# Hardening 365: Enterprise Edition

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### Purpose

The primary purpose of this document is to minimize the potential for a data breach or a compromised account by following Microsoft security best practices and step through the actual configuration.

### **Audience**

This document was designed for the Enterprise market who primarily work with the Enterprise skus available from Microsoft.

## Versioning

Version	Date	Author	Notes
1.0	June 2018	Pax8	Original document published



#### Checklist:

Secure Score	
Enable MFA  Enable Client Rules Forwarding Block	Review Mailbox Forwarding Rules Weekly
Enable Audit Log Search	Review the Mailbox Access Non- Owners Report Biweekly
Set Up Outbound Spam Notifications	Review the Malware Detections Report Weekly
Review Role Changes Weekly  Designate More than 1 global Admin	Review your account provisioning activity report weekly
Configure Expiration Time for External Sharing Links	Do not allow Calendar details sharing  Review Sign-Ins after Multiple  Failures report wealth.
Enable Versioning on all SharePoint Online Document Libraries	Tag Documents in SharePoint
Enable Encryption	Create DLP Policies  Enable Advanced Threat Protection
Enable and User Information Rights  Management on Document Data	safe attachments policy
Enable ATP Safe Links	Implement Cloud App Security

Excl	nange Online Protection/Antispam Policies
	Configure Connection Filtering
	Configure Spam Filtering
	Configure Outbound filtering
	Configure Mail Flow Rules
	Configure Malware Settings



# Configure SPF Record Configure DKIM Record Configure DMARC Record

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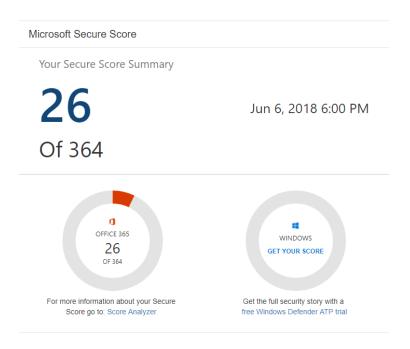
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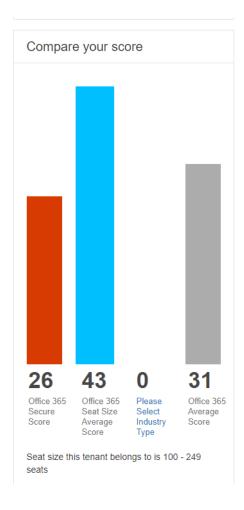
#### Using Office 365 Secure Score



You can think of secure score like a credit score for Office 365. Secure Score figures out what Office 365 services you're using (like OneDrive, SharePoint, and Exchange) then looks at your settings and activities and compares them to a baseline established by Microsoft. You'll get a score based on how aligned you are with best security practices. The numerator is your current point value and the denominator is the amount of points available based on the security features you have available to configure. You can see the list of available security options for each Microoft plan by clicking on this link

Microsoft compares your score to 365 accounts with a similar seat size as your organization and allows you to configure your Industry Type to compare your score to others in your industry as well.





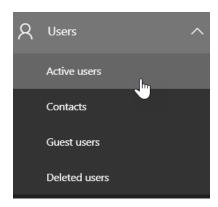
Below is a checklist to help boost your score:

#### Enable MFA

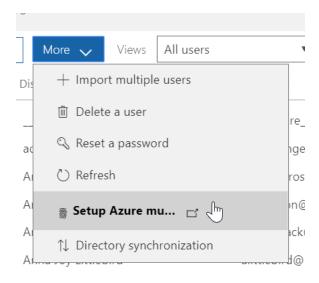
You should enable MFA for all of your user accounts because a breach of any of those accounts can lead to a breach of any data that user has access to.



#### 1. Go to the 365 Admin Center>Users>Active Users

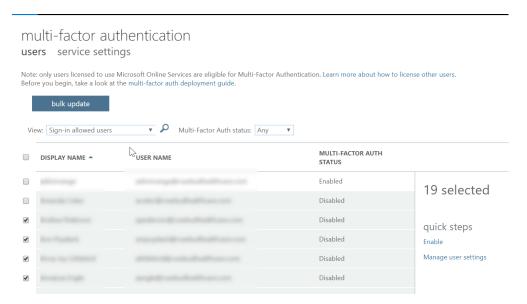


#### 2. Click "More">Set Azure Multifactor Authentication





#### 3. Select Users to Enable Multifactor Authentication



4. The next time the user signs in they will be prompted with the following:



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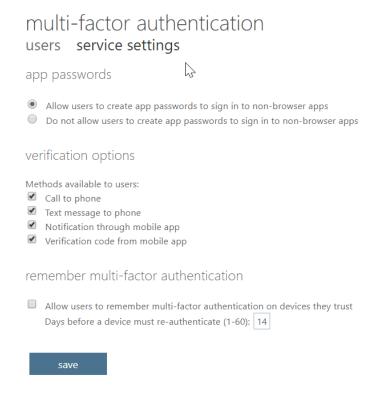
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5. Depending on your settings they will enter a phone used for the second form of authentication. You can adjust the settings by going to "Service Settings" on the top of the multifactor page:



#### **Enable Client Rules Forwarding Blocks**

This is a transport rule to help stop data exfiltration with client created rules that auto-forwards email from user's mailboxes to external email address. This is an increasingly common data leakage method in more organizations.

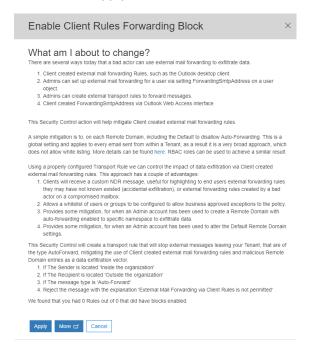
```
IF The Sender is located 'Inside the organization'
AND IF The Recipient is located 'Outside the organization'
AND IF The message type is 'Auto-Forward'
```



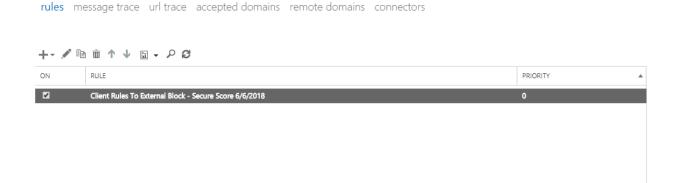
THEN Reject the message with the explanation 'External Email Forwarding via Client Ru les is not permitted'.

#### To enable:

- 1. Click Learn More in the Secure Score Portal
- 2. Click Apply



3. This auto-creates a Transport rule in EAC under Mail Flow>Rules. This is where you would come to modify/delete



Enable Audit Log Search



You should enable audit data recording for your Office 365 service to ensure that you have a record of every user and administrator's interaction with the service, including Azure AD, Exchange Online, and SharePoint Online/OneDrive for Business. This data will make it possible to investigate and scope a security breach, should it ever occur. You (or another admin) must turn on audit logging before you can start searching the Office 365 audit log.

#### Questions to Ask:

- 1. How often do I want to get reports on audit log data? (Recommended bi-weekly)
- 2. Is there a certain environment I need to more closely monitor? (Exchange, SharePoint, OneDrive,etc)

#### How to Turn the Audit Log On

#### How to Search the Audit Log

1. Go to Admin Centers>Security and Compliance Center>Search & Investigation>Audit Log search

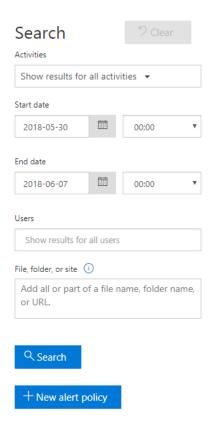


#### Audit log search

! We're preparing the Office 365 audit log. You'll be able to search for user and admin activity in a couple of hours.

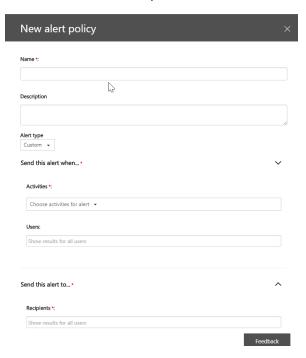


- 2. Create a custom search based off of:
  - a. Activity
  - b. Date Range
  - c. Users
  - d. File/Folder/Site

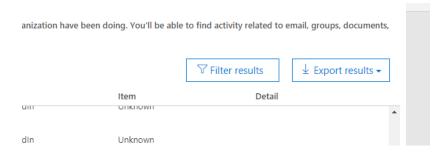




#### Create a New Alert Policy based off a certain event



#### **Export Entries CSV**



#### Enable Mailbox Auditing for All Users

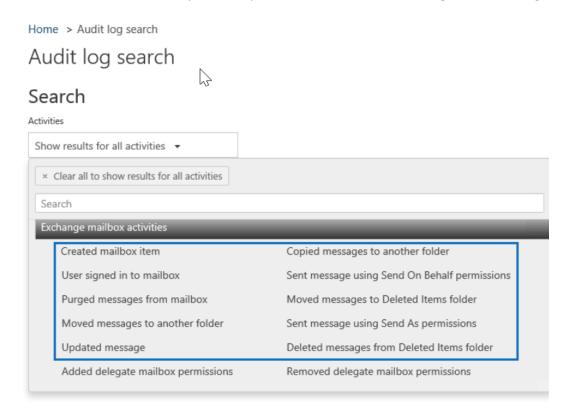
By default, all non-owner access is audited, but you must enable auditing on the mailbox for owner access to also be audited. This will allow you to discover illicit access of Exchange Online activity if a user's account has been breached.

1. Powershell Script to Enable



\*NOTE\* Use the Office 365 audit log to search for mailbox activity that have been logged. You can search for activity for a specific user mailbox.

2. Go to Admin>Security and Compliance Center>Search & Investigation>Audit Log search



#### **List of Mailbox Auditing Actions**

#### Set Up Outbound Spam Notifications

You should set your Exchange Online Outbound Spam notifications to copy and notify someone when a sender in your tenant has been blocked for sending excessive or spam emails. A blocked account is a good indication that the account in question has been breached and that an attacker is using it to send spam emails to other people.



1. In EAC go to Protection>Outbound Spam

# Exchange admin center dashboard recipients permissions compliance management organization protection advanced threats malware filter connection filter spam filter outbound spam quarantine action center dikin purple distribution protection advanced threats malware filter connection filter spam filter outbound spam quarantine action center dikin purple distribution protection advanced threats

- 2. Click on the Pencil Icon to Edit the default Policy
- 3. Click on "Outbound Spam Preferences" and choose to send a copy and notification to someone within the organization



#### Review Role Changes Weekly

You should do this because you should watch for illicit role group changes, which could give an attacker elevated privileges to perform more dangerous and impactful things in your tenancy.

- 1. Go to Admin>Security and Compliance Center>Search & Investigation>Audit Log search
- 2. Filter the search by going to Role Administration Activities and select "Added Member to Role" and "Removed a user from a Directory Role"



#### Review Mailbox Forwarding Rules Weekly

You should review mailbox forwarding rules to external domains at least every week. There are several ways you can do this, including simply reviewing the list of mail forwarding rules to external domains on all of your mailboxes using a PowerShell script, or by reviewing mail forwarding rule creation activity in the last week from the Audit Log Search. While there are lots of legitimate uses of mail forwarding rules to other locations, it is also a very popular data exfiltration tactic for attackers. You should review them regularly to ensure your users' email is not being exfiltrated. Running the PowerShell script linked below will generate two csv files, "MailboxDelegatePermissions" and "MailForwardingRulesToExternalDomains", in your System32 folder.

#### **Powershell Script**

#### Review the Mailbox Access by Non-Owners Report Bi-Weekly

This report shows which mailboxes have been accessed by someone other than the mailbox owner. While there are many legitimate uses of delegate permissions, regularly reviewing that access can help prevent an external attacker from maintaining access for a long time and can help discover malicious insider activity sooner.

1. In EAC, go to Compliance Management>Auditing

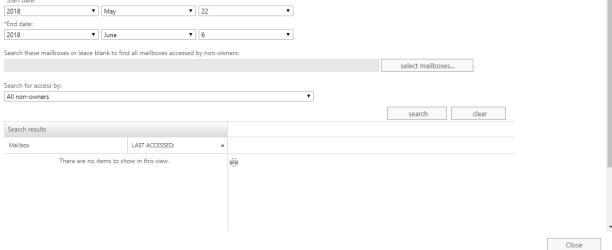


# Exchange admin center in-place eDiscovery & hold auditing data loss prevention retention policies retention tags journal rules recipients compliance management

- 2. Click on "Run a non-owner mailbox access report..."
- 3. Specify a data range and run a search

search for mailboxes accessed by non-owners

Specify a date range and select the mailboxes to search for. Then select to search for non-owner access by anyone or by users inside or outside your organization. Learn \*Start date: ▼ May ▼ 22 2018 ▼ June Search these mailboxes or leave blank to find all mailboxes accessed by non-owners: select mailboxes... Search for access by: All non-owners



#### Review the Malware Detections Report Weekly

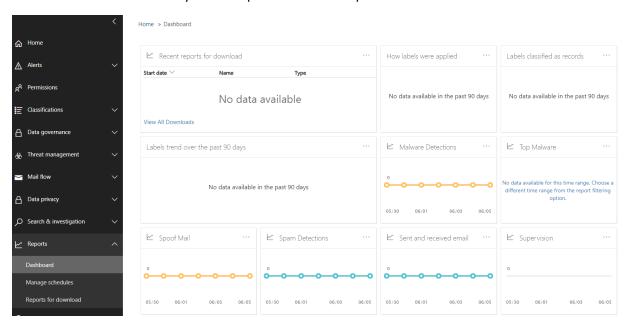
This report shows specific instances of Microsoft blocking a malware attachment from reaching your users. While this report isn't strictly actionable, reviewing it will give you a sense of the overall volume of



malware being targeted at your users, which may prompt you to adopt more aggressive malware mitigations



1. Go to Admin>Security and Compliance Center>Reports>Dashboard



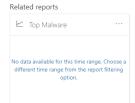
#### 2. Click on Malware Detections

#### 3. View the Detection Report

Home > Dashboard > Report Viewer - Security & Compliance

Malware Detections Report

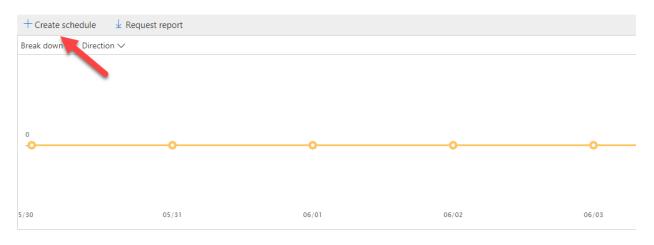




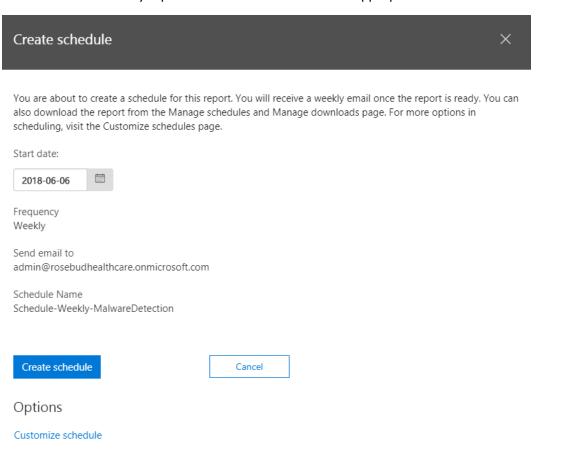


#### 4. Click "+ Create Schedule"

#### Malware Detections Report



#### 5. Create a weekly report schedule and send it to the appropriate email address



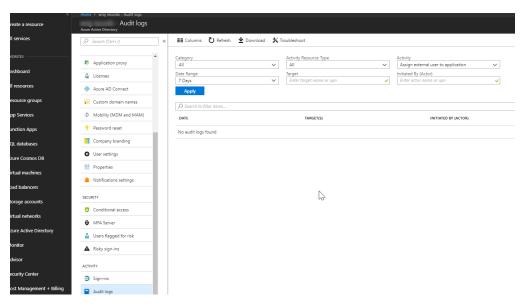


#### Review your Account Provisioning Activity Report Weekly

This report includes a history of attempts to provision accounts to external applications. If you don't usually use a third-party provider to manage accounts, any entry on the list is likely illicit. But, if you do, this is a great way to monitor transaction volumes, and look for new or unusual third-party applications that are managing users.



1. Go to Admin Centers>Azure Active Directory>Audit Logs



2. In the "Activity" section, search for "external" and select "Assign external user to application"

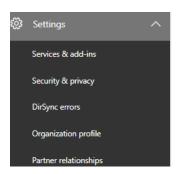


#### Do not Allow Calendar Details Sharing

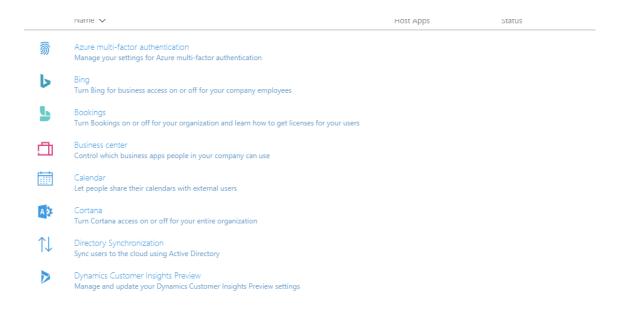
You should not allow your users to share calendar details with external users. This feature allows your users to share the full details of their calendars with external users. Attackers will very commonly spend time learning about your organization (performing reconnaissance) before launching an attack. Publicly available calendars can help attackers understand organizational relationships, and determine when specific users may be more vulnerable to an attack, such as when they are traveling



#### 1. Go to Settings>Services & Add-ins

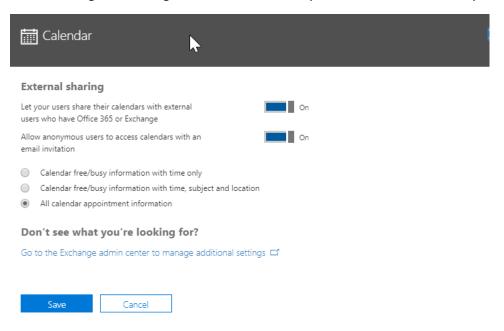


#### 2. Click on Calendar





3. Change the settings to "Calendar free/busy information with time only"

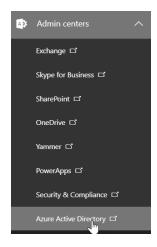


#### Review Sign-Ins after Multiple Failures report weekly

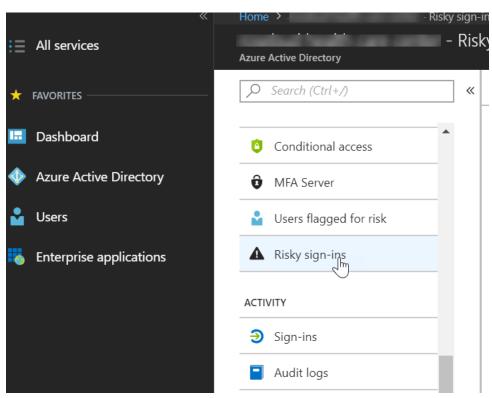
These reports contains records of accounts that have successfully signed-in after multiple risk events, such as locations, IP addresses which could be an indication that the account could be compromised.



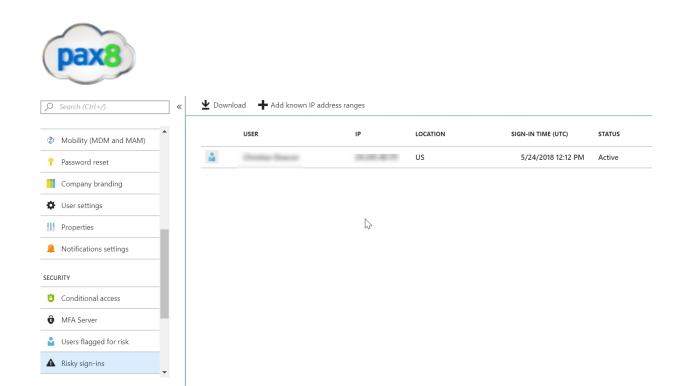
1. Go into Admin Centers>Azure Active Directory



2. Go to Azure Active Directory>Risky Sign-ins



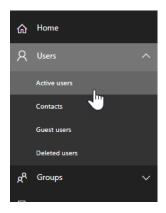
3. View Users with Risky Sign-Ins



#### Designate More than 1 Global Admin

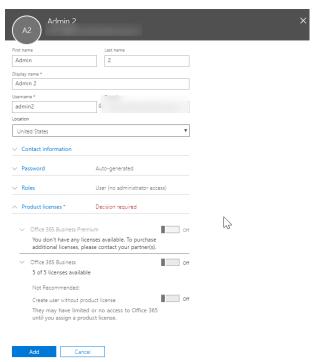
You should designate more than one global tenant administrator because that one admin can perform malicious activity without the possibility of being discovered by another admin. You could also set this second admin up with a mailbox in which all of the reports discussed in this playbook are filtered into.

1. Log In to the 365 Admin Center>Go to Users>Active Users



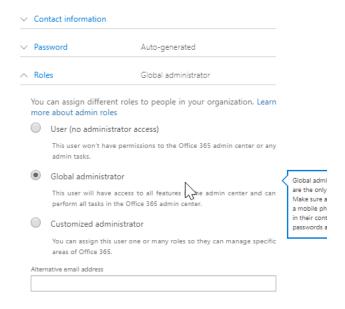
2. Click +Add a User>Add User Details







#### 3. Click "Roles" > Change to Global Administrator

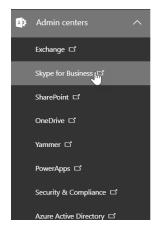


#### Do Not Allow External Domain Skype Communications

You should not allow your users to communicate with Skype users outside your organization. While there are legitimate, productivity-improving scenarios for this, it also represents a potential security threat in that those external users will now be able to interact with your users over Skype for Business. Attackers may be able to pretend to be someone your user knows, and then send malicious links or attachments, resulting in an account breach, or leaked information

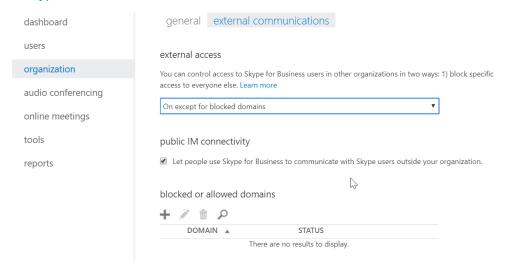


#### 1. Go into Admin Centers>Skype for Business Admin Center



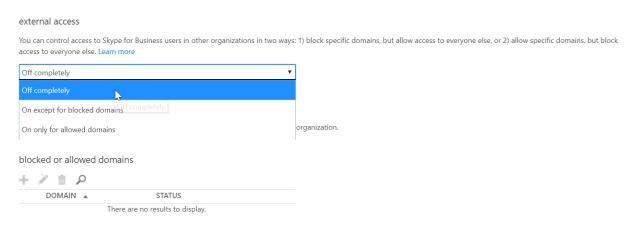
#### 2. Go to Organization>External Communications

#### Skype for Business admin center





#### 3. Change to "Off Completely"

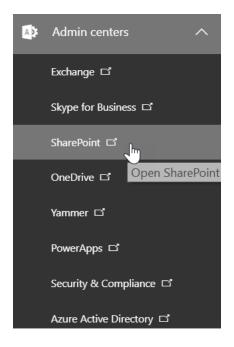


#### Configure Expiration Time for External Sharing Links

You should restrict the length of time that anonymous access links are valid. An attacker can compromise a user account for a short period of time, send anonymous sharing links to an external account, then take their time accessing the data. They can also compromise external accounts and steal the anonymous sharing links sent to those external entities well after the data has been shared.

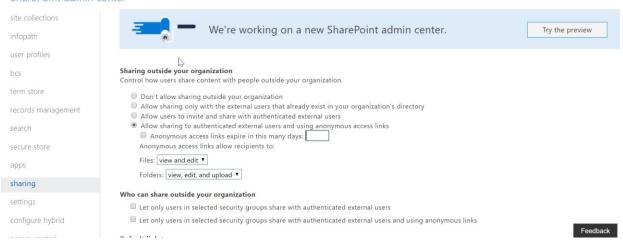


#### 1. Go to Admin Centers>SharePoint



#### 2. Click on the "Sharing Tab"

#### SharePoint admin center





3. Checkmark the box next to "Anonymous access links expire in this many days" and select # of days:

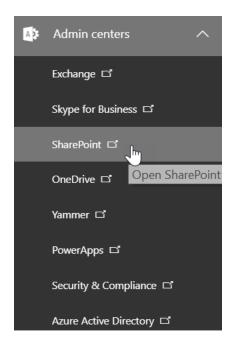
Sharing outside your organization Control how users share content with people outside your organization.
<ul> <li>Don't allow sharing outside your organization</li> <li>Allow sharing only with the external users that already exist in your organization's directory</li> <li>Allow users to invite and share with authenticated external users</li> <li>Allow sharing to authenticated external users and using anonymous access links</li> <li>Anonymous access links expire in this many days: 7</li> <li>Anonymous access links allow recipients to:</li> </ul>
Files: view and edit ▼  Folders: view, edit, and upload ▼

#### Enable Versioning on all SharePoint Online Document Libraries

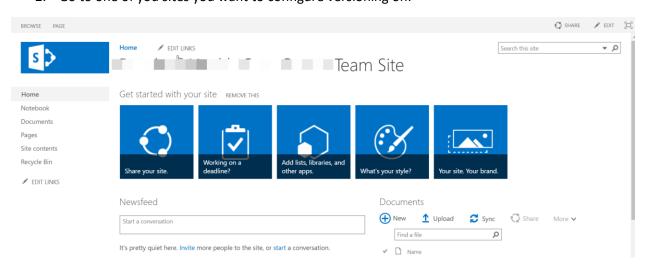
You should enable versioning on all of your SharePoint online site collection document libraries. This will ensure that accidental or malicious changes to document content can be recovered.



#### 1. Go to Admin Centers>SharePoint

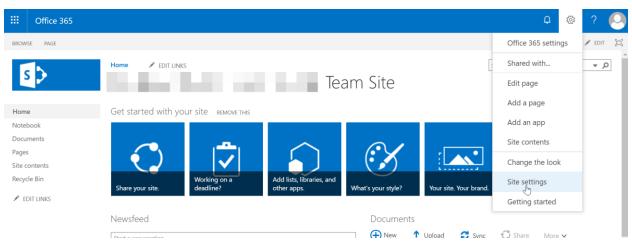


2. Go to one of you sites you want to configure versioning on:



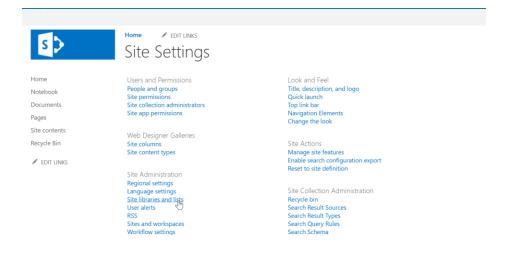
3. Go to Settings>Site Settings







#### 4. Go to Site Administration>Site Libraries and Lists



#### 5. Select on of your document libraries

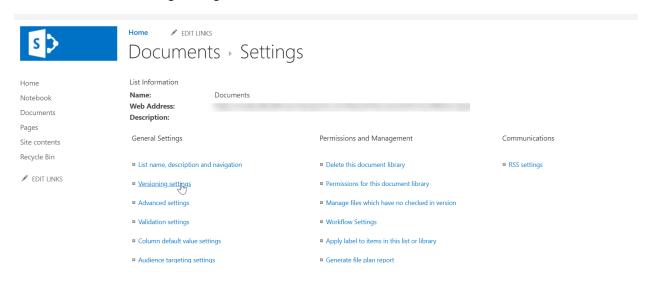
Home PEDIT LINKS

# Site Settings - Site Libraries and Lists o

Customize "Documents"
Customize "Form Templates"
Customize "MicroFeed"
Customize "Site Assets"
Customize "Site Pages"
Customize "Style Library"

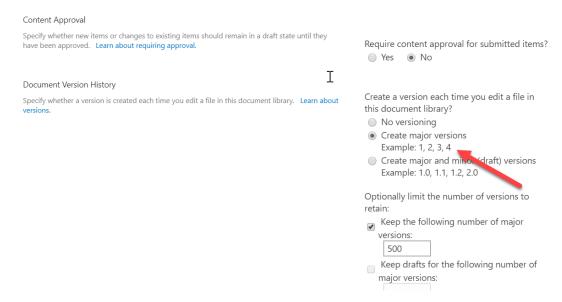


#### 6. Click on Versioning Settings



### 7. Customize the settings to create version preferences:

# Settings - Versioning Settings

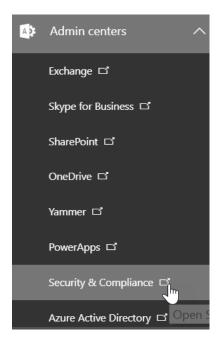




## Tag Documents in SharePoint

You should apply labels to documents in SharePoint Online. If you use document classification tags, you can author rules that leverage the label to implement specific retention/deletion policies using data loss protection (DLP) in the Security and Compliance Center.

1. Go to Admin Centers>Security and Compliance

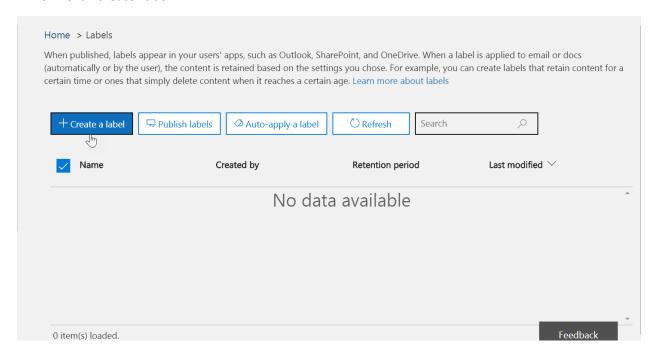


#### 2. Click Classifications>Labels

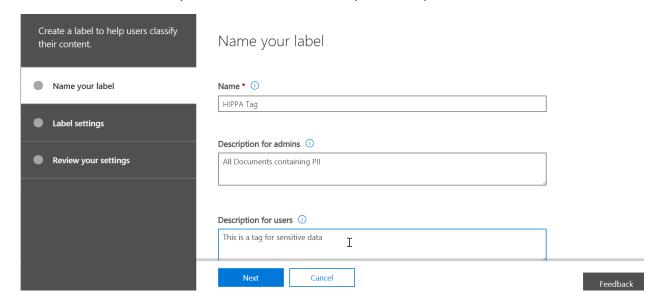




#### 3. Click Create Label

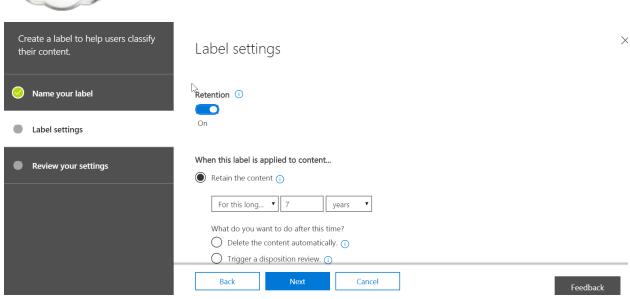


4. Create a name for your label and create a description to help admins and users, then click Next

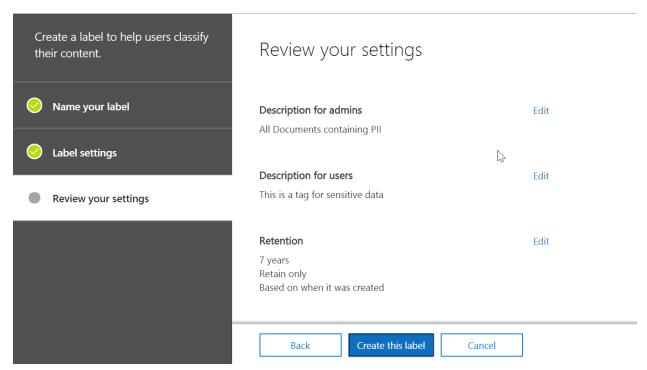


5. Create a custom retention policy for the Label



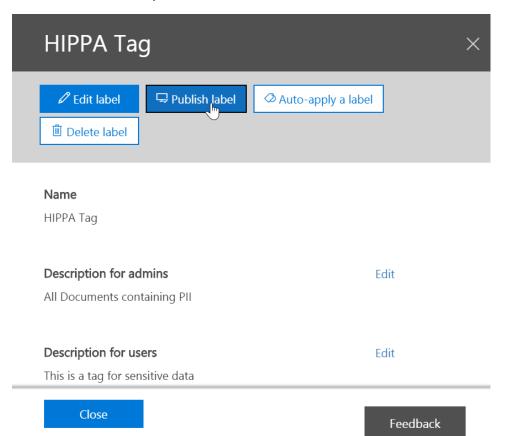


## 6. Review your Settings and click, Create this Label



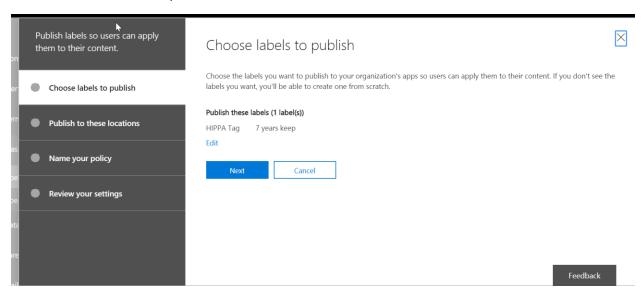


7. Now were ready to "Publish the Label"

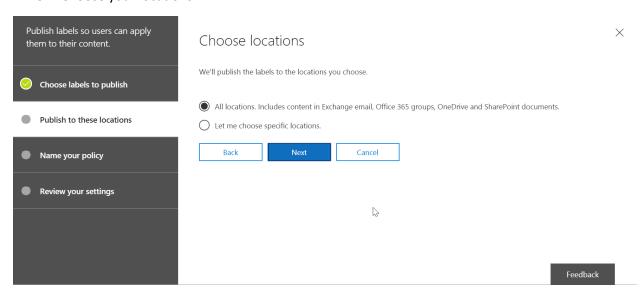




## 8. Select the label to publish:

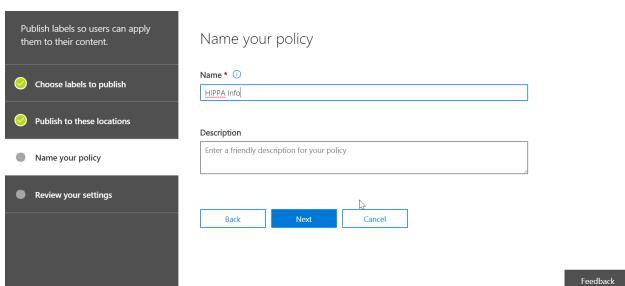


## 9. Choose your locations



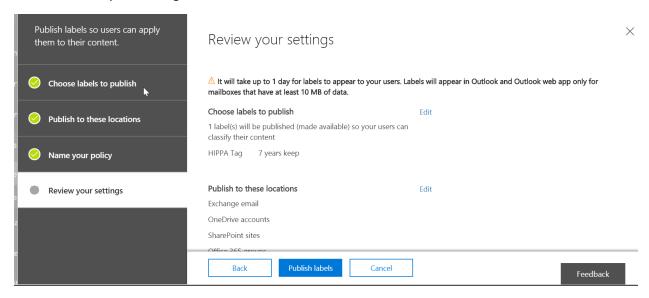
## 10. Name the Policy



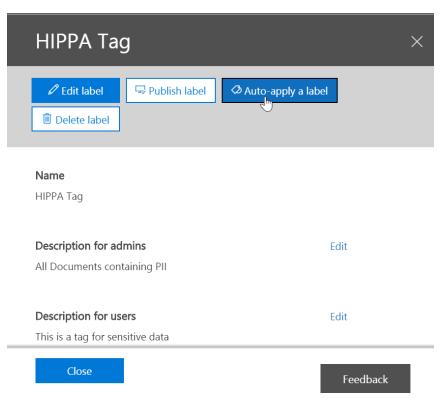




11. Review your settings and click "Publish Labels"

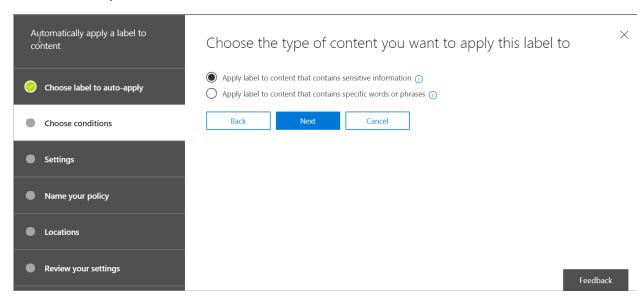


12. You can also Auto-apply the tag based on certain parameters:

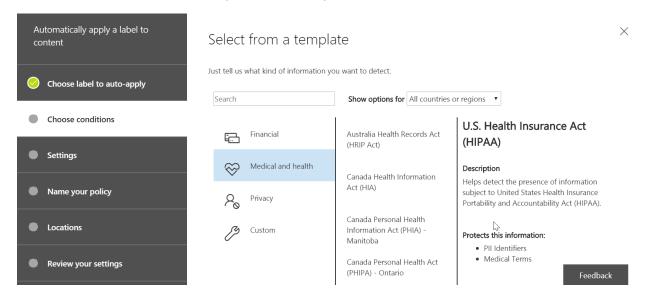




## 13. Choose your Conditions:

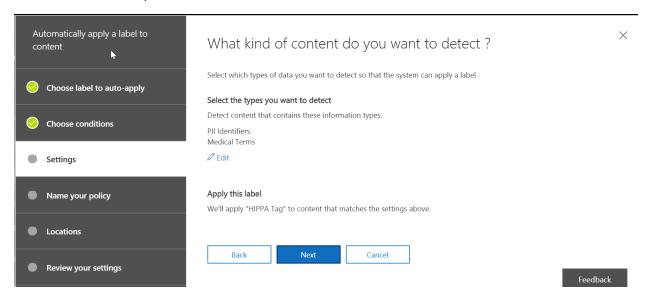


#### 14. Drill down into certain templates or create your own:

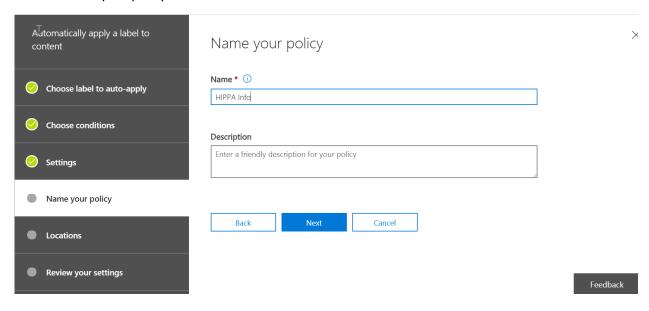




## 15. Click "edit" if you want to add more content:

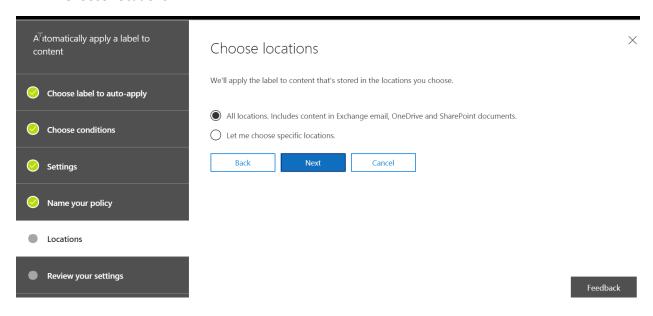


## 16. Name your policy

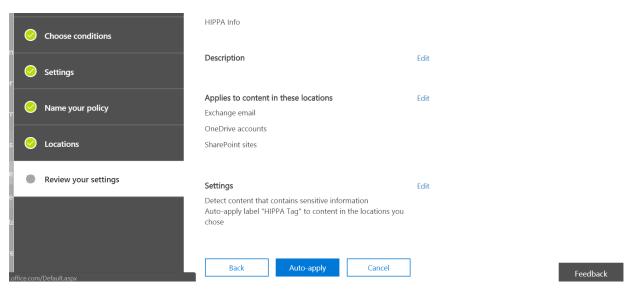




#### 17. Choose Locations:



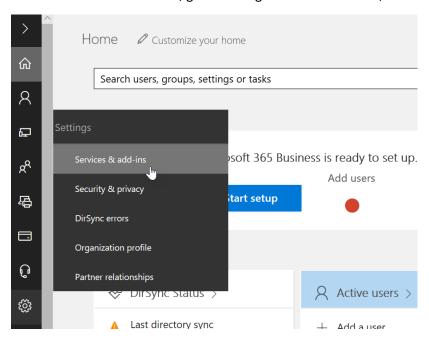
## 18. Review Settings and click "Auto-apply"





## **Enable Encryption**

1. In the Admin Center, go to Settings>Services&Add-Ins;





## 2. Find "Microsoft Azure Information Protection"

	Name ✓	Host Apr
	Dynamics Customer Insights Preview  Manage and update your Dynamics Customer Insights Preview settings	
A	Integrated Apps Manage your Integrated Apps settings	
	Mail Set up auditing, track messages, and protect email from spam and malware	
A	Microsoft Azure Information Protection Update your settings for Microsoft Azure Information Protection	
F	Microsoft Forms  Manage and update your Microsoft Forms settings	
T	Microsoft Teams  Manage and update your Microsoft Teams settings	



3. Select "Manage Microsoft Azure Information Protection settings"

## Microsoft Azure Information Protection

## Keep your information safe, online or offline

With Microsoft Azure Information Protection you can add another layer of protection to the data you store in Office 365. The rules you set protect your files whether they're viewed using Office online or downloaded to a user's device. Policies and encryption let you safely share files in email or OneDrive and safeguard confidential information.

Close



## 4. Make sure Rights Management is activated

## rights management



## Rights management is activated

Rights Management safeguards your email and documents, and helps you securely share this data with your colleagues.

To disable Rights Management, click deactivate.

deactivate

## additional configuration

You can configure advanced features for Rights Management using Microsoft Azure.

This requires a one-time sign up for a free Azure subscription to access Azure Active Directory.

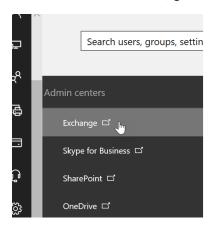
advanced features

#### resources

- What is Rights Management?
- Rights Management Deployment roadmap
- Using Rights Management
- FAQs For Rights Management

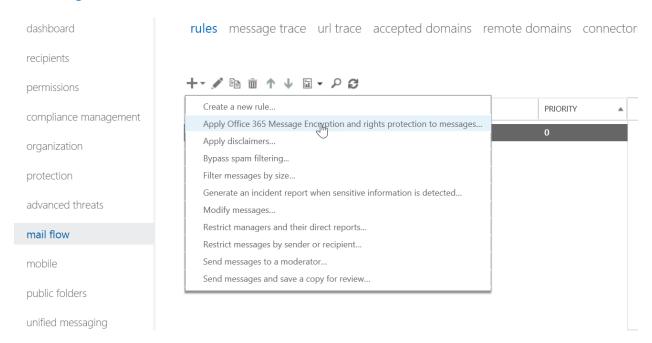


5. After this is active, go to the Exchange Admin Center



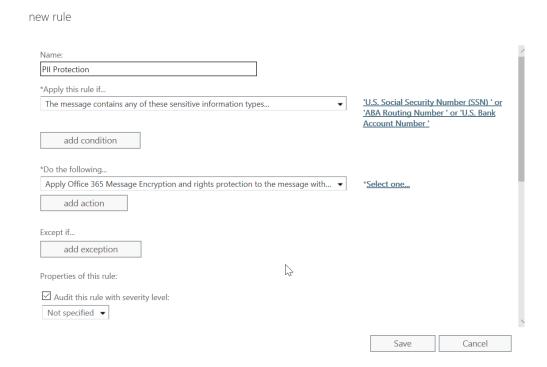
6. Go to Mail Flow>Rules and click the + icon to add a new rule. From here you will be able to configure a rule to automatically encrypt messages based off of certain parameters

## Exchange admin center





#### 7. Apply Rules Particular to Your Organization



8. From here this rule will automatically encrypt messages that define these parameters. Additionally, users will be able to encrypt messages at will via OWA

#### Create DLP Policies

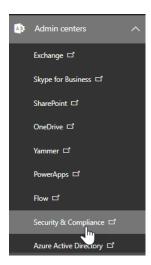
To comply with business standards and industry regulations, organizations need to protect sensitive information and prevent its inadvertent disclosure. Examples of sensitive information that you might want to prevent from leaking outside your organization include financial data or personally identifiable information (PII) such as credit card numbers, social security numbers, or health records. With a data loss prevention (DLP) policy in the Office 365 Security & Compliance Center, you can identify, monitor, and automatically protect sensitive information across Office 365.

For a detailed support article containing everything on DLP, Click this link

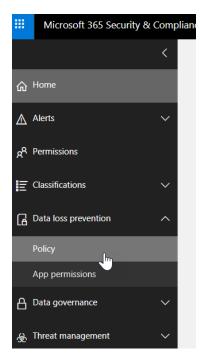
Here are the steps:



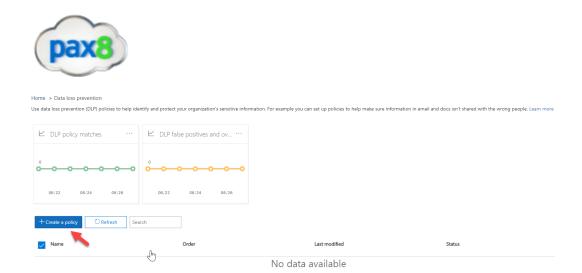
1. Go to Admin Centers>Security and Compliance Center



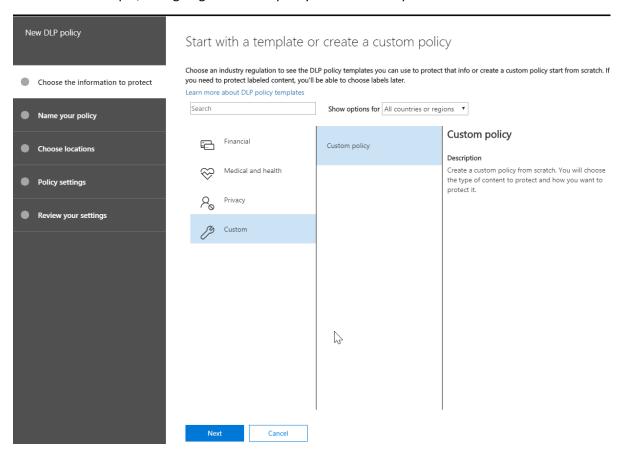
2. Click the Data Loss Prevention Tab and then click Policy



3. On the new screen that pops up, click +Create a policy

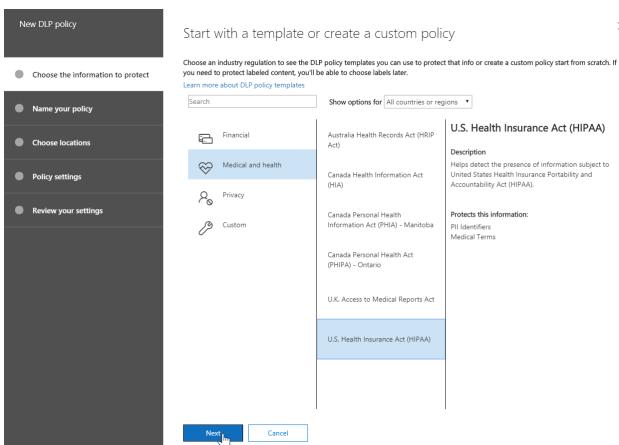


4. From here you can select from a list of predesigned policy templates or customize your own. For this example, I am going to create a policy for HIPAA compliance:



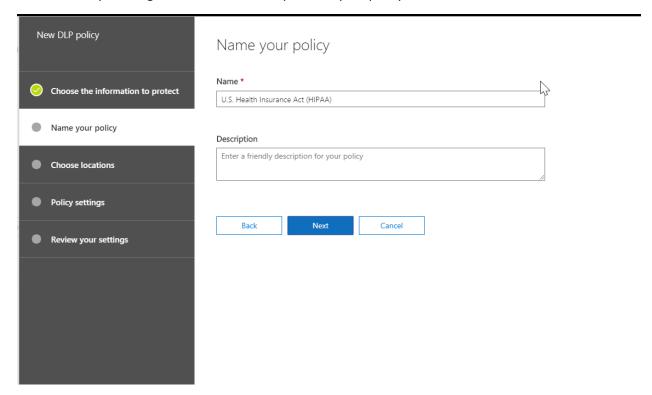
5. Go to Medical and Health> US Health Insurance Act>Click Next



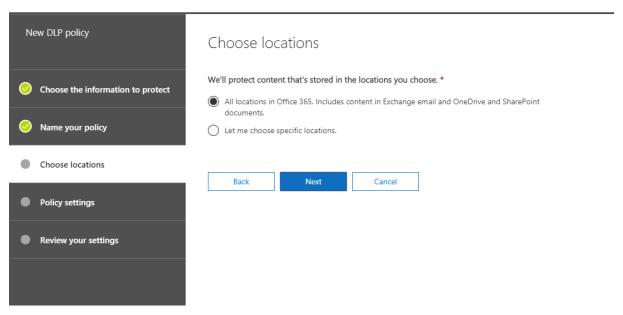




6. Here you can give a name and description for your policy

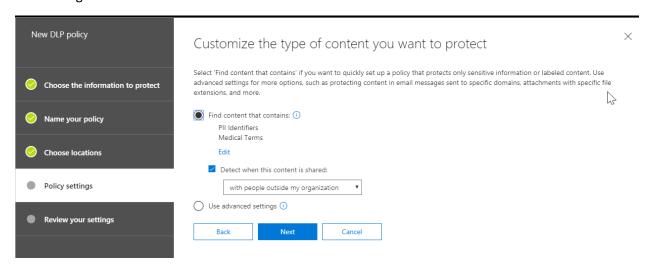


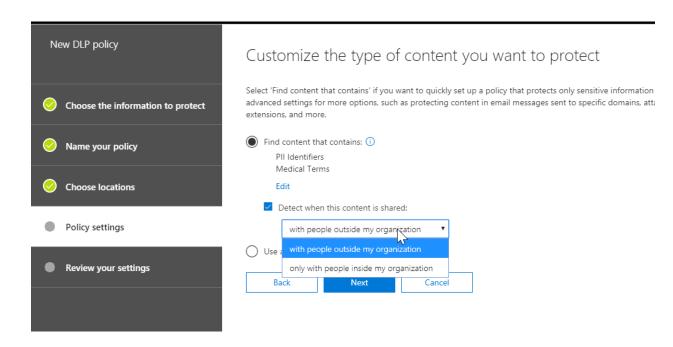
7. Next, you can chose the locations you want this policy to be active whether that be Exchange Online, OneDrive, or Sharepoint





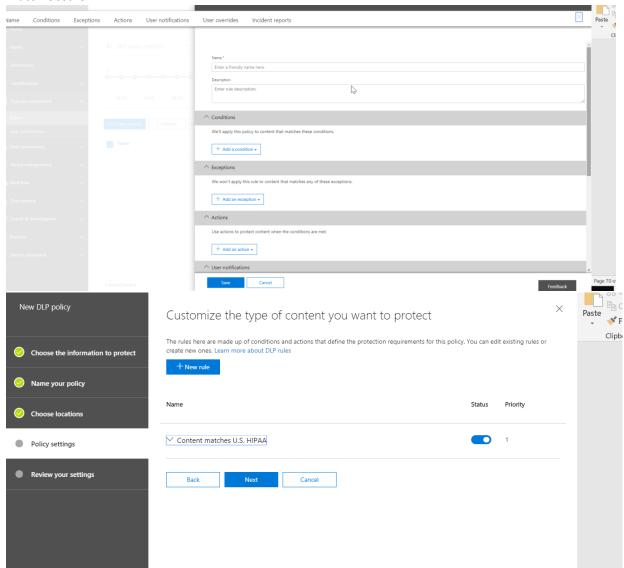
8. From here we can get even more granular with our settings. I can choose to add more content to my filter and chose whether to detect content that is shared inside or outside more organization







9. If I click on the "User Advanced Settings" icon, I can create a new rule to apply more granular conditions to my policies. These rules include exceptions, actions to take when condition are met, user notifications, user overrides, and incident reports that are sent to admins when a rule match occurs





## ^ Actions

Use actions to protect content when the conditions are met.



## △ User notifications

Use Notifications to inform your users and help educate them on the proper use of sensitive information.



#### △ User overrides

Let people who see the tip override the policy and share the content.



 $\ensuremath{\bigcirc}$  You must turn on user notifications to let users override the policy.

#### △ Incident reports

Use this severity level in admin alerts and reports:

Low ▼

Send an alert to admins when a rule match occurs.



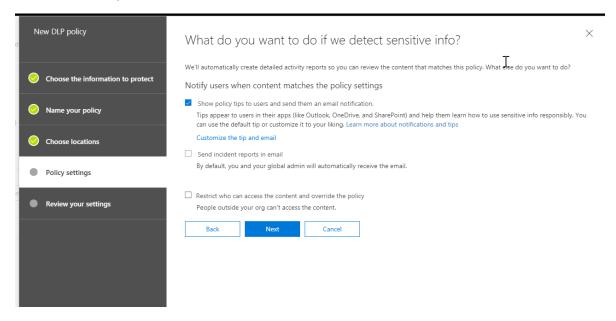
Use email incident reports to notify you when a policy match occurs.



Save Cancel

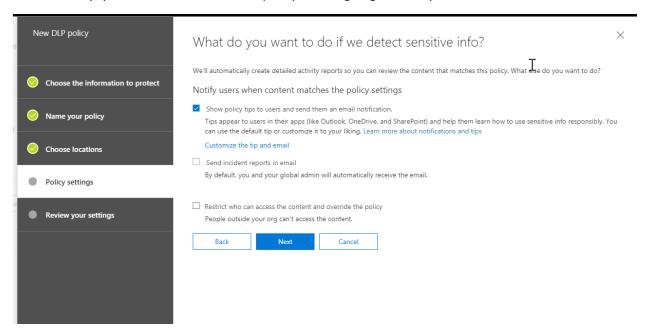


10. From here you can customize what to do if sensitive info is protected. You can use notifications and overrides to educate your users about DLP policies and help them remain compliant without blocking their work. For example, if a user tries to share a document containing sensitive information, a DLP policy can both send them an email notification and show them a policy tip in the context of the document library that allows them to override the policy if they have a business justification



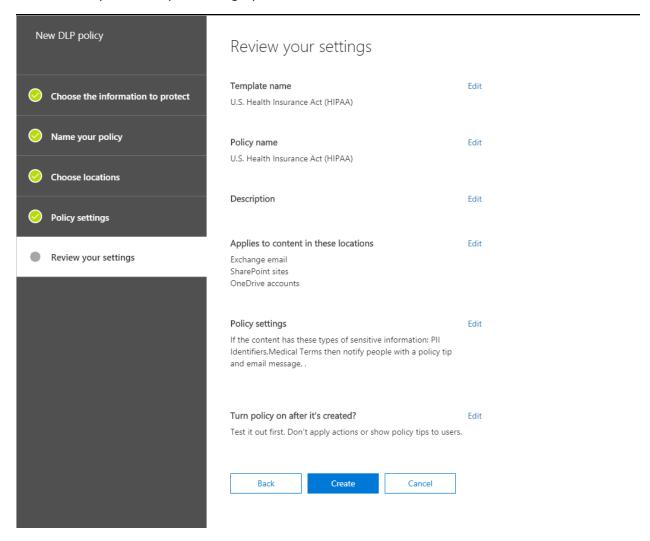


## 11. Lastly, you can choose to test the policy before going into full production:



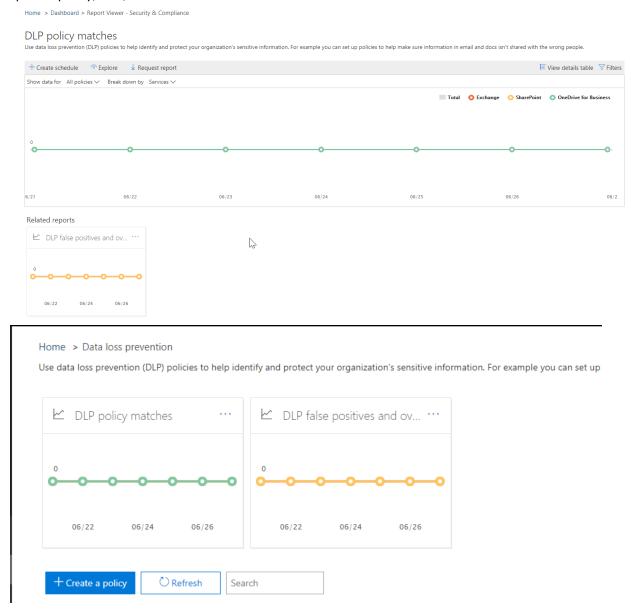


## 12. Once you review your settings, you can click Create

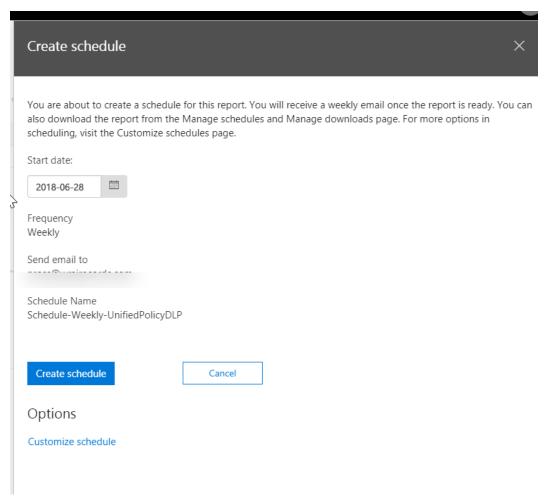




13. After you create and turn on your DLP policies, you'll want to verify that they're working as you intended and helping you stay compliant. With DLP reports, you can quickly view the number of DLP policy and rule matches over time, and the number of false positives and overrides. For each report, you can filter those matches by location, time frame, and even narrow it down to a specific policy, rule, or action.







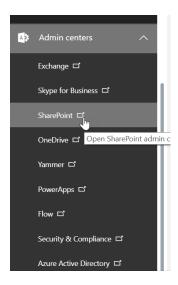
## Enable and User Information Rights Management on Document Data

You should enable and use Information Rights Management protections on email and document data. This will help prevent accidental or malicious exposure of your data outside of your organizational boundaries. Attackers targeting specific, high value data assets will be prevented from opening them without a user credential in your tenancy.



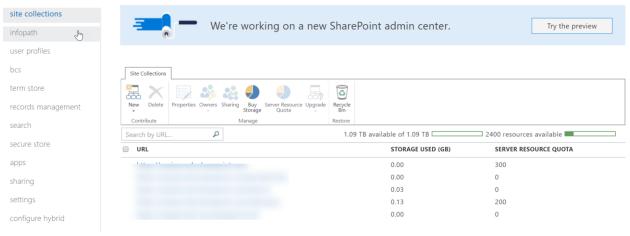
## Steps:

## 1. Go to Admin Center>Sharepoint



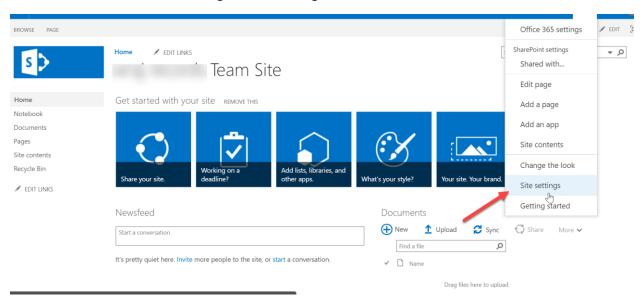
## 2. Select the site you want to edit from Site Collections

#### SharePoint admin center

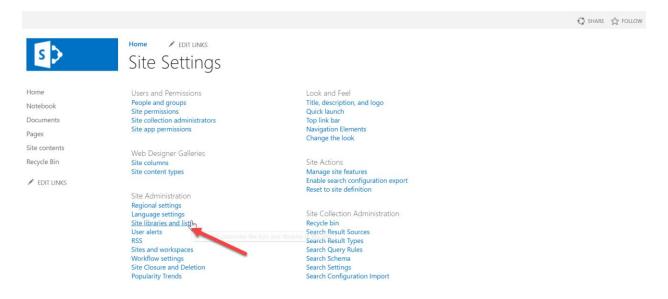




3. Click on the Gear icon and go to Site Settings

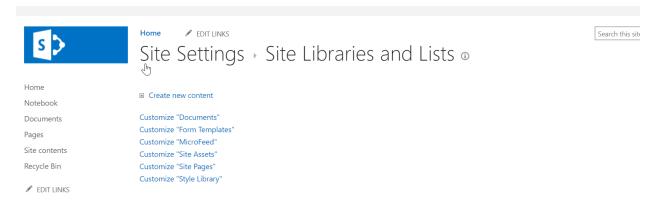


4. Under Site Administration>Go to Site Libraries and Lists

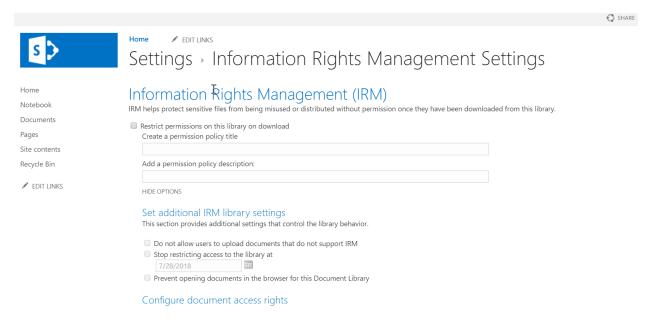




## 5. Click on the Library/List that you want to apply IRM



6. From here you can customize the settings you want to apply





'n	Set additional IRM library settings This section provides additional settings that control the library behavior.				
	<ul> <li>□ Do not allow users to upload documents that do not support IRM</li> <li>□ Stop restricting access to the library at</li> <li>□ 7/28/2018</li> </ul>				
	Prevent opening documents in the browser for this Document Library				
Configure document access rights  This section control the document access rights (for viewers) after the document is downloaded from the library, read only vight is the default. Granting the rights below is reducing the bar for accessing the content by unauthorized users.					
	<ul> <li>Allow viewers to print</li> <li>Allow viewers to run script and screen reader to function on downloaded documents</li> <li>Allow viewers to write on a copy of the downloaded document</li> <li>After download, document access rights will expire after these number of days (1-365)</li> </ul>				
	Set group protection and credentials interval Use the settings in this section to control the caching policy of the license the application that opens the document will use and to allow sharing the downloaded document with users that belong to a specified group				
	Users must verify their credentials using this interval (days)				
	Allow group protection. Default group:				
	Enter a name or email address				

## Enable Advanced Threat Protection safe attachments policy

This will extend the malware protections in the service to include routing all messages and attachments that don't have a known virus/malware signature to a special hypervisor environment where a behavior analysis is performed using a variety of machine learning and analysis techniques to detect malicious intent. This will extend the malware protections in the service to include routing all messages and attachments that don't have a known virus/malware signature to a special hypervisor environment where a behavior analysis is performed using a variety of machine learning and analysis techniques to detect malicious intent.

#### \*Licensing Note\*

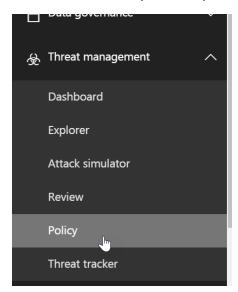
The ATP Safe Links features are only available in Advanced Threat Protection. Office 365 ATP is included in subscriptions, such as:

- Office 365 Enterprise E5
- Office 365 Education A5
- Microsoft 365 Business
- Add-On

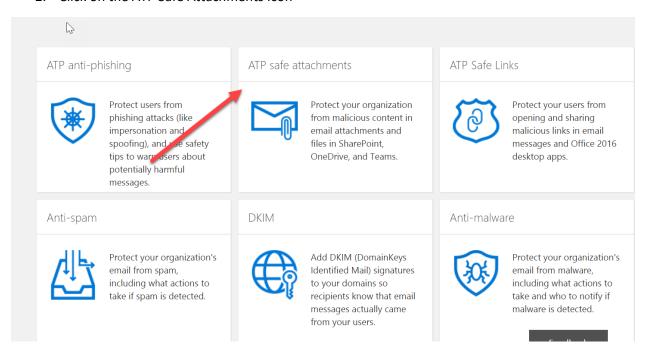
#### Steps:



1. In the Security and Compliance Center, go to Threat Management>Policy



2. Click on the ATP Safe Attachments Icon



3. Checkmark the box next to "Turn on ATP for SharePoint, OneDrive, and Microsoft Teams"



Home > Safe attachments

## Safe attachments

Use this page to protect your organization from malicious content in email attachments and files in SharePoint, OneDrive, and Microsoft Teams.

#### Protect files in SharePoint, OneDrive, and Microsoft Teams

If a file in any SharePoint, OneDrive, or Microsoft Teams library is identified as malicious, ATP will prevent users from opening and downloading the file. Learn more about ATP for SharePoint, OneDrive, and Microsoft Teams

 $\hfill\Box$  Turn on ATP for SharePoint, OneDrive, and Microsoft Teams

Protect email astechments

Set up an ATP safe attachments policy for specific users or groups to help prevent people from opening or sharing email attachments that contain malicious content. Learn mo about ATP safe attachments for email.

Reports for this feature just got better. Check out the new report in the Security and Compliance Center for an

enhanced reporting experience.								
+ / 🖹 🛧	√ ii - 8							
ENABLED	NAME	PRIORITY						
	There are no items to show in this view.	4	<b>+</b>					
	0 selected of 0 total							
Save					Feedback			



## 4. Click the + icon to set up a new policy

Home > Safe attachments

## Safe attachments

Use this page to protect your organization from malicious content in email attachments and files in SharePoint, OneDrive, and Microsoft Teams.

#### Protect files in SharePoint, OneDrive, and Microsoft Teams

If a file in any SharePoint, OneDrive, or Microsoft Teams library is identified as malicious, ATP will prevent users from opening and downloading the file. Learn more about ATP for SharePoint, OneDrive, and Microsoft Teams

☐ Turn on ATP for SharePoint, OneDrive, and Microsoft Teams

#### Protect email attachments

Set up an ATP safe attachments policy for specific users or groups to help prevent people from opening or sharing email attachments that contain malicious content. Learn mo about ATP safe attachments for email

Reports for this feature just got better. Check out the new report in the Security and Compliance Center for an enhanced reporting experience.



0 selected of 0 total

Save

Feedback



5. Here you have some setting that you can adjust. First you will name your policy. Then you will have the option to select what action to take when malware is detected. The options to choose from are Off, Monitor, Block, Replace, and Dynamic Delivery. All of these options will slow mail flow except for Dynamic Delivery. The Dynamic Delivery option sends the mail immediately and replaces the attachment with a placeholder file until the scan is complete. For a more detailed explanation of these options, please follow this support article.

new safe attachments policy

*Name:
N
Description:
Safe attachments unknown malware response
Select the action for unknown malware in attachments.Learn more
Warning
Monitor, Replace and Block actions may cause significant delay to email delivery. Learn more
Dynamic Delivery is only available for recipients with hosted mailboxes. Learn more  If you choose the Block, Replace or Dynamic Delivery options and malware is detected in attachment, the
message containing the attachment will be quarantined and can be released only by an admin.
Off - Attachment will not be scanned for malware.
Monitor - Continue delivering the message after malware is detected; track scan results.
Block - Block the current and future emails and attachments with detected malware.
Replace - Block the attachments with detected malware, continue to deliver the message.
Dynamic Delivery - Deliver the message without attachments immediately and reattach
once scan is complete.
Redirect attachment on detection
Send the blocked, monitored, or replaced attachment to an email address.
□ Fnable redirect

You can also choose to redirect the attachment to another email such as an admin or quarantine mailbox.



Redirect attachment on detection
Send the blocked, monitored, or replaced attachment to an email address.

Enable redirect
Send the attachment to the following email address

Apply the above selection if malware scanning for attachments times out or error occurs.

Applied To
Specify the users, groups, or domains for whom this policy applies by creating recipient based rules:

\*If...

Select one

add condition

Except if...

add exception

Lastly, you will notice above, you can specify this policy to specific groups or domains.

#### **Enable ATP Safe Links**

This will extend the phishing protection in the service to include redirecting all email hyperlinks through a forwarding service which will block malicious ones even after it has been delivered to the end user. Beginning in late October 2017, ATP Safe Links protection is extended to apply to URLs in email as well as URLs in Office 365 ProPlus documents, such as Word, Excel, PowerPoint, and Visio on Windows, as well as Office apps on iOS and Android devices



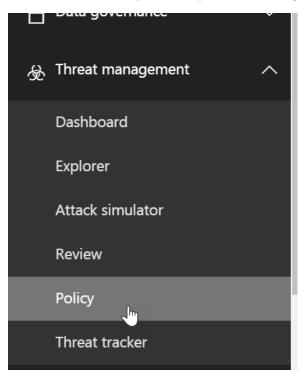
### \*Licensing Note\*

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- Office 365 Enterprise E5
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- Add-On

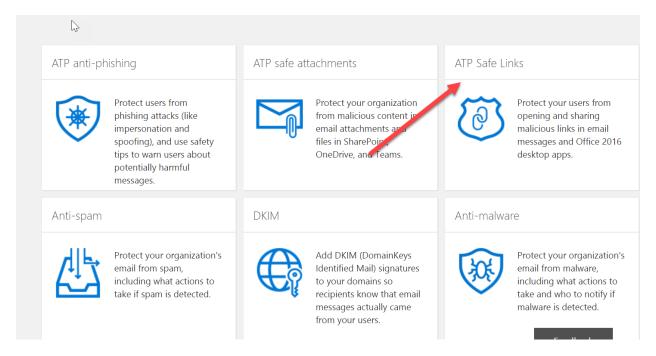
### Steps:

1. In the Security and Compliance Center, go to Threat Management>Policy

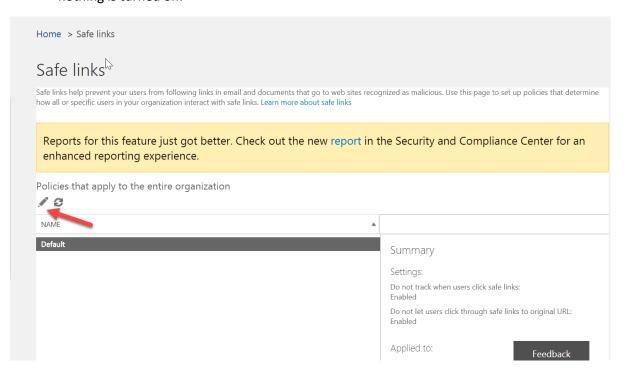




#### 2. Click on the ATP Safe Attachments Icon



3. Here you can click on the Default Policy to see its settings. You will notice that by default, nothing is turned on:

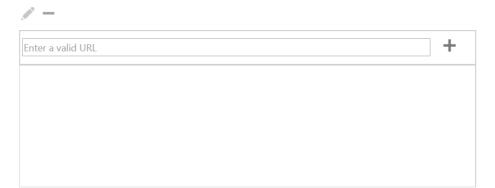




## Safe links policy for your organization

#### Settings that apply to content across Office 365

When users click a blocked URL, they're redirected to a web page that explains why the URL is blocked. Block the following URLs:



#### Settings that apply to content except email

These settings don't apply to email messages. If you want to apply them for email, create a safe links policy for email recipients.

Use safe links in:

Office 365 ProPlus, Office for iOS and Android

For the locations selected above:

☑ Do not track when users click safe links

■ Do not let users click through safe links to original URL

## Safe Links will be used

Office 365 ProPlus (Word, Excel, PowerPoint, and Visio on Windows; and Word, Excel, and PowerPoint on Mac) Office Online (Word Online, Excel Online, PowerPoint Online, and OneNote Online) Word, Excel, and PowerPoint for iOS and Android

Apps not currently supported:OneNote (desktop version) Non Office 365 ProPlus products (such as Office 2016, Office 365 Home, Office 365 Personal, and the consumer version of Office Online) Office apps for iOS and Android not listed above

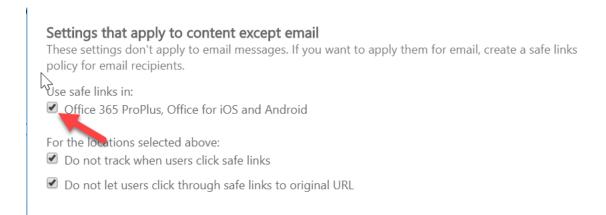
When a user clicks a URL in one of the supported anne Office 365 will firet



4. The first things we can do here is add an asterisk as a wildcard so that URLs start getting scanned for malicious content

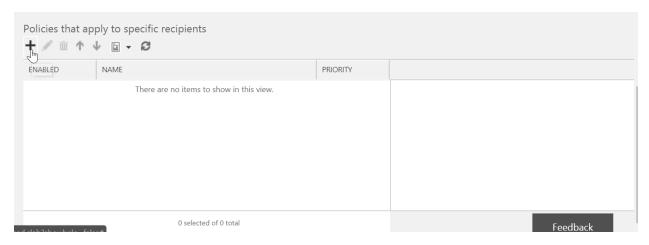


We can also checkmark the box for using Safe Links in Office 365 ProPlus and Office for IOS/Andriod



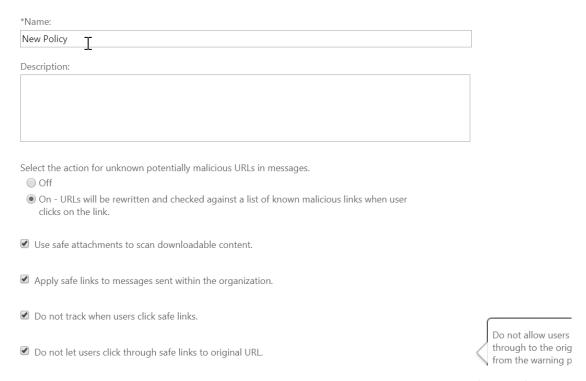


5. The other option is to scroll down and create a new safe link policy



6. Here we can give a new name to the policy and I recommend checkmarking all of the fields but you can customize to fit your organizational needs:

new safe links policy

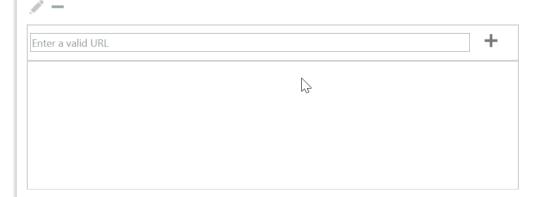


7. Additionally you can whitelist certain URLs and define certain domain/groups/users to apply this policy to:



## new safe links policy

Do not rewrite the following URLs:



## Applied To

Specify the users, groups, or domains for whom this policy applies by creating recipient based rules:

\*If...

Select one

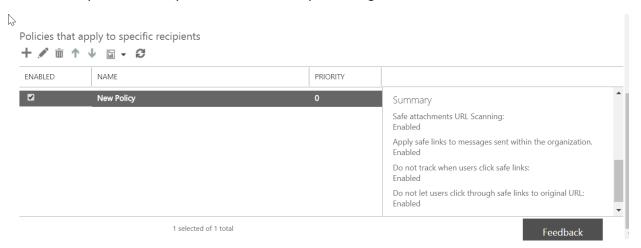
add condition

Except if...

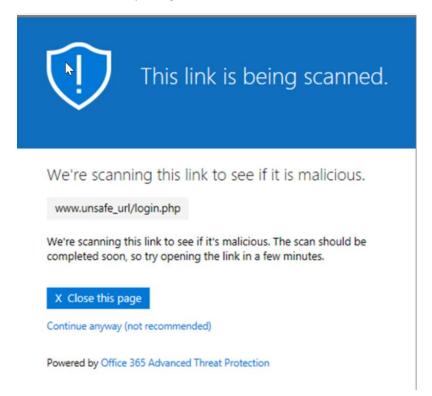
add exception



8. After you click save, you can see a summary on the right hand side:



9. After the policy is in place, the ATP Safe Links feature immediately checks the URL a user clicks on before opening the website. The URL is identified as blocked, malicious, or safe.





- If the URL is to a website that is included in the whitelisted URLs list for a policy that applies to the user, the website opens.
- If the URL is to a website that is included in the organization's custom blocked URLs list or a URL is to a website determined to be malicious, a warning page opens.



A link was clicked from a suspicious message.

This link was clicked from a message that has similarities to other suspicious messages.

We recommend that, before opening the website, go back and review the email message to determine the content of this email. Please be cautious when replying to the sender, even if it looks like someone you know.

Tips for identifying phishing attacks

X Close this page

Continue anyway (not recommended)

Learn more about Office 365 anti-phishing



This link was clicked from a message that has been identified as a phishing attack.

We recommend that you don't open this website, as opening it might not be safe and could harm your computer or result in malicious use of your personal data.

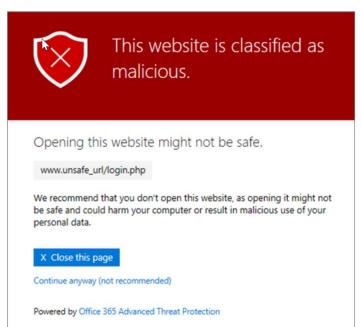
Tips for identifying phishing attacks

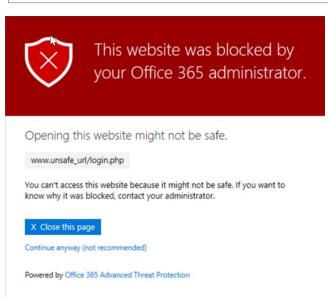
X Close this page

Continue anyway (not recommended)

Learn more about Office 365 anti-phishing







- If the URL goes to a downloadable file and your organization's ATP Safe Links policies are configured to scan such content, the downloadable file is checked
- If the URL is determined to be safe, the website opens.

Implement Cloud App Security



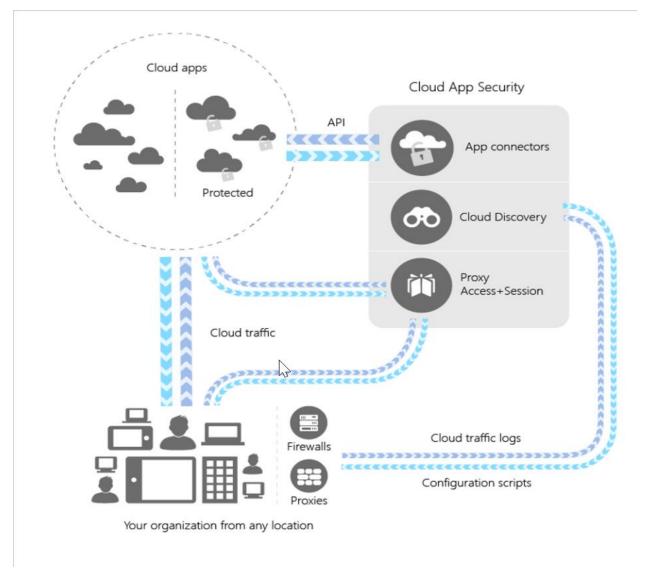
Cloud App Security is a critical component of the Microsoft Cloud Security stack. It's a comprehensive solution that can help your organization as you move to take full advantage of the promise of cloud applications, but keep you in control, through improved visibility into activity. It also helps increase the protection of critical data across cloud applications. With tools that help uncover shadow IT, assess risk, enforce policies, investigate activities, and stop threats, your organization can more safely move to the cloud while maintaining control of critical data.

\*Licensing Considerations\*

Currently Cloud App Security comes with the following Plans:

- Office 365 E5
- EMS+E5
- Microsoft E3 and E5





#### Key Terms:

- Cloud Discovery-uses your traffic logs to dynamically discover and analyze the cloud apps that your organization is using. To create a snapshot report of your organization's cloud use, you can manually upload log files from your firewalls or proxies for analysis. To set up continuous reports, use Cloud App Security log collectors to periodically forward your logs.
- Sanctioning and unsanctioning an app- You can use Cloud App Security to sanction or unsanction apps in your organization by using the Cloud app catalog. The Microsoft team of



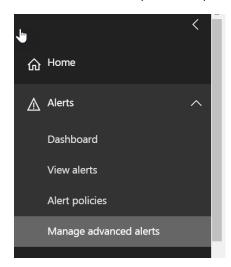
analysts has an extensive and continuously growing catalog of over 16,000 cloud apps that are ranked and scored based on industry standards. You can use the Cloud app catalog to rate the risk for your cloud apps based on regulatory certifications, industry standards, and best practices. Then, customize the scores and weights of various parameters to your organization's needs. Based on these scores, Cloud App Security lets you know how risky an app is based on over 70 risk factors that might affect your environment.

- App Connectors- use APIs from cloud app providers to integrate the Cloud App Security cloud with other cloud apps. App connectors extend control and protection. They also give you access to information directly from cloud apps, for Cloud App Security analysis.
- Conditional Access App Control Protection- utilizes reverse proxy architecture to give you the
  tools you need to have real-time visibility and control over access to and activities performed
  within your cloud environment. With Conditional Access App Control, you can protect your
  organization:
  - Avoid data leaks by blocking downloads before they happen
  - Set rules that force data stored in and downloaded from the cloud to be protected with encryption
  - Gain visibility into unprotected endpoints so you can monitor what's being done on unmanaged devices
  - o Control access from non-corporate networks or risky IP addresses
- Policy Control- you can use policies to define your users' behavior in the cloud. Use policies to
  detect risky behavior, violations, or suspicious data points and activities in your cloud
  environment. If needed, you can use policies to integrate remediation processes to achieve
  complete risk mitigation.

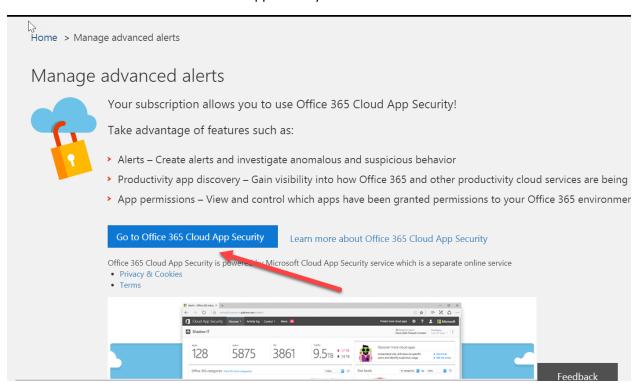


#### Steps:

1. Go to Security and Compliance Admin Center>Alerts>Manage Advanced Alerts

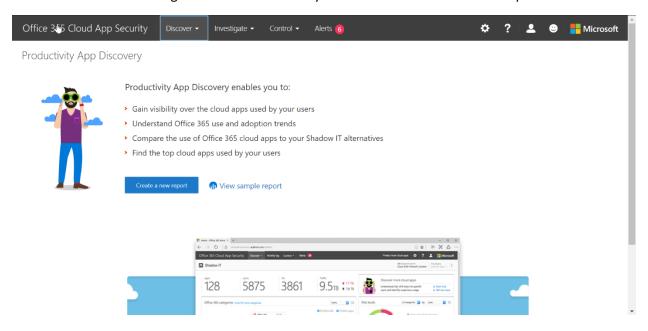


#### 2. Click the link to enter the Cloud App Security Portal

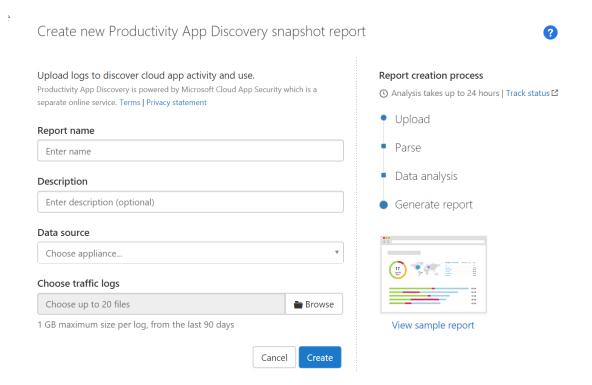




3. From here we can go to Discovery Dashboard>Click Create New Report

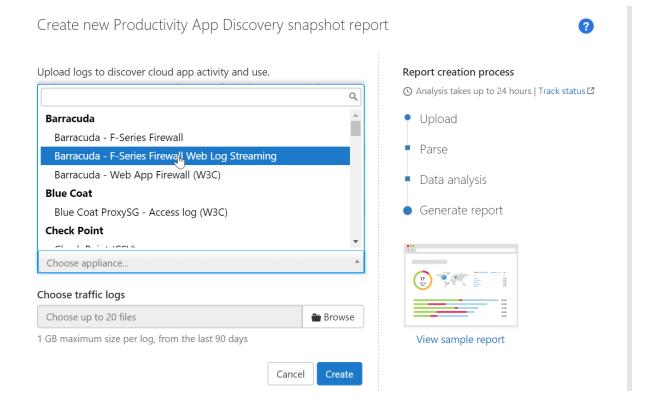


4. Now we can add a log from our Firewall provider



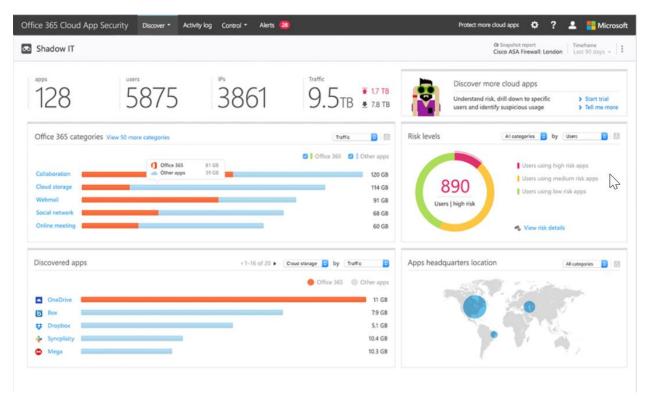
There is a list of providers from the dropdown. For the complete list, Follow this link



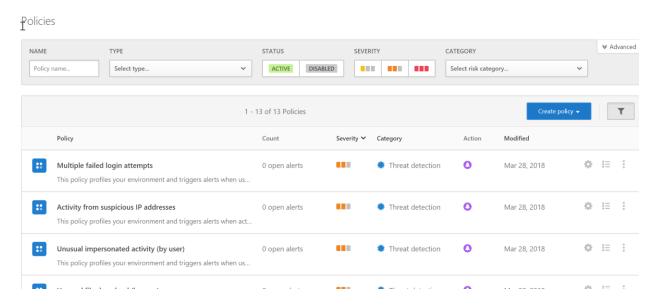




5. After the log is imported, your dashboard will contain info on discovered users, apps, IPs, and traffic

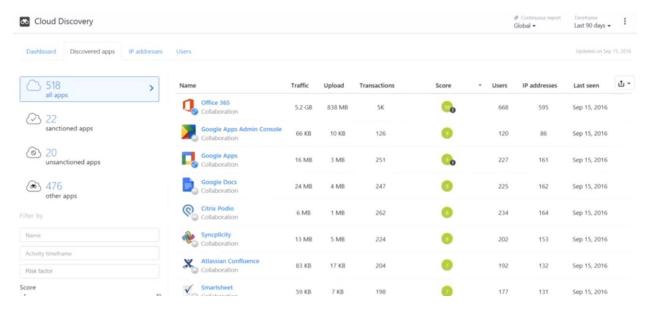


6. You can create new policies and customize them based on priority level

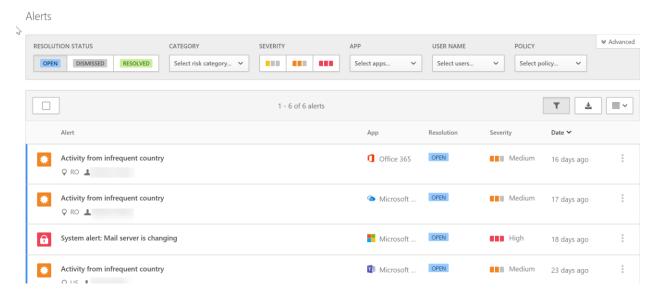




7. Additionally, you can see all of your apps in one location, including sanctioned and unsanctioned apps



8. Lastly, alerts allow you to address security risk based off your policies





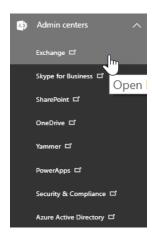
# Exchange Online Protection/Antispam Policies

### Checklist:

## Connection Filtering:

#### Questions to Ask:

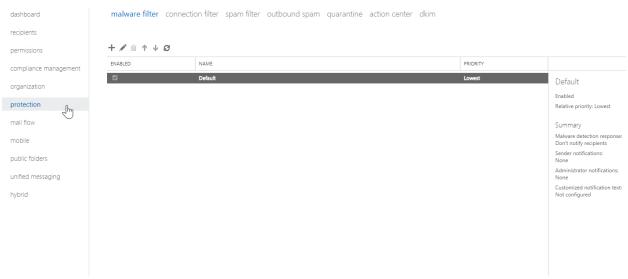
- Do I need to create an allowed list from a specific IP range?
- Do I need to create a block list?
- 1. Go into Admin Centers>Exchange Admin Center



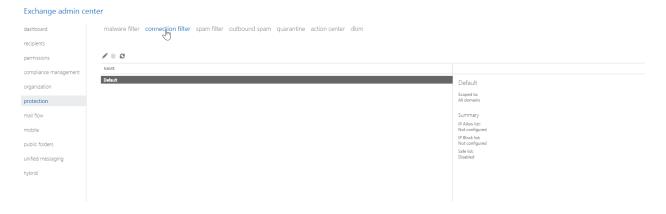


#### 2. Select the "Protection" tab

## Exchange admin center



#### 3. Click on "Connection Filter"



### 4. Click on the Pencil icon to modify the default policy

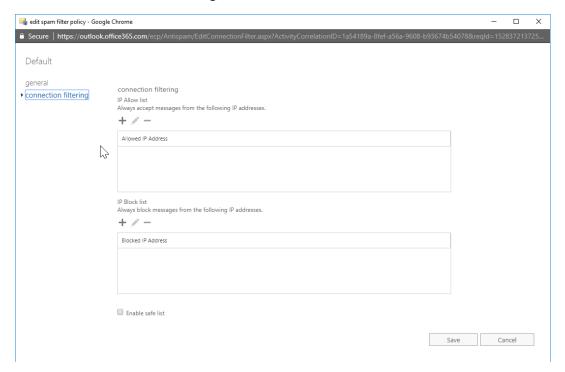




NAME		
Default	Defa	ault
	Scope All do	d to: mains
	Sumr	nary
	IP Allci Not cc	ow list: onfigured
	IP Bloc Not cc	ck list: onfigured
	Safe li Disabl	



5. Click "connection filtering", add Allowed/Block List



#### Spam Filtering:

#### Questions to Ask:

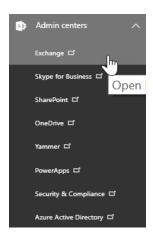
- 1. What actions do we want to take when a message is identified as spam?
  - a. Move Message to Junk Folder (Default)
  - b. Add X Header (Sends the message to the specified recipients, but adds X-header text to the message header to identify it as spam)
  - c. Prepend Subject line with text (Sends the message to the intended recipients but prepends the subject line with the text that you specify in the Prefix subject line with this text input box. Using this text as an identifier, you can optionally create rules to filter or route the messages as necessary.)
  - d. Redirect message to email address (Sends the message to a designated email address instead of to the intended recipients.)
- 2. Do we need to add allowed senders/domains or block senders/domains?
- 3. Do we need to filter messages written in specific language?



- 4. Do we need to filter message coming from specific countries/regions?
- 5. Do we want to configure any end-user spam notifications to inform users when messages intended for them were sent to quarantine instead? (From these notifications, end users can release false positives and report them to Microsoft for analysis.)

### Steps:

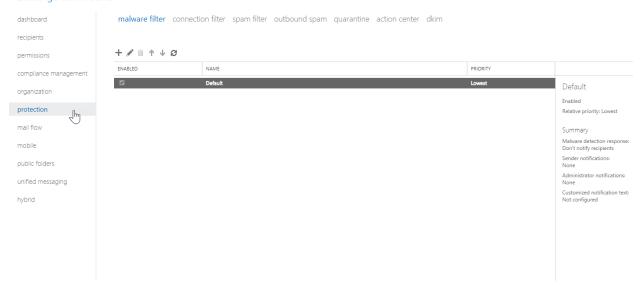
1. Go to Admin Centers>Exchange Online Admin Center





### 2. Click on "Protection"

#### Exchange admin center

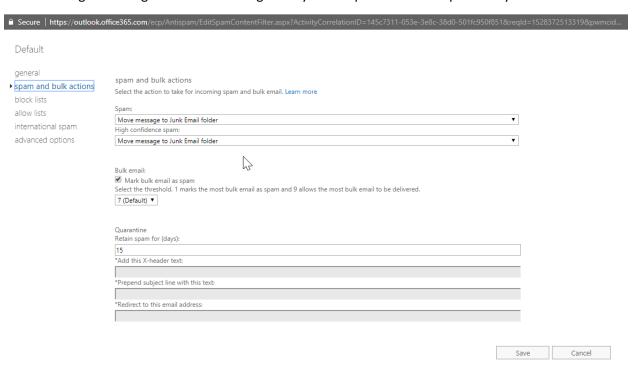




3. Click on "Spam Filter" and click on the pencil icon to modify the default policy

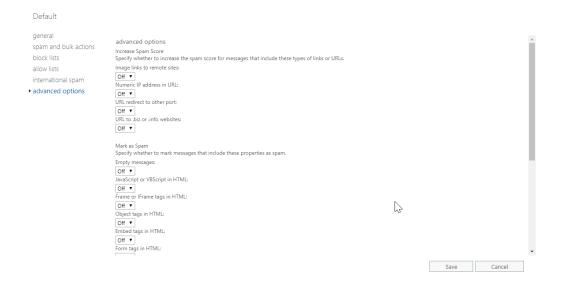


4. Navigate through the tabs to configure any of the questions asked previously

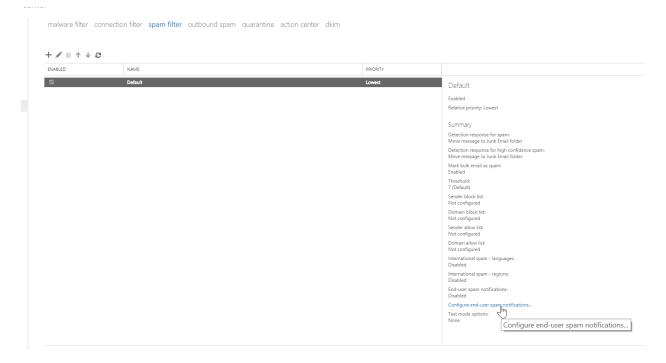




5. The "advanced options" tab allows you to get more granular with your policy and tighten the settings on the spam filter:



6. You can configure end user spam notifications on the right-hand side of the page:





#### Powershell Commands to Configure

## Outbound filtering:

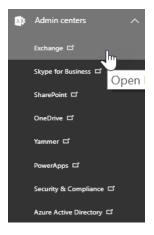
#### Questions to Ask:

- 1. Do I want to receive notifications when someone is flagged for sending outbound spam?
- This is a check to make sure users don't send spam
- Can turn on settings to send copies/notifications of all suspicious outbound mail to certain email address
- Refer to "Set Up Outbound Spam Notifications" of Secure Score section for implementation

#### Mail Flow Rules:

#### Questions to Ask:

- 1. Do I need to create custom mail flow rules based on business policies?
  - Create Rules based on If/Then statements
  - For example, you could have a moderator for a group/individual that approves messages before they are sent out
  - 1. Go to Admin Centers>Exchange



### 2. Go to Mail Flow>Rules

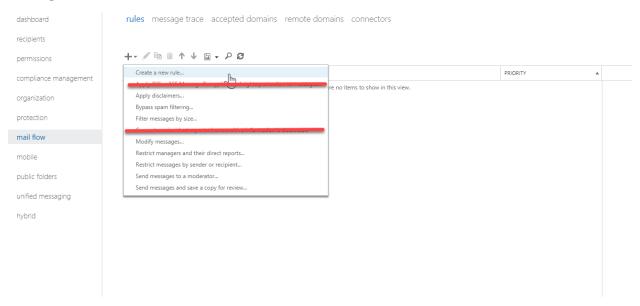


#### Exchange admin center



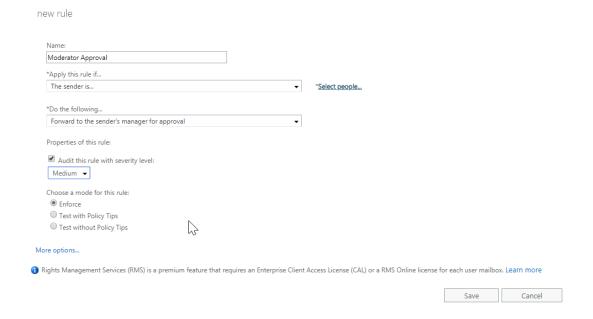
3. There are a variety of templates available to you through the Business Plan. I crossed out the ones that requires RMS licensing:

#### Exchange admin center



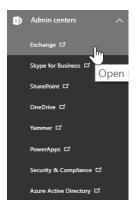


4. You can customize the fields appropriately. You can choose the severity level and choose whether to force it right away or not:



#### Malware:

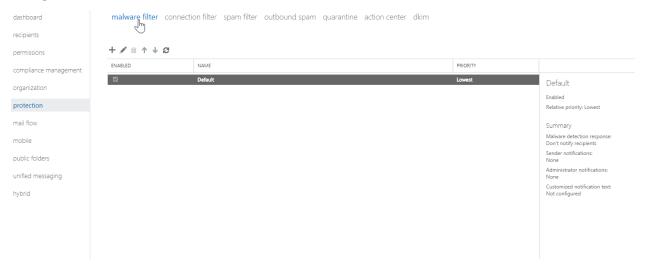
- This is already set up company-wide via default anti-malware policy
- Do you need to create more granular policies for a certain group of users such as additional notifications via text or heightened filtering based on file extensions?
- 1. Go to Admin Centers>Exchange





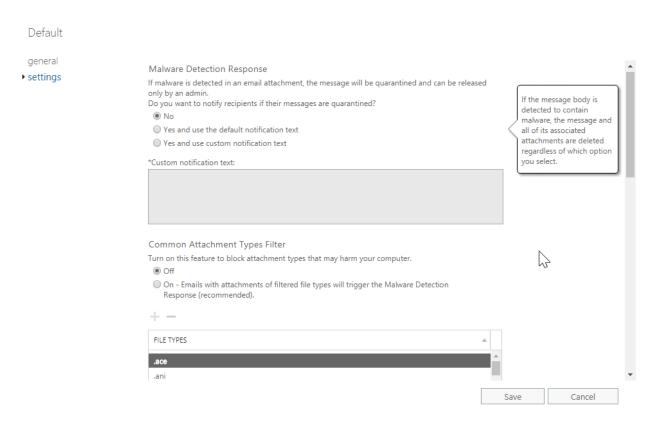
## 2. Go to Protection>Malware Filter>Click on Pencil Icon to Modify default policy

#### Exchange admin center





#### 3. Modify Accordingly

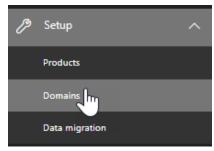


## **DNS Settings**

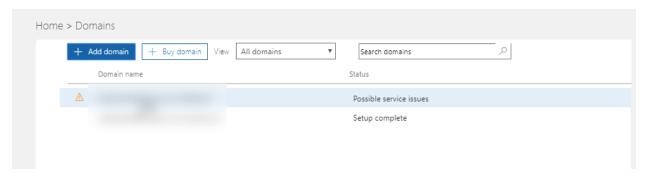
- Do you have SPF records/DKIM records/DMARC in place?
- SPF validates the origin of email messages by verifying the IP address of the sender against the alleged owner of the sending domain which helps prevent spoofing
- DKIM lets you attach a digital signature to email messages in the message header of emails you send. Email systems that receive email from your domain use this digital signature to determine if incoming email that they receive is legitimate.
- DMARC helps receiving mail systems determine what to do with messages that fail SPF or DKIM checks and provides another level of trust for your email partners.

#### 1. Go to Admin Center>Setup>Domains



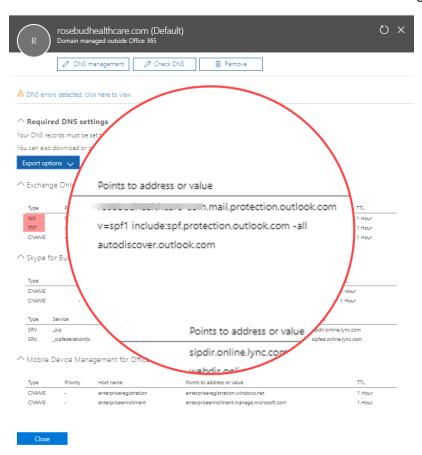


2. Click on the domain you want to add records to:





3. Take Note of the MX and TXT record listed under the Exchange Online



- 4. Add the TXT record of v=spf1 include:spf.protection.outlook.com -all to your DNS settings for our SPF record
- 5. For our DKIM records we need to publish two CNAME records in DNS



#### Use the following format for the CNAME Record:

Host name: selector1.\_domainkey.<domain>

Points to address or value: selector1-<domainGUID>.\_domainkey.<initialDomain>

L: 36

Host name: selector2.\_domainkey.<domain>

Points to address or value: selector2-<domainGUID>.\_domainkey.<initialDomain>

TTL: 3

Where:

<domain> = our primary domain

<domainGUID> = The prefix of our MX record (ex. domain-com.mail.protection.outlook.com)

<initialDomain> = domain.onmicrosoft.com

Example: DOMAIN = tminus365.com

**CNAME Record #1:** 

Host Name: selector1.\_domainkey. tminus365.com

Points to address or value: selector1-pax8-com.\_domainkey. tminus365.onmicrosoft.com

TTL: 3600

**CNAME Record #2:** 

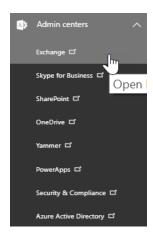
Host Name: selector2.\_domainkey. tminus365.com

Points to address or value: selector2-pax8-com.\_domainkey. tminus365.onmicrosoft.com

TTL: 3600



## 6. After Publishing the records, go to Admin Centers>Exchange



#### 7. Go to Protection>DKIM

#### Exchange admin center malware filter connection filter spam filter outbound spam quarantine action center dkim dashboard DKIM (DomainKeys Identified Mail) is an authentication process that can help protect both senders and recipients from forged and phishing email. Add DKIM signatures to your domains so recipients know that email messages actually came fro sent. Learn more about DKIM permissions compliance management P 2 organization A ACCEPTED DOMAIN protection mail flow Sign messages for this domain with DKIM signatures: Disabled Authoritative mobile Status: Not signing DKIM signatures for this domain. unified messaging Last checked on: 5/30/2018 8:09 PM hybrid



## 8. Select the Domain for which you want to enable DKIM and click "Enable" on the right hand side





9. If you have improperly added the CNAME records you will get an error message:



10. With the SPF and DKIM records in place, we can now set up DMARC, the format for the TXT record we want to add is as follows:

\_dmarc.domain TTL IN TXT "v=DMARC1; pct=100; p=policy

#### Where:

<domain> = domain we want to protect

<TTL> = 3600

<pct=100> = indicates that this rule should be used for 100% of email

<pol><policy> = specifies what policy you want the receiving server to follow if DMARC Fails.

\*NOTE\* You can set <policy> to none, quarantine, or reject

## Example:

- 1. \_dmarc. tminus365.com 3600 IN TXT "v=DMARC1; p=none"
- 2. \_dmarc. tminus365.com 3600 IN TXT "v=DMARC1; p=quarantine"
- \_dmarc. tminus365.com 3600 IN TXT "v=DMARC1; p=reject"