

Microsoft Defender for Cloud Apps



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Microsoft security



Secure Access

Protect all points of access and real-time controls in a connected world



Threat Protection

Stop attacks with integrated, automated SIEM and XDR



Information Protection

Protect sensitive data and manage insider risks with intelligence



Cloud Security

Safeguard your multi-cloud resources

Microsoft Cloud App Security

Our approach

Safeguard your multi-cloud apps & resources



**Strengthen multi-cloud
security posture**

Azure Security Center,
Microsoft Cloud App Security



**Protect
cloud workloads**

Azure Security Center,
Azure Defender



**Control activity
across cloud apps**

Microsoft Cloud App Security



**Develop
secure applications**

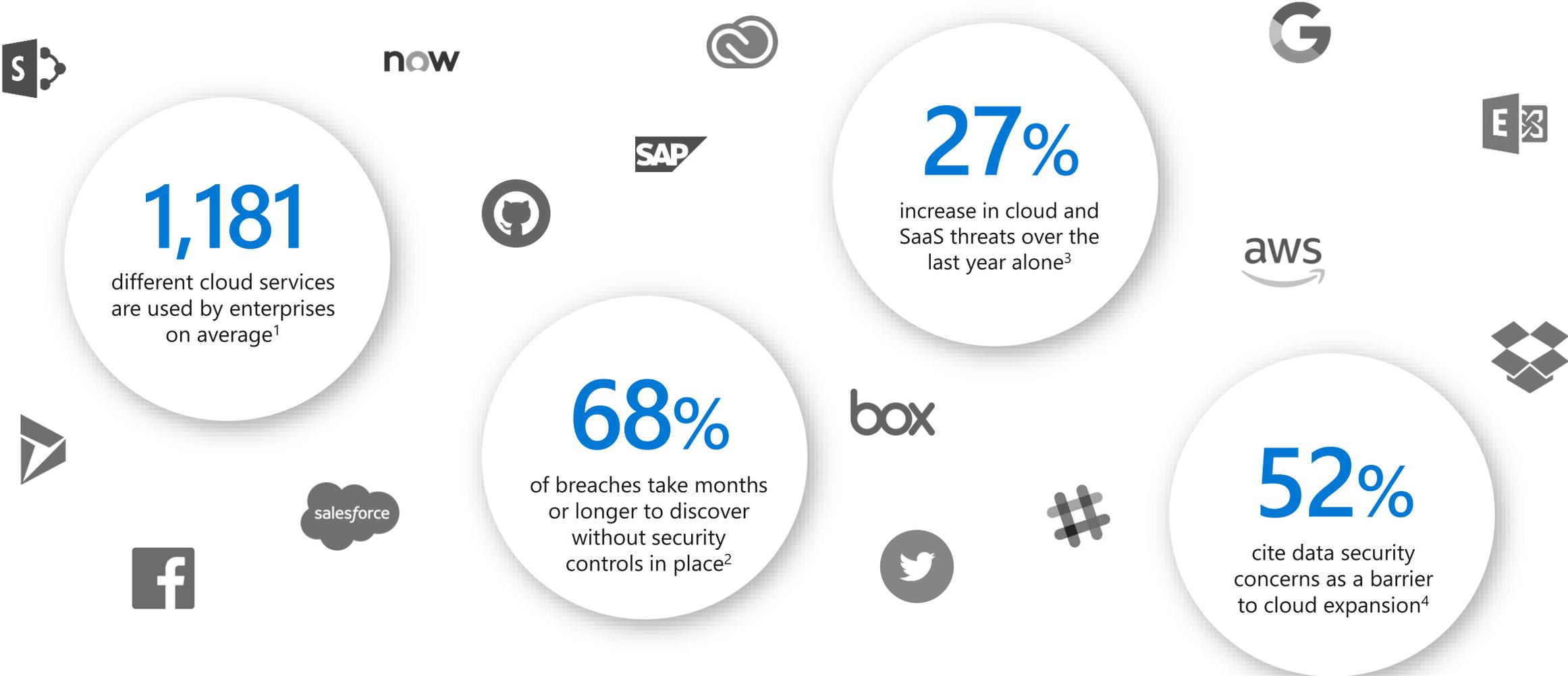
GitHub

01

Introduction to Cloud Access Security Brokers



Cloud services require a new approach to security



1. [Netskope Cloud Report, 2018](#)
2. Ponemon: 2017 Cost of Cybercrime Study

3. [Verizon 2018 Data Breach Investigations Report](#)
4. [Securing Cloud Transformations, 451 Research, July 2020](#)

Cloud Access Security Brokers

Gartner's definition for CASBs:

"Especially designed to protect and control access to data that's stored in someone else's systems, CASBs deliver differentiated, cloud-specific capabilities that generally aren't available as features in traditional security products. CASBs provide a central location for policy and governance concurrently across multiple cloud services and granular visibility into and control over user activities and sensitive data from both inside and outside the enterprise perimeter, including cloud-to-cloud access." ¹

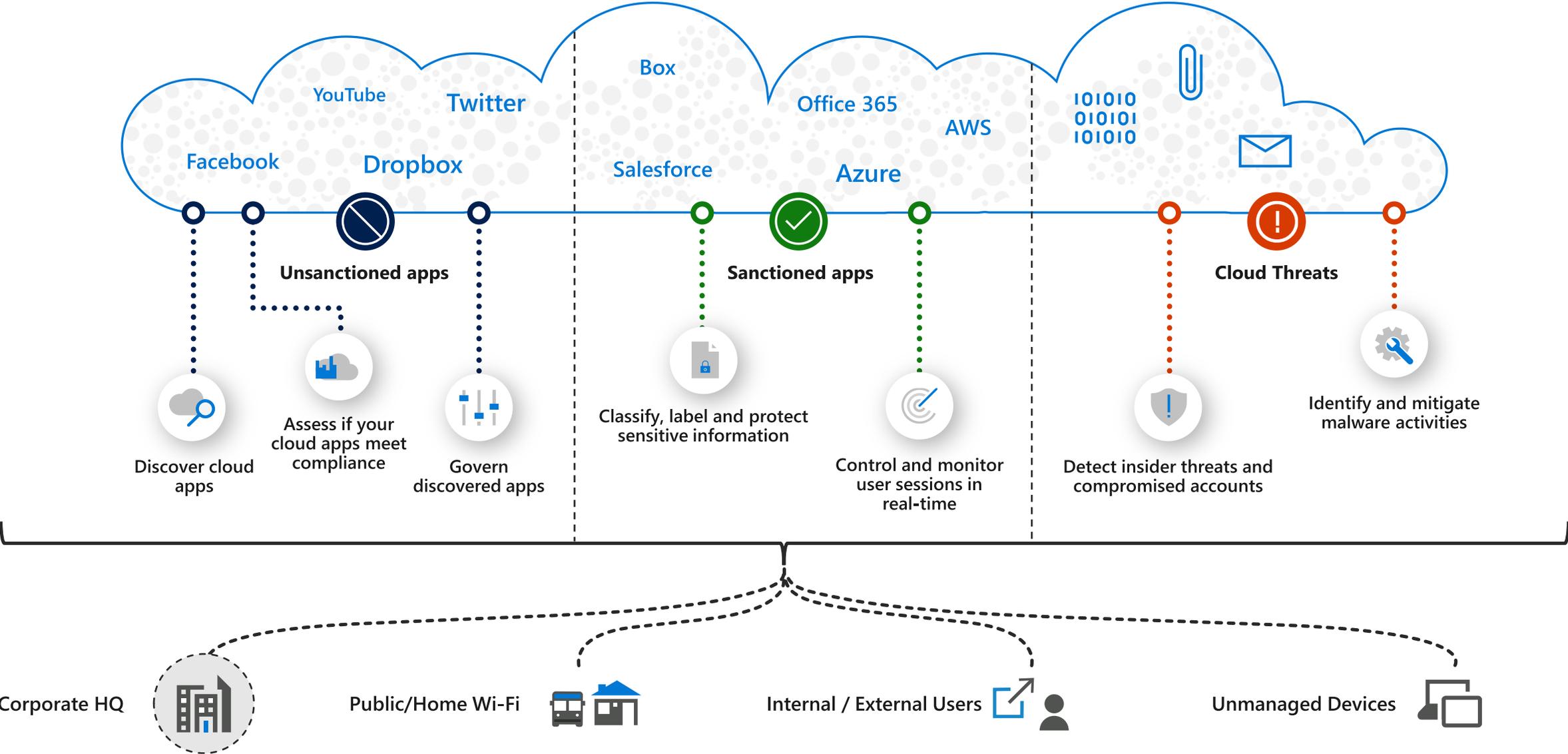
CASB spend investment is predicted to grow over

30% each year

between now and 2024²

1. Gartner, Magic Quadrant for Cloud Access Security Brokers 2020
2. Forecast: Information Security and Risk Management, Worldwide, 2018-2024

Top CASB use cases



Microsoft does all of that and more

Discover and control the use of shadow IT
Identify, and assess risk of cloud apps and services used by your organization.

Protect your information anywhere in the cloud

Understand, classify, and protect the exposure of sensitive information—across all your cloud apps.

Protect against cyberthreats and anomalies

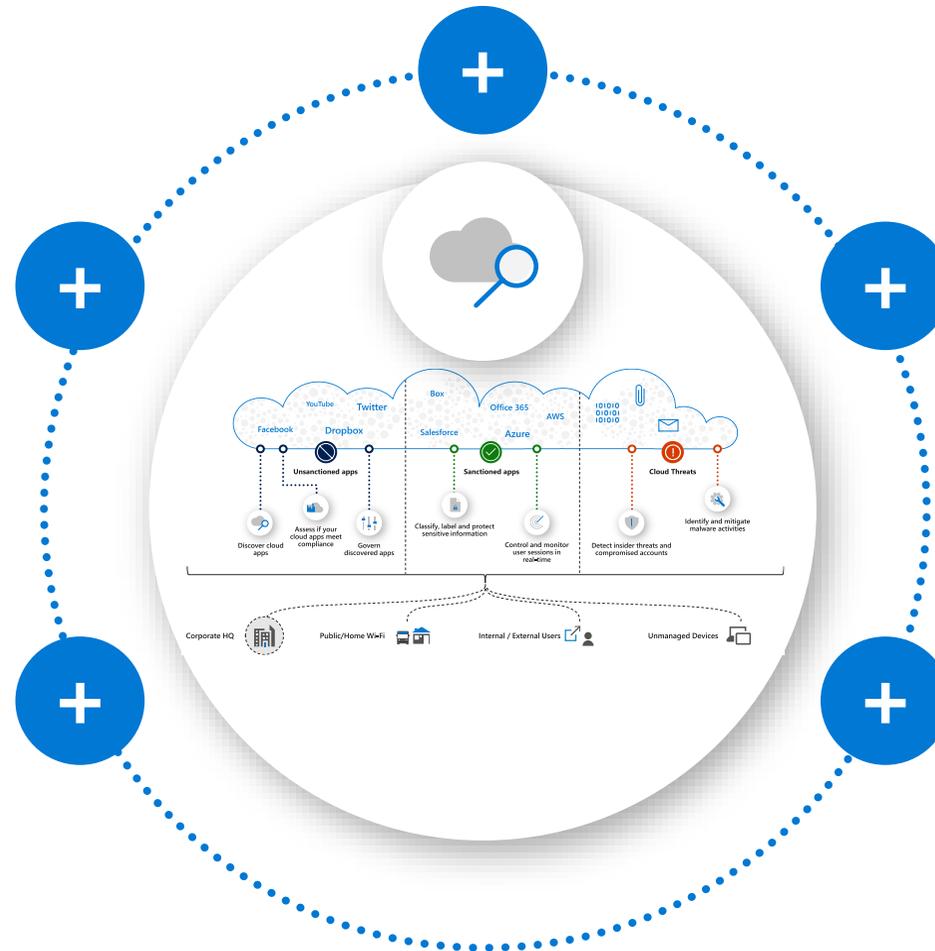
Detect unusual behavior, compromised users, or rogue applications and remediate automatically.

Secure Access

Secure access, without compromising performance, for any user on any device to any resource.

Security Posture Management

Investigate security configuration gaps by viewing all cloud platform security recommendations together.



02

Microsoft Cloud App Security



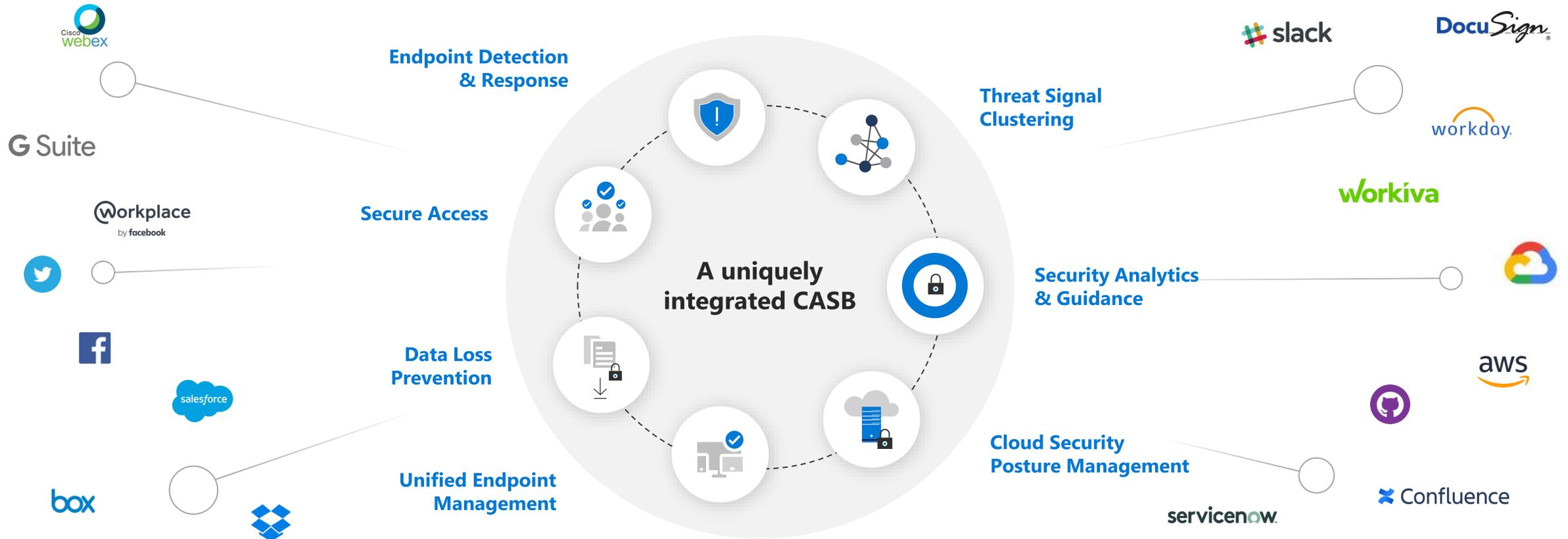
Microsoft Cloud App Security

The go-to CASB for all your cloud enablement, monitoring and governance

Simple deployment

Natively integrated across the broader Microsoft product stack to deliver unique capabilities

Rooted in supporting any app



Microsoft Cloud App Security provides comprehensive session security and data use policies

Cloud platforms



Native integrations



17,000+ supported apps



03

Shadow IT Discovery and Control





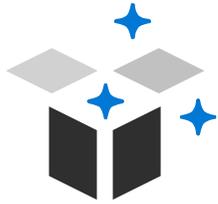
Discover
Shadow IT

Shadow IT discovery identifies cloud apps, provides risk assessments, usage analytics and app lifecycle management and control capabilities.



Discovery with Cloud App Security is fast and easy to implement

Gain visibility across your entire cloud app portfolio through a single pane of glass



Cloud App Security initial implementation requires just 15 person-hours, and ongoing management of the solution itself requires an average of 12 person-hours per week. Prior to the investment in Cloud App Security, SecOps spent 90 person-hours per week monitoring the security and risk posture of cloud applications.

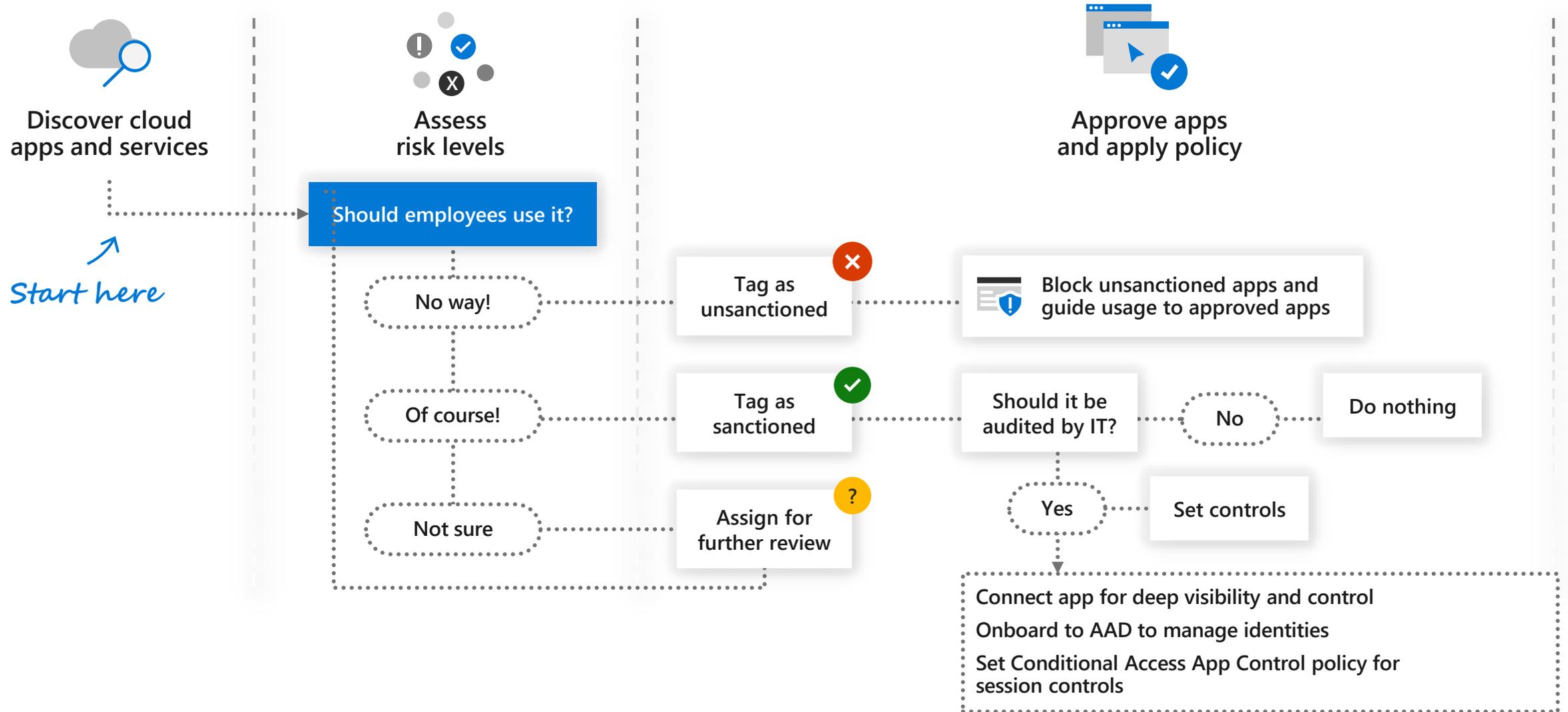


The visibility provided by Microsoft Cloud App Security enables customers to reduce time in monitoring, assessment, and governance of cloud risk by 80%

Cloud App Security also provides flexibility to integrate with existing architectures, including log ingestion from firewalls, secure web gateways and security information and event management solutions (SIEMs), API-based connectors, and reverse-proxy integration with their primary identity and access management (IAM) providers.

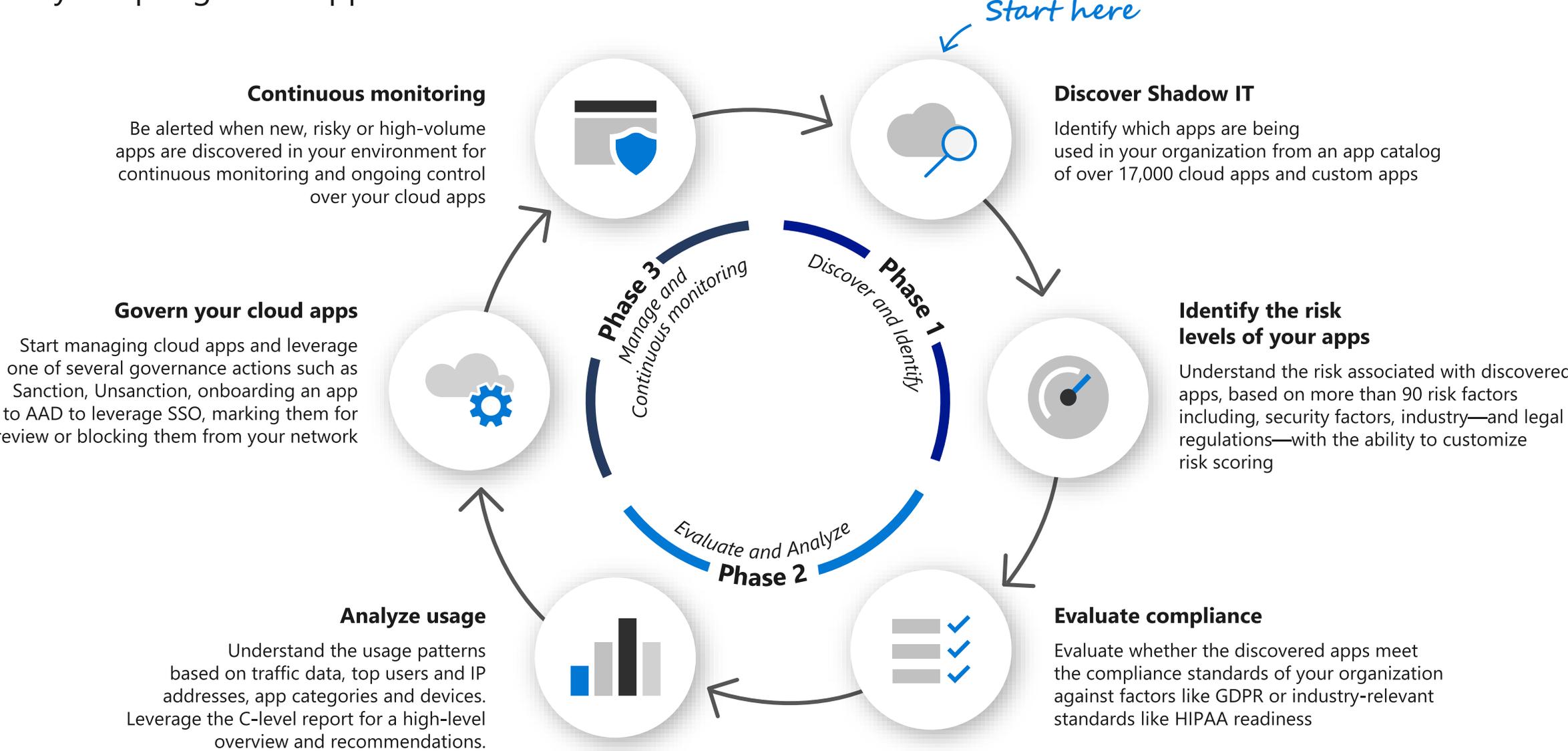
Discover and control apps in your environment

Take action: Manage newly discovered cloud app



Shadow IT management lifecycle

Safely adopting cloud apps



Cloud App Discovery

Discovery of Shadow IT across SaaS, IaaS and PaaS

Discover cloud usage across all locations (HQ, Branches, Remote) using native and programmatic integration with Microsoft Defender for Endpoint

Understand the risk of your SaaS apps

Risk assessment for 17,000+ cloud apps based on 90+ security and compliance risk factors

Analyze usage patterns

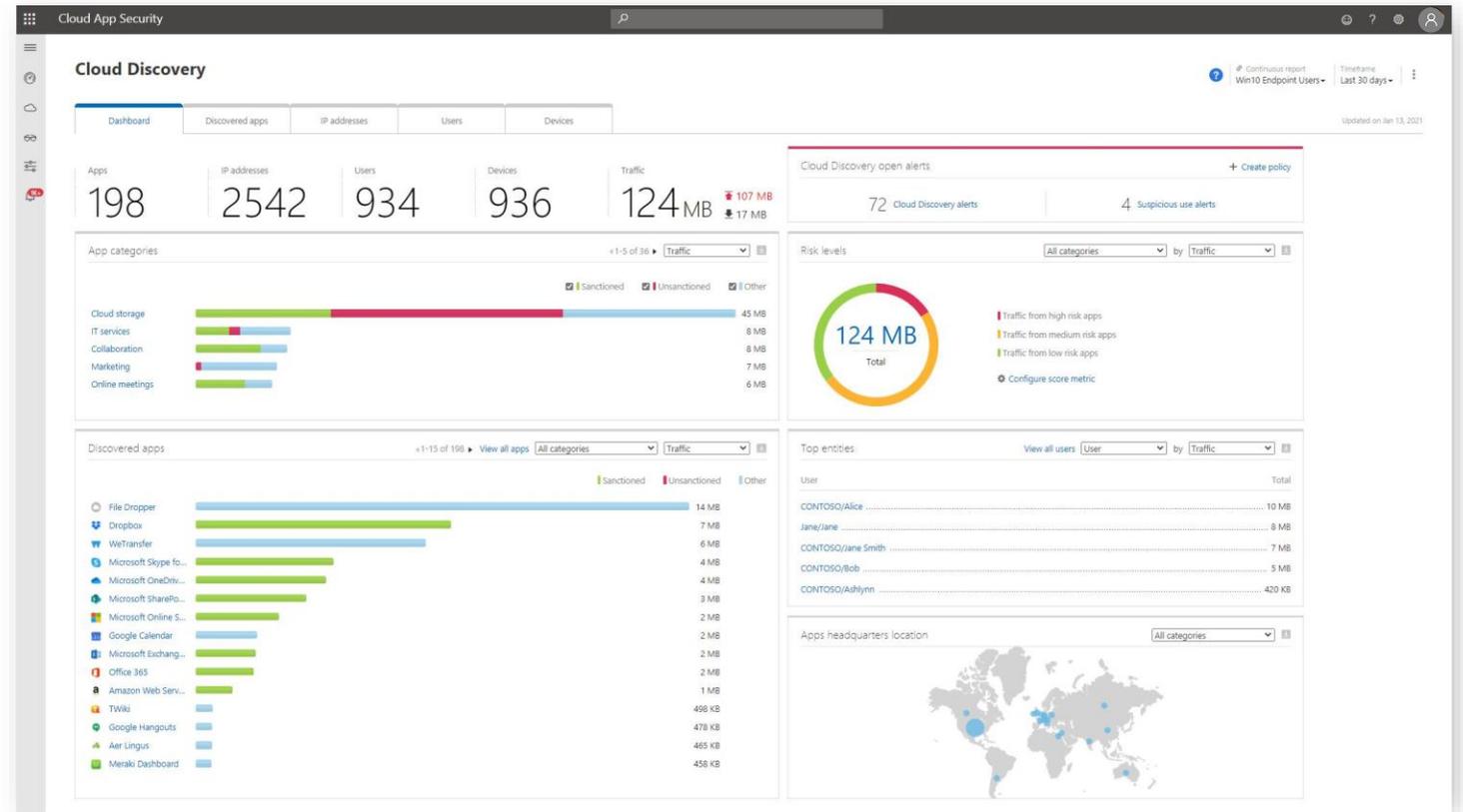
Understand the usage patterns and identify high risk volume users by understanding traffic data, top users and IP addresses, app categories

Block risky and unsanctioned apps

Using native integration with Microsoft Defender for Endpoint and leading SWGs and proxies

Continuous monitoring

Be alerted when new, risky or high-volume apps are discovered



Cloud Discovery with Microsoft Defender for Endpoint

Native, endpoint-based discovery of Shadow IT

Connect your Defender for Endpoint system and gain visibility to your shadow IT from endpoints across your environment

Discovery of cloud apps beyond the corporate network from any managed Windows 10 device

Discover cloud app usage from any managed Windows 10 device anytime, anywhere, by anyone

Single-click enablement

With one click, stream traffic data from your managed Windows 10 devices into your Cloud App Security instance

Device-based Discovery

Go beyond user-based discovery and attribute cloud app usage to managed devices in the organization

Deep dive investigation in Microsoft Defender for Endpoint

In Microsoft Defender for Endpoint, drill down into each discovered device's behavior across your organization

The screenshot displays the Microsoft Cloud App Security dashboard. The main view is titled "Cloud Discovery" and shows a list of discovered cloud applications. The interface includes a navigation menu on the left, a search bar at the top, and various filters and controls. A table lists the discovered apps with columns for App, Score, Traffic, Upload, Transactions, Users, IP addresses, Machines, Last seen (UTC), and Actions. The "Machines" column is highlighted with a blue box, showing the number of devices associated with each app. A "Continuous report" dropdown menu is also highlighted with a blue box, set to "Win10 Endpoint Users".

App	Score	Traffic	Upload	Transactions	Users	IP addresses	Machines	Last seen (UTC)	Actions
Microsoft OneDrive for Cloud storage	10	98.5 GB	65.8 GB	125K	1109	2540	1110	Sep 20, 2018	✓ ⚙ ⋮
Dropbox Cloud storage	8	3.5 GB	2.5 GB	11.8K	918	1328	919	Sep 24, 2018	✓ ⚙ ⋮
Mozy Cloud storage	7	1.1 GB	732 MB	1.3K	187	127	188	Sep 24, 2018	✓ ⚙ ⋮
iCloud Cloud storage	7	1.1 GB	689 MB	1.3K	182	132	182	Sep 24, 2018	✓ ⚙ ⋮
iDrive Cloud storage	6	443 MB	272 MB	1.7K	235	174	235	Sep 24, 2018	✓ ⚙ ⋮
Livedrive Cloud storage	6	258 MB	180 MB	1.5K	213	157	213	Sep 24, 2018	✓ ⚙ ⋮
SugarSync Cloud storage	6	1.5 GB	1.1 GB	1.6K	224	169	225	Sep 24, 2018	✓ ⚙ ⋮
BitTitan	6	24 MB	21 MB	1.2K	178	132	178	Sep 24, 2018	✓ ⚙ ⋮

Integrate with your Secure Web Gateway

Enhanced visibility into Shadow IT and risk

Connect your existing Zscaler, iboss, or Menlo Security deployment to Cloud App Security for Discovery of Shadow IT, or to Corrata for mobile endpoint security

Zero-touch, seamless integration

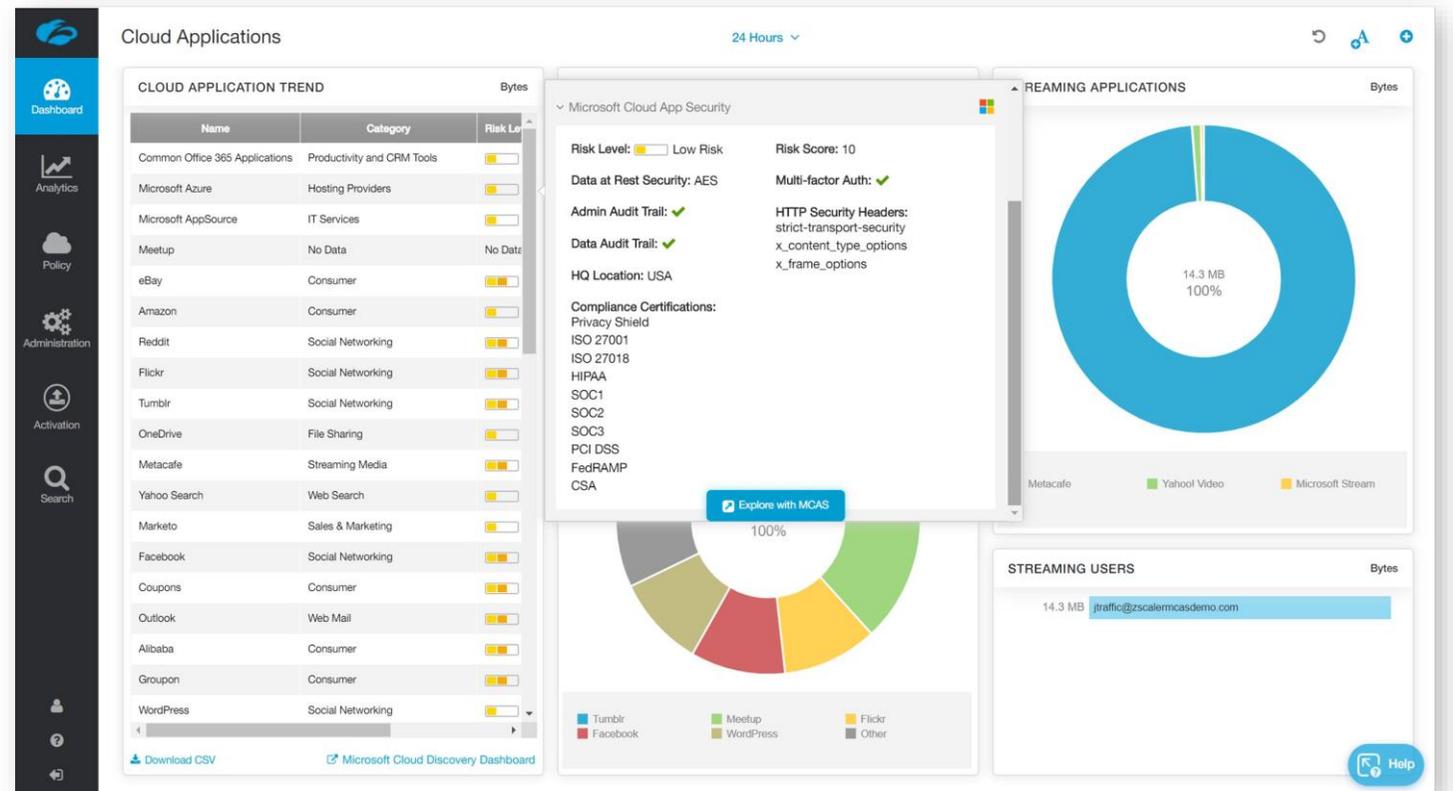
Pivot from SWG portal to Cloud App Security for comprehensive risk assessment and investigation of user traffic

Control access to discovered cloud apps, automatic log discovery

Automatically sync apps that you tag as unsanctioned within Cloud App Security to your SWG and control user access

Removes the need to deploy a separate log collector

Stream data directly from SWG to Cloud App security with no additional deployments



Discover and manage risky OAuth apps

Discover OAuth apps

That users have authorized to connect to your Microsoft 365 environment

Identify and manage permission levels

Understand the implications to your business and take action

Define custom policies

Alert on trending, new and risky apps in use

Automatically revoke apps

Entire organizations or specific users and groups

Manage your SaaS and IaaS access

Such as G Suite and Salesforce (if these apps are connected to Cloud App Security)

Protect against attacks coming from OAuth vector

Modern phishing and the latest Solorigate attacks used OAuth apps as attack vectors. Protect your organization's cloud environments by gaining visibility and control over consented OAuth apps.

The screenshot displays the 'Manage OAuth apps' interface in Cloud App Security. At the top, there are tabs for 'Office 365', 'Google Workspace', and 'Salesforce'. Below the tabs, there are several filter dropdowns: 'QUERIES', 'APP', 'USER NAME', 'APP STATE', 'COMMUNITY USE', 'PERMISSIONS', and 'PERMISSION LEVEL'. The main content area shows a table of 20 out of 55 apps. The table has the following columns: Name, Authorized by, Permission level, Last authorized, and Actions. The data in the table is as follows:

Name	Authorized by	Permission level	Last authorized	Actions
Graph explorer (official site)	9 users	High	Sep 22, 2019, 10:39 AM	✓ ⓧ ⋮
Gru Mobile - CAS - Production - AME	3 users	Medium	Jan 7, 2021, 1:57 PM	✓ ⓧ ⋮
Atlassian	3 users	Medium	Dec 16, 2020, 10:39 PM	✓ ⓧ ⋮
asc-cas integration rs	2 users	High	Mar 7, 2019, 11:27 AM	✓ ⓧ ⋮
Windows Defender Security intelligence	2 users	Medium	May 11, 2020, 11:23 PM	✓ ⓧ ⋮
Wunderlist	1 user	Medium	Jul 22, 2018, 6:39 PM	✓ ⓧ ⋮
Office 365 Service Trust Portal	1 user	Medium	Sep 11, 2018, 7:01 PM	✓ ⓧ ⋮
FastTrack	1 user	Low	Apr 6, 2018, 10:00 PM	✓ ⓧ ⋮
Spanning Backup	1 user	Low	Aug 14, 2018, 9:05 AM	✓ ⓧ ⋮
Graph Explorer	1 user	Low	Jun 5, 2019, 4:38 PM	✓ ⓧ ⋮
Modern Workplace Tools	1 user	Medium	Dec 8, 2020, 12:44 AM	✓ ⓧ ⋮
WD Antivirus Testground	1 user	Medium	Jul 28, 2020, 7:35 AM	✓ ⓧ ⋮
Appvio CRM	1 user	Medium	May 27, 2020, 10:14 AM	✓ ⓧ ⋮



Discovered resources

Continuous report Global Timeframe Last 30 days

APP: RESOURCE NAME: RESOURCE TYPE:

Advanced

1 - 20 of 27 resources



Resource	Resource type	App	Traffic	Upload	Transactions	Users	IP addresses	Last seen (UTC)
site-backup	Bucket	Amazon Web Services	70 KB	45 KB	95	11	7	May 14, 2019
general	Bucket	Google Cloud Platform	76 KB	49 KB	52	12	7	May 14, 2019
system2	Bucket	Google Cloud Platform	32 KB	21 KB	46	5	4	May 13, 2019
adatum	Bucket	Amazon Web Services	32 KB	20 KB	21	5	2	May 13, 2019
fabrikam company-files	Queue	Microsoft Azure	63 KB	41 KB	27	10	5	May 13, 2019
webapp	Bucket	Amazon Web Services	45 KB	29 KB	83	7	5	May 10, 2019
playground instance	File	Microsoft Azure	19 KB	12 KB	12	3	2	May 10, 2019
cohovineyard	Bucket	Google Cloud Platform	19 KB	12 KB	23	3	2	May 10, 2019
myteam	Bucket	Amazon Web Services	10 MB	4 MB	24	12	7	May 7, 2019
machines	Custom app	Google Cloud Platform	7 MB	3 MB	15	8	6	May 7, 2019
meetings	Bucket	Google Cloud Platform	7 MB	3 MB	9	9	6	May 6, 2019
storage	Bucket	Amazon Web Services	12 MB	5 MB	15	15	8	May 6, 2019

Discovered resources

Continuous report Global | Timeframe Last 30 days | ⋮

APP: | RESOURCE NAME: | RESOURCE TYPE: Advanced

1 - 20 of 27 resources 🔍 ⬇️ 📄

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site-backup	Bucket	Amazon Web Services	70 KB	45 KB	95	11	7	May 14, 2019	⋮
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adatum	Bucket	Amazon Web Services	32 KB	20 KB	21	5	2	May 13, 2019	⋮

adatum
Amazon Web Services

- User report ▶
- IP address report ▶

TRAFFIC Uploads

TRANSACTIONS

USERS

IP ADDRESSES

fabrikam company-files	Queue	Microsoft Azure	63 KB	41 KB	27	10	5	May 13, 2019	⋮
webapp	Bucket	Amazon Web Services	45 KB	29 KB	83	7	5	May 10, 2019	⋮
playground instance	File	Microsoft Azure	19 KB	12 KB	12	3	2	May 10, 2019	⋮
cohovineyard	Bucket	Google Cloud Platform	19 KB	12 KB	23	3	2	May 10, 2019	⋮



Get started today: Shadow IT

1

.....
Discover all cloud apps and services used in your organization

2

.....
Govern discovered cloud apps and explore like solutions within your environment

3

.....
Assess the risk and compliance of all cloud apps

04

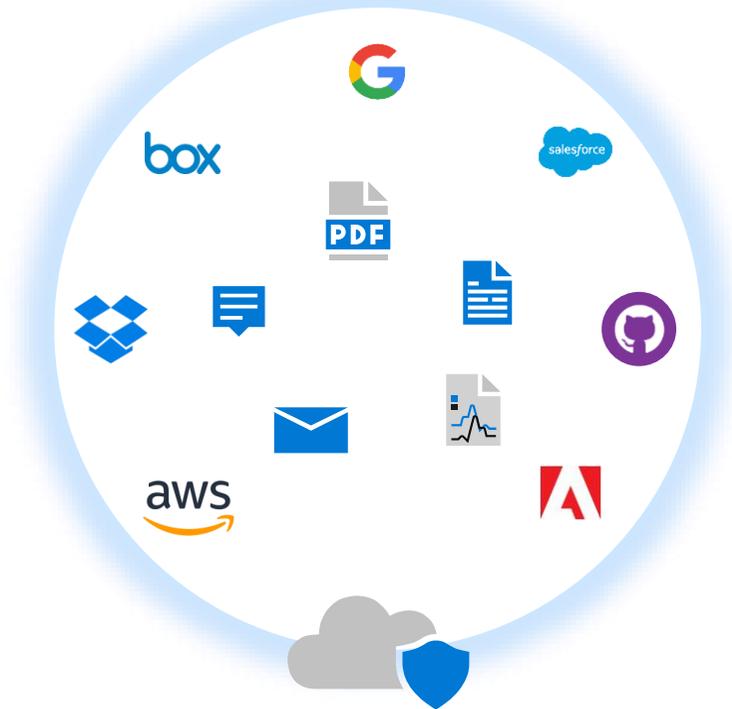
Information Protection





Information Protection

By leveraging information protection in Microsoft Cloud App Security, customers gain the power of Microsoft Information Protection applied to their environment holistically.



Microsoft Information Protection solutions

Protect your sensitive data—wherever it lives or travels



Discover



Classify



Protect



Monitor

Across



Devices



Apps



Cloud services



On-premises

Protect your files and data in the cloud

Data is ubiquitous and you need to make it accessible and collaborative, while safeguarding it

101010
010101
101010

Understand your data and exposure in the cloud

Connect your apps via our API-based App Connectors

Visibility into sharing level, collaborators and classification labels

Quantify over-sharing exposure, external and compliance risks



Classify and protect your data no matter where it's stored

Govern data in the cloud with granular DLP policies

Leverage Microsoft's IP capabilities for classification

Extend on-premises DLP solutions

Automatically protect and encrypt your data using Azure Information Protection



Monitor, investigate and remediate violations

Create policies to generate alerts and trigger automatic governance actions

Identify policy violations

Investigate incidents and related activities

Quarantine files, remove permissions and notify users

Detect and remediate overexposed files and anomalies

Create policies to generate alerts and trigger automatic governance actions

Policy creation is simple via our templates, or you can create your own custom policies which generate alerts, trigger automatic governance over certain actions and notify via Power Automate integrated workflows

Be notified to identify and investigate policy violations and related activities

Notifications and investigations into violations of policy and any other activities are easy to sort, filter and compile to elevate your security teams' execution of security plans

Automatically remediate with built-in actions

Automatic remediation with Cloud App Security baseline actions or with additional granularity in Power Automate allow notify admin, quarantine, make private, authenticate and other key actions

Automatically label and protect existing sensitive information, and when new files are uploaded

Classify your sensitive data and then allow Cloud App Security to scale your protection through automatic labeling or other automatic remediation when new files when new files are uploaded to your environment

The screenshot displays the Cloud App Security interface. At the top, there's a search bar and a navigation menu. Below that, a filter bar allows users to refine results by 'QUERIES', 'APP', 'OWNER', 'ACCESS LEVEL', 'FILE TYPE', and 'MATCHED POLICY'. The main area shows a list of files, with columns for 'File name', 'Owner', 'App', 'Collaborators', 'Policies', and 'Last modified'. Two files are highlighted in red, indicating policy matches: 'European customer data.docx' (owned by Jane) and '___sitelcon___jpg' (owned by System Account). A detailed view of the 'European customer data.docx' file is shown at the bottom, including its path, type, MIME type, creation/modification dates, owner, and classification labels like 'AZURE RMS ENCRYPTED'.

File name	Owner	App	Collaborators	Policies	Last modified
European customer data.docx	Jane (jane@mcas-test9.com)	Box - US	1 collaborator	1 policy match	Mar 2
Invoices from Box	Super Admin (mcas-test9) (superadmi...)	Box - US	1 collaborator	—	Mar 2
BOX_INV06580587_190327.pdf	Super Admin (mcas-test9) (superadmi...)	Box - US	1 collaborator	—	Mar 2
___sitelcon___jpg	System Account	Microsoft SharePoint Online	3 collaborators	1 policy match	Mar 2
Test	Silvia (silvia@mcas-test9.com)	Microsoft OneDrive for Business	1 collaborator	—	Mar 2
Documents	Silvia (silvia@mcas-test9.com)	Microsoft OneDrive for Business	1 collaborator	—	Mar 2
Employee_SSN.txt	Silvia (silvia@mcas-test9.com)	Microsoft OneDrive for Business	1 collaborator	—	Mar 2
mcas-test9-my.sharepoint.com.url	Silvia (silvia@mcas-test9.com)	Microsoft OneDrive for Business	1 collaborator	—	Mar 2
European customer data.docx	Jane (jane@mcas-test9.com)	Box - US	1 collaborator	1 policy match	Mar 1

Key differentiators via Microsoft Information Protection approach

Unified labelling with Microsoft Information Protection

Leverage the powerful native integration of MIP with a streamlined experience across Office 365 Data Loss Prevention, Azure Information Protection and Cloud App Security

Over 150 built-in sensitive information types

Choose from 150+ built-in information types from credit card data, to data that triggers regulatory constraints such as GDPR or HIPAA

Custom sensitive information types using Regex, keywords and large dictionary

Ensure compliance and company policies are adhered to by further customizing your Cloud App Security information types

Custom and built-in classifiers as EDM, fingerprint, and trainable classifiers

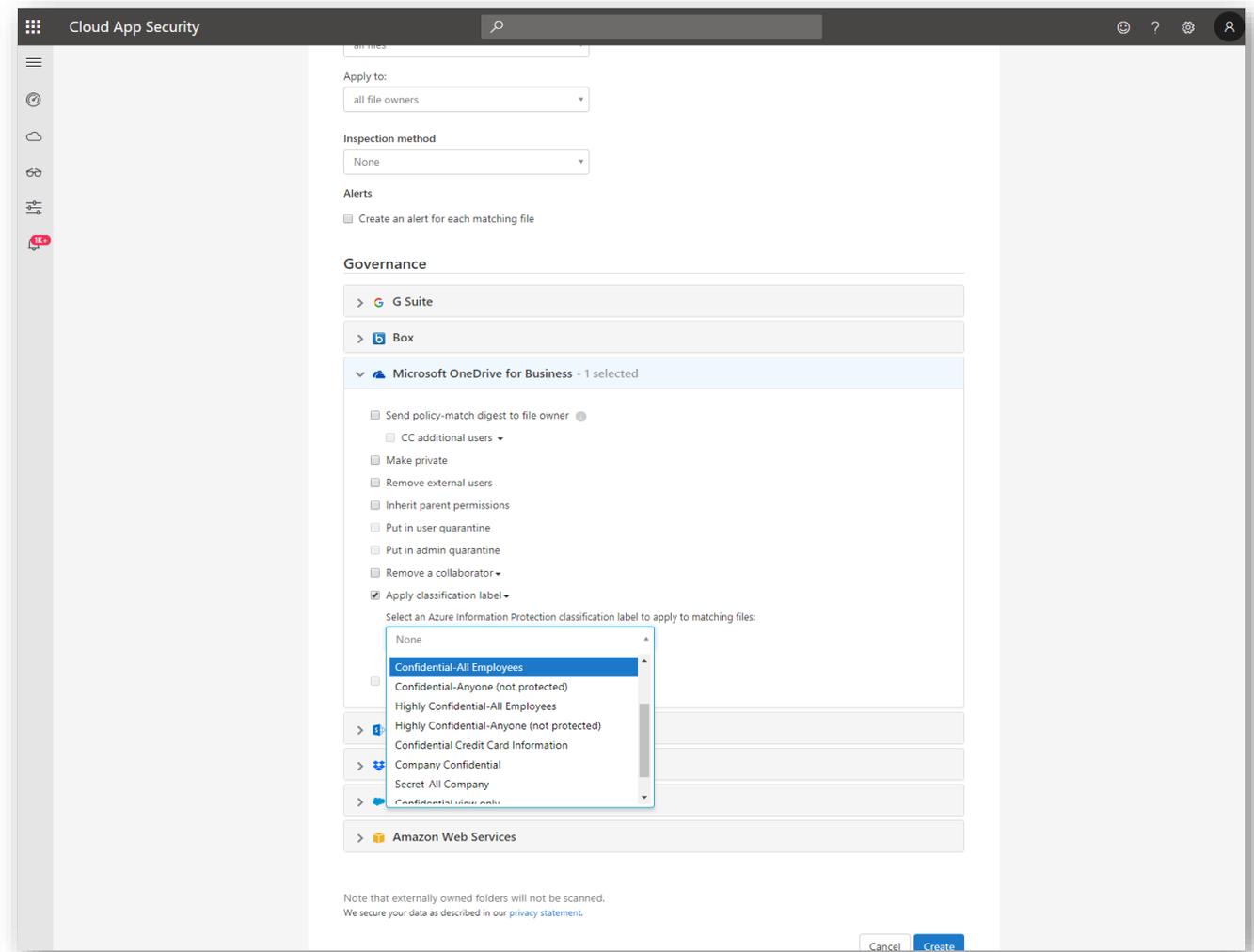
Powerful machine learning classifiers are put to work to help your Cloud App Security instance classify sensitive data types outside of the typical file types and data sources

Leverage any DLP engine for classification

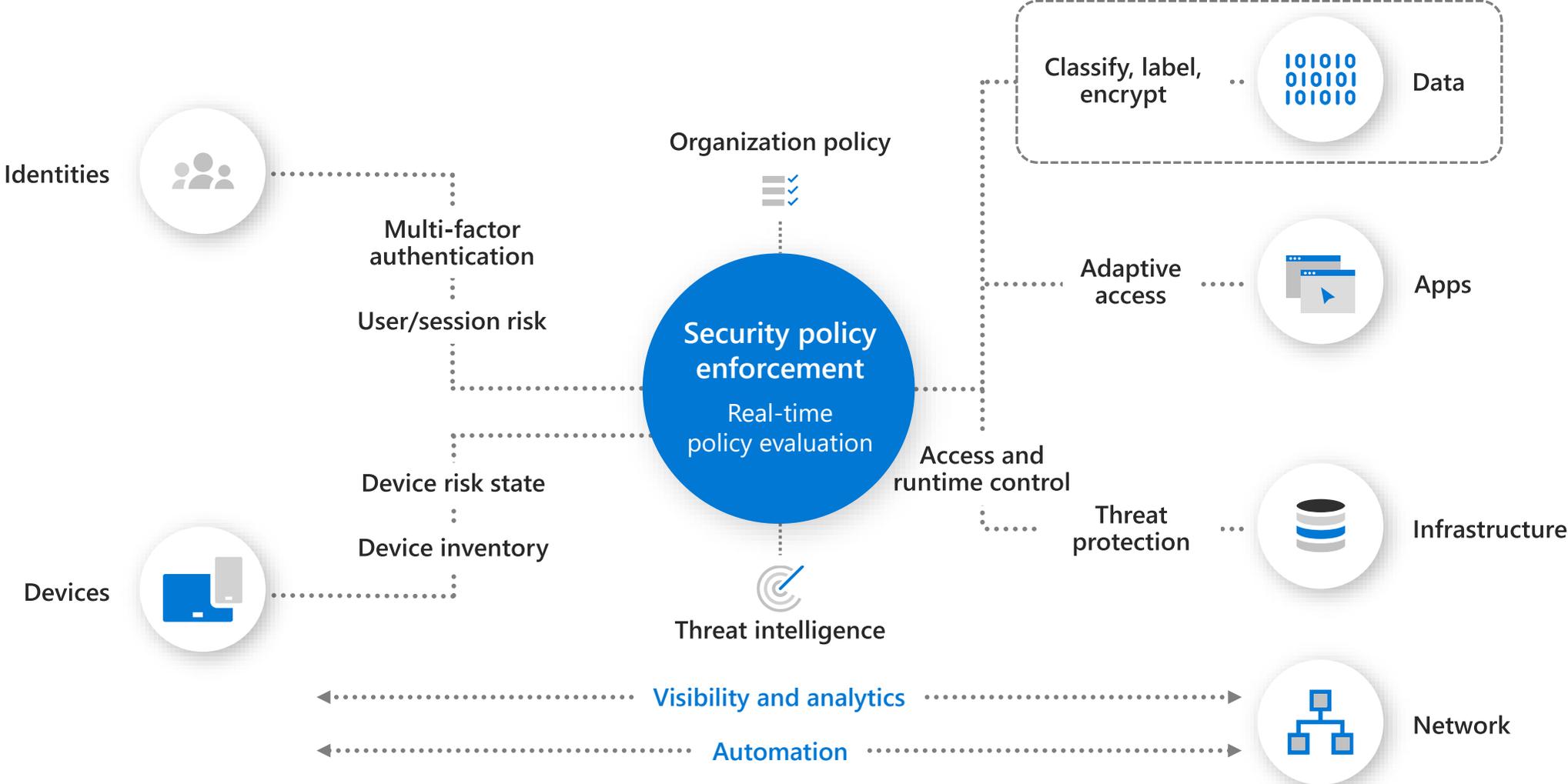
Use your choice of data loss prevention engine to train your Cloud App Security instance or amplify your connections to Office DLP engines in addition to your custom set of classifications

Leverage AIP labels

Azure Information Protection labels work hard to provide simple and straightforward labels for your data so all your employees and admins know how to appropriately leverage your sensitive data



Information Protection incorporates Zero Trust principles



Lifecycle of protecting sensitive files in the cloud

1. User uploads a sensitive file to a cloud app



2. A classification label is automatically applied to protect the file



3. User tries to share sensitive file with external users

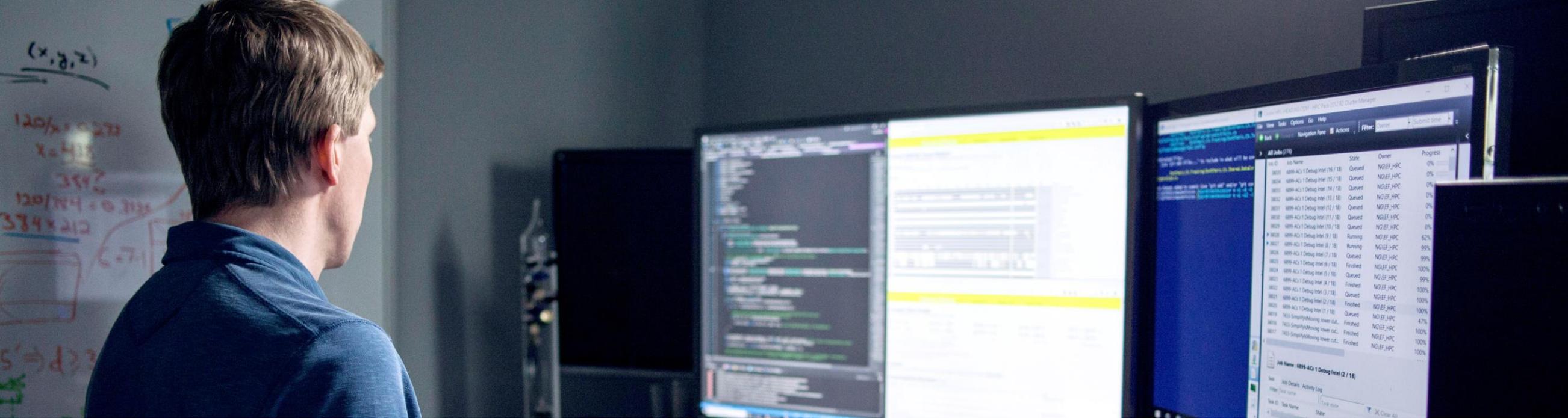


4. External user is not able to access the file due to classification and protection



5. Admin receives event alerts





Get started today: Information Protection

1

Enforce a corporate information classification strategy

2

Create and enforce policies that require end-user classification

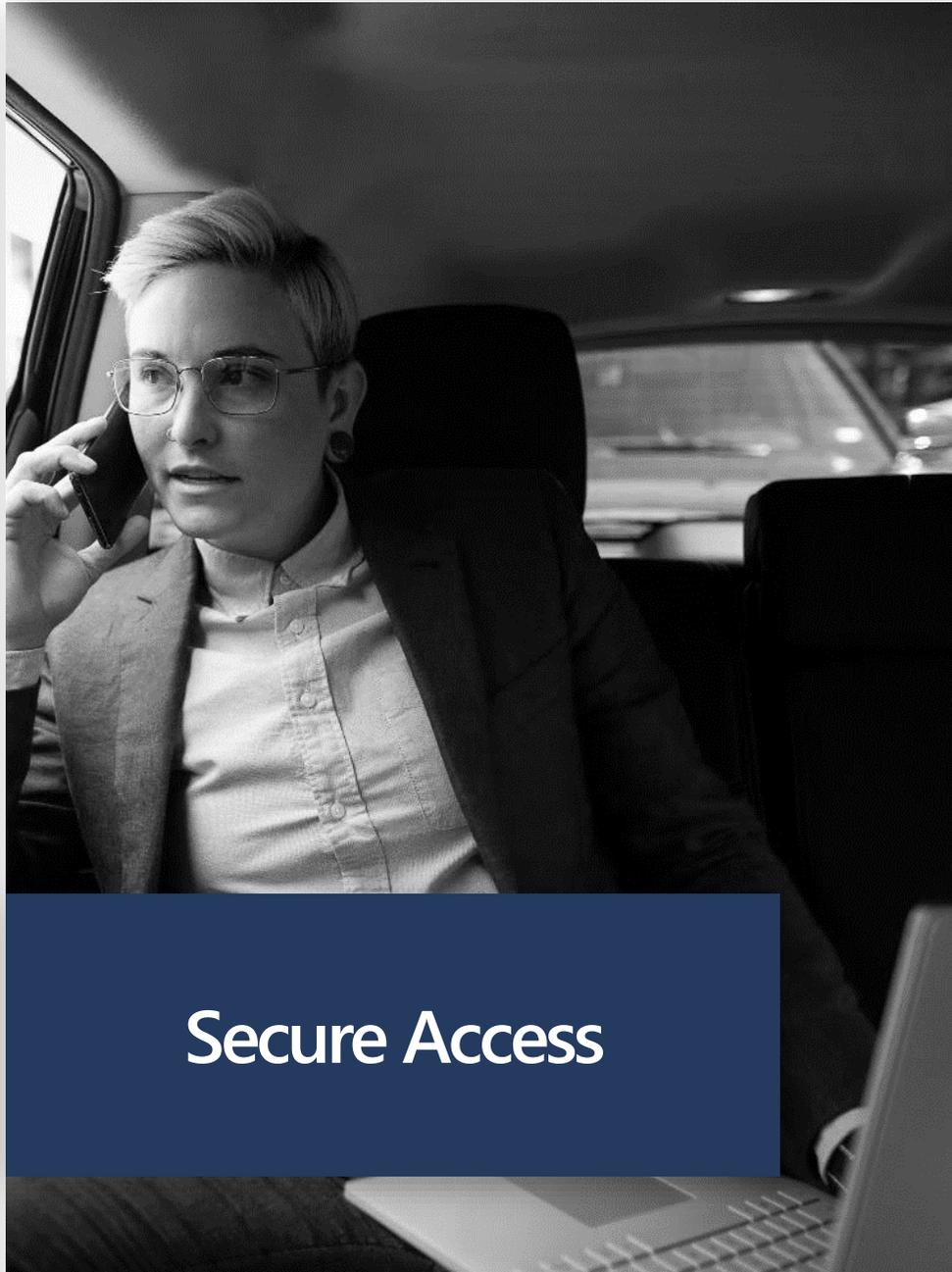
3

Deploy a “warn and educate” experience for your user population

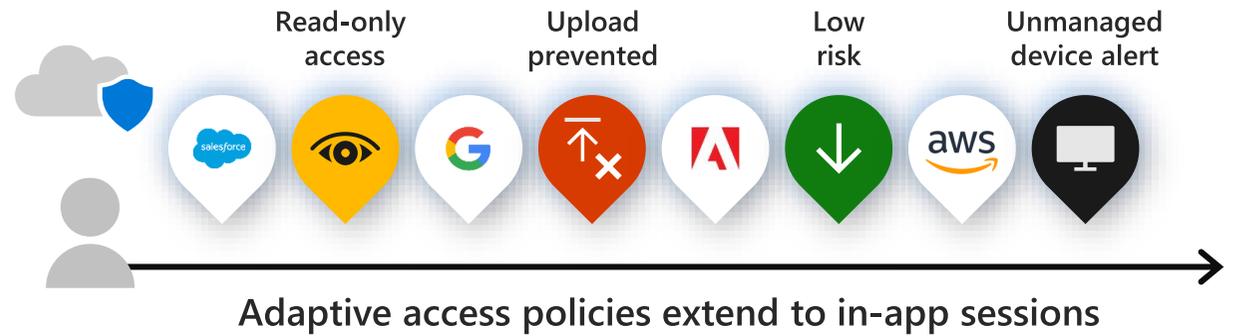
05

Secure Access

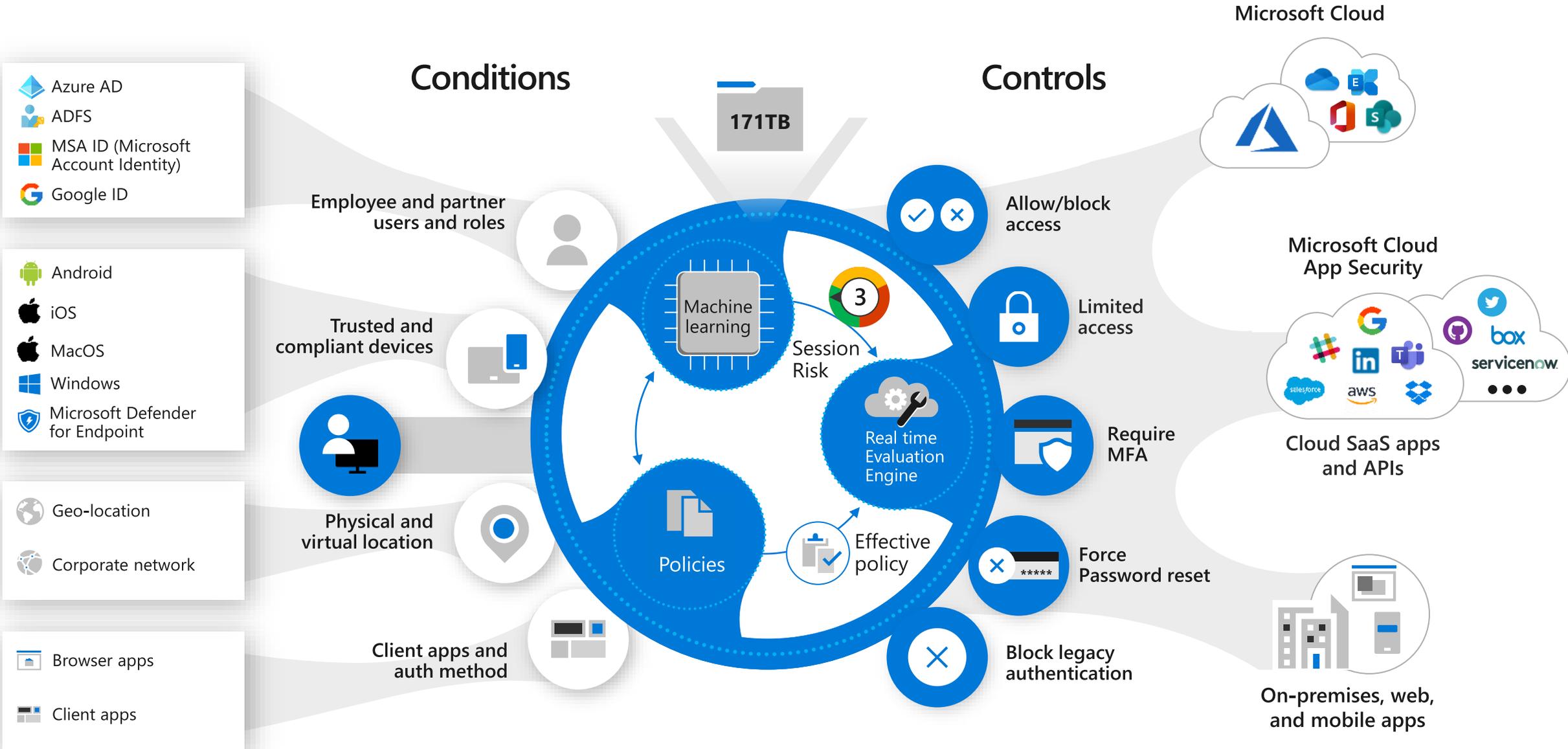




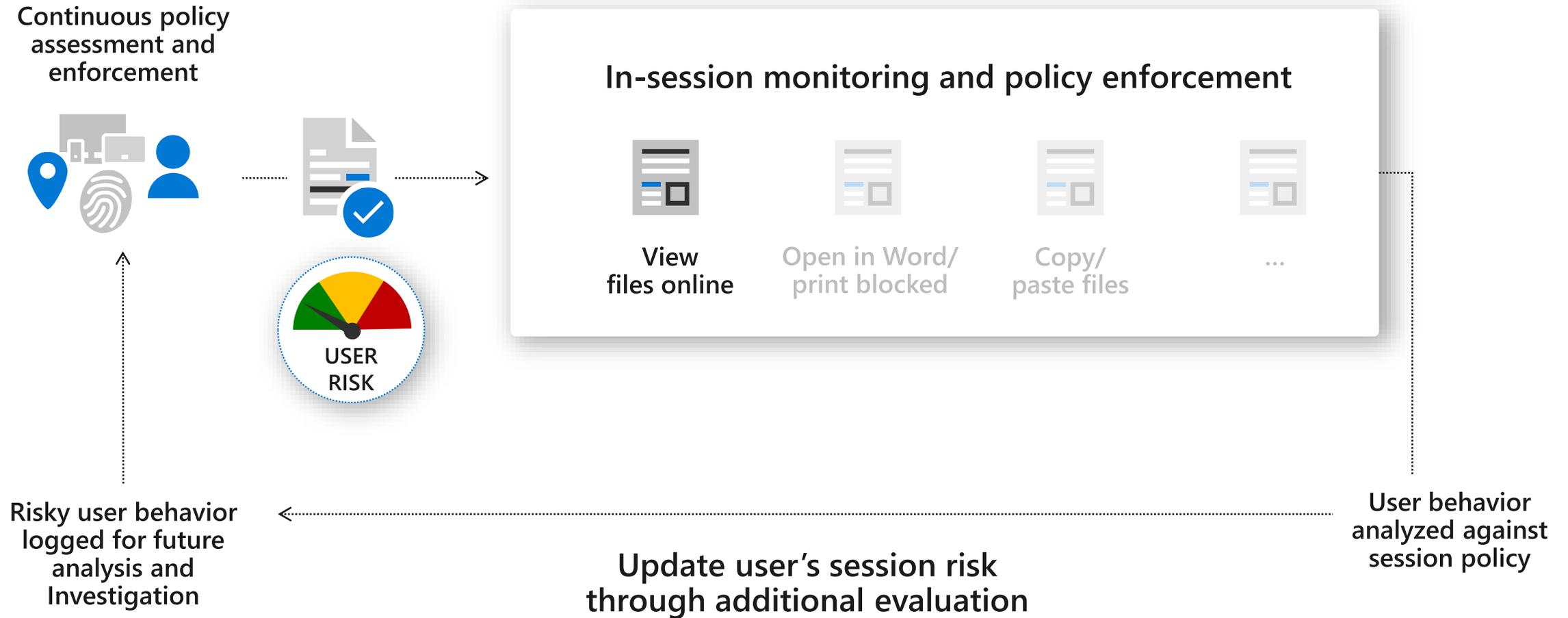
Integrating Microsoft Cloud App Security with your identity provider enables real-time enforcement of in-session actions.



Secure Access in real-time



Extend policy enforcement into the session



Real-time in-session App Control

Context-aware session policies

Control access to cloud apps and sensitive data within those apps based on user, location, device, and the status of the application within the environment

SAML, Open ID Connect, & on-prem apps

Support for any web app onboarded via an enterprise-level identity provider

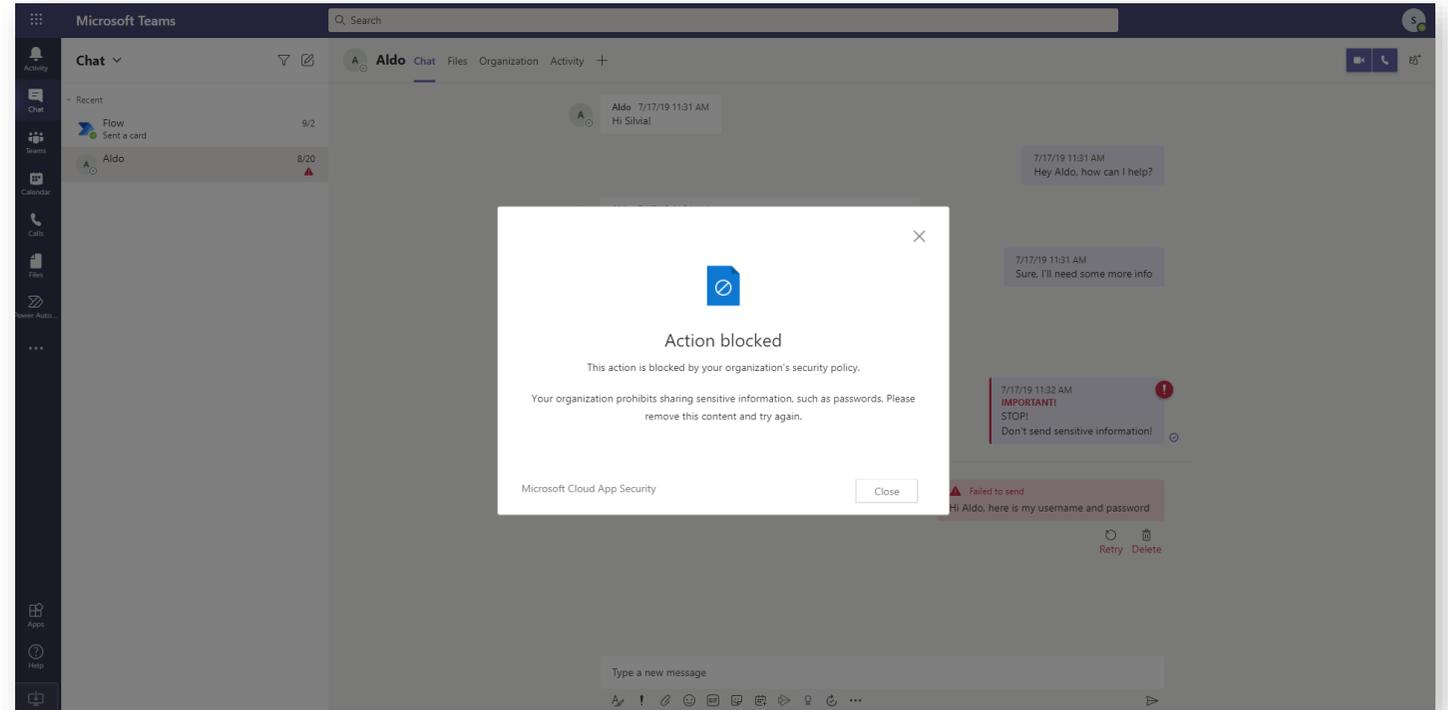
Enforce granular monitoring & control for risky user sessions

Data Exfiltration:

- Block download, Apply AIP label on download
- Block print
- Block copy/cut
- Block custom activities: (e.g., IMs with sensitive content)

Data Infiltration:

- Block upload
- Block paste



Key differentiators to optimize the admin and end user experience

Unique integration with Azure AD Conditional Access

Selective routing to Cloud App Security based on the session risk determined by Conditional Access to optimize end user productivity

Simple deployment

Built-in policies that can be configured directly within the Azure AD portal for an easy deployment

Control your on-prem apps

Leverage the same powerful real-time controls for your on-prem apps by integrating them with Azure AD Application Proxy

Worldwide Azure datacenters infrastructure

Cloud App Security leverages Azure data centers across the world to optimize performance and user experience

The screenshot displays the Microsoft Azure portal interface for configuring a policy. The breadcrumb navigation shows: Home > MCAS Contoso 9 > Conditional access - Policies > Route Charles to CAS from non-compliant de. The policy name is "Route Charles to CAS from no...".

Info **Delete**

* Name
Route Charles to CAS from non-compliant dev

Assignments

- Users and groups ⓘ
Specific users included >
- Cloud apps ⓘ
1 app included >
- Conditions ⓘ
1 condition selected >

Access controls

- Grant ⓘ
0 controls selected >

Session

Session controls enable limited experiences within a cloud app. Select the session usage requirements. [Learn more](#)

Use app enforced restrictions ⓘ

Warning: This control only works with supported apps. Currently Exchange Online and SharePoint Online are the only cloud apps that support app enforced restrictions. Click here to learn more.

Use Conditional Access App Control ⓘ

Use custom controls... ^

- Monitor only
- Block downloads
- Use custom controls...

Warning: control only works with featured apps. Click here to learn more.



Get started today: Secure Access

1

Gain visibility into corporate data stored in the cloud

2

Enforce DLP and compliance policies for sensitive data stored in your cloud apps

3

Ensure safe collaboration and data sharing practices in the cloud

06

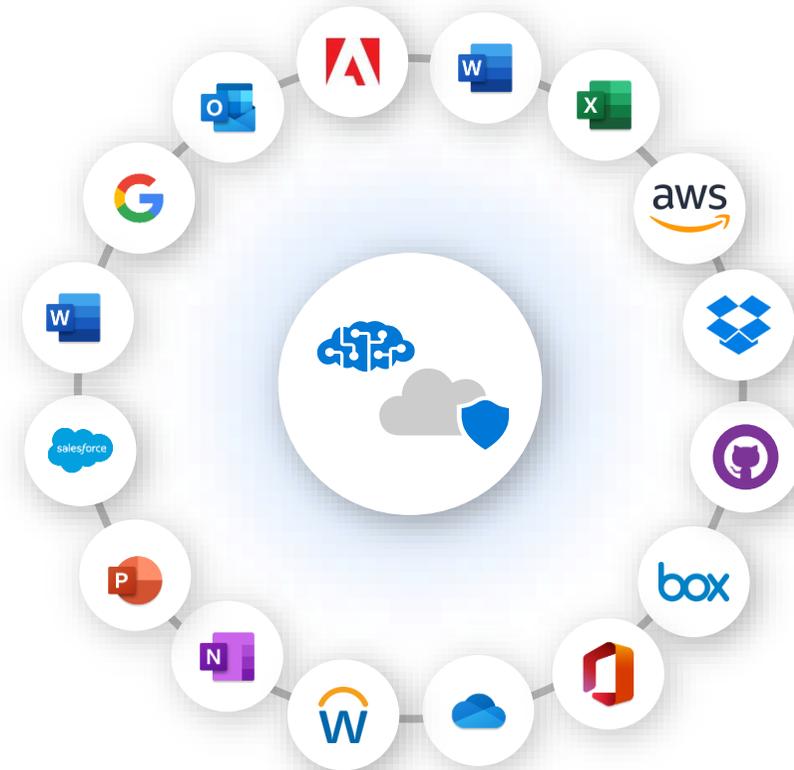
Threat Protection for your
cloud environment





Threat Protection

The integrated threat protection in Cloud App Security enables customers to detect advanced attackers and native cloud threats by detecting anomalous behavior and malicious activity in their cloud environment.



The challenge of securing your environment



Bad actors are using increasingly creative and sophisticated attacks



The digital estate offers a very broad surface area that is difficult to secure



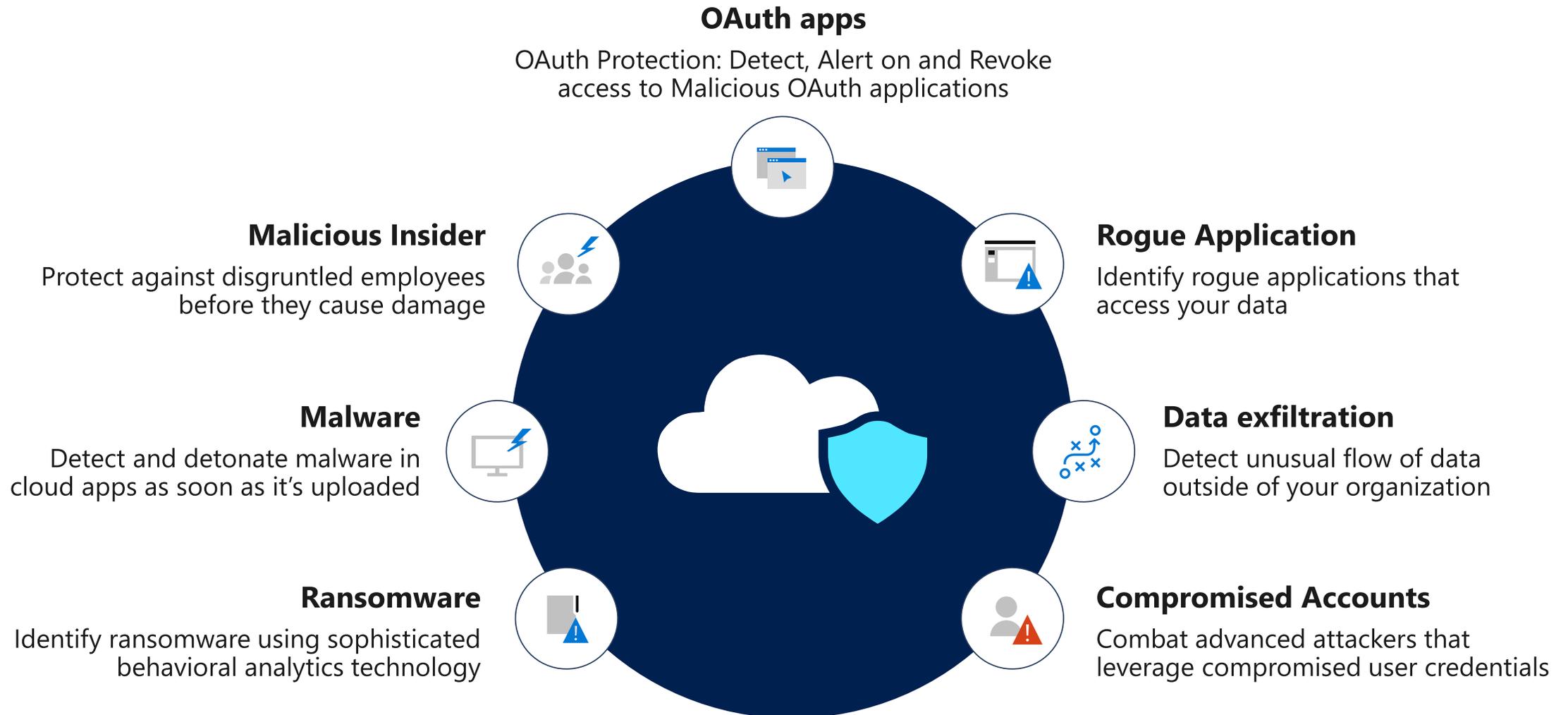
Identifying malicious behavior by intelligent correlation of signals is difficult, time-consuming, and expensive



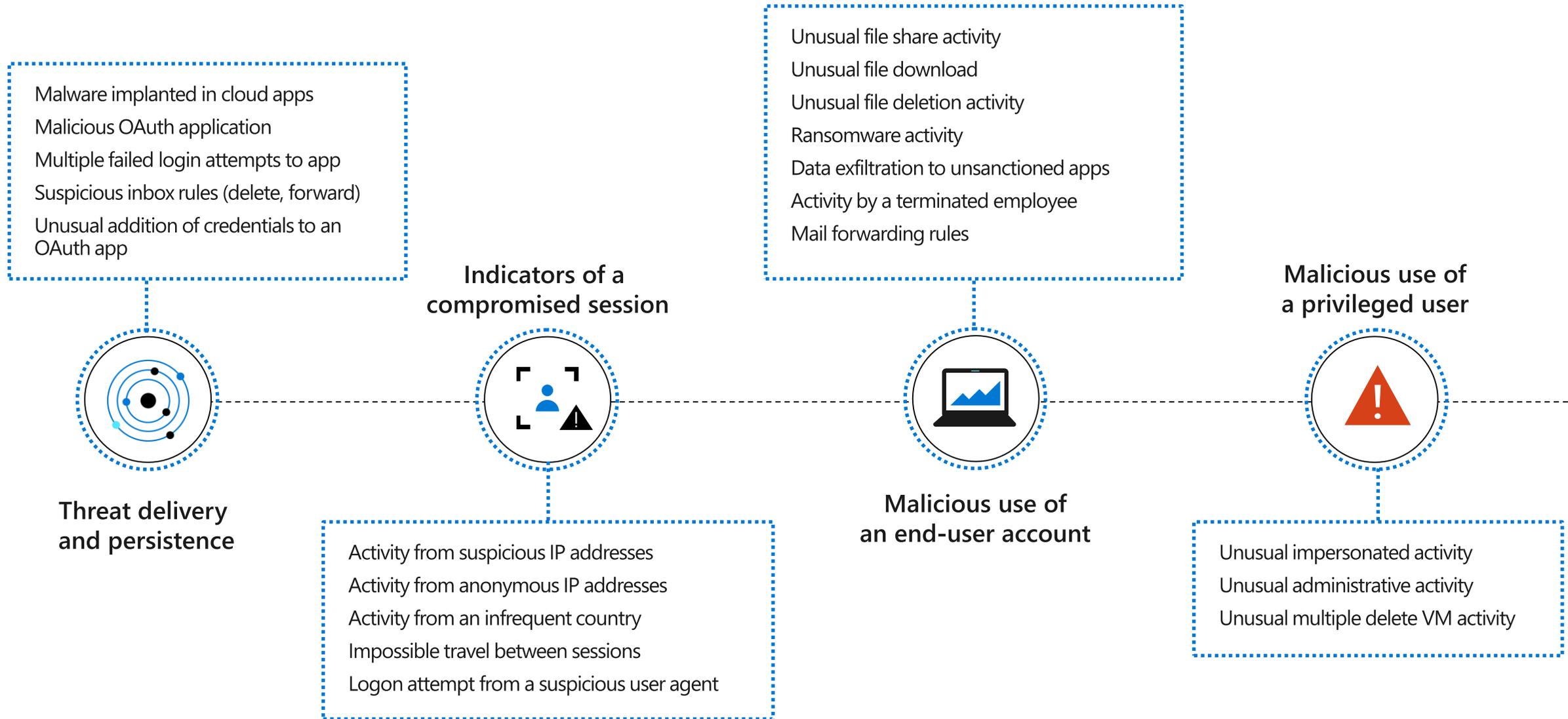
Alongside our industry partners and the security community, Microsoft continues to investigate the extent of the recent nation-state attack on SolarWinds. As new information becomes available, we will make updates at <https://aka.ms/solorigate>



Protection against cloud threats



Detections across cloud apps



Message

Delete

John D

Google Docs would like to:

Developer info
email: eugene.pupov@gmail.com
Clicking "Allow" will redirect you to:
<https://googledocs.docscloud.info/g.php>

Read, send, de

Manage your contacts

Open in

By clicking Allow, you allow this app and Google to use your information in accordance with their respective [terms of service](#) and [privacy policies](#). You can change this and other [Account Permissions](#) at any time.

Deny Allow



Key threat alerts and mitigation actions

Identify high-risk and anomalous usage

Ensure visibility to any anomalous activities where a high-risk app or session has been identified

Exfiltration of data to unsanctioned apps

Be alerted when your users attempt to exfiltrate data to applications that have been "unsanctioned" in your environment

Rogue 3rd party application alerts, mitigate ransomware attacks

Any application being accessed in your environment which falls into the parameters that Microsoft has determined as rogue or malicious will be alerted on

Suspend user sessions and revoke OAuth app access

Admin can auto-suspend, or be prompted to suspend user sessions or revoke OAuth token in order to mitigate risk

The screenshot displays the Microsoft Cloud App Security interface. At the top, it shows 'Alerts > Ransomware activity | 3 MONTHS AGO' with a 'MEDIUM SEVERITY' indicator. The alert details include a description: 'The user billd@mcas-test9.com uploaded a file (https://mcastest9-my.sharepoint.com/personal/billd_mcas-test9_com/Documents/recovery_key.txt), which is common in ransomware attacks. 1 of them had the same file extension (locky).'. Below this is an 'Activity log' section with a table of activities. A resolution menu is open, showing options such as 'Suspend user', 'Require user to sign in again', and 'Account settings in app'. At the bottom, there is a summary section for IP address 167.220.196.35, showing 131 open alerts, 13 activities, and 0 admin activities.

Activity	User	App	IP address	Location	Device	Date
Upload file: file https://mcastest9-my.sharepoint.com/personal/billd_mcas-test9_com/Documents/recovery_key.txt	billd@mcas-test9.com	Microsoft OneDrive for Business	167.220.196.35	United Kingdom, England, London	Windows	Aug 13, 2018, 12:00:00
Upload file: file https://mcastest9-my.sharepoint.com/personal/billd_mcas-test9_com/Documents/recovery_key.txt	billd@mcas-test9.com	Microsoft OneDrive for Business	167.220.196.35	United Kingdom, England, London	Windows	Aug 13, 2018, 12:00:00
Upload file: file https://mcastest9-my.sharepoint.com/personal/billd_mcas-test9_com/Documents/recovery_key.txt	billd@mcas-test9.com	Microsoft OneDrive for Business	167.220.196.35	United Kingdom, England, London	Windows	Aug 13, 2018, 12:00:00

Comprehensive Threat Protection for your cloud apps

Built-in Threat Protection policies

More than 20 out-of-the-box policies and growing. Policies alert you on some of the most common cloud threats such as impossible travel, impersonation activities or ransomware detection

Malware detonation

Intelligent heuristics identify potentially malicious files and detonate them in a sandbox environment—for existing and newly uploaded files

Customize policies to alert and remediate

Customize what you want to be alerted on to minimize noise and configure automatic remediation

Prioritized investigation of alerts

Overview of users who likely pose the greatest risk to the organization and are recommended for immediate review with a unified view of identity threat across on-premises and cloud

Achieved 100% product features in the threat protection pillar Gartner Magic Quadrant 20201

The screenshot displays the 'Alerts' section of the Cloud App Security interface. At the top, there are filters for Resolution Status (OPEN, DISMISSED, RESOLVED), Category (Select risk category...), Severity (Low, Medium, High), App (Select apps...), User Name (Select users...), and Policy (Select policy...). Below the filters, a table lists 12 alerts. A blue box highlights the 'App' column for the first four alerts:

Alert	App	Resolution	Severity	Date
Risky OAuth apps 178.17.166.149 Bill Dortch	Salesforce - General	RESOLVED	Low	2 days ago
Ransomware activity 178.17.166.149 Bill Dortch	Amazon Web Service	RESOLVED	High	2 days ago
Malware campaign caught in delivery 178.17.166.149 Bill Dortch	Slack - General - General	RESOLVED	Low	2 days ago
Activity from a Tor IP address 79.137.68.85 Bill Dortch	Box - General - General	RESOLVED	Medium	2 days ago
Alert on any session coming from a Risky IP address 79.137.68.85 Bill Dortch	Office 365	DISMISSED	Low	2 days ago



Protect organization identities and leverage unified investigation across on-premises and cloud activities



Microsoft Cloud App Security



Microsoft Defender for Identity



Azure AD Identity Protection



Unified SecOps experience to investigate identity activities across on-prem and cloud



Investigation priority - based on User and Entity Behavior Analytics



Get started today: Threat Protection

1

Identify compromised user accounts

2

Record an audit trail for all user and privileged account activities across hybrid environments

3

Detect and remediate malware in your cloud apps

07

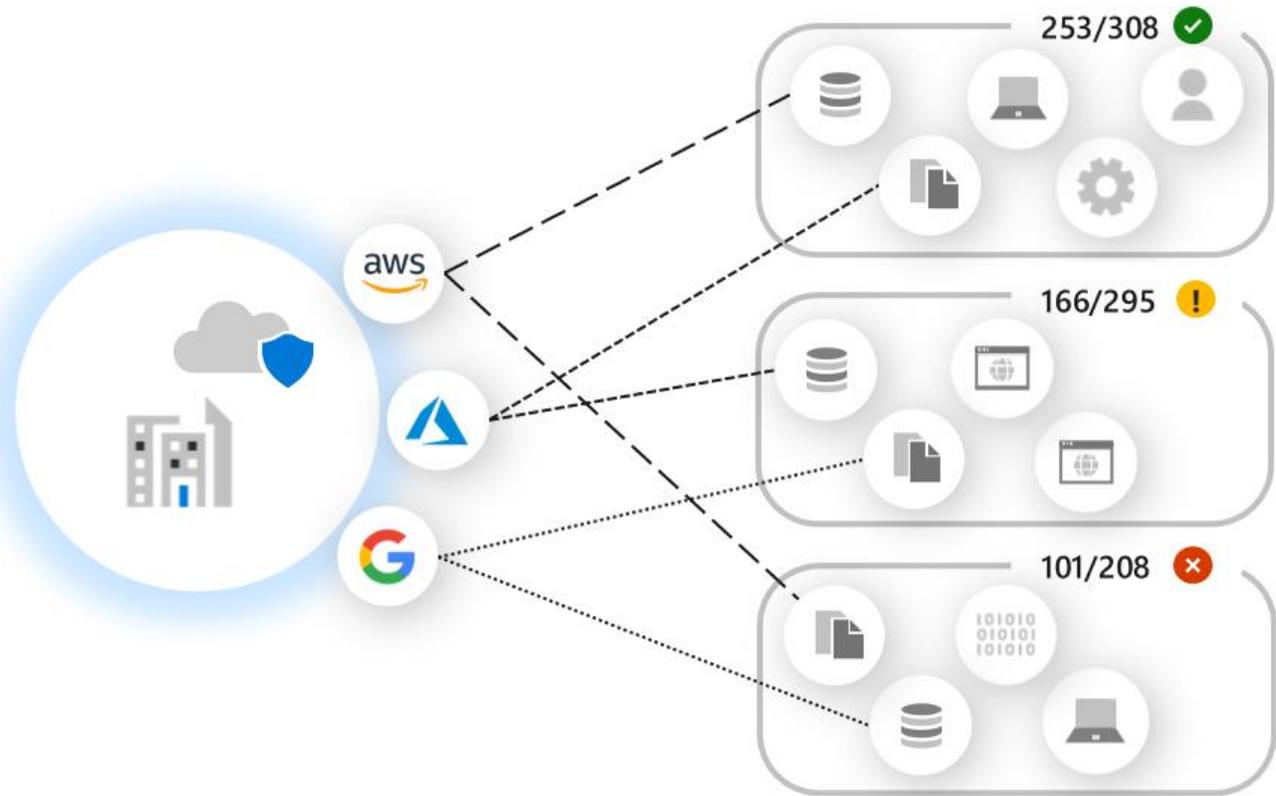
Cloud Security
Posture Management





Cloud Platform Security

Cloud platform security prioritizes the risks and makes recommendations for improvement against your pre-selected goals.



CASB for cloud platforms

Detection and investigation of anomalous admin behavior

Identify anomalies in your cloud environment via advanced behavioral analytics

Pivot on users, IP addresses, resources, activities and locations

Security posture assessment

Analyze the security posture of your cloud platform and identify missing security configurations and controls

Unique integration with Azure Security Center

Pivot to Azure Security Center to apply recommendation and remediate vulnerabilities

Multi-cloud capabilities and integration

Connect your AWS Security Hub and GCP Security Configurations for visibility into third-party cloud security recommendations

The screenshot displays the Cloud App Security interface, divided into two main sections: Security configuration and Policies.

Security configuration section:

- Navigation: Discover, Investigate, Control, Alerts.
- Section: Security configuration (For Azure). Subtext: Displaying recommendations for 3 of 3 Azure subscriptions.
- Filters: RECOMMENDATIONS (Select recommendation...), RESOURCES (Select resource type...), SUBSCRIPTIONS (Select subscription...), SEVERITY (Medium, High).
- Table: 1 - 13 of 13 recommendations.

Recommendations	Resources	Subscription	Severity
Add a Next Generation Firewall	1 Public IP address(s)	FREE TRIAL	Medium
Add a vulnerability assessment solution	2 Virtual Machine(s)	2 Subscriptions	Medium
Add a web application firewall	1 Public IP address(s)	FREE TRIAL	Medium
Apply a Just-In-Time network access control	1 Virtual Machine(s)	FREE TRIAL	High
Apply disk encryption	2 Virtual Machine(s)	2 Subscriptions	Medium
Designate more than one owner on your subscription	1 Subscription(s)	FREE TRIAL	Medium

Policies section:

- Section: Policies.
- Filters: NAME (Policy name...), TYPE (Select type...), STATUS (ACTIVE, DISABLED), SEVERITY (Medium, High), CATEGORY (Sharing control).
- Table: 1 - 1 of 1 Policies.

Policy	Count	Severity	Action	Modified
Publicly accessible S3 buckets (AWS) Alert when an S3 bucket in AWS is publicly accessible.	1 matches	Medium	Alert	Sep 19, 2018



Get started today: Cloud Security Posture Management

1

Decide which elements are key and unilateral according to your core priorities for security posture management

2

Leverage the recommendations from your multi-cloud platforms to create a unified and secure environment

3

Regularly check the platform alerts for maintenance of your intended security posture

08

Enterprise integrations



Benefits of enterprise integrations

Export alerts and activities to your SIEM

Better protect your cloud applications while maintaining your usual security workflow, automating security procedures and correlating between cloud-based and on-premises events

Automate processes via API or PowerShell

Create your own applications using programmatic access to Cloud App Security data and actions through REST API endpoints

Protect your sensitive data with Microsoft Information Protection

Bring awareness and visibility to your organization's sensitive data by leveraging Microsoft Information Protection integrated with Cloud App Security to provide labeling and safeguarding for your organization's information

Leverage your current DLP solution

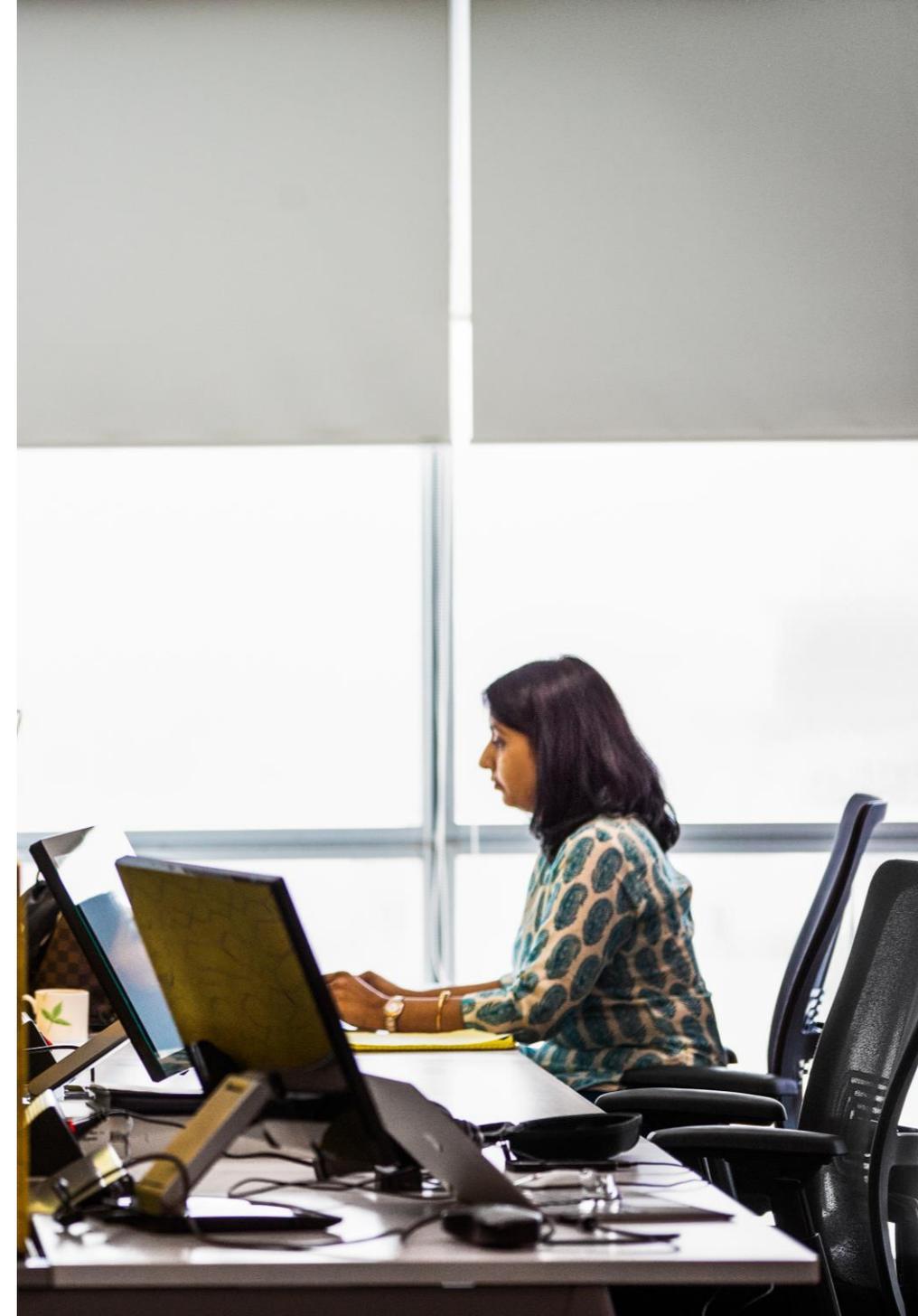
Integrate with Security and Compliance Center to create and manage DLP policies across all cloud apps

Security Workflow automation with Power Automate

Centralized alert automation and orchestration of custom workflows using the ecosystem of connectors in Microsoft Power Automate. Enables routing alerts to ticketing systems (e.g. ServiceNow), gather end user input for alert investigation, get approval from SOC operator to execute action or apply additional security controls.

Secure your SecOps with Azure Sentinel and Microsoft Defender XDR

Elevate your security operations with Azure Sentinel and Microsoft Defender products (Microsoft Defender for Endpoint, Microsoft Defender for Office 365, Microsoft Defender for Identity)



09

Automating security workflows



Automating security workflows with Power Automate

Centralized alert automation and orchestration of custom workflows

Power Automate allows for deeply integrated orchestration of alerts from Cloud App Security

Automate the triage of alerts

Triage your alerts into correct support queues, eliminating extra noise for your security and compliance teams

Enables an ecosystem of connectors in Power Automate including more than 100 connectors

Add more power to your triaging experience through connectors to apps such as Jira, ServiceNow, and DocuSign

Out-of-the-box and custom workflow playbooks that work with the systems of your choice

Playbooks enable your security and compliance teams to formulate repeatable actions to take when incidents occur, making your team more efficient

The screenshot displays a Power Automate flow titled "Request Input from user/manager for governance action". The flow is designed to automate the triage of alerts from Cloud App Security. It begins with a trigger "When an alert is generated (Preview)". This is followed by a "Get user" action that retrieves the user information for the "CompromisedEntry" connector. The next step is a "Send Text Message (SMS)" action, configured to send a message from "socteam@contoso.com" to a "Mobile Phone" connector. The message text is "Cloud App Security Generated Alert for your Account - Request for your input". This is followed by a "Send email with options" action, which sends an email via the "Mail" connector. The email subject is "Your input is required for investigation" and the user options are "Pleaseignore, I'mNotSure". The flow then reaches a "Condition" step that checks if the "SelectedOption" is equal to "Pleaseignore". If the condition is met (If yes), the flow proceeds to a "Dismiss alert" action. If the condition is not met (If no), the flow proceeds to a "Slack" action.

Sample automation scenarios

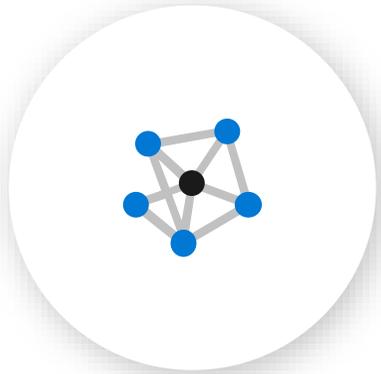
1. Route alerts to ticketing systems such as Jira or ServiceNow
2. Route alerts to different SOC teams based on geography of the user
3. Request input from a user's manager to triage alert
4. Request user input to decide how to triage an alert
5. Block unsanctioned apps on the firewall using CAS discovery alerts
6. Get admin approval to execute remediation action
7. Disable user in AAD and in on-prem Active Directory based on suspicious alerts
8. Remove malicious forwarding inbox rule in Exchange Online
9. Automatically dismiss "unusual location" alerts when a user has OOF message set to "On"
10. Cloud App Security alert triggers antivirus scan in Microsoft Defender for Endpoint

10

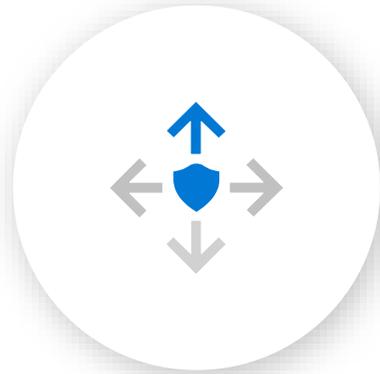
Summary and next steps



Investment areas



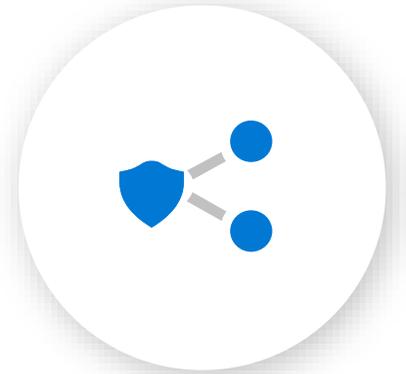
Build unique, native integrations with Microsoft's Security and Identity solutions



Protection for IaaS and PaaS, expanding our existing security posture management capabilities



Supporting any app anywhere with corporate identities



SecOps experience across Microsoft 365 Defender

Top 10 CASB use cases you should think about

1. Discover the cloud apps and services used in your organization
2. Assess the risk and compliance of all cloud apps
3. Govern access to discovered cloud apps and explore enterprise-ready alternatives
4. Discover OAuth apps with access to your environment
5. Gain visibility into all corporate data stored in the cloud apps and understand your exposure
6. Enforce DLP and compliance policies for sensitive data stored in your cloud apps
7. Protect data downloaded to unmanaged devices
8. Detect compromised user and admin accounts, and identify insider threats
9. Detect and remediate malware in your cloud apps
10. Audit the configuration of your IaaS environments



Next steps

1. Sign up for a [Microsoft Cloud App Security Trial](#)
2. Upload a log file from your network firewall or enable logging via [Microsoft Defender for Endpoint](#) to [discover Shadow IT](#) in your network and assess the risks of detected cloud apps
3. [Connect your Cloud Apps](#) to Microsoft Cloud App Security to detect suspicious user activity and exposed sensitive data
4. Enable out-of-the-box [anomaly detection policies](#) and start detecting cloud threats in your environment
5. Continue with more advanced use cases across [Information Protection](#), Compliance and more





Resources

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Get started with a free trial:

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Understand your licensing options:

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Q&A



Thank you.

