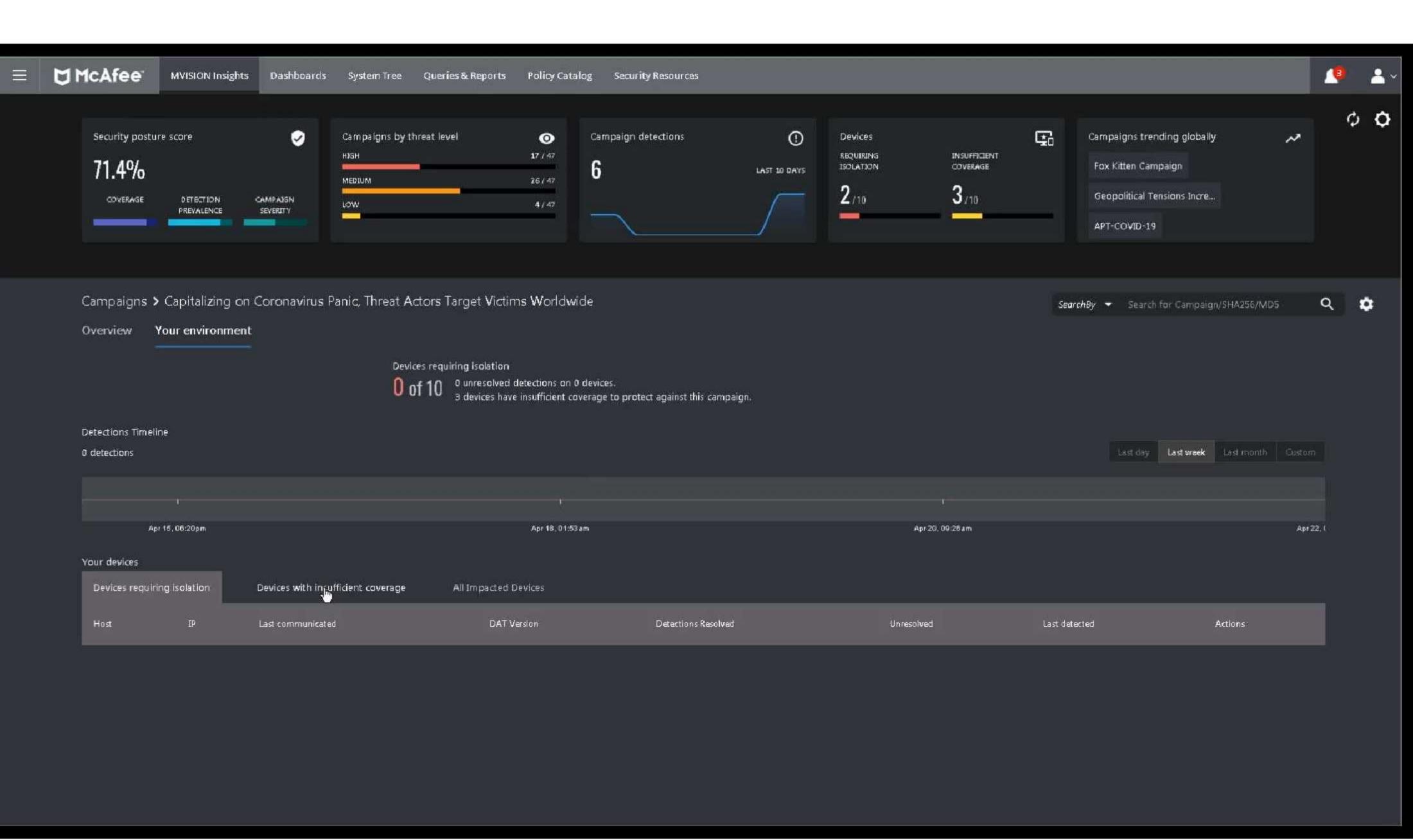
## McAfee Device-to-Cloud Security Platform

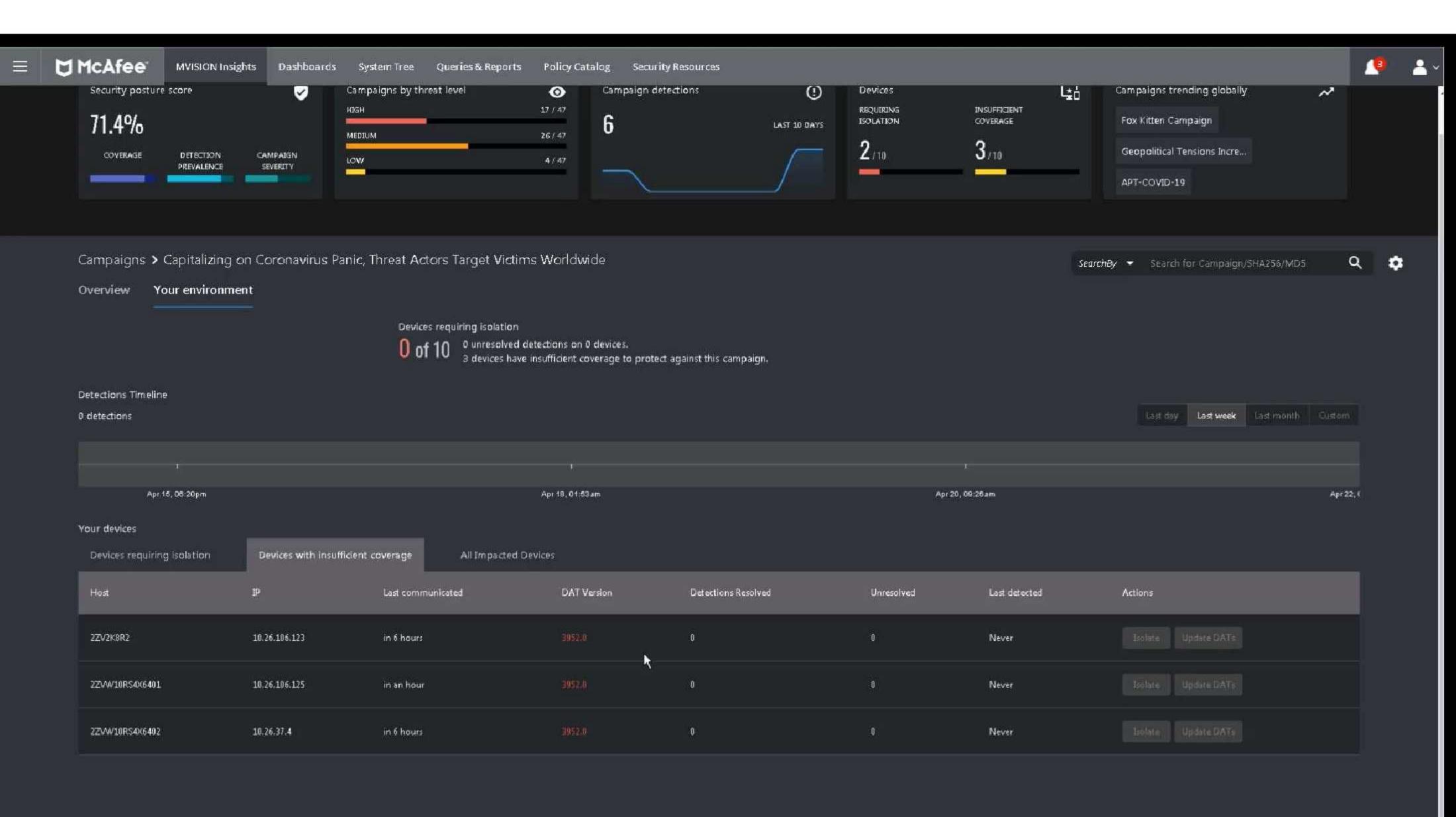


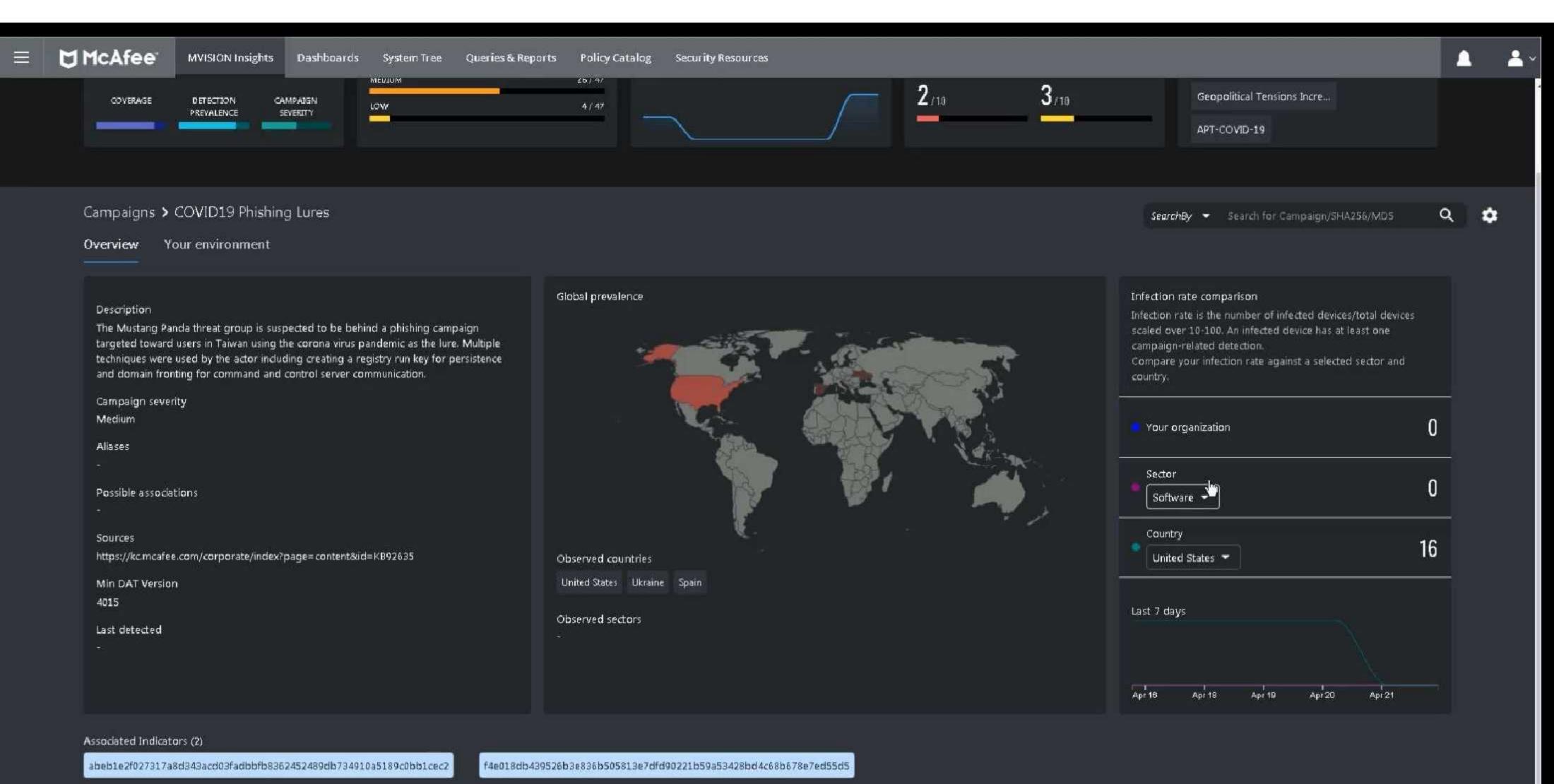












Find information about COVID-19 at the official sites of the World Health Organization (WHO), or the Department of Health (DOH)

https://www.who.int/

Date, specific business group

https://www.doh.gov.ph/



Ensure Anti-Virus / Endpoint Protection up to Date (For all Devices)

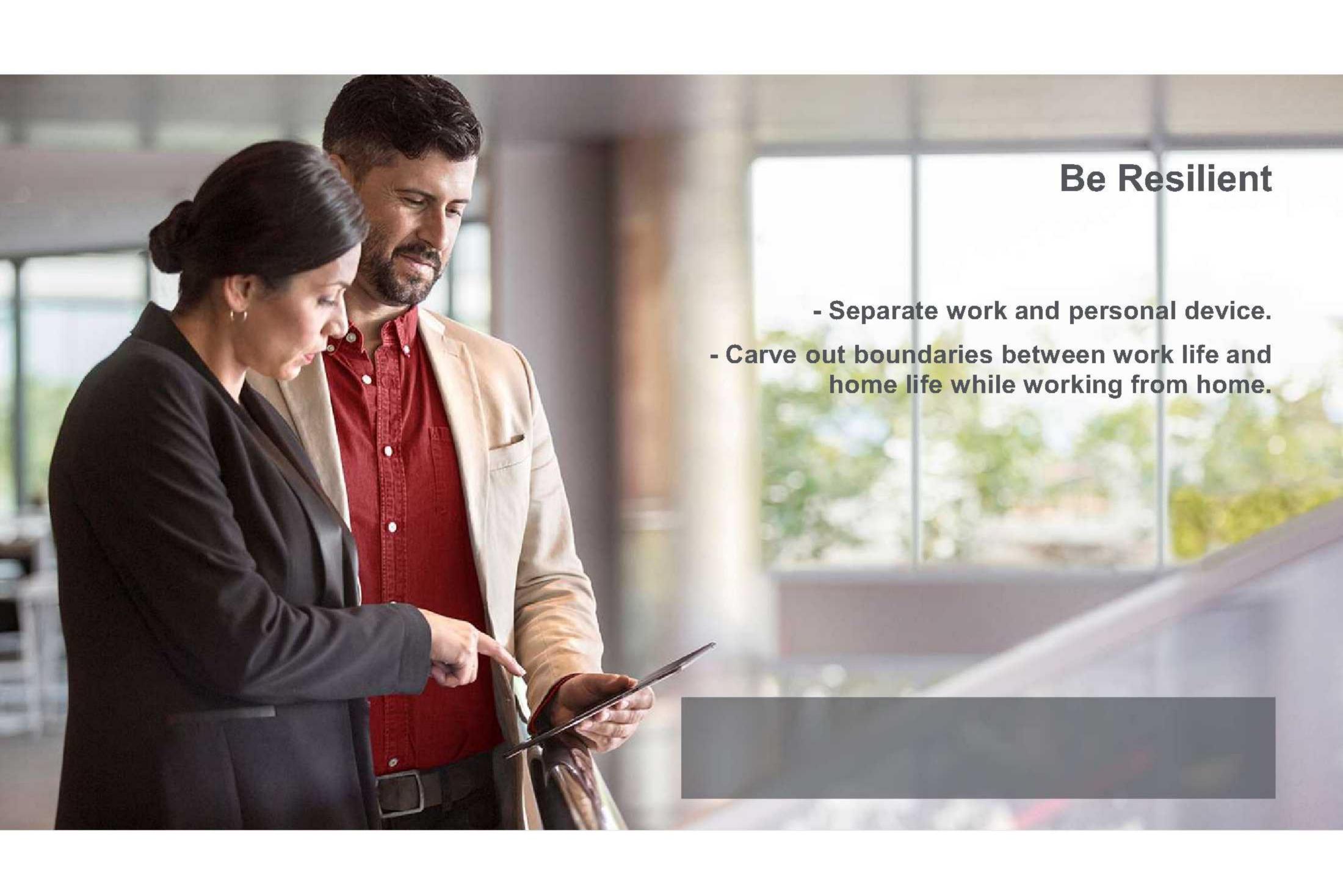




- Avoid using public wifi.
- Secure your home network
- When working, use VPN virtual private network.
- It can help protect the data you send and receive while you work from home. A VPN can provide a secure link between employees and businesses by encrypting data.
- Secure your home Wi-Fi with a strong password, in case VPN isn't an option or if it fails for some reason.

Date, specific business group

MCAFEE CONFIDENTIALITY LANGUAGE

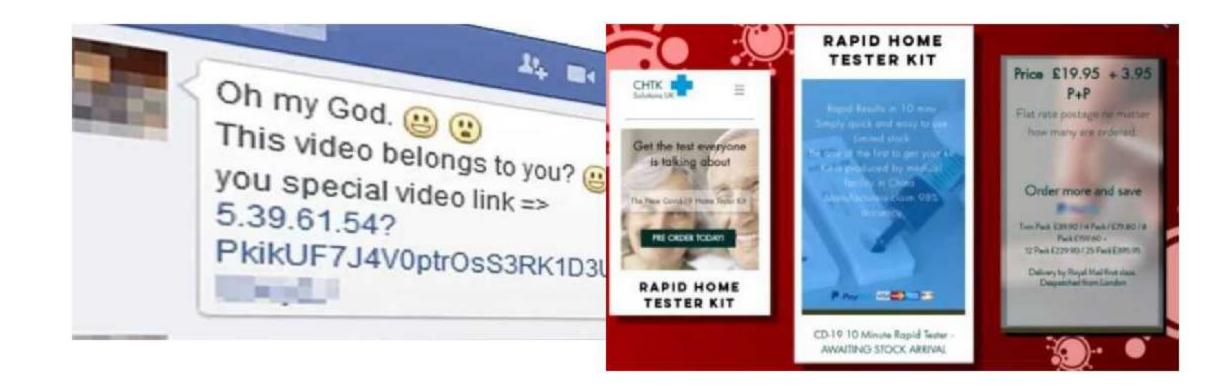


- Exercise caution when providing personal information.
- Do not download or open email attachments from unknown senders. These could contain viruses and other malware.

Date, specific business group

MCAFEE CONFIDENTIALITY LANGUAGE

- Do not click on links in social media messages, even if they are from someone you know. Your contacts' accounts may have compromised.
- Do not click on ads or social media posts regarding COVID-19. They may be fake and contain malicious content.



### Thank you!



## Learn more at mcafee.com/unifiedcloud

McAfee, the McAfee logo, and MVISION are trademarks or registered trademarks of McAfee LLC or its subsidiaries in the U.S. and/or other countries. Other names and brands may be claimed as the property of others. McAfee technologies' features and benefits depend on system configuration and may require enabled hardware, software, or service activation. No computer system can be absolutely secure.

Copyright © 2020 McAfee LLC.

External Facing Information / Public













To inquire, please call or email:

+63 2 8858 5555 / +63 2 7625 5900 • sales@wsiphil.com.ph

Metro Manila WSI Corporate Center, 1005 Metropolitan Avenue, Makati City, Philippines 1205 • Fax +63 2 8858 5511 Cebu 38 V. Sotto Street, Brgy. Tinago, Cebu City • Tel +63 32 255 1012 to 14 • Fax +63 32 255 1011 Dayao Unit 11 Plug Holdings Bldg. 141 R. Castillo Street Agdao, Davao City 8000 • Tel +63 82 284 0098 • Fax +63 82 300 7463

