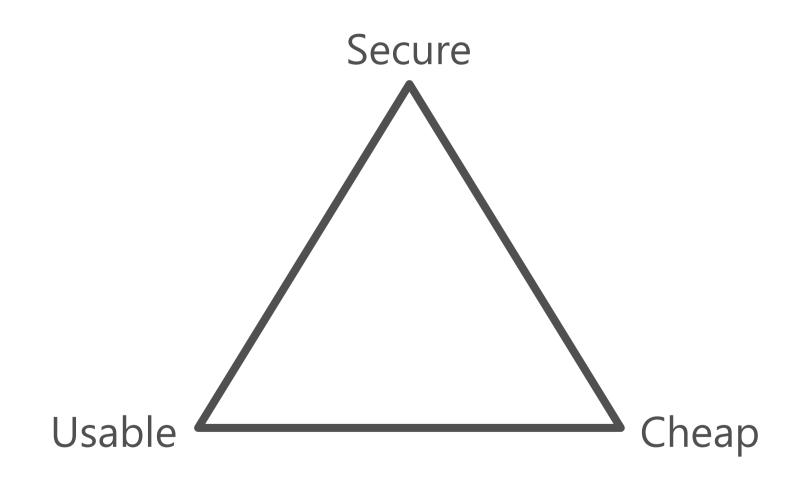
Office 365 Security

Agenda

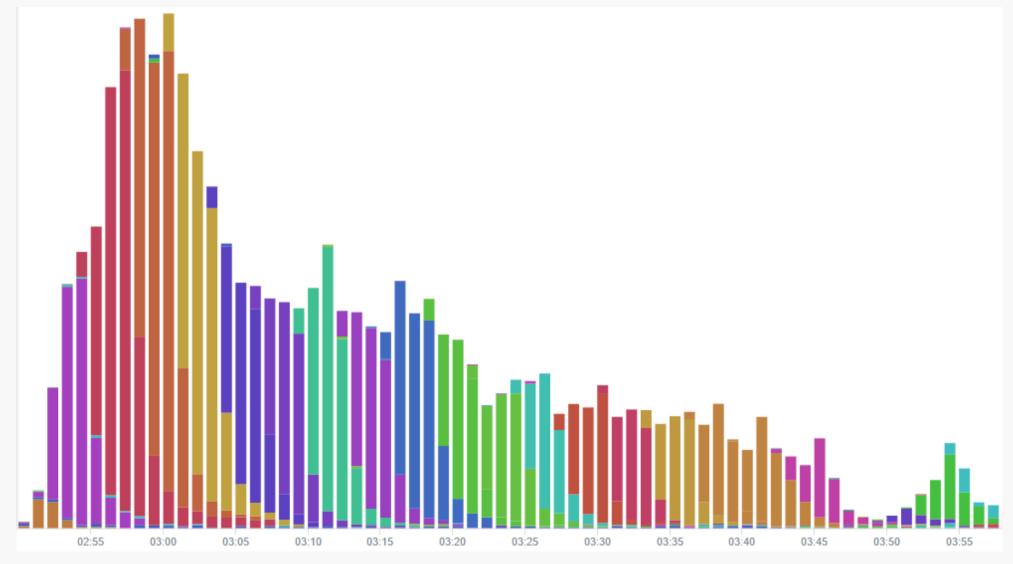
- Landscape
- Office 365 Protection
- What you should do
- Some Office 365 security components
- Take aways



The Security Dilemma



Behind the attack – Cryptolocker Distribution



Attack morphs over time to evade detection

Behind the attack – Cryptolocker infection

Attacker Here it is. Start encrypting. Command and control

Office 365 Protection

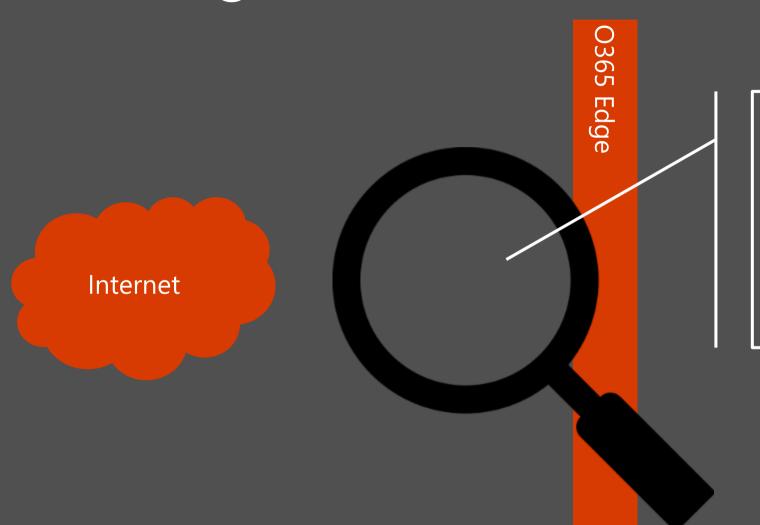
Edge Block

AV Scanners

Reputation Blocking Heuristic Clustering

ATP Safe Attachments Antispam Phish Spoof

ATP Safe Links



sender ip: 10.2.1.1

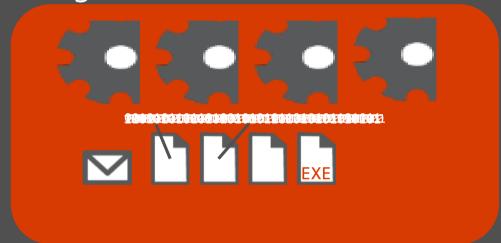
sender: badguy@malicious.com

recipient: goodguy@contoso.com

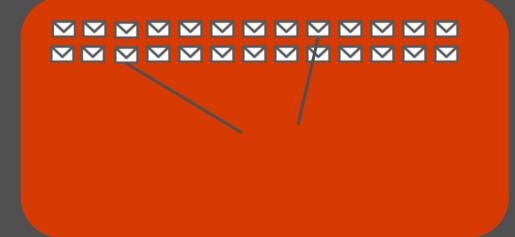
internal reputation: bad

external reputation: bad

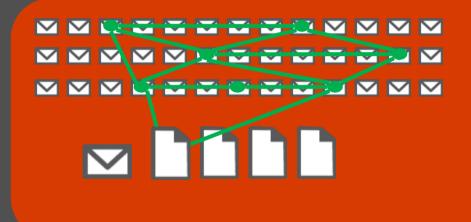
Signature AV Scans



Reputation Block



Heuristic Clustering



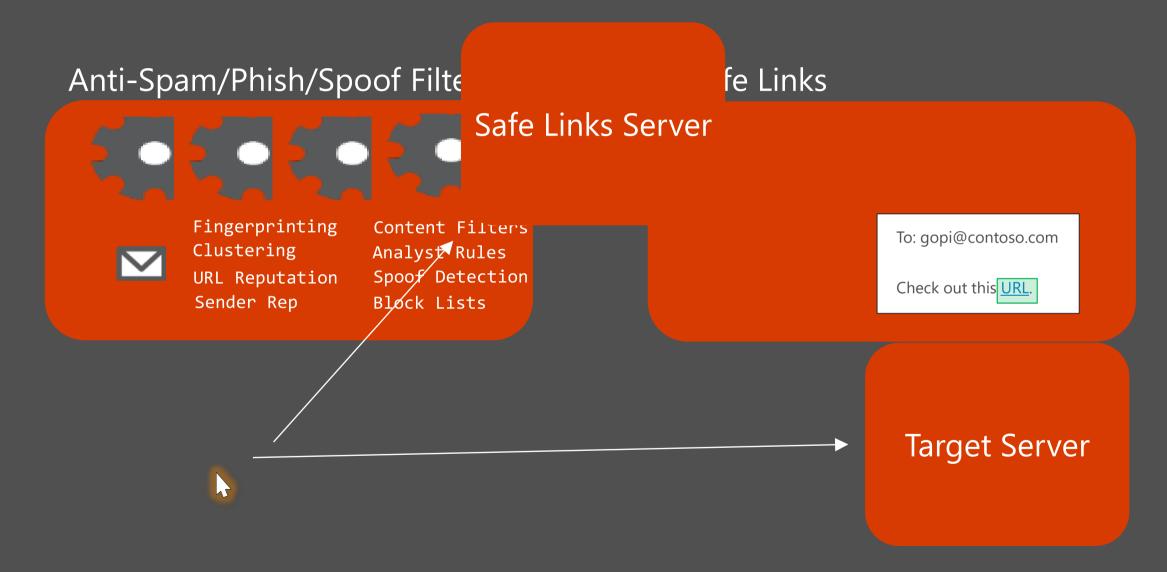
ATP Safe Attachments



Sandbox

memory scan obfuscation evasion encryption

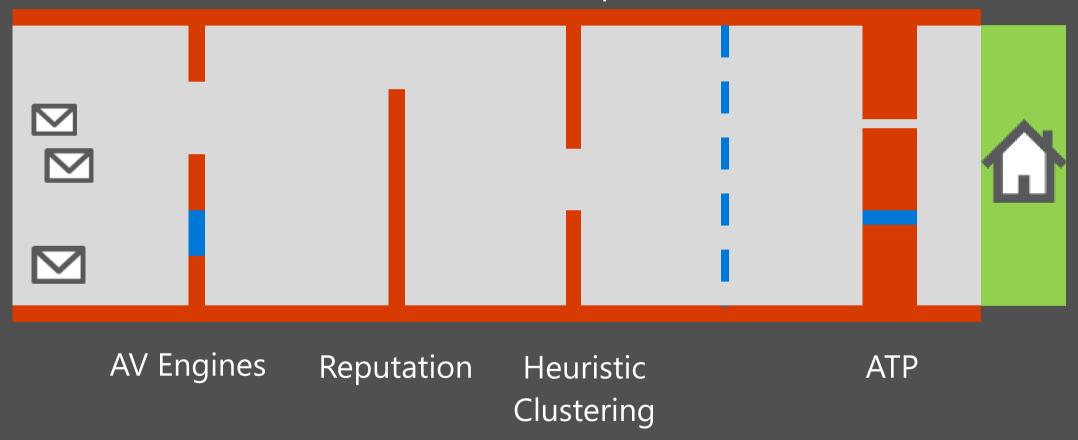
registry network C2 server file I/O





Defense in depth

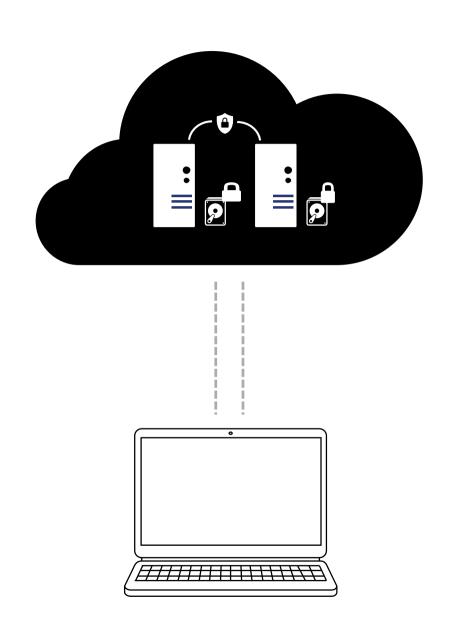
Anti-Malware Pipeline



Default Encryption

- Data in transit
- Strong SSL/TLS cipher suite
- Perfect Forward Secrecy
- Datacenter-to-datacenter encryption

- Data at rest
- BitLocker disk encryption
- Per-file encryption for customer content



Encryption at rest with Per-file Encryption









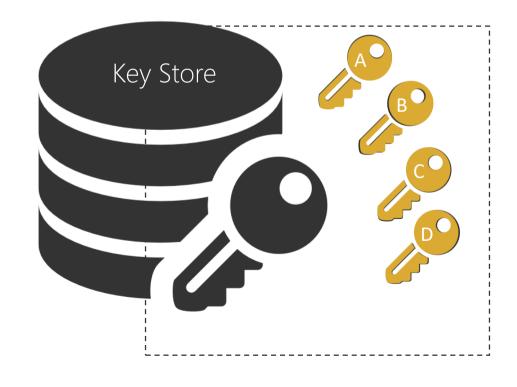




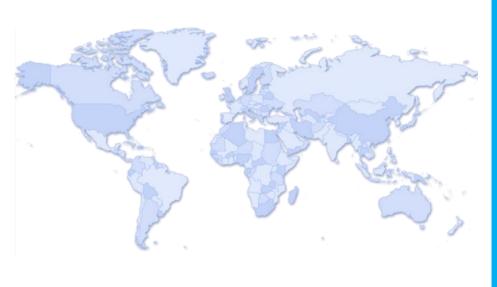








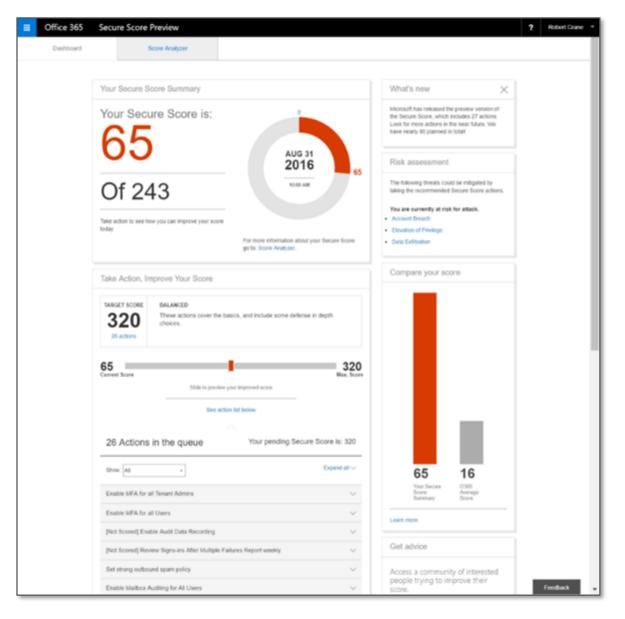
Standards & Certifications



Standards Certifications	Market	Region
SSAE/SOC	Finance	Global
ISO 27001:2013	Global	Global
ISO 27018	Global	Global
EUMC	Europe	Europe
FERPA	Education	U.S.
FedRAMP/FISMA	Government	U.S.
HIPAA	Healthcare	U.S.
HITECH	Healthcare	U.S.
ITAR	Defense	U.S.
HMG IL2	Government	UK
CJIS	Law Enforcement	U.S.
Article 29 +	Europe	Europe
SOC 2	Global	Global



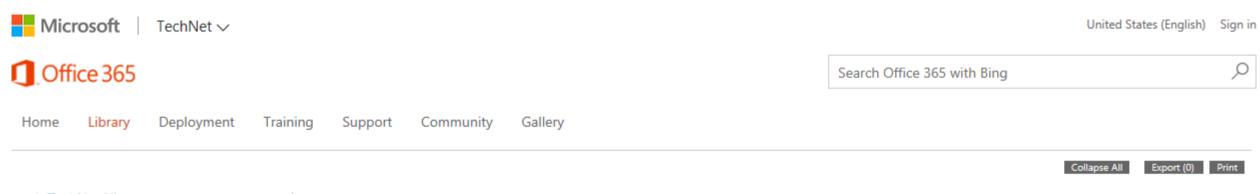
Secure Score



http://blog.ciaops.com/2016/09/office-365-secure-score.html

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PLAN COMPARISON		Business ¹			Enterprise ²					
		Business	Business Essentials	Business Premium	ProPlus	K1	E1	E3	E4	E5
	Estimated retail price per user per month \$AUS (with annual commitment)	\$13.20	\$7	\$17.50	\$19.14	\$5.6	\$11.20	\$29.60	\$32.50	\$48.84
	Install Office on up to 5 PCs/Macs + 5 tablets + 5 smartphones per user	Business ³		Business ³	ProPlus ⁴			ProPlus ⁴	ProPlus ⁴	ProPlus ⁴
	Access to Office apps and documents from all major smartphones and iPad	•		•	•			•	•	•
	OneDrive for Business – 1 TB personal online document storage	•	•	•	•		•	•	•	•
ard :es	Office Online – Create/view/edit rights for online versions of core Office apps for collaborating on documents	•	•	•	•	•	•	•	•	•
Standard Services	Sway for Office 365 ⁵	•	•	•	•	•	•	•	•	•
S	Sites - team collaboration & internal portals (SharePoint)		•	•		•	•	•	•	•
	Private social networking (Yammer)		•	•		•	•	•	•	•
	Email - 50 GB email, contacts, shared calendars (Exchange)		•	•		Kiosk (2GB)	•	•	•	•
	Meetings & communications - Web conferencing, IM, video, presence (Skype for Business)		•	•			•	•	•	•
	On-premises Active Directory synchronization for single sign on	•	•	•	•	•	•	•	•	•
	Mobile Device Management (MDM) for Office 365 ⁶	•	•	•	•	•	•	•	•	•
	Access to equivalent on-premises server workloads (Exchange Server, SharePoint Server, Skype for Business Server)						•	•	•	•
	Upcoming services: Office 365 Video						•	•	•	•
Advanced Services	Legal compliance & archiving needs for email – archiving, eDiscovery, mailbox hold							•	•	•
	Information protection – message encryption, rights management, data loss prevention							•	•	•
	Enterprise Voice w/Skype for Business (on-prem only) ⁷								•	•
	Equivio Analytics for eDiscovery, Secure Attachments and URLs, Access Control									•
	End User and Organizational Analytics									•
	Cloud PBX									•
	PSTN Conferencing									•



- TechNet Library
- Office Products
- Office 365 for administrators
 - Office 365 Service Descriptions

Recent service descriptions changes

- Office 365 Platform Service Description
- Office Applications Service Description
- Office Online Service Description
- Exchange Online Service Description
- Exchange Online Protection Service Description Exchange Online Advanced Threat Protection Service Description

Office 365 Service Descriptions

Office 365

Applies to: Office 365

Topic Last Modified: 2016-08-12

Microsoft Office 365 is a cloud-based service that is designed to help meet your organization's needs for robust security, reliability, and user productivity.

The topics in this library provide detailed descriptions of the services and features that are available with Office 365. To compare features across plans, see Compare Office 365 for Business plans or the relevant service description in the list below.

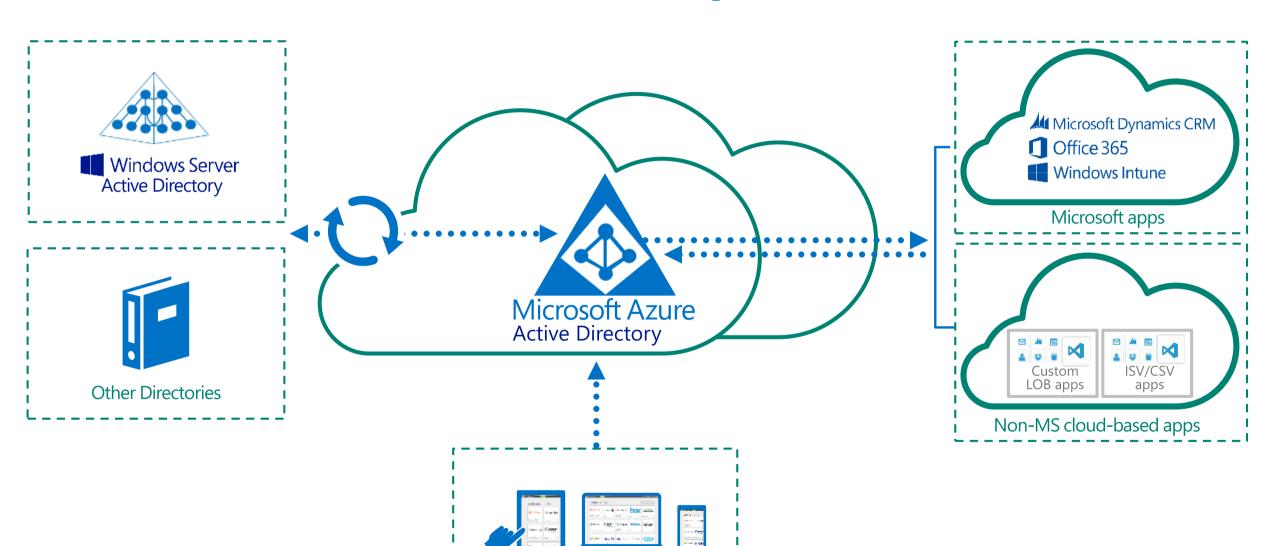
To search for support articles and information, see Office Support.



If you're looking for the Service Description comparison spreadsheet, it has been retired. The product feature availability tables on each Service Description page have been updated to better help you choose the version of Office 365 that suits your needs.

Microsoft offers the Office 365 Onboarding benefit for eligible services in eligible plans. The Onboarding benefit lets you work remotely with Microsoft specialists to

Azure AD as the control point



PCs and devices

Azure Active Directory editions feature comparison + Office 365 IAM features

		Azure Active Directory Free	Azure Active Directory Basic	Azure Active Directory Premium	Office 365 IAM features
	Directory as a Service	500,000 Object Limit	No Object Limit	No Object Limit	No Object limit for Office 365 user accounts
	Hear/Group Management (add/undate/delete)	Voc	Voc	Voc	Vac
	SSO to pre-integrated SAAS Applications /Custom Apps	10 apps per user	10 apps per user	No Limit	10 apps per user
Common	Oser-based access management/provisioning	res	res	res	res
Features	Self-Service Password Change for cloud users	Yes	Yes	Yes	Yes
	Identity Synchronization Tool (Windows Server Active Directory integration, Multi Forest)	Yes	Yes	Yes	Yes
	Security Reports	3 Basic Reports	3 Basic Reports	Advanced Security Reports	3 Basic Reports
	Cloud App Discovery*	Yes(Basic)	Yes(Basic)	Yes(Advanced)**	Yes(Basic)
	Group-based access management/provisioning		Yes	Yes	
Premium	Self-Service Password Reset for cloud users		Yes	Yes	
+ Basic Features	Company Branding (Logon Pages/Access Panel customization)		Yes	Yes	
	SLA		Yes	Yes	Yes
	Identity Synchronization Tool advanced write-back capabilities * (FY15 Roadmap)			Yes	
	Self-Service Group Management			Yes	
	Self-Service Password Reset/Change with on-premises write-back			Yes	
Premium	Advanced Usage Reporting			Yes	
Features	Multi-Factor Authentication (Cloud and On-premises (MFA Server))			Yes	Limited Cloud only features for accessing Office 365
	Azure Active Directory Application proxy*			Yes	
	MIM CAL + MIM Server			Yes	
	Administrative Delegation* (FY15 Roadmap)			Yes	

[&]quot;Features in Preview (Sept 2014) or in the roadmap

^{**} Advanced functionality on Cloud App Discovery is in the roadmap for FY15 H2

¹⁰ Apps per user: Every user can have a different set of Apps, up to ten, MS Online apps (e.g. O365) are counted among these 10.

Single Sign On (SSO) Web Portal

Add an application

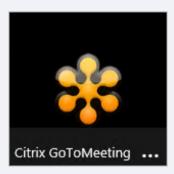
Microsoft Azure lewis.collins@ciaops365.com | CIAOPS

applications

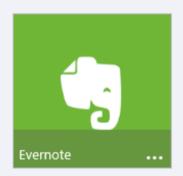
profile











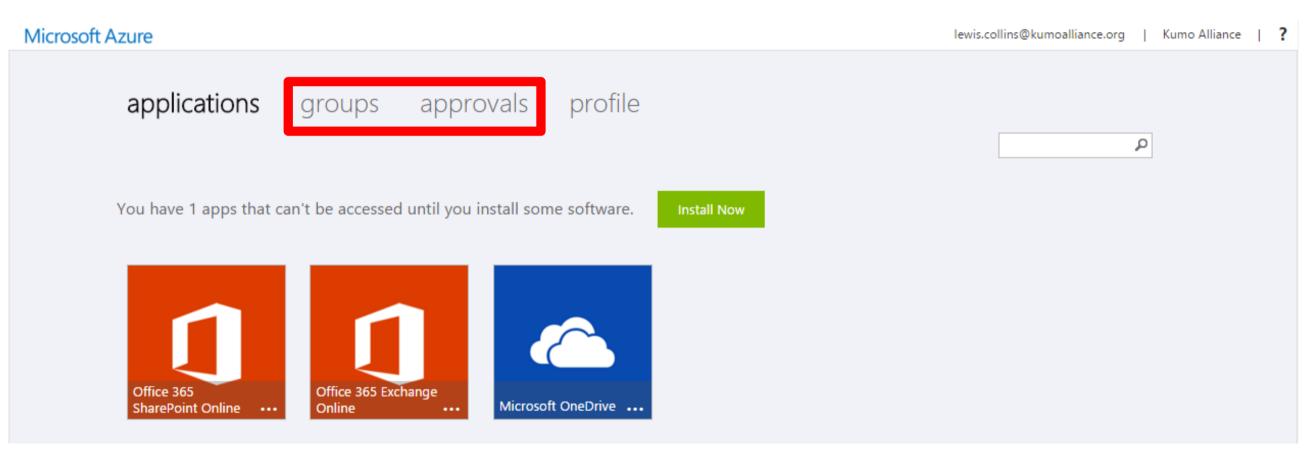
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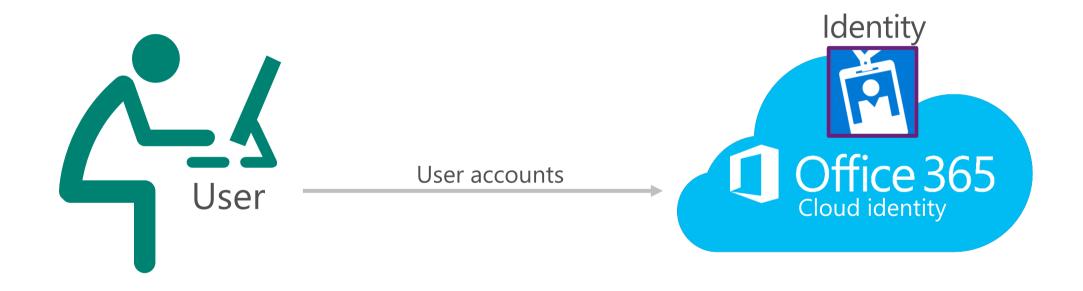






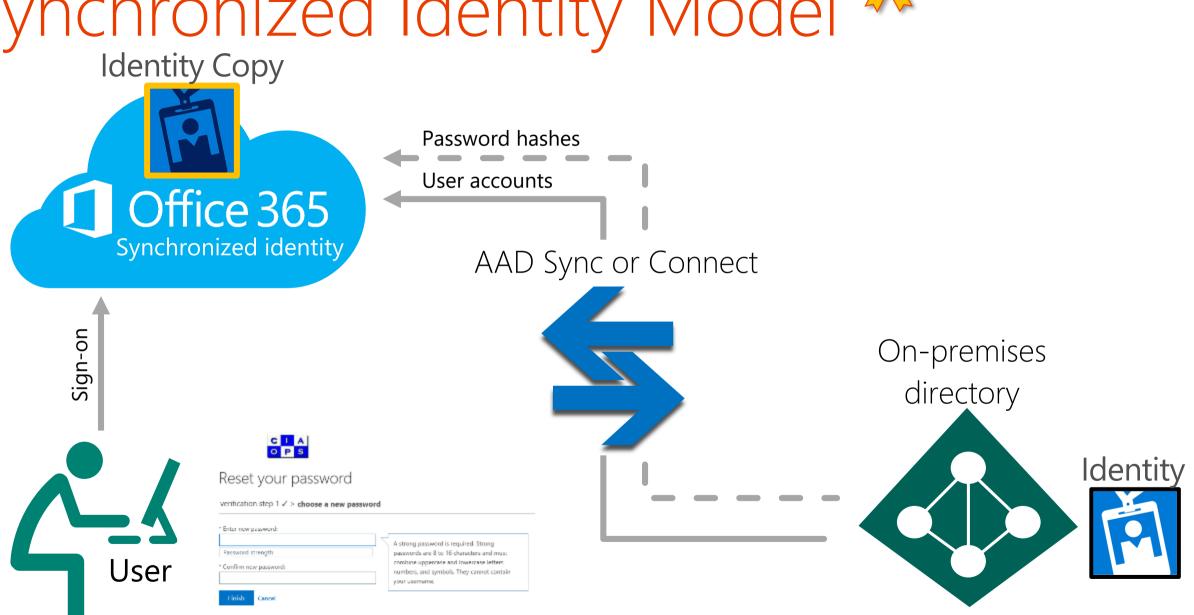
User Password Reset

Cloud identity model

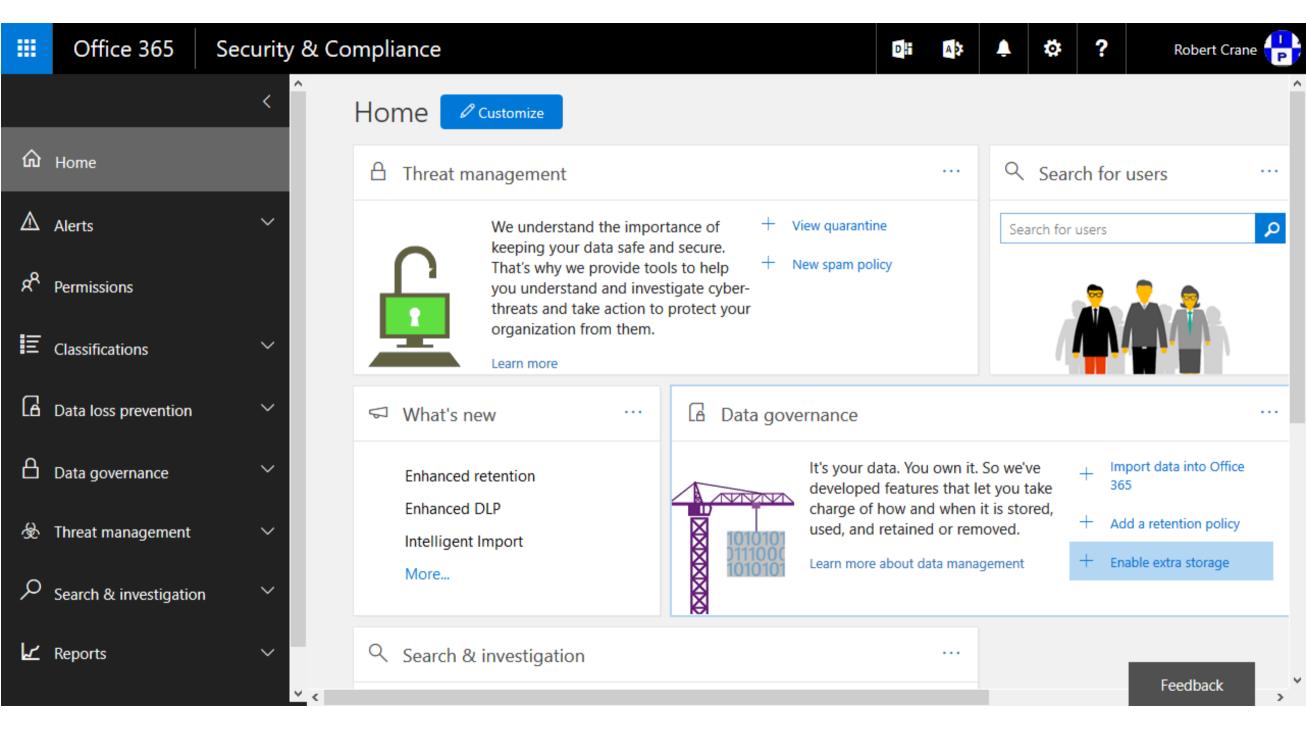






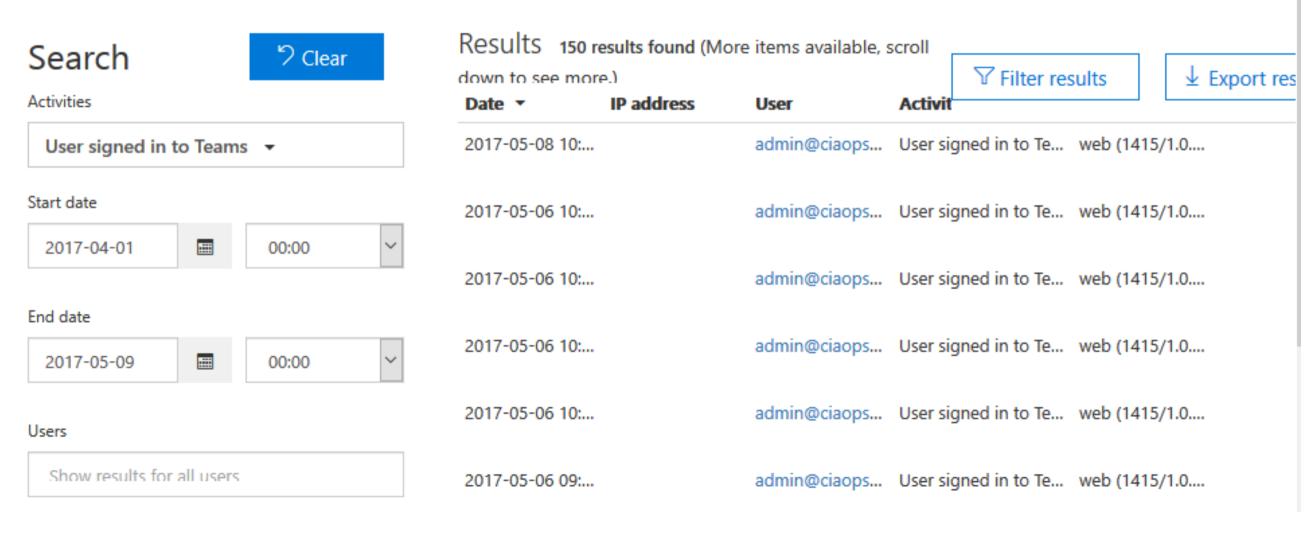


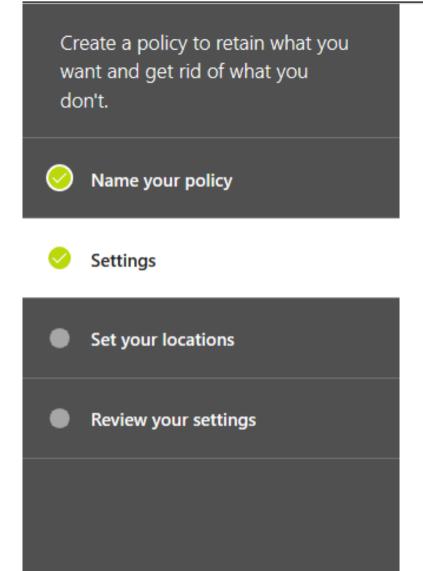
Security and Compliance Center



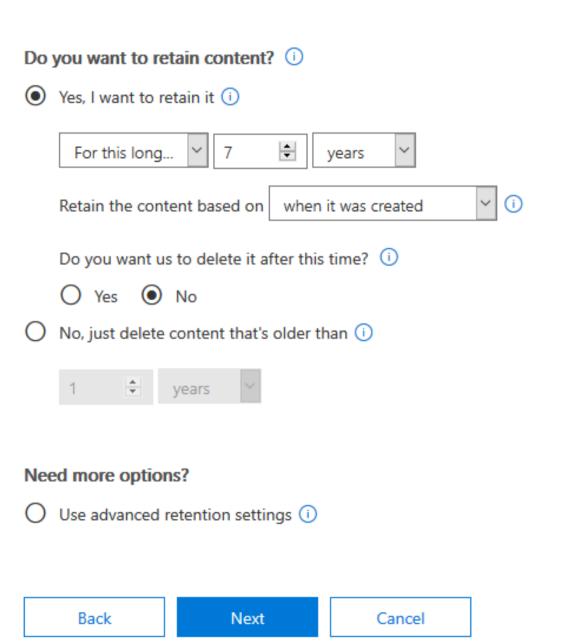
Audit log search

Need to find out if a user deleted a document or if an admin reset someone's password? Search the Office 365 audit log to find out what the users and admins in your organization have been doing. You'll be able to find activity related to email, groups, documents, permissions, directory services, and much more. Learn more about searching the audit log





Decide if you want to retain content, delete it, or both



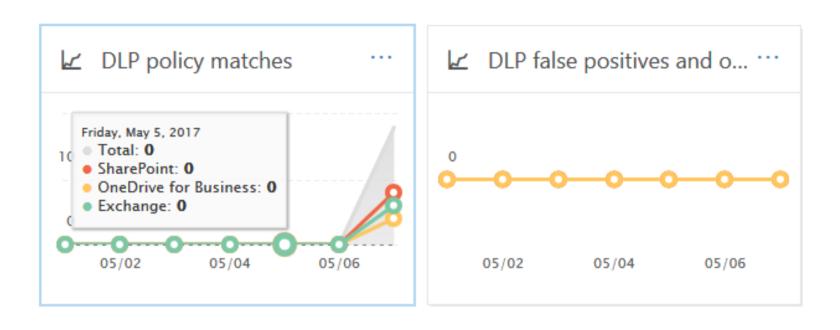
Data Loss Prevention (DLP)

Home > Data loss prevention

+ Create a policy



Use data loss prevention (DLP) policies to help identify and protect your organization's sensitive information. For example y help make sure information in email and docs isn't shared with the wrong people. Learn more about DLP



Search

C) Refresh

Name	Order	Last modified	Status
Credit Card Policy	1	May 7, 2017	On
Australia Financial Data	2	May 7, 2017	On

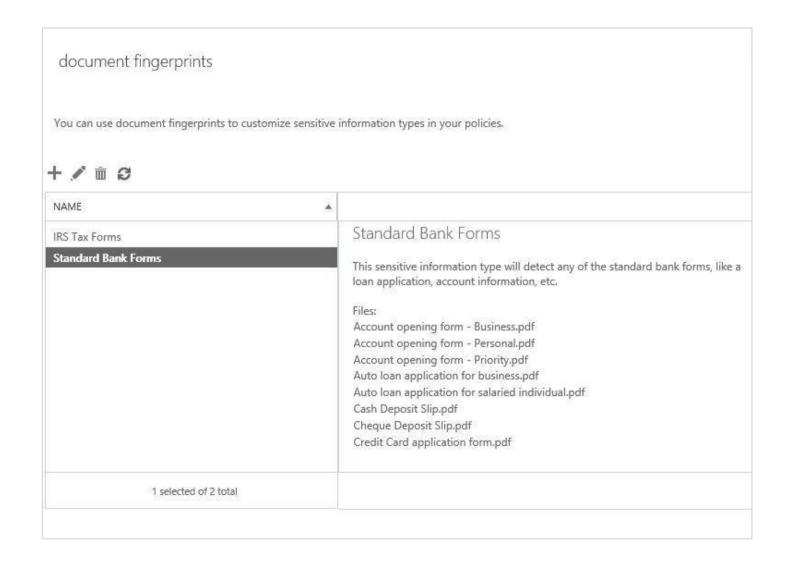


DLP document fingerprinting

Scan email and attachments to look for patterns that match document templates

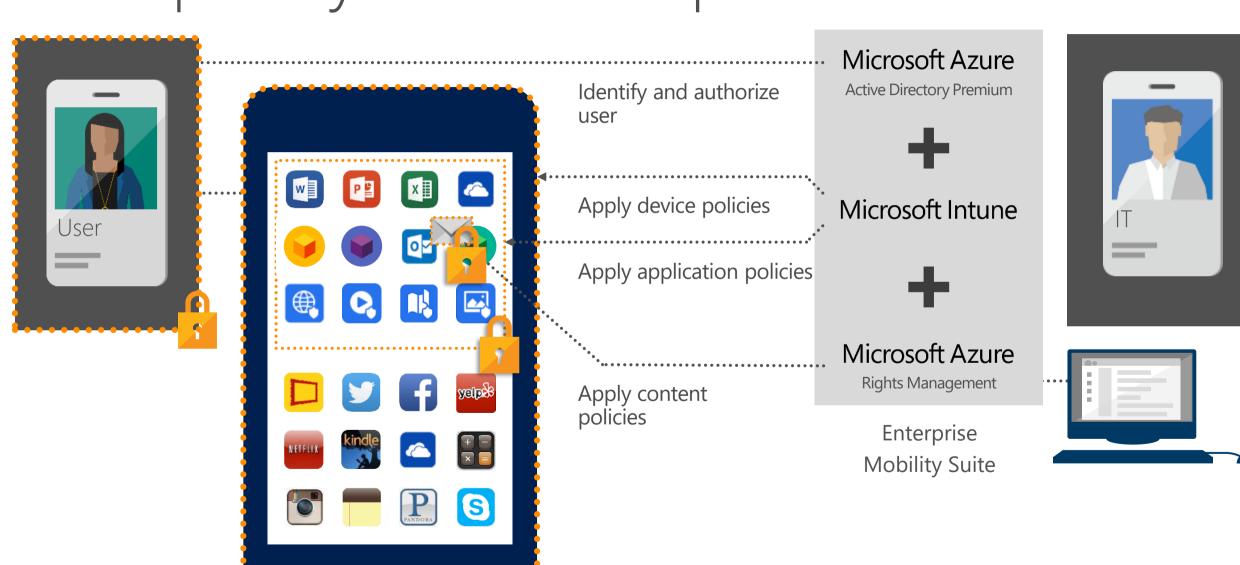
Protect sensitive documents from being accidently shared outside your organization

No coding required; simply upload sample documents to create fingerprints

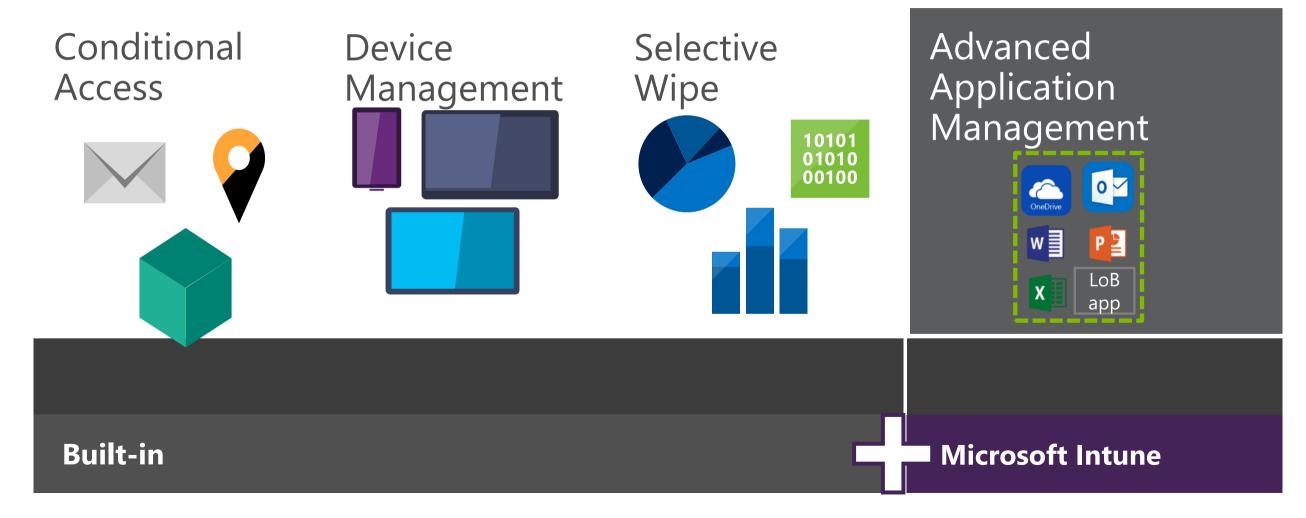


Mobile Device Management (MDM)

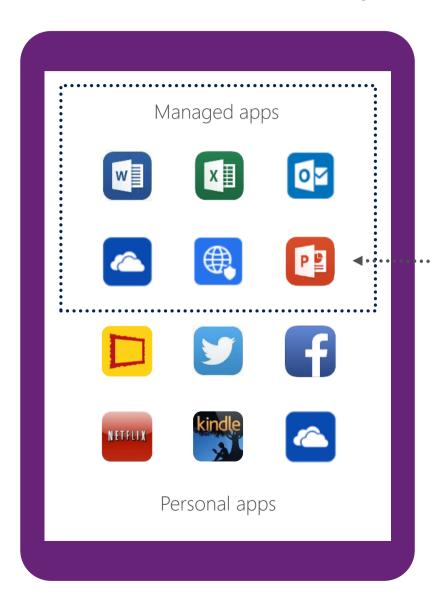
Multiple layers of data protection

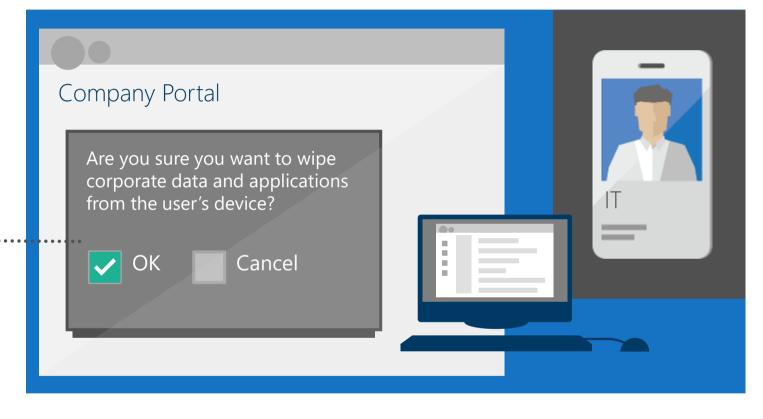


Mobile Device Management



Selective wipe





- Perform selective wipe via self-service company portal or admin console
- Remove managed apps and data
- Keep personal apps and data intact

Access requirements

What requirements do you want to have on devices?

Require a password
Prevent simple passwords
Require an alphanumeric password:
Password must include at least character sets
Minimum password length:
characters
Number of sign-in failures before device is wiped
attempts
Lock devices if they are inactive for this many minutes:
minutes
Password expiration:
days
Remember password history and prevent reuse:
Store up to previous passwords

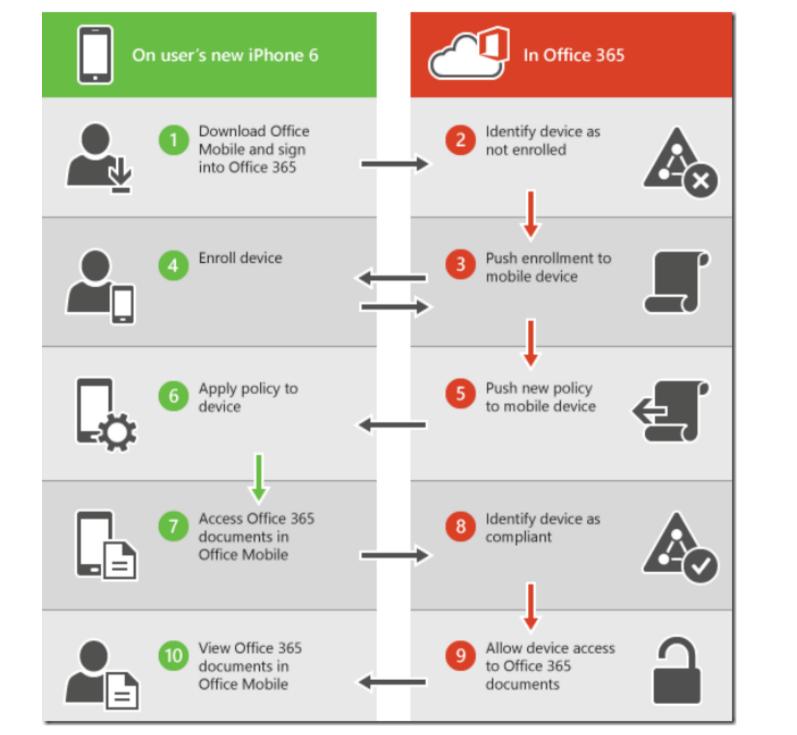
	✓ Require data encryption on devices
CC	✓ Prevent jail broken or rooted devices from onnecting
SE	Require managing email profile (required for elective wipe on iOS)
	a device doesn't meet the requirements bove, then
	Allow access and report violation Block access and report violation

Configurations

What else do you want to configure?

	Require encrypted backup
	Block cloud backup
	Block document synchronization
	Block photo synchronization
	Block screen capture
	Block video conferences on device
	Block sending diagnostic data from devices
	Block access to application store
	Require password when accessing application
stor	e
	Block connection with removable storage Block Bluetooth connection
Ш	DIOCK DIGCOOTH CONNECTION

The settings above will be configured on users' devices, and violations will be reported



Feature Comparison with MDM for Office 365

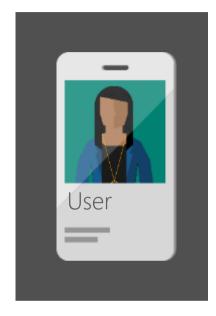


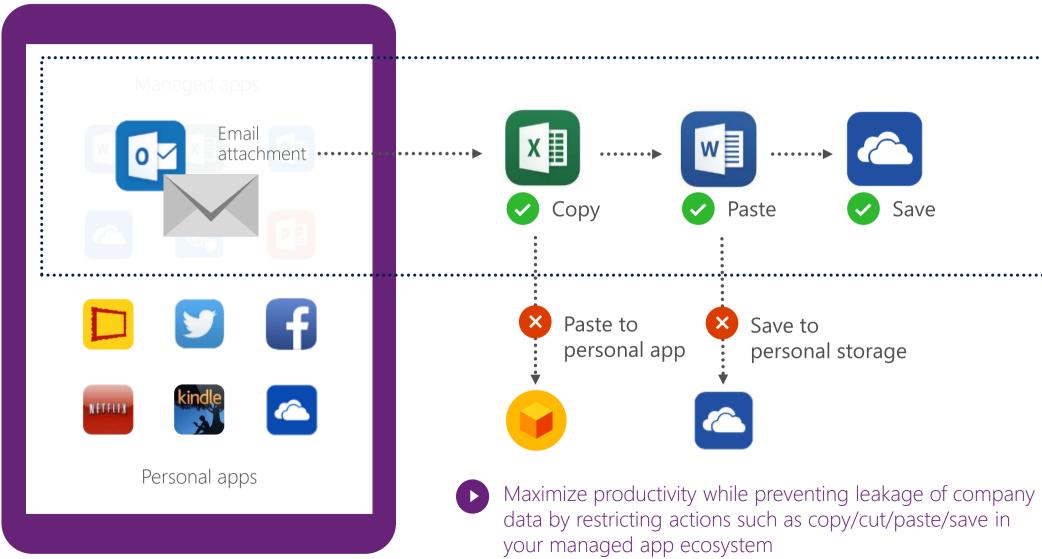


Category	Feature	Exchange ActiveSync	MDM for Office 365	Intune Standalone	Intune + ConfigMgr (Hybrid)
L C	Inventory mobile devices that access corporate applications	•	•	•	•
/ice urati	Remote factory reset (full device wipe)	•	•	•	•
Device configurati	Mobile device configuration settings (PIN length, PIN required, lock time, etc.)	•	•	•	•
	Self-service password reset (Office 365 cloud only users)	•	•	•	•
	Provides reporting on devices that do not meet IT policy		•	•	•
365	Group-based policies and reporting (ability to use groups for targeted device configuration)		•	•	•
Office 365	Root cert and jailbreak detection		•	•	•
Q	Remove Office 365 app data from mobile devices while leaving personal data and apps intact (selective wipe)		•	•	•
	Prevent access to corporate email and documents based upon device enrollment and compliance policies		•	•	•
+	Self-service Company Portal for users to enroll their own devices and install corporate apps			•	•
ce & men	App deployment (Windows Phone, iOS, Android)			•	•
Premium bile device 8 managemer	Deploy certificates, VPN profiles (including app-specific profiles), email profiles, and Wi-Fi profiles			•	•
Prer bile mar	Prevent cut/copy/paste/save as of data from corporate apps to personal apps (mobile application management)			•	•
ярр арр	Secure content viewing via Managed browser, PDF viewer, Imager viewer, and AV player apps for Intune			•	•
	Remote device lock via self-service Company Portal and via admin console			•	•
	Client PC management (e.g. Windows 8.1, inventory, antimalware, patch, policies, etc.)			•	•
PC Management	PC software management			•	•
	Comprehensive PC management (e.g. Windows Server/Linux/Mac OS X support, virtual desktop and power management, custom reporting, etc.)				•
\geq	OS deployment				•
	Single management console for PCs, Windows Server/Linux/Mac OS X, and mobile devices				•



Mobile application management

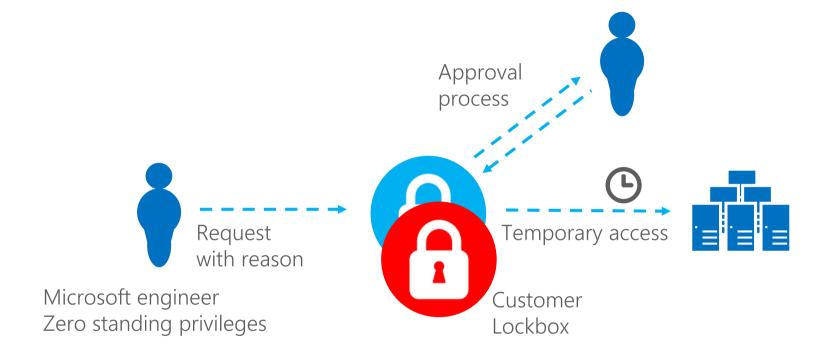




Customer Lockbox



Just-in-time access



Engineers must have current background check, fingerprinting, security training. System grants least privilege required to complete task.

Hold and eDiscovery

+>E3

eDiscovery and In-Place Hold in Office 365



Integrated tools to help you preserve, expire, and discover data

Hold =

Deletion

Search

Q

Keep the data you do want

Delete the data you don't want

Find the data you need

Data Held In-Place

Customize holds based on filters

Hold across multiple products in a single action

Capture deleted & edited messages

Automated time-based criteria to delete

Set policies at item or folder level – admin or user

Set site level retention polices

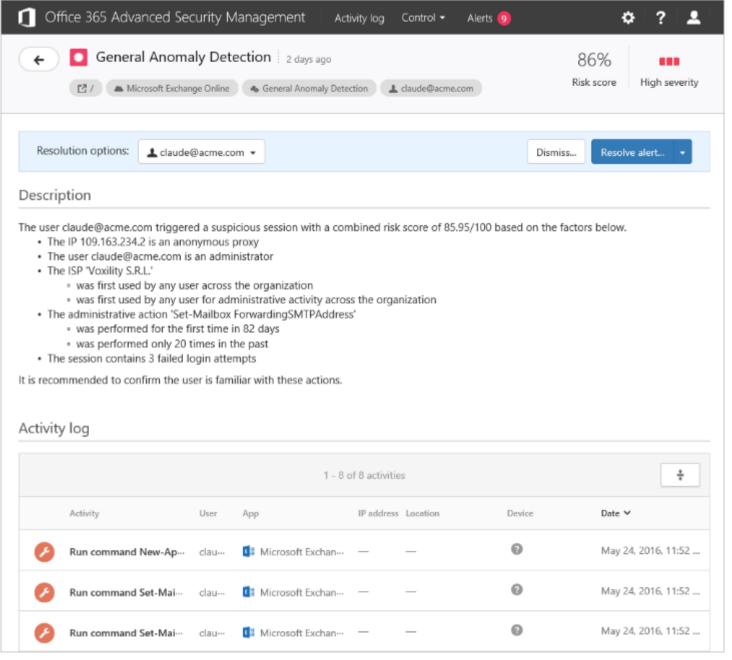
Search across multiple products

De-duplication & search statistics

Case management

Export search results

Advanced Security Protection (ATP)





Templates for common activities

Rich activity filters

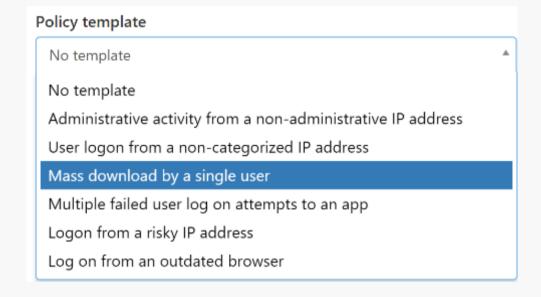
Data Enrichment – Define IP Address Ranges

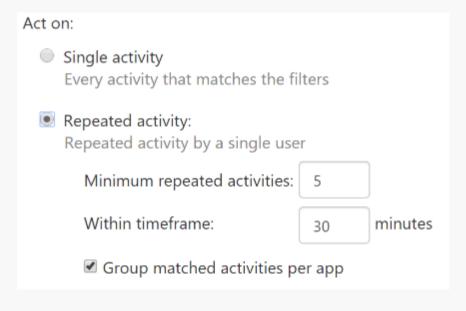
Repeated activity, Single Event

Can create from Activity Search

Automated Governance Action: e.g. Suspend User







Multi-factor Authentication (MFA)

Azure MFA vs MFA for Office 365



	MFA for Office 365/Azure Administrators	Azure Multi-Factor Authentication
Administrators can Enable/Enforce MFA to end-users	Yes	Yes
Use Mobile app (online and OTP) as second authentication factor	Yes	Yes
Use Phone call as second authentication factor	Yes	Yes
Use SMS as second authentication factor	Yes	Yes
Application passwords for non-browser clients (e.g. Outlook, Lync)	Yes	Yes
Default Microsoft greetings during authentication phone calls	Yes	Yes
Suspend MFA from known devices	Yes	Yes
Custom greetings during authentication phone calls		Yes
Fraud alert		Yes
MFA SDK		Yes
Security Reports		Yes
MFA for on-premises applications/ MFA Server.		Yes
One-Time Bypass		Yes
Block/Unblock Users		Yes
Customizable caller ID for authentication phone calls		Yes
Event Confirmation		Yes
Trusted IPs		Yes

Office 365 Rights Management (IRM)



Rights Management



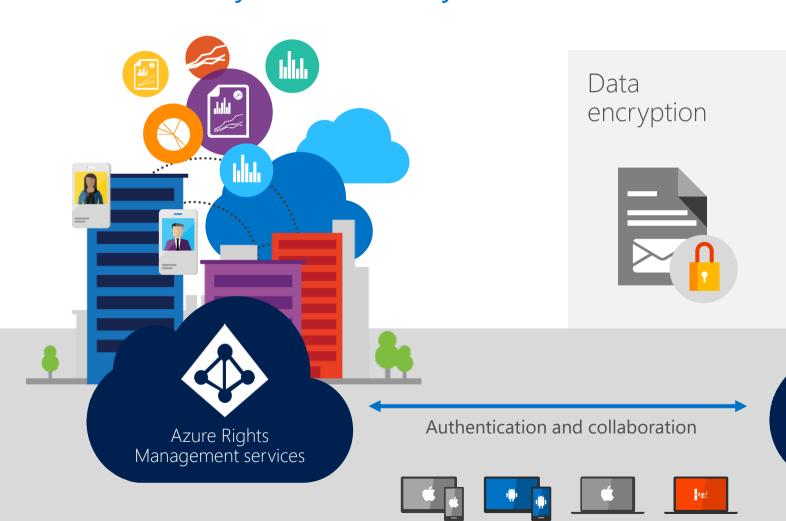
Feature	RMS for Office 365	EMS or Azure RMS Premium
Users can create and consume protected content by using Windows clients and Office applications	•	•
Users can create and consume protected content by using mobile devices	•	•
Integrates with Exchange Online, SharePoint Online, and OneDrive for Business	•	•
Integrates with Exchange Server 2013/Exchange Server 2010 and SharePoint Server 2013/SharePoint Server 2010 on-premises via the RMS connector	•	•
Administrators can create departmental templates	•	•
Organizations can create and manage their own RMS tenant key in a hardware security module (the Bring Your Own Key solution)	•	•
Supports non-Office file formats: Text and image files are natively protected; other files are generically protected	•	•
RMS SDK for all platforms: Windows, Windows Phone, iOS, Mac OSX, and Android		
Integrates with Windows file servers for automatic protection with FCI via the RMS connector		•
Users can track usage of their documents		•
Users can revoke access to their documents		•

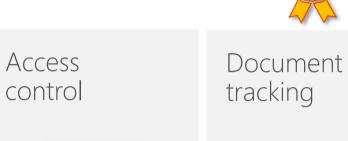
https://technet.microsoft.com/en-us/network/dn858608.aspx



Secure collaboration with RMS

Share internally and externally





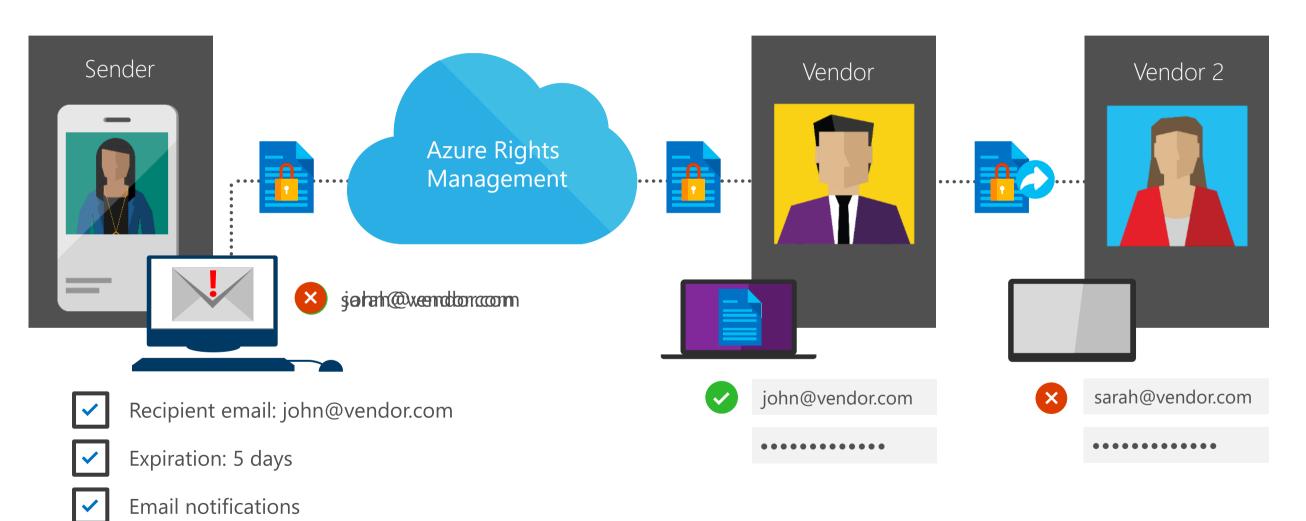






Secure collaboration with RMS

Permissions: Read only



Conditional Access

SharePoint admin center

site collections

infopath

user profiles

bcs

term store

records management

search

secure store

apps

sharing

settings

configure hybrid

device access

Restrict access based on device or network location

These settings apply to content in SharePoint, OneDrive and Office 365 groups.

Control access from devices that aren't compliant or joined to a domain

This setting requires Intune and Azure Active Directory premium subscriptions.

To allow limited, web-only access

- 1. Go to Microsoft Azure portal and add two policies. Learn how to set conditional access policies in Azure AD.
 - a. Create a policy for SharePoint that applies to mobile apps and desktop clients, and allows access only from compliant or domain-joined devices.
 - b. Create another policy for SharePoint that applies to web browsers, and select "use app-enforced restrictions."
- 2. Select the appropriate SharePoint enforced restriction
 - ☐ Allow limited access (web-only, without the Download, Print, and Sync commands)

To block access

Go to Microsoft Azure portal and add a new policy for SharePoint that applies to web browsers, mobile apps, and desktop clients. Configure the policy to allow access only from compliant or domain joined-devices. Learn how

Control access from apps that don't use modern authentication

The setting applies to third party apps and Office 2010 and earlier.



Control access based on network location

Only allow access from specific IP address locations
Allowed IP addresses

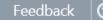
Use commas to separate IP addresses and address ranges. For example: 172.160.0.0, 192.168.1.0/16, 2001:4798:80e8:8::290. Make sure you include your current IP address and that IP addresses don't overlap.

1.0

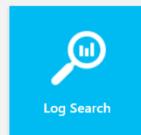
Microsoft Operations Management Suite (OMS)



Overview



>





My Dashboard

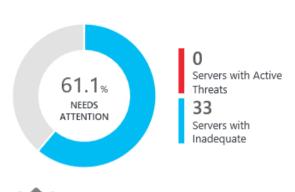
AD Assessment

Servers Assessed on Tue Feb 02 2016

3 () High Priority Recommendations

5 (1) Low Priority Recommendations

104♥ Passed Checks Malware Assessment



Backup

ContosoTier1-backupvault



Solutions Gallery

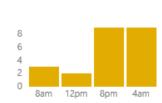
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Alert Management



Active warning alerts in the last 24 hours

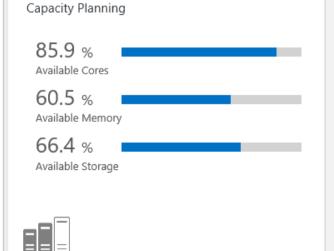


S

Automation OMSAutomationdemo



Jobs in the last 7 days





Take aways

- Office 365 has more in built security than people realise
- The more advanced plans provide more security options
- Can extend Office 365 security further with the likes of Azure and Intune
- More security features being added all the time
- Look at building services and revenue from additional security and compliance features
- Azure offers even more security and monitoring opportunities

Resources

- Office 365 Service Descriptions https://technet.microsoft.com/en-us/library/office-365-service-descriptions.aspx
- Office 365 E5 https://products.office.com/en-us/business/office-365-enterprise-e5-business-software
- Office 365 Trust Center https://www.microsoft.com/en-us/trustcenter/cloudservices/office365
- Office 365 Compliance https://technet.microsoft.com/en-au/library/office-365-compliance.aspx
- Customer Lockbox requests https://support.office.com/en-us/article/Office-365-Customer-Lockbox-Requests-36f9cdd1-e64c-421b-a7e4-4a54d16440a2
- Overview of DLP policies https://support.office.com/en-us/article/Overview-of-data-loss-prevention-policies-1966b2a7-d1e2-4d92-ab61-42efbb137f5e

Resources

- Document Tracking http://blogs.technet.com/b/rms/archive/2015/05/04/doctracking.aspx
- Azure RMS Document tracking and revocation https://channel9.msdn.com/Series/Information-Protection/Azure-RMS-Document-Tracking-and-Revocation
- Protect a file that you share by email by using the Rights Management sharing application https://technet.microsoft.com/en-us/library/dn574735(v=ws.10).aspx
- Azure RMS Core Skills https://mva.microsoft.com/en-US/training-courses/azure-rights-management-services-core-skills-10500
- Use Secure files to improve sharing https://mva.microsoft.com/en-US/training-courses/use-secure-files-to-improve-sharing-with-customers-and-partners-14042
- Threat Intelligence for Office 365 https://www.youtube.com/watch?v=krFAjlkD66M

This presentation is at

http://doc.co/VWjPUY/qcihGm

CIAOPS Resources



- Blog http://blog.ciaops.com
- Free SharePoint Training via email http://bit.ly/cia-gs-spo
- Free Office 365, Azure Administration newsletter http://bit.ly/cia-o365-tech
- Free Office 365, Azure video tutorials http://www.youtube.com/directorciaops
- Free documents, presentations, eBooks http://docs.com/ciaops
- Office 365, Azure, Cloud podcast http://ciaops.podbean.com
- Office 365, Azure online training courses http://www.ciaopsacademy.com
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