Microsoft Security

Microsoft & Cybersecurity

Abbas Kudrati

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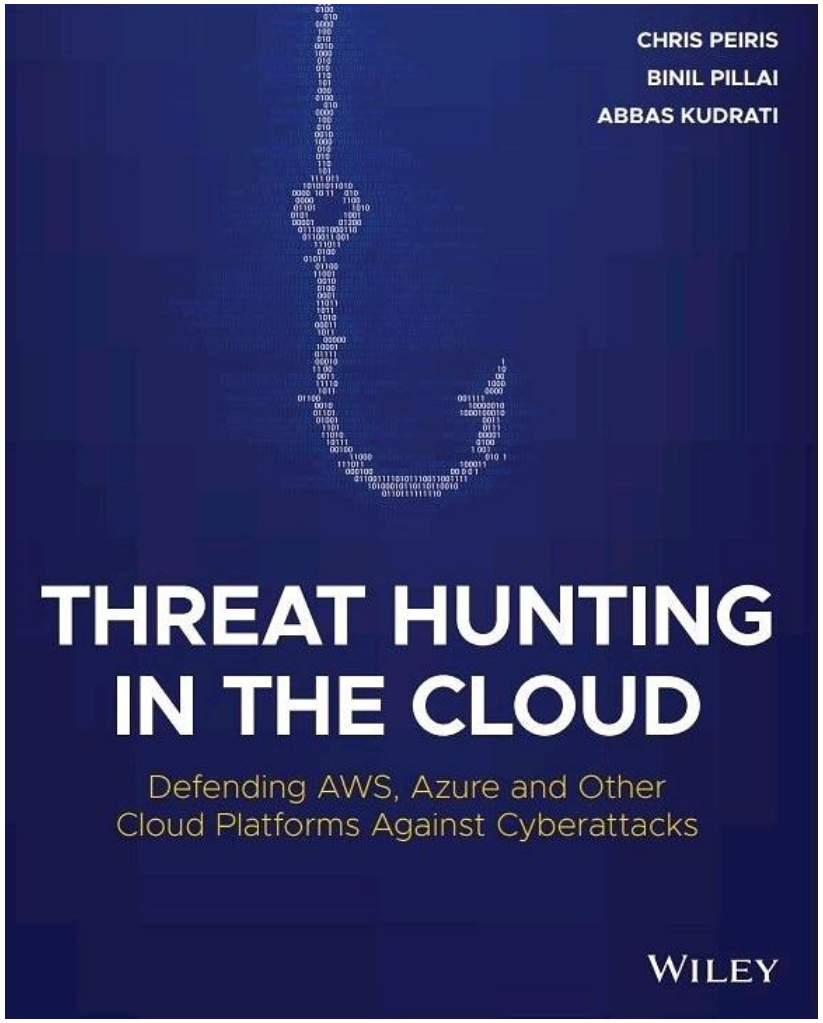
About me

"You join Microsoft, not to be cool
but to make others cool"
Satya Nadella

- **Cybersecurity practitioner and CISO with 25 years of experience in Information / Cybersecurity.**
- **Part time Cybersecurity Professor with Deakin and LaTrobe University in Melbourne, Australia.**
- **Expertise in Zero Trust, Cybersecurity Strategy, Security Operations, Risk, Compliance, Cloud Security and Architecture.**

My publications



Available now on Amazon.

Work in progress

Zero Trust Journey across the Digital Estate

By

Abbas Kudrati & Binil Pillai

CRC Press
Taylor & Francis Group

Target release by May 2022.

Work in progress

Digitization Risks in Post Pandemic World

By

Ashish Kumar, Abbas Kudrati & Shashank Kumar

Packt

Target release by March 2022.

Our new reality intensifies security challenges

How do we drive operational resiliency while strengthening cybersecurity?

Threat detection and response across multiple clouds/platforms

Difficulty rolling out new security controls

Increase in diversity of endpoints accessing the network

Bad actors exploiting current vulnerabilities

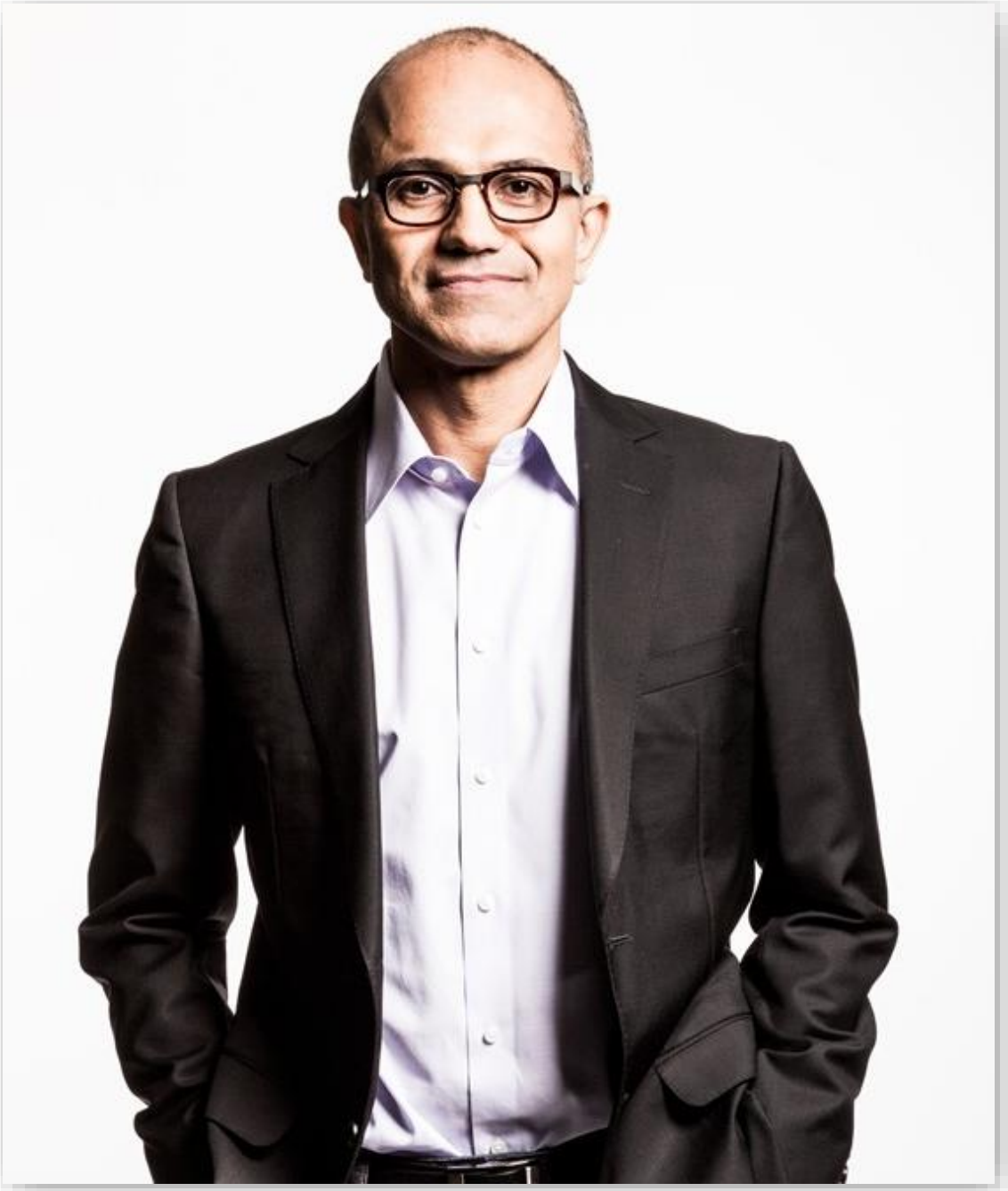
Need to support all users in hybrid work

Current networks not optimized to prevent lateral movements

"Security is our top priority and we are committed to working with others across the industry to protect our customers."

Satya Nadella
Chief Executive Officer, Microsoft Corporation

Ensuring security to enable your digital transformation through a comprehensive platform, unique intelligence, and broad partnerships



To empower every person and every organization on the planet to achieve more

Microsoft’s Mission

To empower every person and every organization on the planet to achieve more

Microsoft's Mission

To keep customer safe and secure - and they can trust their digital fabric they build upon – hybrid and multi-cloud.

Microsoft Security

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Microsoft Are Transforming Cybersecurity

Joseph Blankenship, VP, Research Director
Jeff Pollard, VP, Principal Analyst

FORRESTER® Blogs & Podcasts Who We Serve Featured Insights What We Offer Who We Are

Make No Mistake — Microsoft Is A Security Company Now

Josh Zelonis, Principal Analyst MAR 22 2019

Microsoft has announced support for macOS in its rebranded Microsoft Defender ATP product, taking this product from being an offering that could be considered an add-on for hardening its own operating system to a multiplatform security solution. While this is an early release, it is a clear signal of the investment Microsoft is making to be a security company and should not be ignored.

What Is The Efficacy Of The Microsoft Defender ATP Product?

SECURITY BOULEVARD

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Home » Cybersecurity » Analytics & Intelligence » Make No Mistake — Microsoft Is A Security Company Now

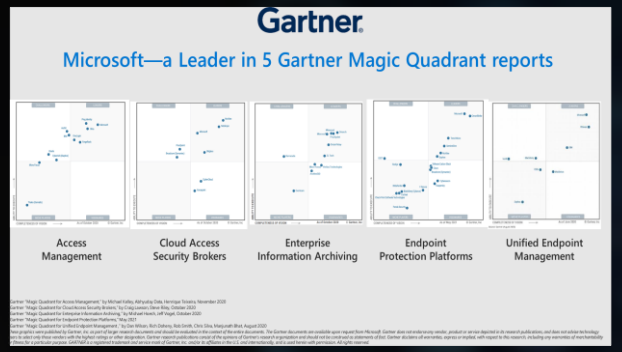
Make No Mistake — Microsoft Is A Security Company Now

by Roger Halbheer on March 26, 2019

That's not a bad start of the day, reading such a headline from a Forrester analyst. I am often asked, how far we are going to drive security within Microsoft. Well, I guess here you have an answer from an outsider:
Make No Mistake — Microsoft Is A Security Company Now. Even though the author mainly focuses on Windows Defender, Windows Defender ATP and the Mac integration, it is still a strong statement:

> Microsoft has the ability to hire and retain the best talent out there, and this announcement certainly demonstrates that it is making the necessary investments to be a multiplatform security vendor. The endpoint security industry has been put on notice: Microsoft is a security company now, and it's coming for your business.

But that's not the only one. There was another Forrester article
Tech Titans Alphabet And Microsoft Are Transforming Cybersecurity pointing in a similar direction. Even if I disagree that what we have seen from Google in the security analytics space at RSA can be compared with Azure Sentinel, both companies definitely have the ability to significantly change the security world. One big challenge we often face is, that security professionals are still very reluctant to bring their information (mainly the logs) to the cloud. I would just give you two quotes from the blog post I just mentioned:



Gartner

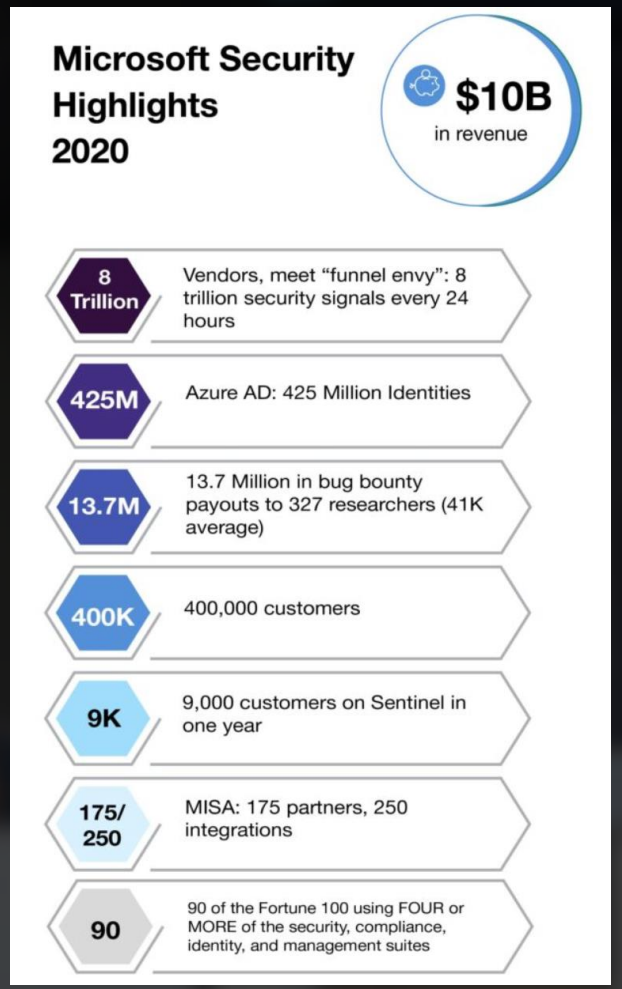
"Microsoft is now a security vendor"

Deutsche Bank

"Largest Security Vendor in the world"

FORRESTER®

"Microsoft Is Now A Cybersecurity Behemoth"



"Multi-cloud, multi-platform and the world's largest cybersecurity company by revenue, Microsoft can boast that over the past four quarters it has done nearly as much cybersecurity revenue as McAfee, Symantec , and Palo Alto Networks — combined."

Daniel Newman, Futurum Research

Scale and Protection of Microsoft Security

Over **24 trillion** daily security signals

AI powered detections and automated actions

8,500+ security engineers & researchers

9B
Endpoint threats blocked

31B
Identity threats blocked

32B
Email threats blocked

July 1, 2020, through June 30, 2021

Protecting

715K

organizations
in 120 countries

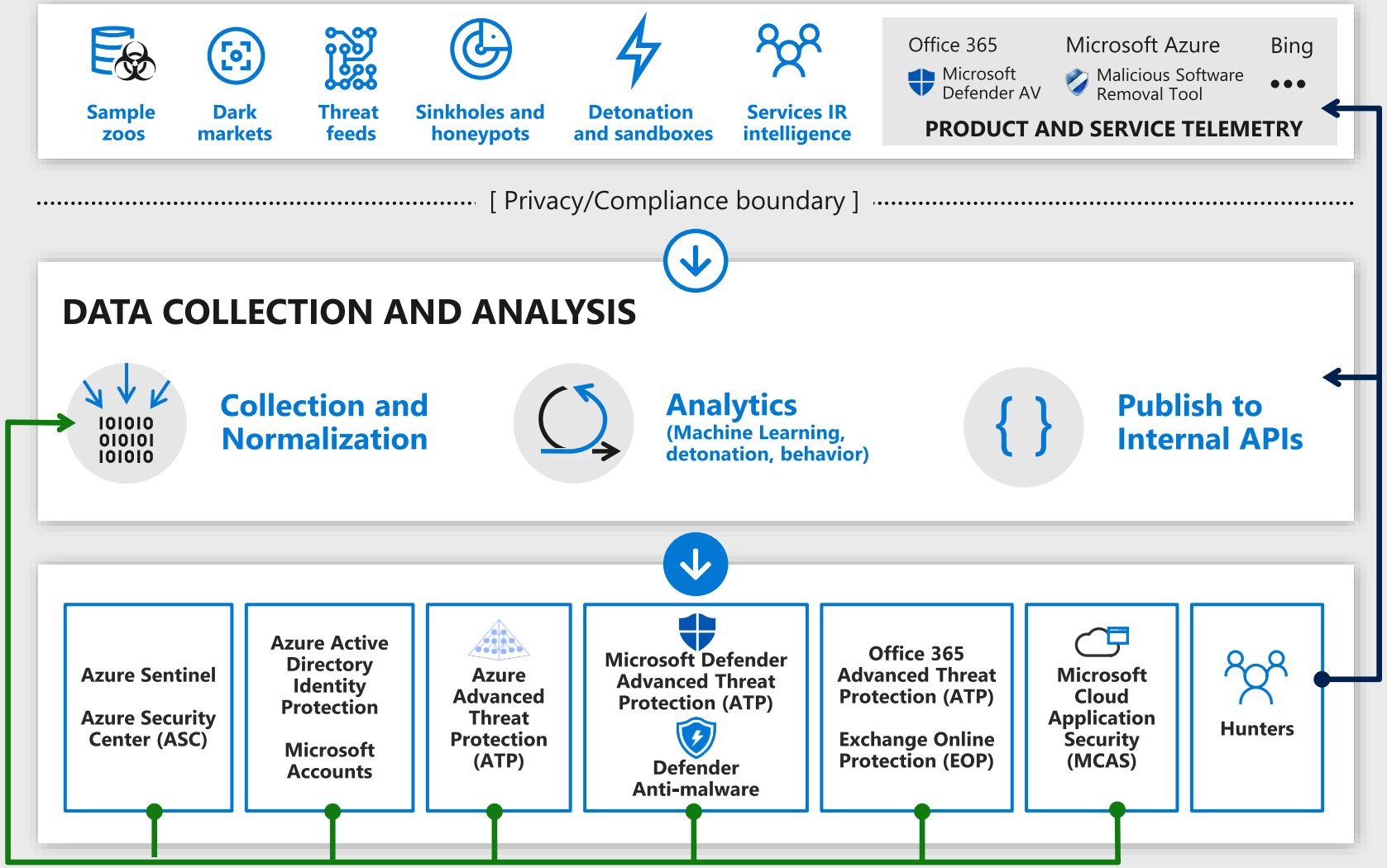
Source: Microsoft Digital Defense Report

THE MICROSOFT **CYBER DEFENSE OPERATIONS CENTER**

- Protect Microsoft cloud infrastructure and services 24 x 7 x 365
- Unite personnel, technology, and analytics in a central hub
- Provide world-class security monitoring, defense, and response

- More than 150 Security Experts and Data Scientists
- Connected to 8,500+ Security Professionals across Microsoft
- Tight partnerships with Microsoft Research and the Security Development Lifecycle (SDL) team

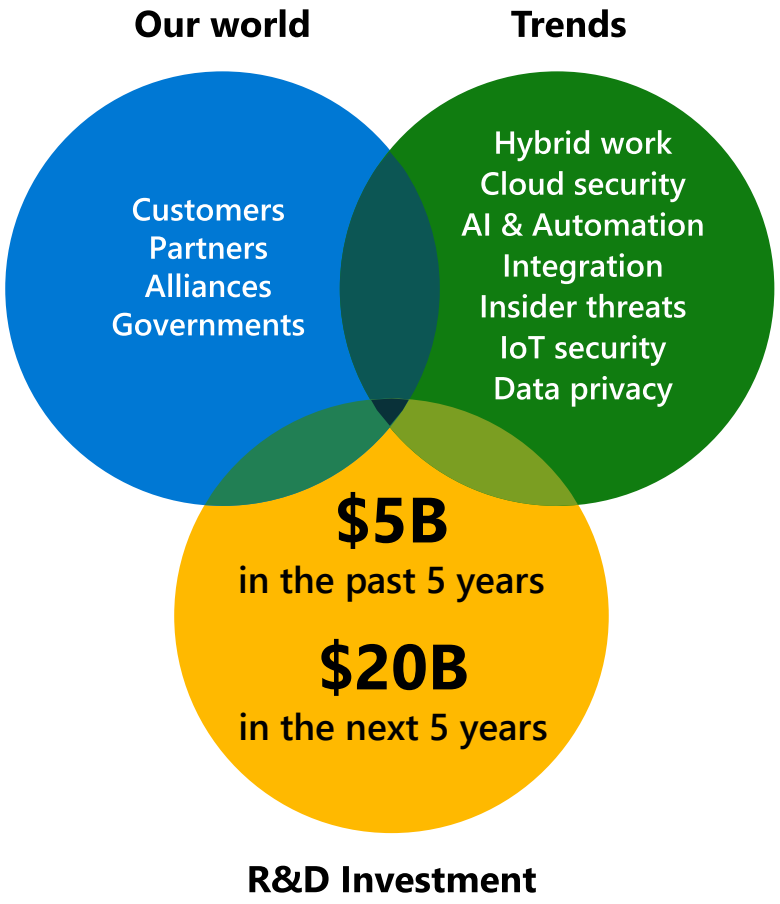
Inside View of Microsoft Threat Intelligence



- Products instrumented to strict privacy/compliance standards
  See [Microsoft Trust Center]
- Analytics help fuel new discoveries
- Products send data to graph
- Products use Interflow APIs to access results
- Products generate data which feeds back into the graph
- Hunters identify attacks, improve analytics, feed back into product design

We’re investing where security is going

To help you keep pace with change



Continual innovation

- Endpoint antimalware (2004)
- Email protection (2005)
- Multifactor authentication (2013)
- Cloud security (2015)
- Information protection and governance (2015)
- IoT secure MCU (2018)
- Cloud native SIEM (2019)
- XDR (2019)
- Integrated SIEM and XDR (2020)
- Agentless IoT/OT security monitoring (2020)
- Insider risk management (2020)
- Decentralized identity (2021)

Empower your security teams to protect employees and resources

How CISOs are navigating the challenges of COVID-19

82%

feel pressured to lower costs.

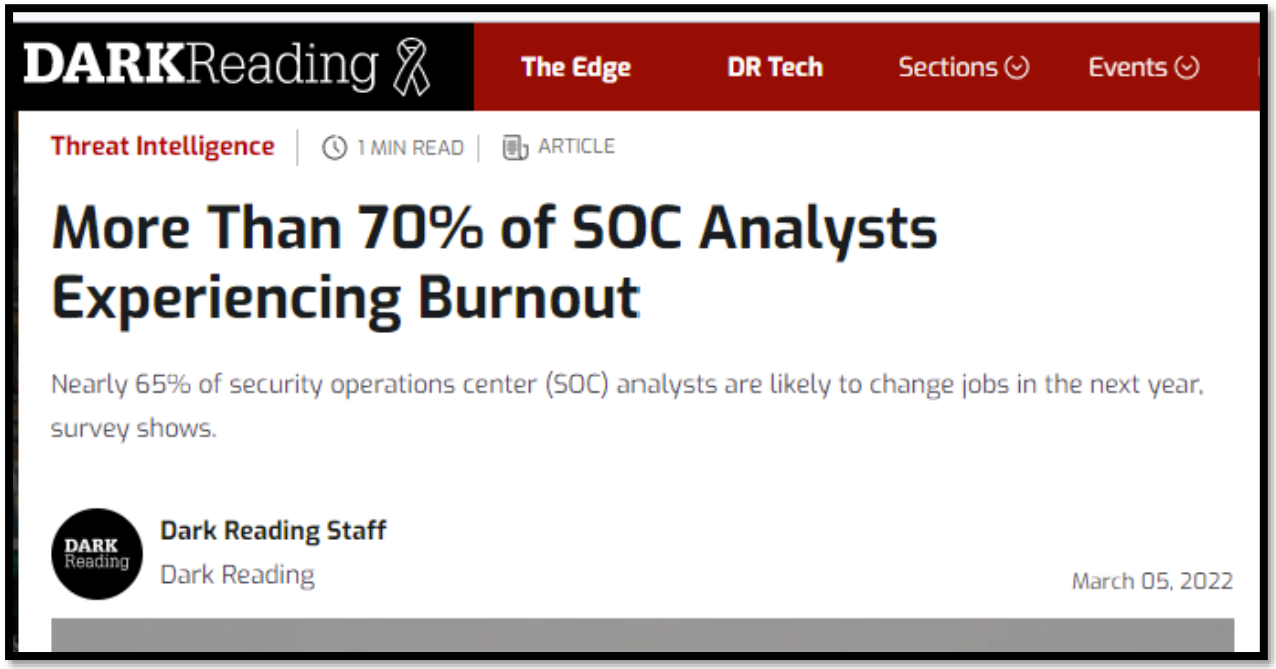
67%

identified pandemic-themed phishing attacks.

#1

priority to reduce cost is improved threat protection.

Source: "Microsoft Pandemic CISO Survey" 2020



DARKReading

The Edge | DR Tech | Sections | Events

Threat Intelligence | 1 MIN READ | ARTICLE

More Than 70% of SOC Analysts Experiencing Burnout

Nearly 65% of security operations center (SOC) analysts are likely to change jobs in the next year, survey shows.

Dark Reading Staff
Dark Reading

March 05, 2022

Stress and frustration continue to plague the security operations center (SOC):

nearly 70% report understaffed teams, and 60% say their workloads have spiked over the past year.

Some 64% of SOC analysts say manual work eats up more than half of their time, and reporting and monitoring are their least favorite parts of the job.

More than 65% say half of their security tasks could be automated, leaving them time to do deeper security work.

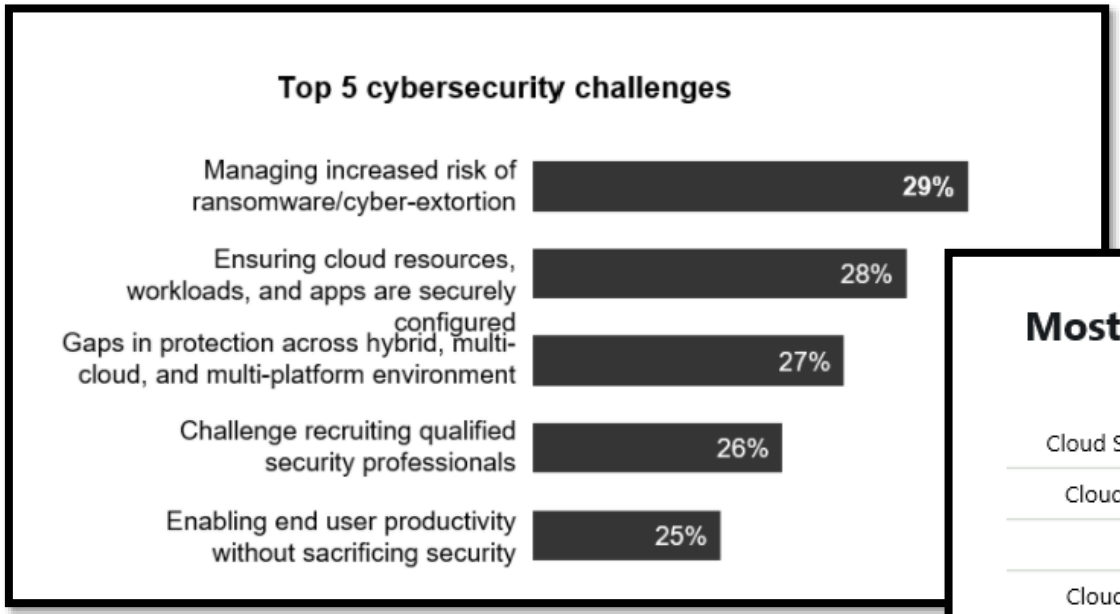
And 64% are considering leaving the organization for a new position somewhere else.

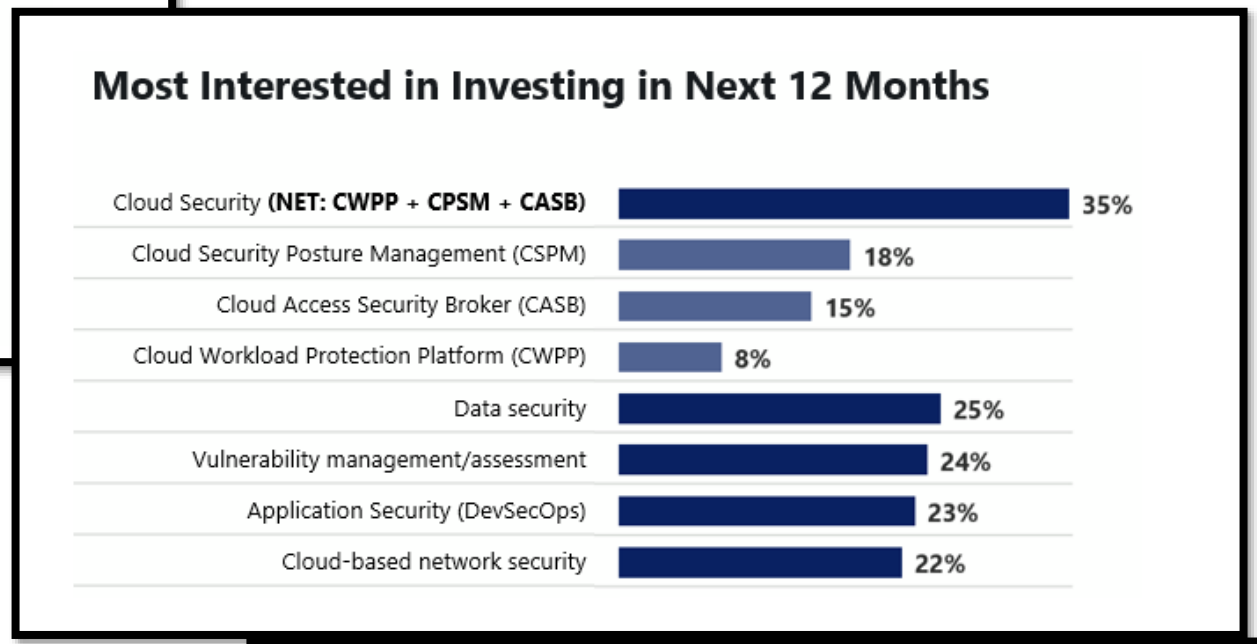
Gartner Cybersecurity Prediction 2021-2022

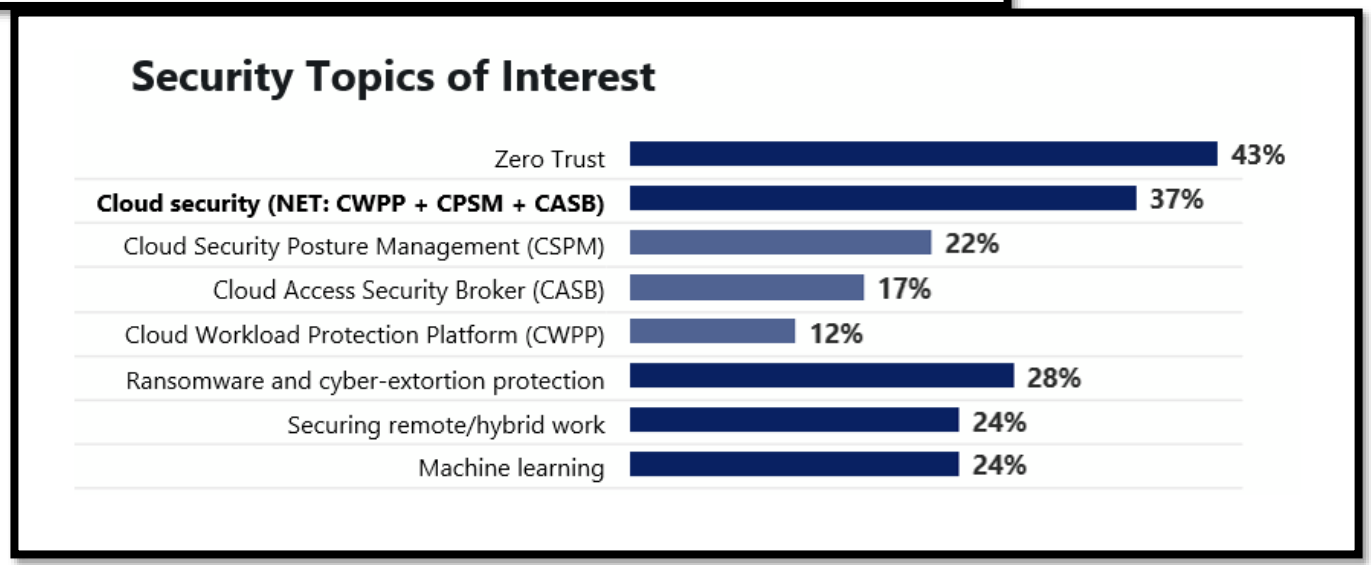
1. By the end of 2023, modern privacy laws will cover the personal information of 75% of the world's population – strong need to automate Privacy Mgt
2. By 2024, 30% of enterprises will adopt cloud-delivered Secure Web Gateway (SWG), Cloud Access Security Brokers (CASB), Zero Trust Network Access (ZTNA) and Firewall As A Service (FWaaS) capabilities **from the same vendor**. – tools consolidation
3. By 2025, 60% of organizations will use cybersecurity risk as a primary determinant in conducting third-party transactions and business engagements. – Cyber readiness becoming a KPI

[The Top 8 Cybersecurity Predictions for 2021-2022 (gartner.com)]

[Gartner Top Security and Risk Trends for 2021]







[How CISOs are preparing to tackle 2022 - Microsoft Security Blog]

Zero Trust Adaption report 2020 /21

EXHIBIT 3. HYBRID WORKPLACE INTENT

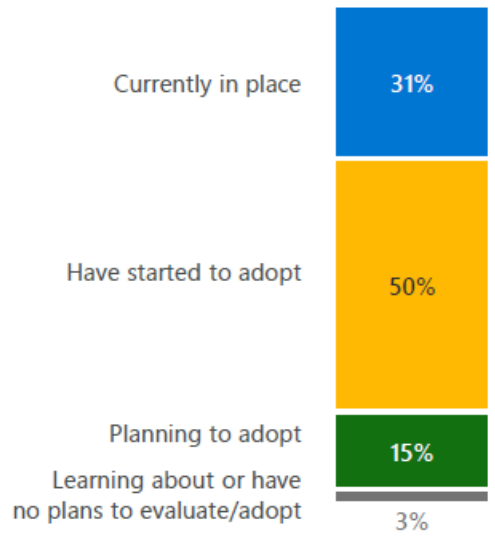


EXHIBIT 4. HYBRID WORKPLACE CONCERNS

Employees downloading unsafe apps	37%
An increase to IT workload	37%
Ransomware attacks	36%
Phishing attacks	35%
Improper use of personal devices	34%
Unauthorized access to data	31%
Inability to manage all devices	30%
Use of personal email accounts	30%
Non-compliance with data regulations	24%

EXHIBIT 1. ZERO TRUST IS CRITICAL

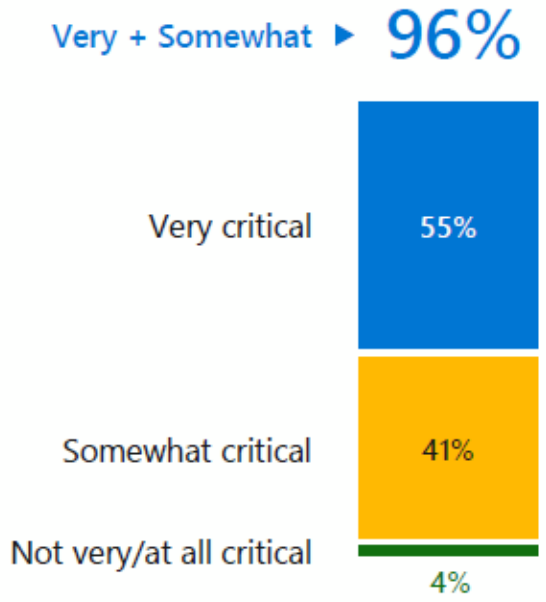


EXHIBIT 2. ZERO TRUST MOTIVATORS

Top Motivators	
Improve overall security posture	47%
Improve end user experience and productivity	44%
Transform the way security teams work together	38%
Simplify security stack	35%
Reduce security costs	35%

EXHIBIT 7. ZERO TRUST COMPONENT IMPLEMENTATION (TOP 3) – RANKED #1 (IMPLEMENTED FIRST)

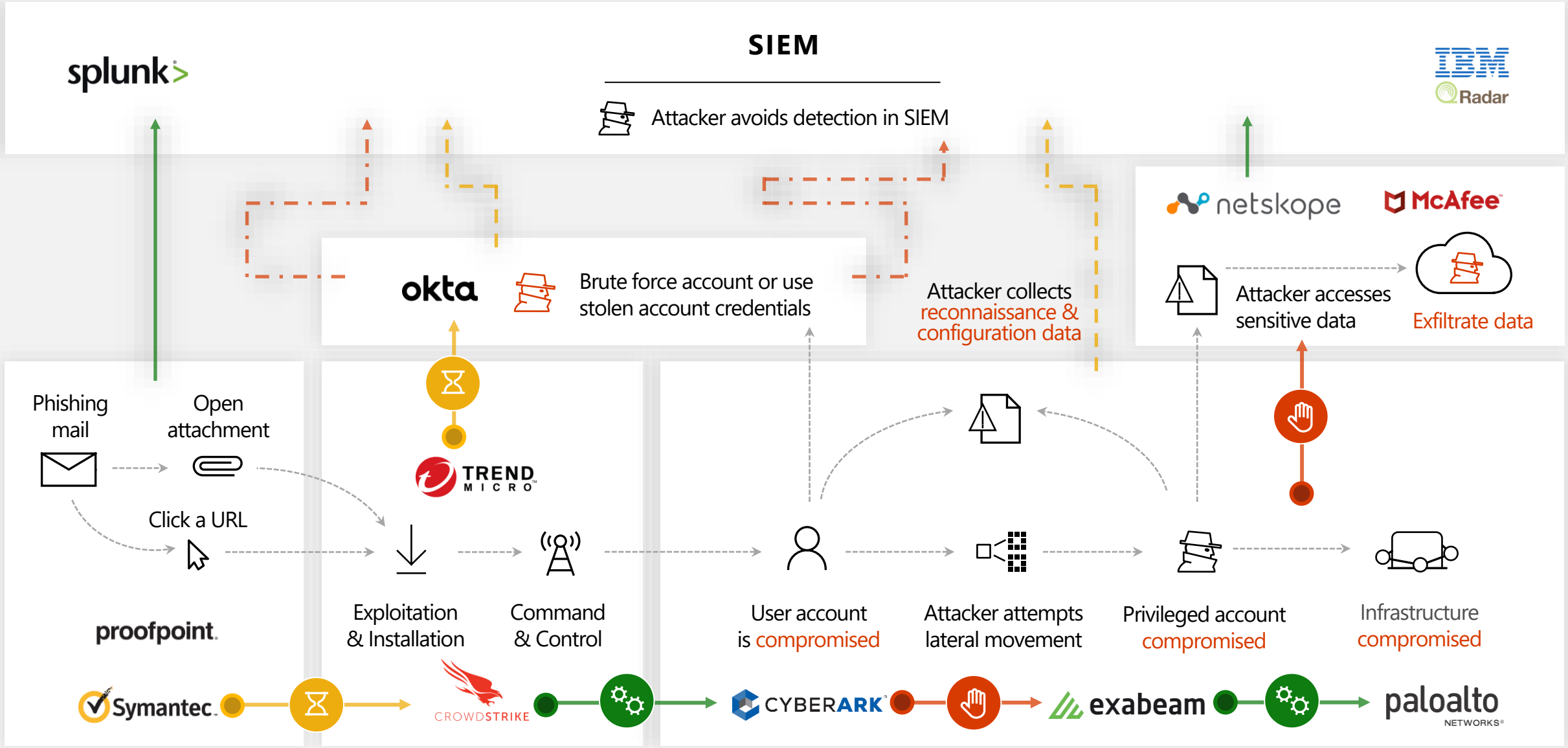
Identities	
Strong authentication (i.e., multi-factor authentication, passwordless authentication)	32%
Automated risk detection and remediation	27%
Adaptive access policies to gate access to resources	22%

Endpoints	
Data Loss Prevention policies/controls for all unmanaged and managed devices	27%
Real-time device risk evaluation / endpoint threat detection	26%
Devices are registered with identity provider	24%

Apps	
Ongoing Shadow IT Discovery and risk assessment	23%
Granular access control to your apps (such as limited visibility or read only)	22%
Policy-based access control for apps	20%

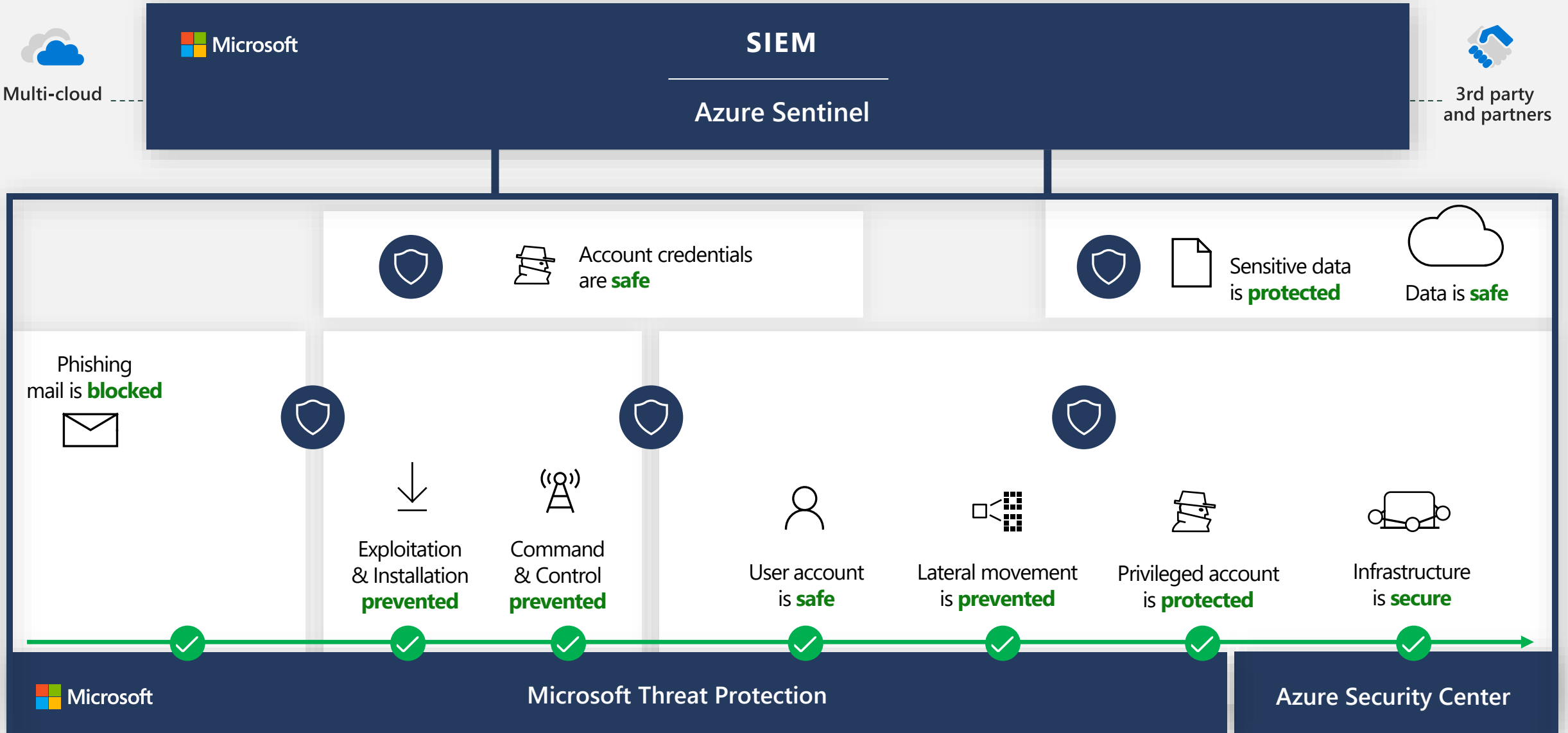
Network	
Secure access controls to protect networks	25%
Threat protection and filtering with context-based signals	24%
All traffic is encrypted	20%

Siloed security leads to gaps in coverage

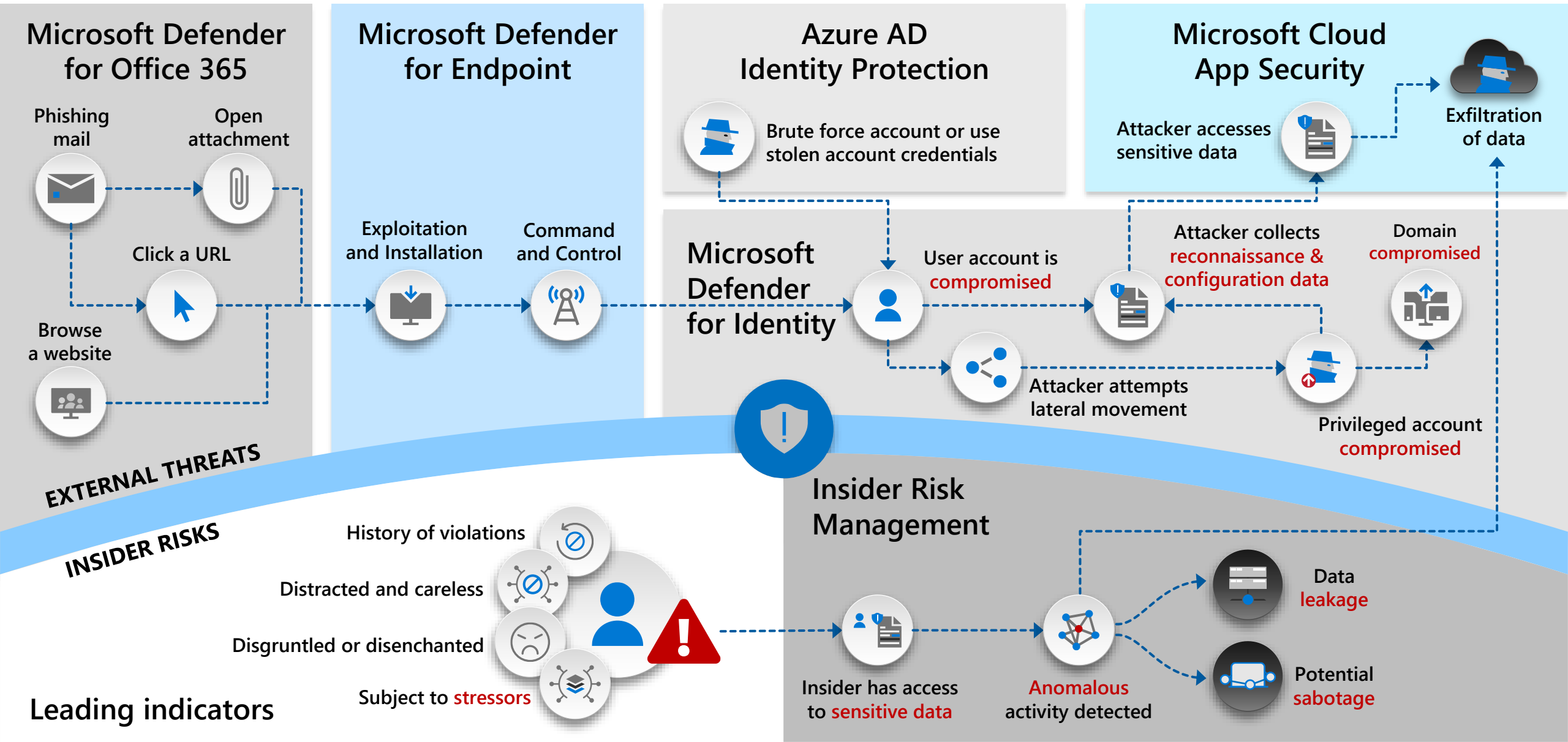


Reduce cyber risk

Microsoft Security closes the gaps



Internal and external protection across the threat kill chain



Reduce cyber risk with integrated, best-in-class protection

Integrated threat protection powered by AI and automation

- Detect and respond faster and more accurately to attacks.
- Increase SecOps efficiency.
- Reduce the number and cost of breaches.

Microsoft Security

Protect
everything

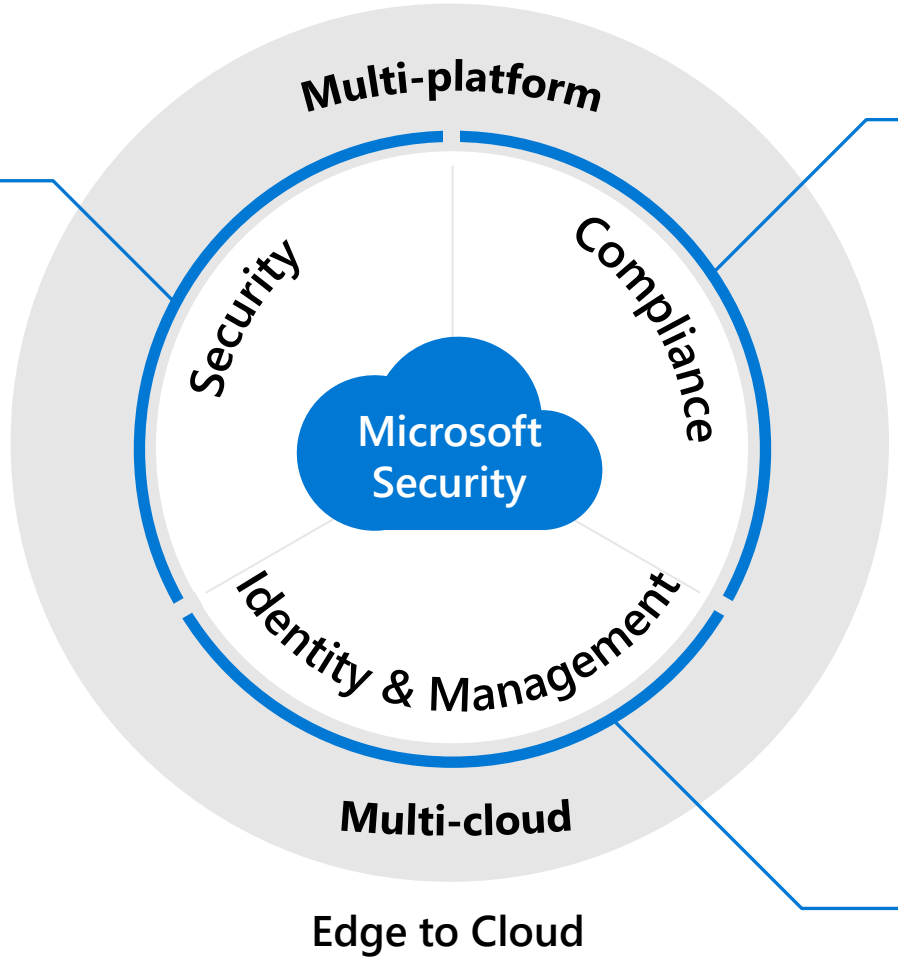
Simplify
the complex

Catch
what others miss

Grow
your future

We integrate over 50 security categories

Endpoint detection and response
Endpoint protection platform
Forensic tools
Intrusion prevention system
Threat vulnerability management
Anti-phishing
User and entity behavior analytics
Threat intelligence feeds
App and browser isolation
Attachment sandboxing
Application control
End-user training
Network firewall (URL detonation)
Host firewall
Secure email gateway
Security assessment
SIEM
SOAR
Cloud access security broker
Cloud workload protection platform
Cloud security posture management
Incident response services
DDOS protection
IoT protection



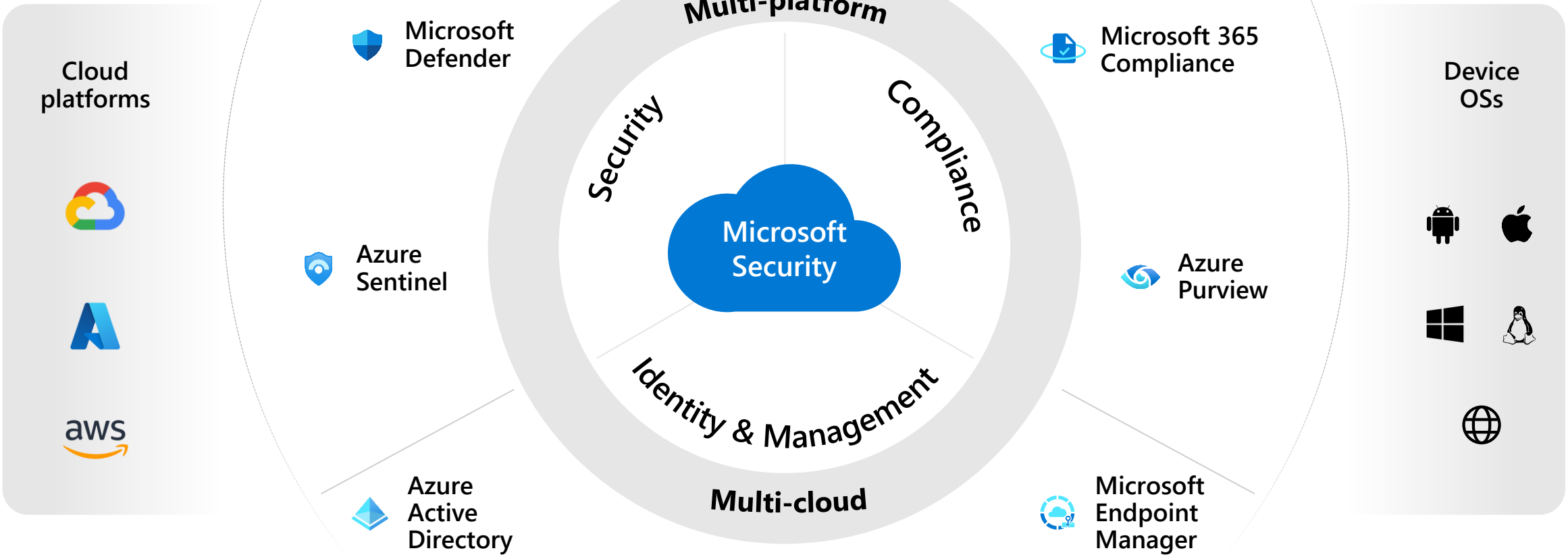
Data discovery
Data classification
Data loss prevention
Insider risk management
Data retention
Data deletion
Records management
eDiscovery
Audit
Risk assessments
Privileged access management
Compliance management
Information and messaging encryption
Device encryption
Encrypted cloud storage

Identity and access management
Single sign-on
User provisioning and lifecycle
User Directory
Multi-factor authentication
Passwordless authentication
Conditional access
Identity protection
Self-service password reset
Identity for Customers and Partners
Identity governance
Priviledged identity management

Endpoint management
Mobile application management
Mobile device management

And deliver them through six product families

Working together as one comprehensive solution



Microsoft Cybersecurity Reference Architecture

Security modernization with Zero Trust Principles

December 2021 – https://aka.ms/MCRA

Security Operations / SOC

Threat Experts | *Detection and Response Team (DART)* | MSSP/MDR

Microsoft Sentinel – Cloud Native SIEM, SOAR, and UEBA for IT, OT, and IoT

Microsoft Defender – *Extended Detection and Response (XDR)*

Advanced Detection & Remediation | Automated Investigation & Remediation | Advanced Threat Hunting

- **Cloud** – *Azure, AWS, GCP, On Premises & other 3rd party clouds*
- **Endpoint** – *& Server/VM*
- **Office 365** – *Email and Apps*
- **Identity** – *Cloud & On-Premises*
- **SaaS** – *Cloud Apps*
- ***+ More*** – *OT, IoT, SQL, and more*
- *Other Tools, Logs, & Data Sources*

This is interactive!

1. Present Slide
2. Hover for Description
3. Click for more information

Security Guidance

1. Security Documentation
2. Microsoft Best Practices
3. Azure Security Top 10 | Benchmarks | CAF | WAF

Software as a Service (SaaS)

Microsoft Defender for Cloud Apps

- *App Discovery & Risk Scoring (Shadow IT)*
- *Threat Detection & Response*
- *Policy Audit & Enforcement*
- *Session monitoring & control*
- *Information Protection & Data Loss Prevention (DLP)*

Identity & Access

Conditional Access – Zero Trust Access Control decisions based on explicit validation of user trust and endpoint integrity

Endpoints & Devices

Microsoft Endpoint Manager

Unified Endpoint Management (UEM)

Intune | Configuration Manager

Microsoft Defender for Endpoint

Unified Endpoint Security

- Endpoint Detection & Response (EDR)
- Web Content Filtering
- Threat & Vuln Management
- Endpoint Data Loss Protection (DLP)

Hybrid Infrastructure – IaaS, PaaS, On-Premises

Defender for Cloud – Cross-Platform Cloud Security Posture Management (CSPM)

Secure Score | Compliance Dashboard

On Premises Datacenter(s) | *3rd party IaaS & PaaS* | Microsoft Azure

Extranet: NGFW | Edge DLP | IPS/IDS | Azure AD App Proxy *Beyond User VPN*

Intranet: Azure Arc | Azure Stack

Express Route | Private Link

Azure Marketplace

- Azure Firewall & Firewall Manager
- Azure WAF
- DDoS Protection
- Azure Key Vault
- Azure Bastion
- Azure Lighthouse
- Azure Backup
- *Security & Other Services*

Information Protection

Classification Labels

- Azure Purview
- Microsoft Information Protection (MIP) – Discover, Classify, Protect, Monitor
- File Scanner *(on-premises and cloud)*
- Data Governance
- Advanced eDiscovery

Compliance Manager

Azure Active Directory

- Passwordless & MFA – Hello for Business, Authenticator App, FIDO2 Keys
- Identity Protection – Leaked cred protection, Behavioral Analytics
- Azure AD PIM
- Identity Governance
- Azure AD B2B & B2C

Defender for Identity

Active Directory

Securing Privileged Access – Secure Accounts, Devices, Intermediaries, and interfaces to enable and protect privileged users

Privileged Access Workstations (PAWs) - Secure workstations for administrators, developers, and other sensitive users

Microsoft Secure Score – Measure your security posture, and plan/prioritize rapid improvement with included guidance

Microsoft Compliance Score – Prioritize, measure, and plan improvement actions against controls

Windows 10 & 11 Security

- *Network protection*
- *Credential protection*
- *Full Disk Encryption*
- *Attack surface reduction*
- *App control*
- *Exploit protection*
- *Behavior monitoring*
- *Next-generation protection*

IoT and Operational Technology (OT)

Azure Sphere

Microsoft Defender for IoT

- *ICS, SCADA, OT*
- *Internet of Things (IoT)*
- *Industrial IoT (IIoT)*
- *Asset & Vulnerability management*
- *Threat Detection & Response*

Defender for Cloud – Cross-Platform, Cross-Cloud XDR

Multi-asset detection and response for infrastructure and platform as a service (IaaS & PaaS), Proactive Threat defenses

People Security

Attack Simulator | Insider Risk Management | Communication Compliance

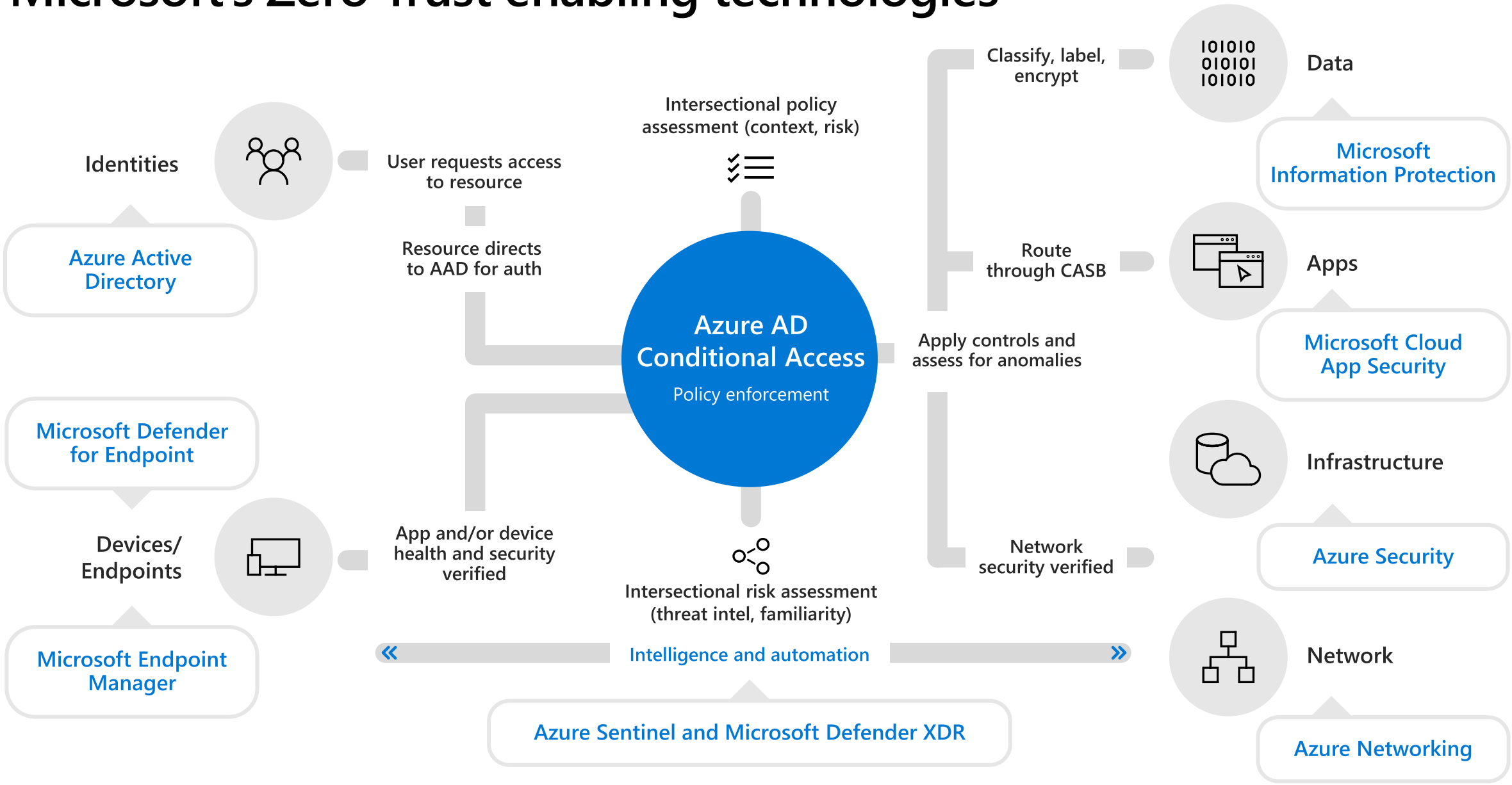
GitHub Advanced Security – Secure development and software supply chain

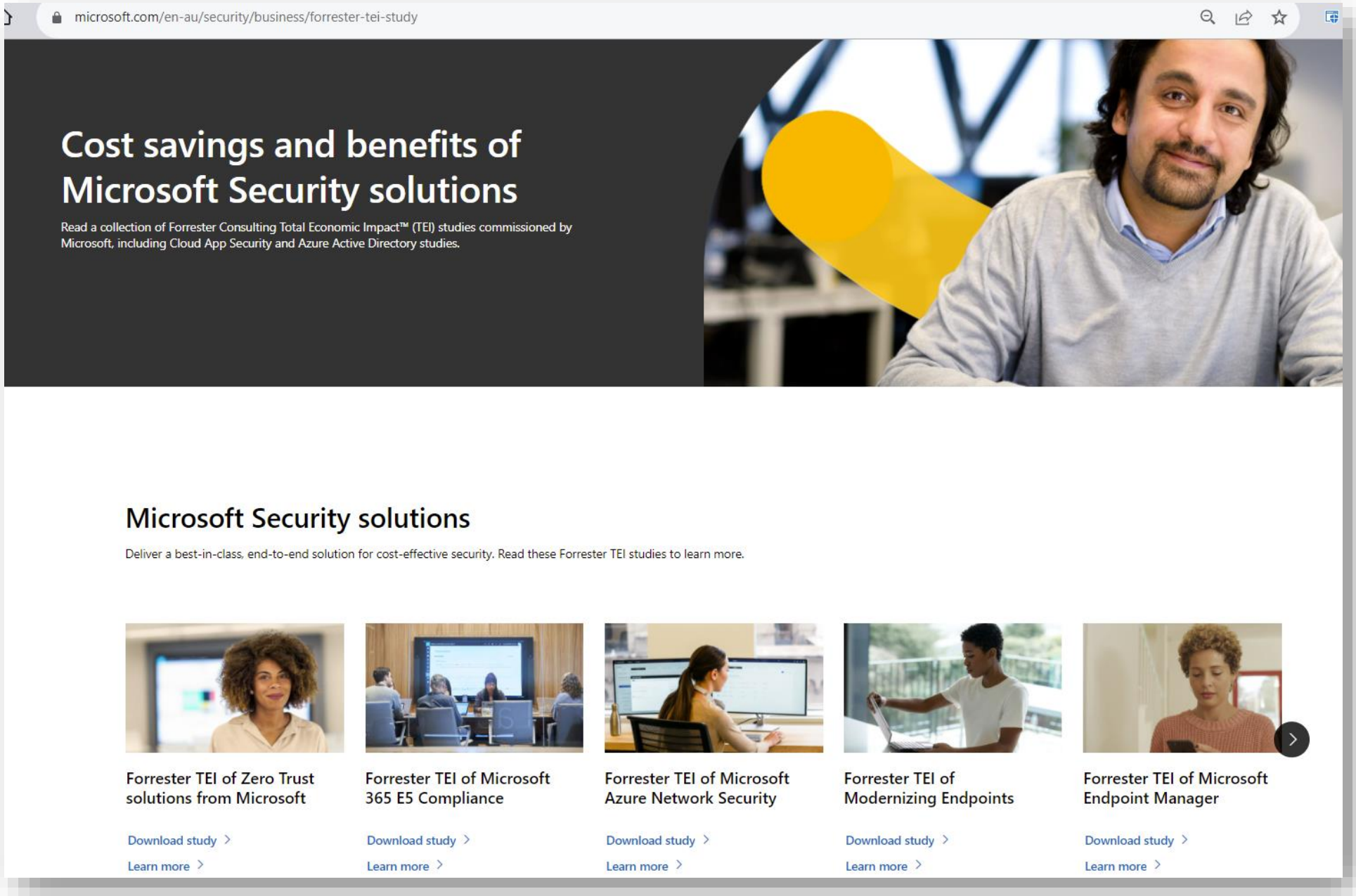
Threat Intelligence – 8+ Trillion signals per day of security context

Service Trust Portal – How Microsoft secures cloud services

Security Development Lifecycle (SDL)

Microsoft's Zero Trust enabling technologies





https://www.microsoft.com/en-au/security/business/forrester-tei-study

Annual estimated cost savings

COST SAVINGS CATEGORIES	20,000 seats	1,000 seats	50 seats
Vendor license cost consolidation	$4,300,000	$220,000	$11,000
IT administration and deployment savings	$6,100,000	$330,000	$41,000
Reduce total cost of risk	$2,200,000	$390,000	$290,000
Save on automation and process improvements	$12,000,000	$600,000	$30,000
POTENTIAL COST SAVINGS PER YEAR	Up to $25M	Up to $1.5M	Up to $380K

Rounded estimates based on commissioned Forrester TEI studies and Microsoft Value Calculator and illustrate first year cost estimates. Contact your Microsoft representative for estimates for your organization.

Microsoft Security technology

Identity and access management

Secure access for a connected world

Threat protection

Stop threats across your entire organization

Cloud security

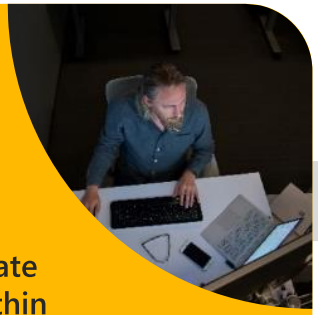
Comprehensive protection for multi-cloud resources, apps and data

Information protection and governance

Safeguard sensitive data across clouds, apps, and endpoints

Risk management

Identify and remediate critical data risks within your organization



Compliance management

Assess compliance and respond to regulatory requirements

Identity and access management

Secure access for a connected world

- Unified identity management
- Seamless user experiences
- Secure adaptive access
- Simplified identity governance

Threat protection

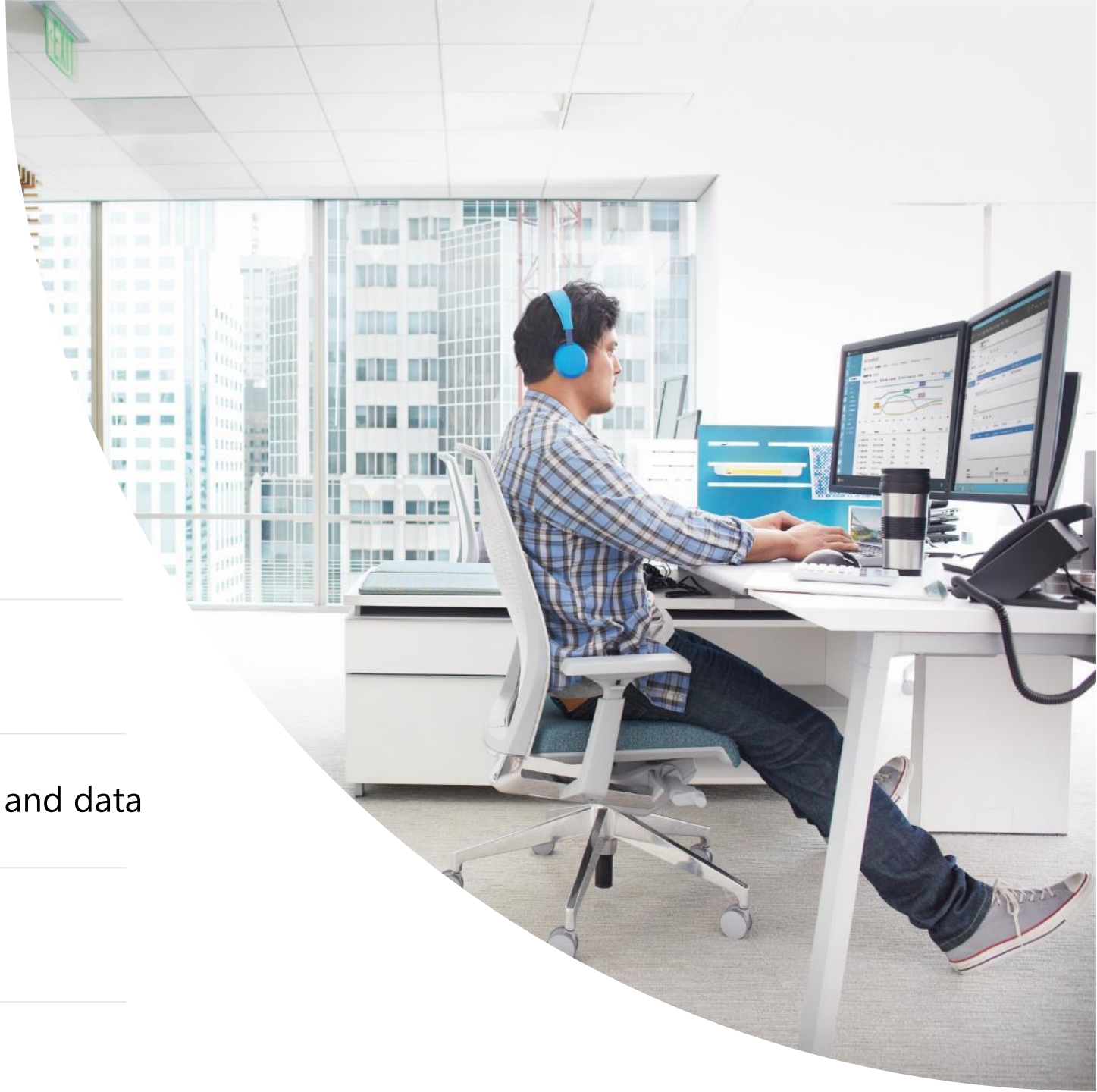
Stop threats across your entire organization

- Secure all clouds, all platforms
- Get leading integrated protection
- Deliver rapid, intelligent response

Cloud security

Comprehensive protection for multi-cloud resources, apps, and data

- Strengthen cloud security posture
- Protect cloud workloads from threats
- Control access to cloud resources, apps, and data
- Enable secure development in the cloud



Information protection and governance

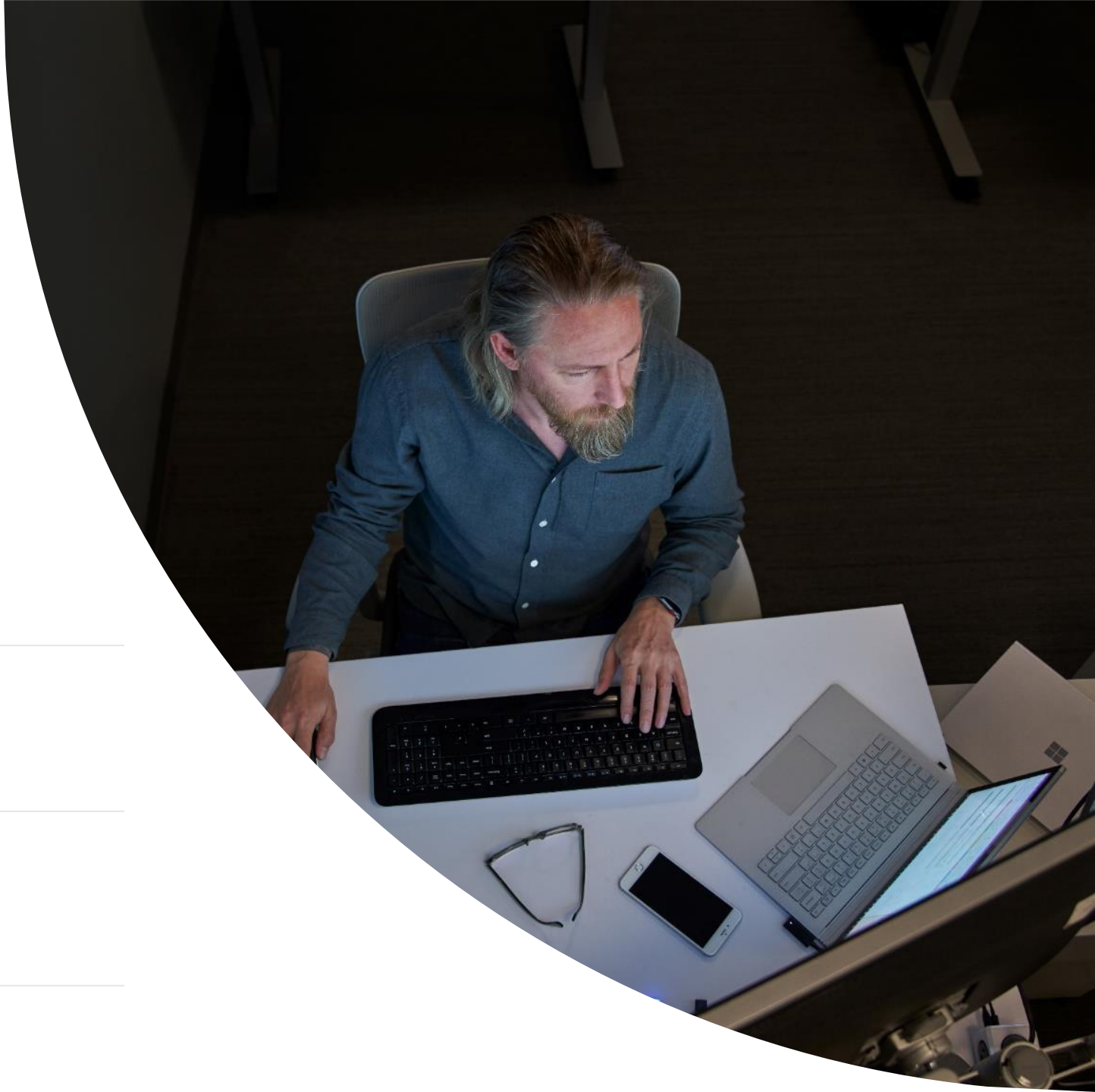
Safeguard sensitive data across clouds, apps, and endpoints

- Know and protect sensitive data wherever it is
- Prevent accidental or inappropriate sharing of sensitive data
- Classify and govern data at scale

Risk management

Identify and remediate critical risks within your organization

- Manage insider risks with an end-to-end approach
- Leverage ML to identify potential risks in communications
- Escalate policy violations via seamless investigation handoff



Compliance management

Assess compliance and respond to regulatory requirements

- Intuitive end-to-end compliance management
- Vast out-of-the-box assessment library to meet your unique requirements
- Built-in intelligent automation to reduce risk

Visibility, assessment, and guidance to strengthen your security posture

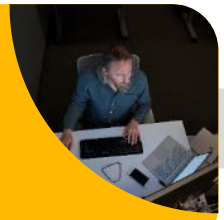
Identity and access management

Threat protection

Cloud security

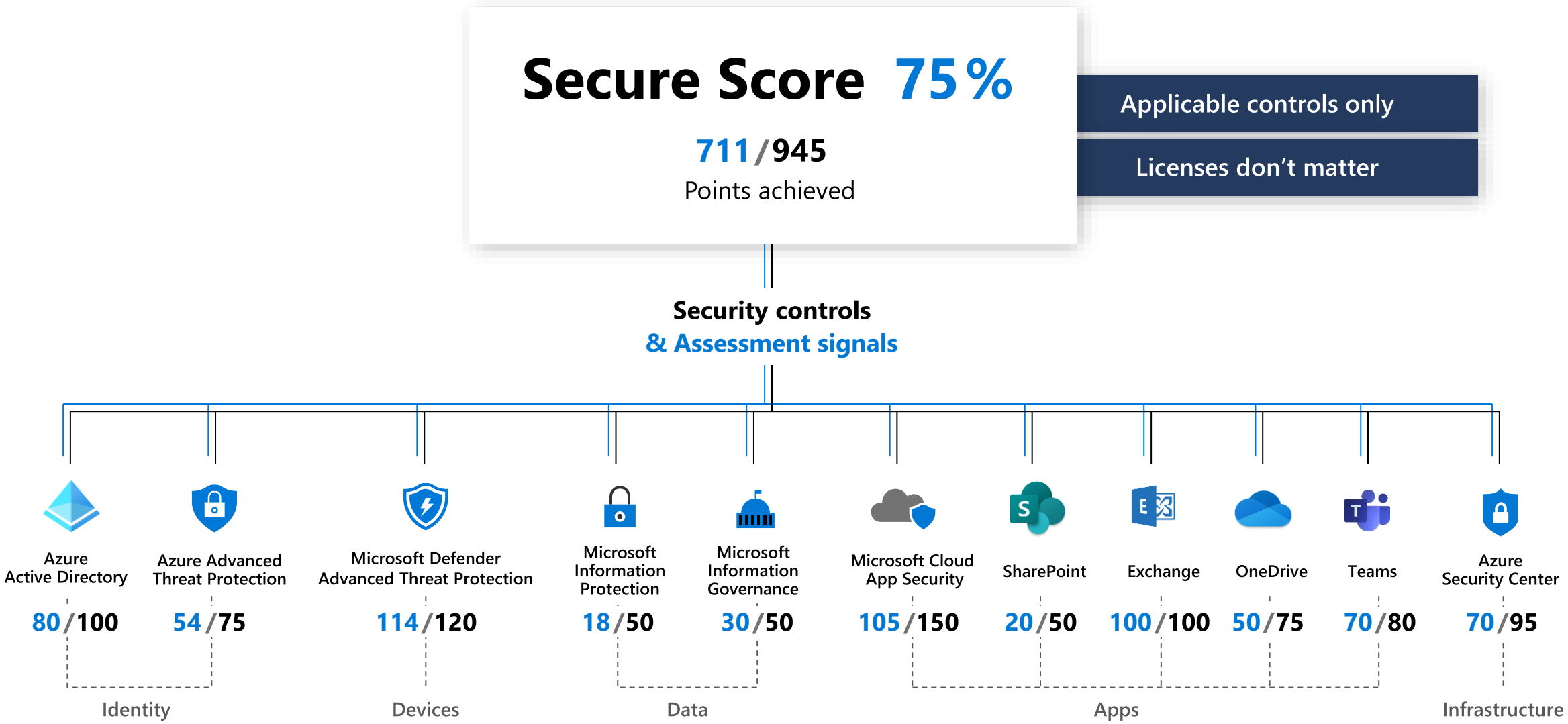
Information protection and governance

Risk management



Secure Score

How does it work?

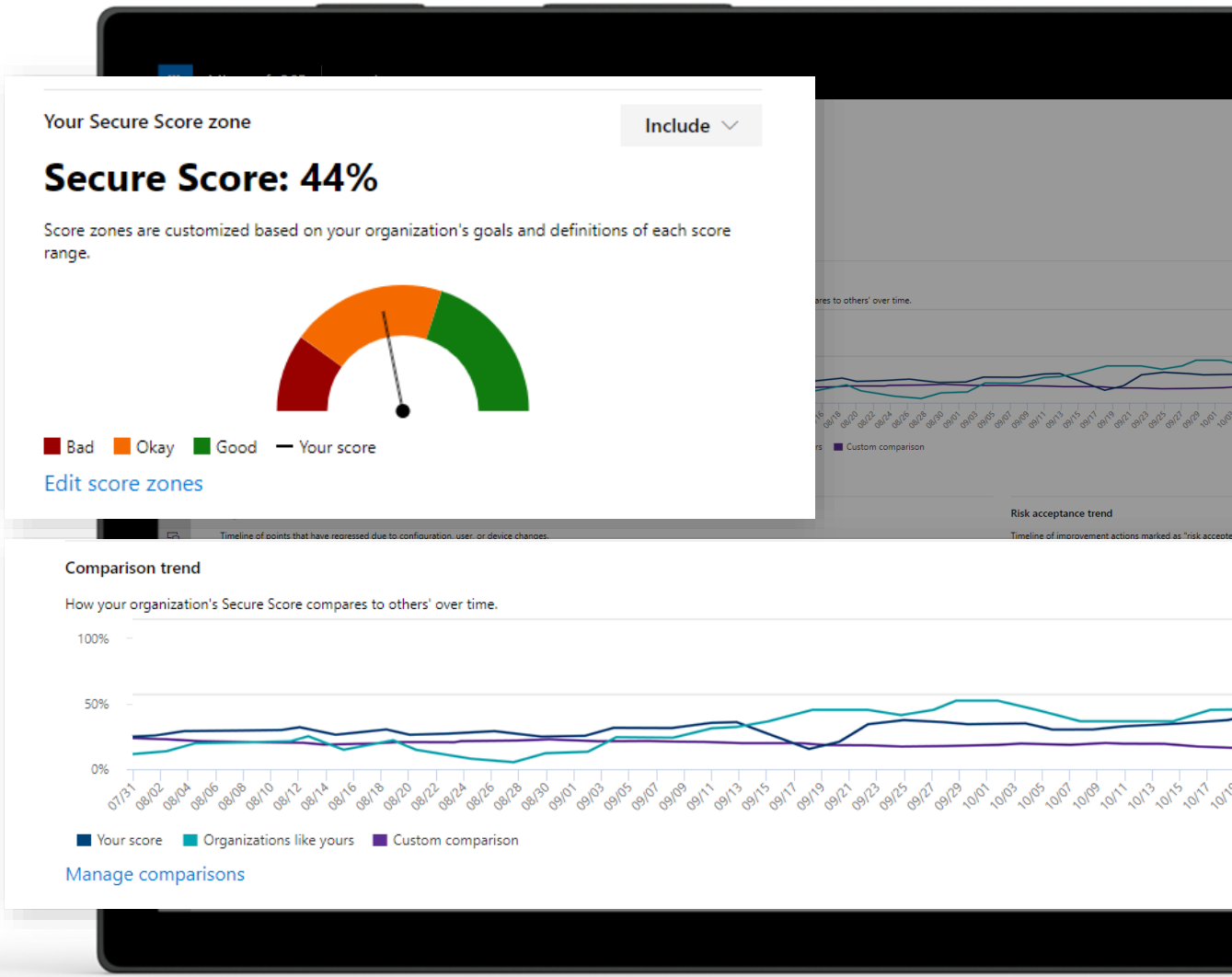


Microsoft Secure Score is your tool to drive ongoing posture improvement

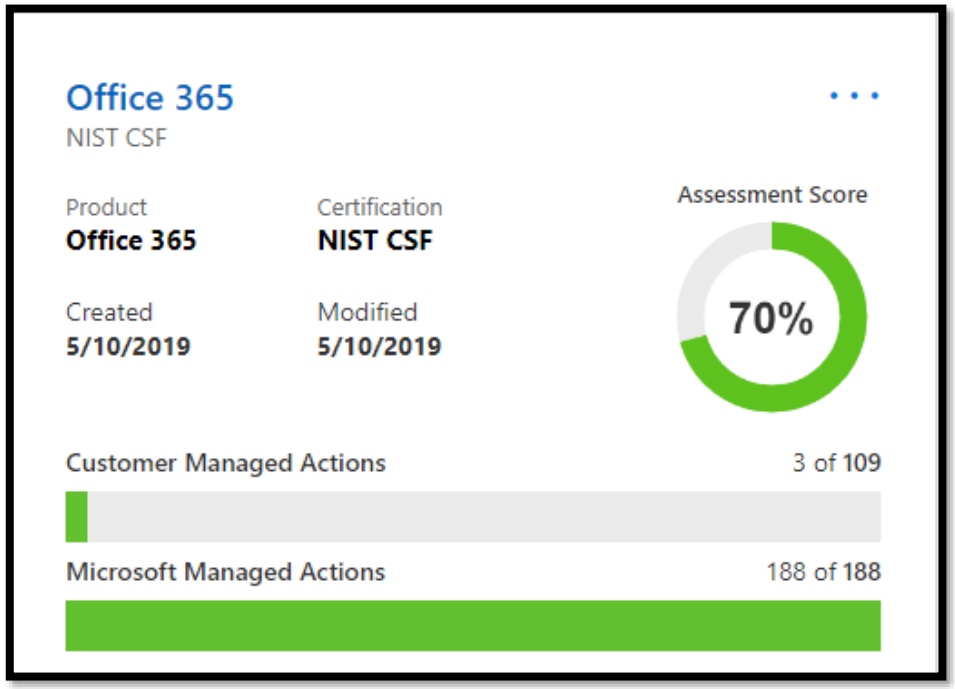
How can I report to my CISO?

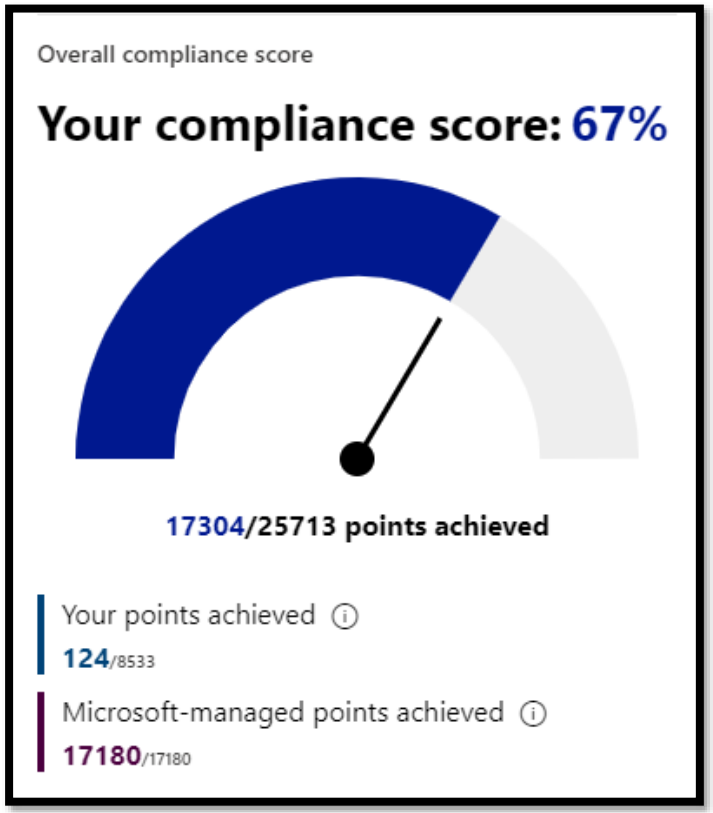
Enables security teams to demonstrate

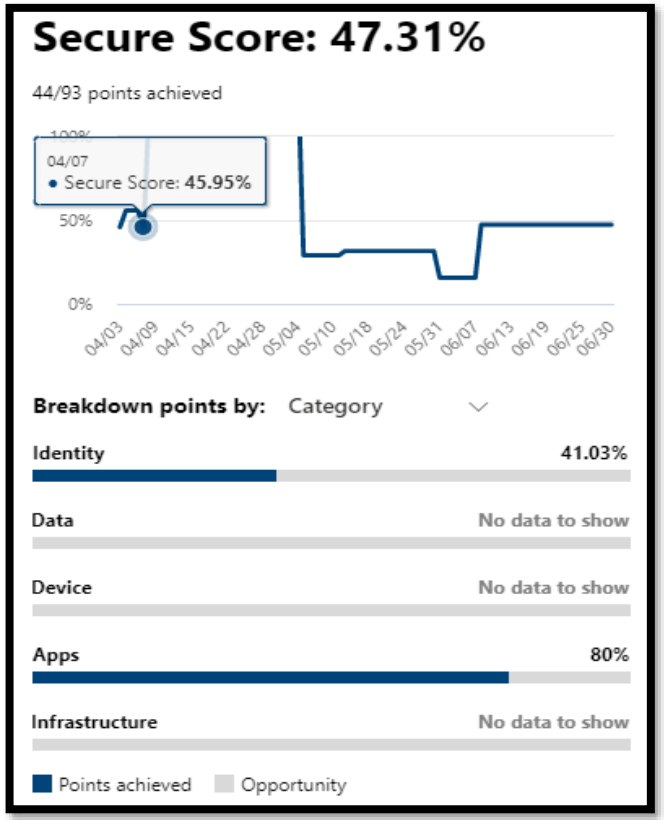
- Progress to CISO
- Benchmark

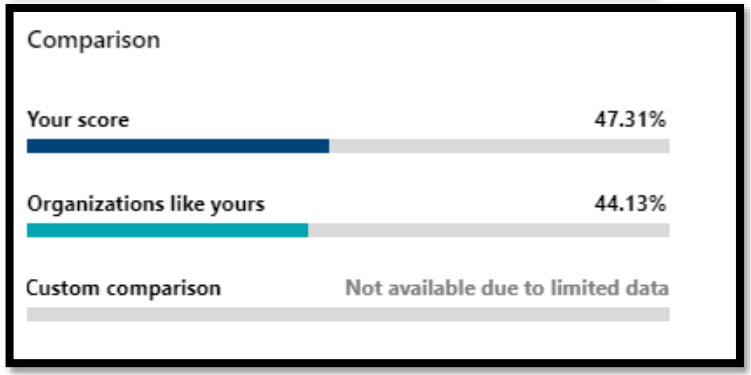


CISO Reporting Dashboard (Microsoft 365)

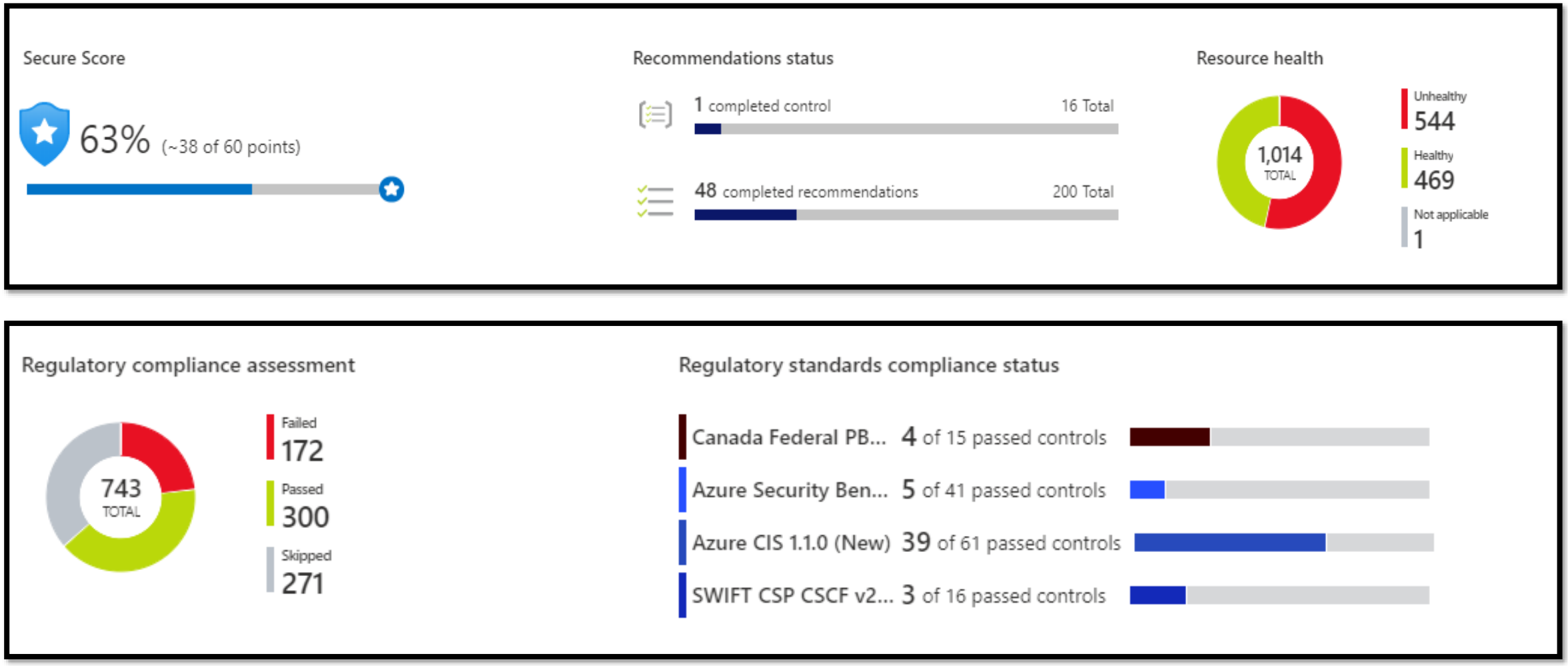






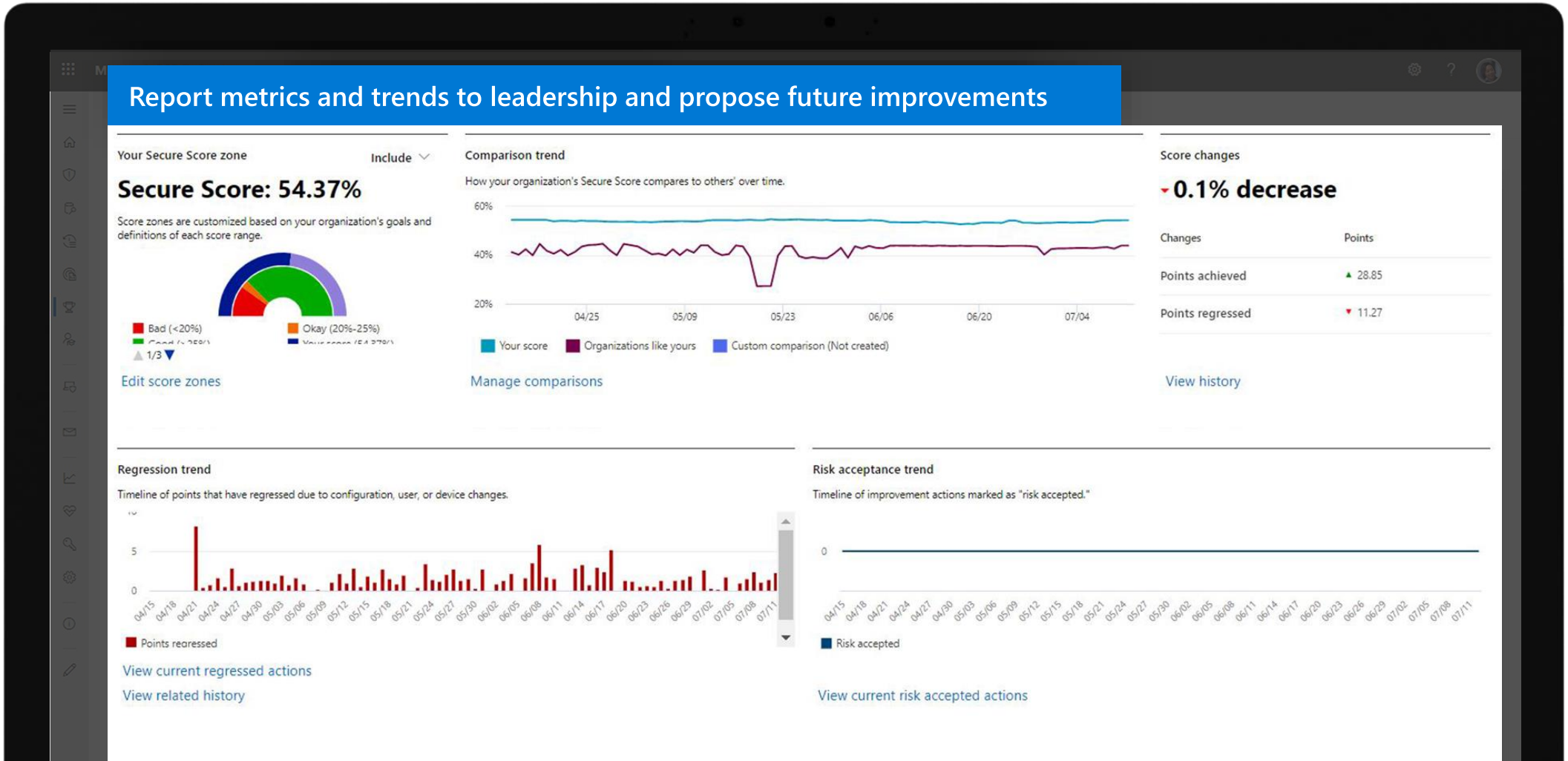


CISO Reporting Dashboard (Microsoft Azure)



Next step: Strengthen your security posture

Visibility and guidance will help you take full advantage of your security platform



Why Microsoft Security?

A comprehensive set of security solutions that are built to work together, from identity and access management to threat protection and unified endpoint management to information protection and cloud security.

Reduced costs and risks with a consolidated security stack

Streamline and strengthen security by eliminating the complexity

Customer Deck
e-book
Webcast

Integrated Zero Trust

Use adaptive controls and continuous verification to prevent and respond to threats.

Customer Deck
Maturity model paper
Podcast
MSIT Zero Trust Journey

The most unified SIEM and XDR in the industry

Apply the context and automation needed to stop even the most sophisticated, cross-domain attacks.

e-book
Click Through Demo
Sentinel TEI Report
MITRE ATT&CK evaluation

Unmatched threat intelligence

Apply expertise of 8000+ security professionals and AI powered by trillions of security signals

Digital Defense Report
Decoding NOBELIUM – The Docuseries
Detection and Response Team (DART)
Cyber Defense Operations Center

A Leader in Security, Compliance, Identity & Management

[A Leader in five Gartner® Magic Quadrant™ reports]

[A Leader in eight Forrester Wave™ categories]

A Leader in six IDC MarketScape reports

IDC MarketScape: Worldwide Modern Endpoint Security for Enterprises 2021 Vendor Assessment, Doc #US48306021, November 2021
IDC MarketScape: Worldwide Modern Endpoint Security for Small and Midsize Businesses 2021 Vendor Assessment, Doc #48304721, November 2021
IDC MarketScape: Worldwide Advanced Authentication for Identity Security 2021 Vendor Assessment, Doc #US46178720, July 2021

IDC MarketScape: Worldwide Unified Endpoint Management Software 2021 Vendor Assessment
IDC MarketScape: Worldwide Unified Endpoint Management Software for Small and Medium-Sized Businesses 2021 Vendor Assessment
IDC MarketScape: Worldwide Unified Endpoint Management Software for Ruggedized/Internet of Things Deployment 2021 Vendor Assessment

Gartner®

Microsoft Security—a Leader in 5 Gartner Magic Quadrant reports

Access Management

Cloud Access Security Brokers

Enterprise Information Archiving

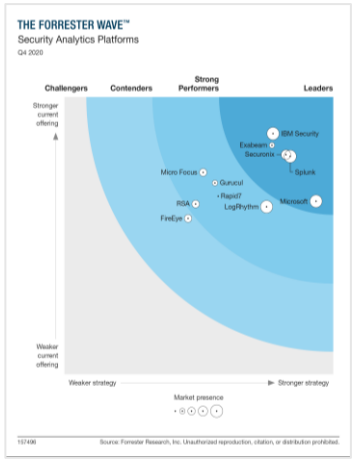
Endpoint Protection Platforms

Unified Endpoint Management

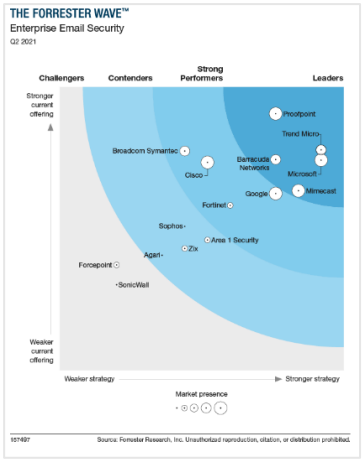
*Gartner "Magic Quadrant for Access Management," by Henrique Teixeira, Abhyuday Data, Michael Kelley, November 2021
*Gartner "Magic Quadrant for Cloud Access Security Brokers," by Craig Lawson, Steve Riley, October 2020
*Gartner "Magic Quadrant for Enterprise Information Archiving," by Michael Hoech, Jeff Vogel, October 2020
*Gartner "Magic Quadrant for Endpoint Protection Platforms," by Paul Webber, Rob Smith, Prateek Bhajanka, Mark Harris, Peter Firstbrook, May 2021
*Gartner "Magic Quadrant for Unified Endpoint Management," by Dan Wilson, Chris Silva, Tom Cipolla, August 2021

FORRESTER®

Microsoft Security—a Leader in 8 Forrester Wave and New Wave reports

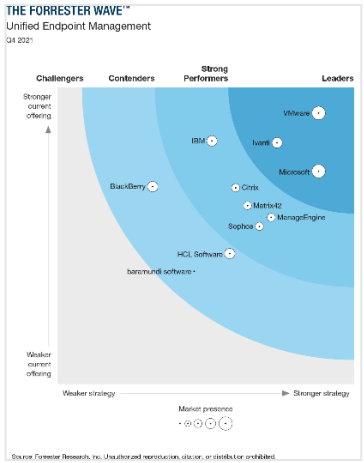


Security Analytics Platform

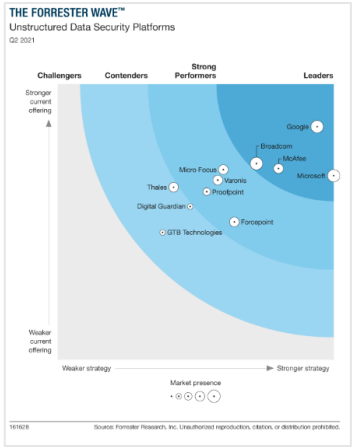


Enterprise Email Security

Endpoint Security Software as a Service

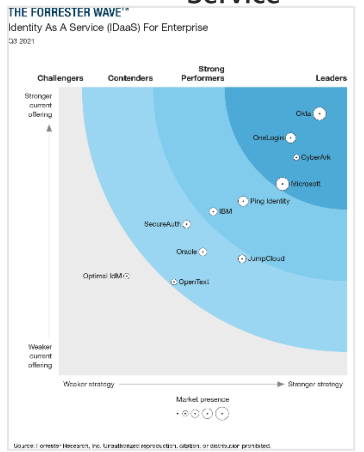


Unified Endpoint Management



Unstructured Data Security Platforms

Cloud Security Gateways



Identity As a Service

Extended Detection And Response (XDR)

1. The Forrester Wave™: Security Analytics Platforms, Q4 2020, Joseph Blankenship, Claire O'Malley, December 2020
2. The Forrester Wave™: Enterprise Email Security Q2 2021 Joseph Blankenship, Claire O'Malley, April 2021
3. The Forrester Wave™: Endpoint Security Software as a Service, Q2 2021, Chris Sherman, May 2021
4. The Forrester Wave™: Unified Endpoint Management, Q4 2019, Andrew Hewitt, November 2021
5. The Forrester Wave™: Unstructured Data Security Platforms, Q2 2021, Heidi Shey, May 2021
6. The Forrester Wave™: Cloud Security Gateways, Q2 2021, Andras Cser, May 2021
7. The Forrester Wave: Identity As A Service (IDaaS) For Enterprise, Q3 2021" Sean Ryan, August 2021
8. The Forrester New Wave™: Extended Detection And Response (XDR), Q4 2021, Allie Mellen, October 2021

Way Ahead

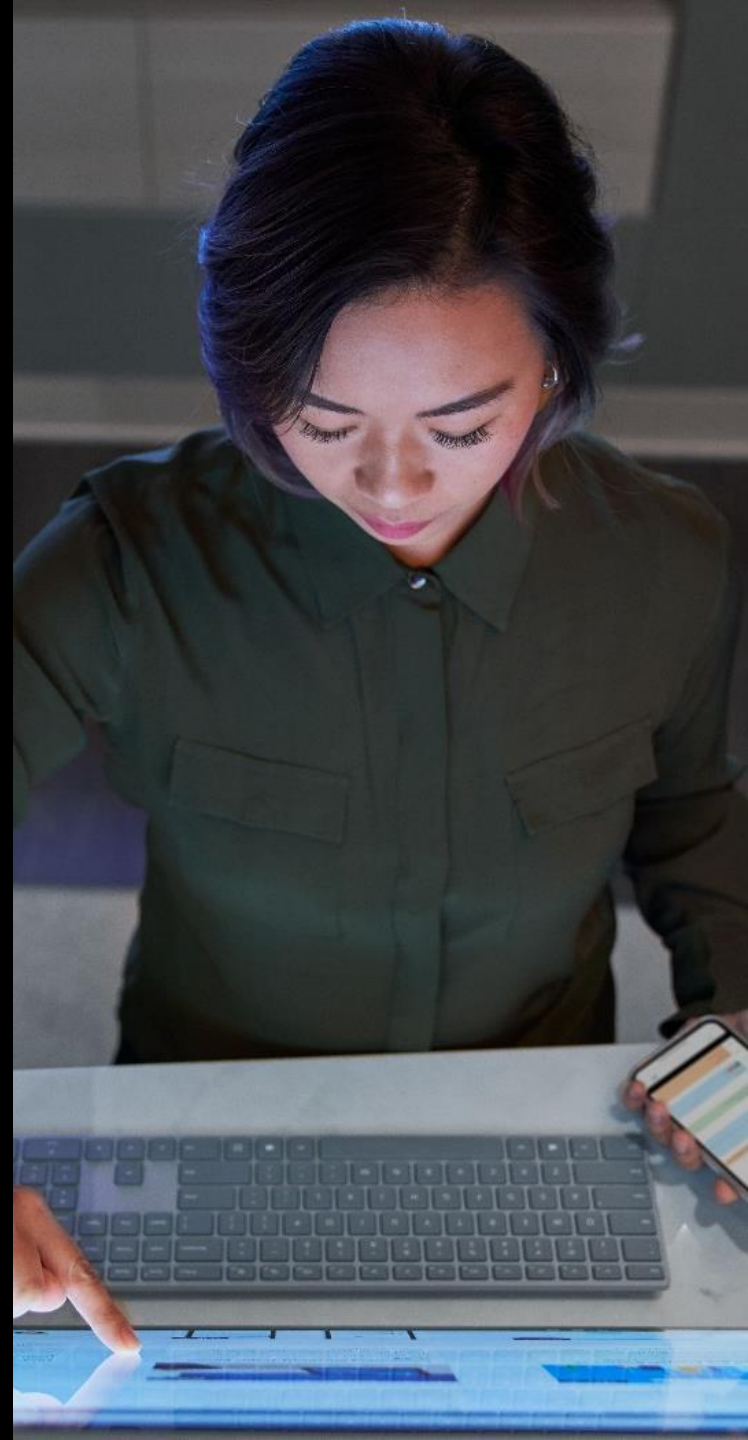
Delivering a seamless and secure experience for every employee in a hybrid world

Managing costs and where to consolidate

Modernizing security operations for faster resolution and risk remediation

Developing a compliance posture to address growing privacy concerns and complex regulations

Establishing a strategy to acquire and develop security talent in a competitive and scare skills market

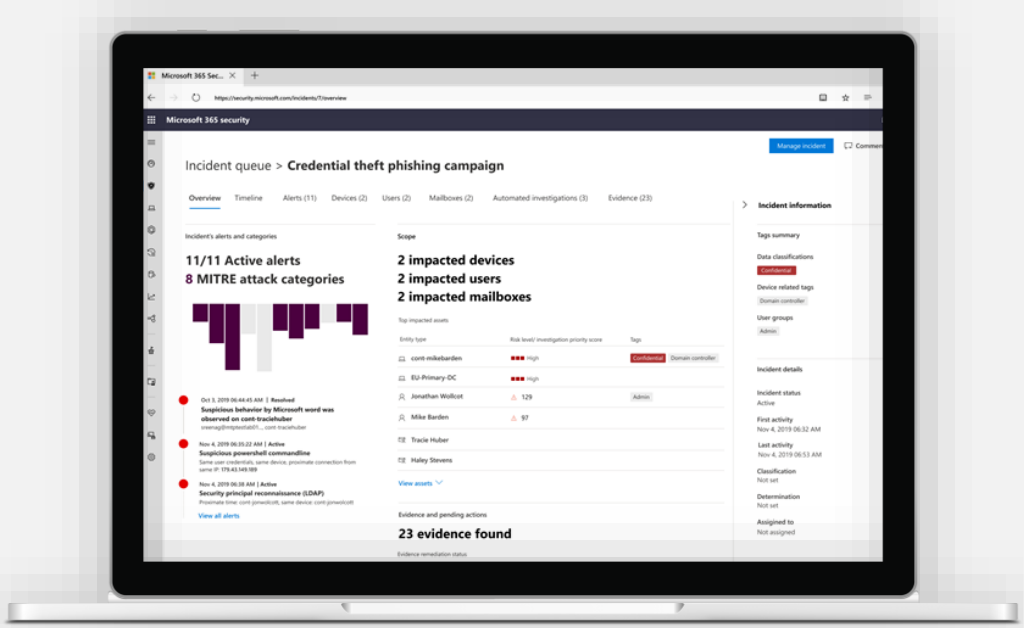


Next Step

Next steps

Let us help you get started.

Request a **Security Workshop** to learn how Microsoft can help improve your security posture.



Get a customized **Total Cost of Risk** report for your organization.

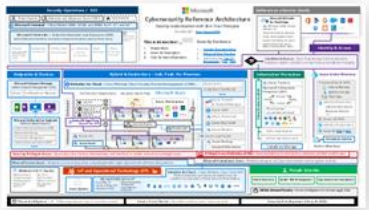
Workshops and Trainings (Sample list)

Microsoft Security Workshop (3 hrs)
Cybersecurity Strategy workshop with your CISO's Team (8 to 12 hrs)
Microsoft Cybersecurity Reference Architecture (2 hours)
Cloud Adaption Framework Workshop (6 hrs to 12 hrs)
Chief Information Security Officer (CISO) Workshop (6 to 8 hrs)
Microsoft Security Best Practices (8 to 12 hrs)
Zero Trust Maturity Assessment and Training (6 hrs)
SOC Integration with Zero Trust Workshop (4 to 6 hrs)
Compliance Workshop (4 to 6 hrs)
Microsoft Cyber Defense Operation (CDOC) Tour (2 hrs)
Microsoft Azure Defender (Ninja Training)
Microsoft Azure Sentinel SIEM (Ninja Training)
Microsoft Defender for Endpoint (Ninja Training)

Microsoft Cybersecurity Reference Architectures (MCRA)

Capabilities

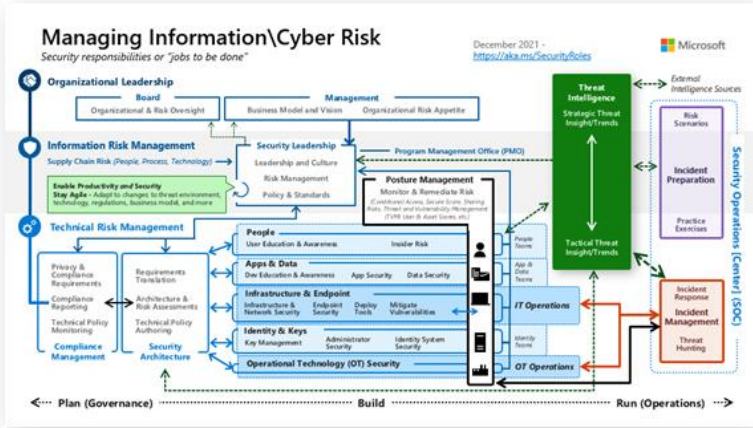
What cybersecurity capabilities does Microsoft have?



Build Slide

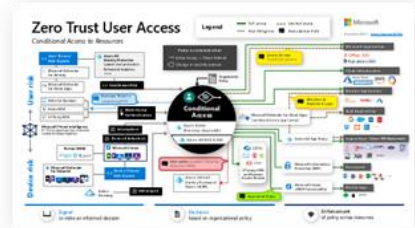
People

How are roles & responsibilities evolving with cloud and zero trust?



Zero Trust User Access

How to validate trust of user/devices for all resources?

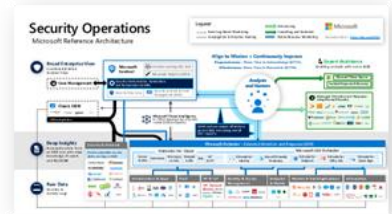


Azure Native Controls

What native security is available?

Security Operations

How to enable rapid incident response?

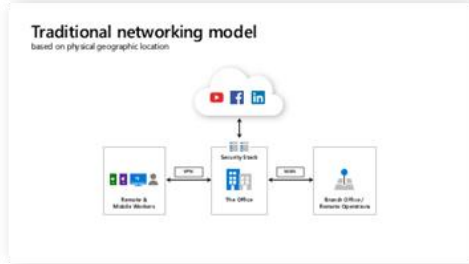


Multi-Cloud & Cross-Platform

What clouds & platforms does Microsoft protect?

Secure Access Service Edge (SASE)

What is it? How does it compare to Zero Trust?



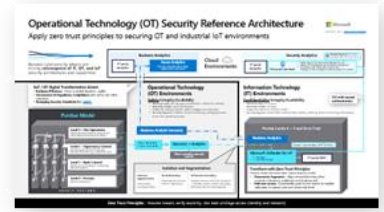
Attack Chain Coverage

How does this map to insider and external attacks?

Build Slide

Operational Technology

How to enable Zero Trust Security for OT?



aka.ms/MCRA | December 2021 | Microsoft

Slide notes have talk tracks + change tracking

Cybersecurity Reference Architecture

Security modernization with Zero Trust Principles

December 2021 – https://aka.ms/MCRA

Security Operations / SOC

Threat Experts | *Detection and Response Team (DART)* | MSSP/MDR

Microsoft Sentinel – Cloud Native SIEM, SOAR, and UEBA for IT, OT, and IoT

Microsoft Defender – *Extended Detection and Response (XDR)*

Advanced Detection & Remediation | Automated Investigation & Remediation | Advanced Threat Hunting

Other Tools, Logs, & Data Sources

- **Cloud** – *Azure, AWS, GCP, On Premises & other 3rd party clouds*
- **Endpoint** – *& Server/VM*
- **Office 365** – *Email and Apps*
- **Identity** – *Cloud & On-Premises*
- **SaaS** – *Cloud Apps*
- ***+ More*** – *OT, IoT, SQL, and more*

This is interactive!

1. Present Slide
2. Hover for Description
3. Click for more information

Security Guidance

1. Security Documentation
2. Microsoft Best Practices
3. Azure Security Top 10 | Benchmarks | CAF | WAF

Software as a Service (SaaS)

Microsoft Defender for Cloud Apps

- *App Discovery & Risk Scoring (Shadow IT)*
- *Threat Detection & Response*
- *Policy Audit & Enforcement*
- *Session monitoring & control*
- *Information Protection & Data Loss Prevention (DLP)*

Identity & Access

Conditional Access – Zero Trust Access Control decisions based on explicit validation of user trust and endpoint integrity

Endpoints & Devices

Microsoft Endpoint Manager
Unified Endpoint Management (UEM)
Intune | Configuration Manager

Microsoft Defender for Endpoint
Unified Endpoint Security
- Endpoint Detection & Response (EDR)
- Web Content Filtering
- Threat & Vuln Management
- Endpoint Data Loss Protection (DLP)

Hybrid Infrastructure – IaaS, PaaS, On-Premises

Defender for Cloud – Cross-Platform Cloud Security Posture Management (CSPM)

Secure Score
Compliance Dashboard

On Premises Datacenter(s) | *3rd party IaaS & PaaS* | Microsoft Azure

Extranet
- NGFW
- Edge DLP
- IPS/IDS
- Azure AD App Proxy *Beyond User VPN*

Intranet
- Express Route
- Private Link
- Azure Arc
- Azure Stack

Azure Marketplace

- Azure Firewall & Firewall Manager
- Azure WAF
- DDoS Protection
- Azure Key Vault
- Azure Bastion
- Azure Lighthouse
- Azure Backup
- *Security & Other Services*

Information Protection

Classification Labels

- Azure Purview
- Microsoft Information Protection (MIP)
  - Monitor, Discover, Classify, Protect
- File Scanner *(on-premises and cloud)*
- Data Governance
- Advanced eDiscovery

Compliance Manager

Azure Active Directory

- Passwordless & MFA
  - Hello for Business
  - Authenticator App
  - FIDO2 Keys
- Identity Protection
  - Leaked cred protection
  - Behavioral Analytics
- Azure AD PIM
- Identity Governance
- Azure AD B2B & B2C

Defender for Identity

Active Directory

Securing Privileged Access – Secure Accounts, Devices, Intermediaries, and interfaces to enable and protect privileged users

Privileged Access Workstations (PAWs) - Secure workstations for administrators, developers, and other sensitive users

Microsoft Secure Score – Measure your security posture, and plan/prioritize rapid improvement with included guidance

Microsoft Compliance Score – Prioritize, measure, and plan improvement actions against controls

Windows 10 & 11 Security

- *Network protection*
- *Credential protection*
- *Full Disk Encryption*
- *Attack surface reduction*
- *App control*
- *Exploit protection*
- *Behavior monitoring*
- *Next-generation protection*

IoT and Operational Technology (OT)

Azure Sphere

Microsoft Defender for IoT
- *ICS, SCADA, OT*
- *Internet of Things (IoT)*
- *Industrial IoT (IIoT)*
- *Asset & Vulnerability management*
- *Threat Detection & Response*

Defender for Cloud – Cross-Platform, Cross-Cloud XDR
Multi-asset detection and response for infrastructure and platform as a service (IaaS & PaaS), Proactive Threat defenses

People Security

Attack Simulator | Insider Risk Management | Communication Compliance

GitHub Advanced Security – Secure development and software supply chain

Threat Intelligence – 8+ Trillion signals per day of security context

Service Trust Portal – How Microsoft secures cloud services

Security Development Lifecycle (SDL)

Microsoft

Find out how secure your organization really is

Microsoft Security Workshop

Workshop highlights

- Identify real threats to your cloud environment by doing Threat Check
- Work with you to understand your security goals and objectives
- Deliver the end-to-end Microsoft security story
- Showcase security scenarios with hands-on activities
- Develop joint plans and next steps

"Better security makes us a better business"

-Alain Quillet: Deputy CEO, Paule Ka

Do you know how many phishing attacks your organization has received? Whether your employees are using the right password protocol? Whether personal data is being exposed? In short, is your organization's cloud environment as secure as you think it is?

Improve your security posture with a Microsoft Security Workshop

Organizations like yours are managing a growing volume of data and alerts, all while dealing with tight budgets and vulnerable legacy systems. In this environment, minimizing security risks is a massive challenge. Help achieve your broader security objectives—and identify current and real threats—by scheduling a Microsoft Security Workshop.

Designed for today's security stakeholders, the workshop will help you develop a strategic plan based on the recommendations of Microsoft cybersecurity experts, customized specifically for your organizational needs. You'll not only gain visibility into immediate threats across email, identity, and data; you'll get valuable clarity and support on how to upgrade your security posture for the long term.

Why you should attend

Given the volume and complexity of identities, data, applications, devices, and infrastructure, it's essential to learn how secure your organization is right now, and how to mitigate and protect against threats moving forward. By attending this workshop, you can:

Identify current, ongoing risks to your cloud environment	Walk away with actionable next steps based on your specific needs and objectives	Document your security strategy for the benefit of key stakeholders	Better understand how to accelerate your security journey using the latest tools

Azure Security Compass

BASICS

TRANSFORMING TOOLS, SKILLS, & PRACTICES

STRATEGIES & THREATS EVOLVE

AZURE REGIONS & SERVICES

MICROSOFT SECURITY PRACTICES

SECURITY GUIDANCE

COMPONENTS & MODELS

AZURE SECURITY CENTER (ASC)

GOVERNANCE, RISK, & COMPLIANCE

SECURITY OPERATIONS

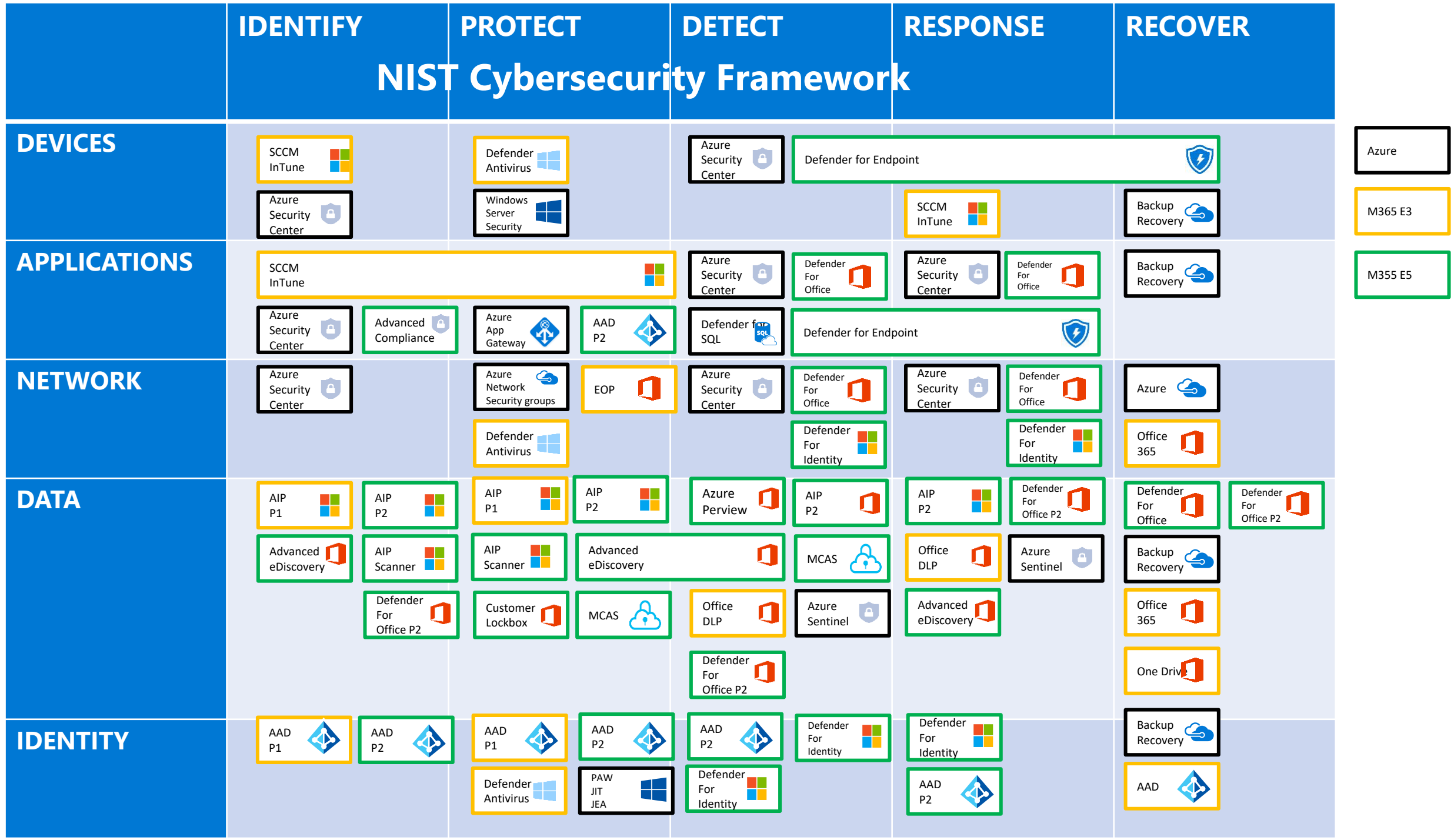
IDENTITY

NETWORK CONTAINMENT

ADMINISTRATION

INFO PROTECTION & STORAGE

NIST Cybersecurity Framework



Implementation prioritization **(Example)**

Solution	Effort	Impact	Details
Threat Protection	Low	High	Windows Defender, Office 365 Defender and Azure Defender
Identity as a Service	Medium	High	MFA, Conditional Access, Privileged Identity Management, Identity Protection
Security Insights into cloud and hybrid workloads	Low	High	Azure Security Center
Cloud Access and Security Broker	Low	High	Microsoft Cloud App Security
Mobile device and application management	Medium	Medium	Intune
Advanced Compliance	Medium	Medium	Customer Lockbox, Advanced eDiscovery and Advanced Data Governance
Information Protection	High	High	Azure Information Protection, Office Message Encryption

LE: Low Effort, max 3 months ME: Medium Effort, max 6 months HE: High Effort, max 12 months

LI: Low Impact, Nice to have MI: Medium Impact, Good to have HI: High Impact, must have

Reduction of Attack Surface – Stage 1 (Example)

Global View of Risk	Use Cases
Identity	• Strengthen authentication through MFA for user logons • Enable users to reset their passwords without contacting the Help Desk • Prevent users from using weak passwords • Detect potential vulnerabilities affecting KPMG identities, configure policies to respond to suspicious actions, and take appropriate action to resolve • Manage, control, and monitor privilege access • Enable administrators to elevate privileges only when needed to perform administrative tasks
Endpoint	• Deploy Windows 10 wherever possible and implement Windows Defender, Windows Defender ATP, Credential Guard, and other security capabilities to elevate end user protection
Data	• Discover sensitive information contained in Office and PDF documents that are stored on premise • Empower users to encrypt emails that contain sensitive information • Classify data as it's created • Enable collaboration on protected documents • Discover all cloud usage within KPMG
Server	• Gain insight into server assets (patching level, system configuration, file integration monitoring, etc.) that reside on-premise and in Azure

Discussion