SC-400 Visual Study Guide

For the Microsoft Certified: Information Protection and Compliance Administrator Associate Exam

Dominique Hermans

Introduction

Hi there!

Thank you for taking the time to download my Visual Study Guide for the SC-400 Microsoft Certified: Information Protection and Compliance Administrator Associate Exam.

When I started studying for the SC-400 exam last year, I noticed a gap in the available study materials. There were few clear, practical examples of how to configure the various solutions within the Purview platform and, more importantly, what the impact would be on end users. I needed to see what these configurations looked like in practice to fully understand and retain the information.

With this in mind, I began writing this study guide at the start of 2024. It's packed with screenshots (hence, 'visual study guide') and step-by-step explanations on configuring each solution in the Purview platform, with a strong focus on the end-user experience and impact. Creating this guide helped me deepen my understanding of the platform, and I found that visualizing the steps made it easier to remember. Now, I'm excited to share this knowledge with you.

I'm always open to feedback, so feel free to reach out using my contact information below.

Have fun reading!

Dominique Hermans

https://www.linkedin.com/in/dominiquehermans1/

https://dominiquehermans.com/

dominiquehermans.bsky.social

Table of contents

Disclaimer

The information contained in this ebook may be used freely, provided that proper credit is given to the author, Dominique Hermans, and his website, https://dominiquehermans.com.

The author and publisher make no representations or warranties with respect to the accuracy or completeness of the contents of this ebook and specifically disclaim any implied warranties of merchantability or fitness for a particular purpose. The advice and strategies contained herein may not be suitable for your situation. You should consult with a professional where appropriate.

Neither the author nor the publisher shall be liable for any loss of profit or any other commercial damages, including but not limited to special, incidental, consequential, or other damages.

Please do note that this guide is not a replacement for other study materials but should be used as a supplement.

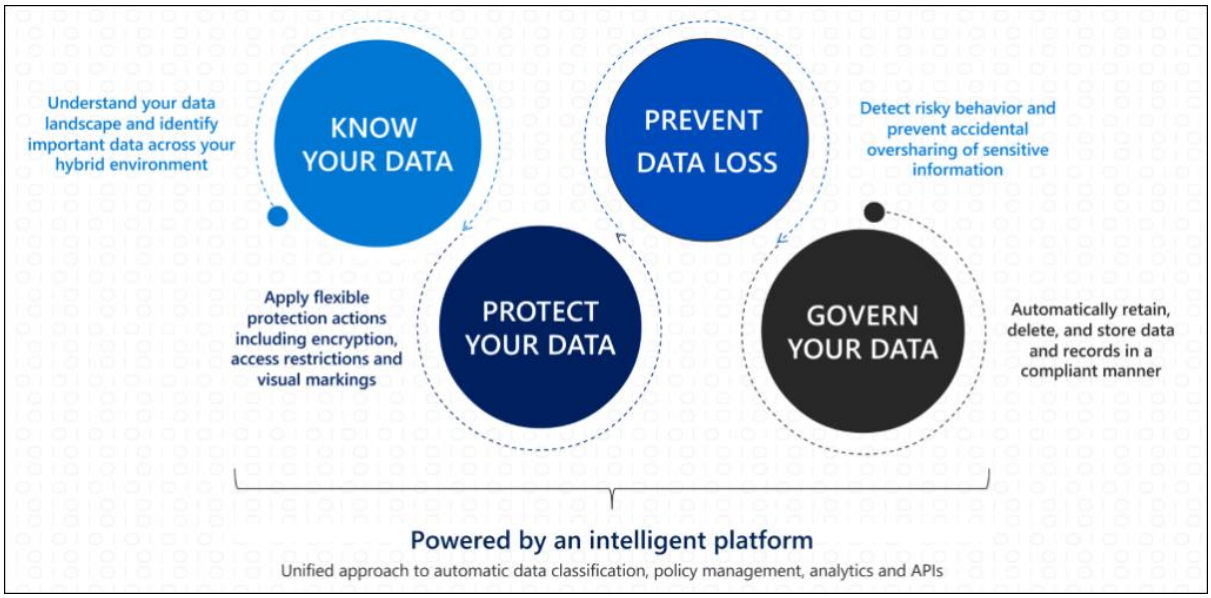
Microsoft 365, Microsoft Purview, and all affiliated products mentioned in this ebook are owned by Microsoft.

Managing Data Security, Compliance and Governance in Microsoft 365 with Microsoft Purview

Microsoft Purview. I'm certain it's features can seem a little overwhelming when first strolling through the documentation of the product. It sure was for me. In this ebook I want to give you insight in Microsoft's product for managing data security, compliance and governance for the Microsoft 365 suite, Microsoft Purview.

First things first. Microsoft Purview is a unified solution that used to consist of 2 products: Azure Purview and Microsoft 365 Compliance solutions. In this ebook the focus is on the Microsoft 365 side of the product.

Overview – The big picture



Know your data, protect your data, prevent data loss & govern your data | Source

Before I start explaining the different features that Microsoft Purview consists of, it's good to know where all the tools take their place in the "big picture" aka the Purview landscape. To implement a data security, compliance and governance strategy you'll have to walk through various steps.

Know your data

First you'll have to assess your data landscape. Where is your important data? Where is the data that poses possible privacy risks for example, and where is other sensitive data stored? These items have to be identified before you can continue to the next step. Often this step is executed by stakeholders that know their part of the data landscape well. The Purview solution can manage both cloud and hybrid environments. Want to know how your data environment matches up with current data privacy controls or standards? This is the place (or step) to be.

Protect your data

Second, data that's identified to be subject to data privacy regulation needs to be protected whether it is in the cloud or on-premise. Examples of these kinds of laws or regulatory controls in the Netherlands are NEN, ISO or BIO. This data (and of course other data you want) can be protected by applying labeling, which in turn makes it possible to apply an action based on the label your content has.

Prevent data loss

To prevent data loss, risky behavior and accidental oversharing of sensitive information needs to be prevented.

Govern your data

"Keep what you need and delete what you don't" is a great tagline for data governing. Governing your data can be done by applying labels that make sure data isn't being deleted if it's supposed to be retained for a certain period or it can be deleted within a certain timeframe if it's not meant to be retained for a certain period.

Tools of the trade

Now that we're aware of the Purview landscape, let's take a look at our "tools of the trade" and match them with each of the 4 categories above.

Know your data

Knowing your data starts with a non-technical process to identify where your data is stored as mentioned above. When you have gathered information on the storage locations (Which can be in the Microsoft 365 cloud, different Azure components or on-premise by using an agent), you can:

- Run a risk assessment and obtain a compliance score by using the compliance manager. The compliance manager matches your environment with various pre-defined assessments to give you insight in how compliant you are in relation to certain regulatory controls like ISO or NEN and what you have to do to improve your posture. These assessments are made available by Microsoft, but of course you can also create your own.
- You can set up sensitive information types or custom sensitive information types to classify data in your environment in various ways. An example is the use of pattern matching by using regular expressions.
- Trainable classifiers are an advanced way to identify data. It does not use pattern matching, but you can feed it samples of your data. It will then use AI to train itself and get better at matching your content.
- Content Explorer can be used to view an overview of your items that have a sensitivity label, retention label or have been classified as a sensitive information type.
- Activity Explorer takes a look at your audit logs and uses this information to show what actions are being taken on your labeled content.

Protect your data

Protecting your data can be done by:

- Applying Sensitivity Labels. These are labels that attach to your documents in clear text in the metadata of your files so they can be read by someone that might not have access to the content in the document. Actions that can be applied to labeled documents are "encrypt", "mark content" or they can be used to protect content in containers like sites and groups. The Azure Information Protection Unified labeling client can be used to extend labeling to file explorer and powershell. To identify data on-premise, the Information Protection Scanner can be used. It will present information of your on-premise data in a unified view within the Microsoft Purview portal. Want to protect data residing in third party apps? Take a look at the Microsoft Information Protection SDK.
- Connecting on-premise Exchange, SharePoint or file-servers that run File Classification Infrastructure (FCI) for protection using Rights Management Connector.
- Implementing Office Message Encryption. This encrypts email messages (and attachments) so only authorized recipients can read the information.
- Implementing Teams and Sharepoint Access Controls. Use access controls in both Teams and Sharepoint to prevent oversharing of information.
- Setting up Sharepoint Information Rights Management (IRM) to protect checked out documents.
- Using Microsoft Defender for Cloud Apps to label sensitive information in cloud data stores.
- Extending your labeling needs to Microsoft Purview Data Map Assets. A few examples of these assets are Azure Data Lake, Azure Files, Azure SQL DB and Azure Cosmos DB.

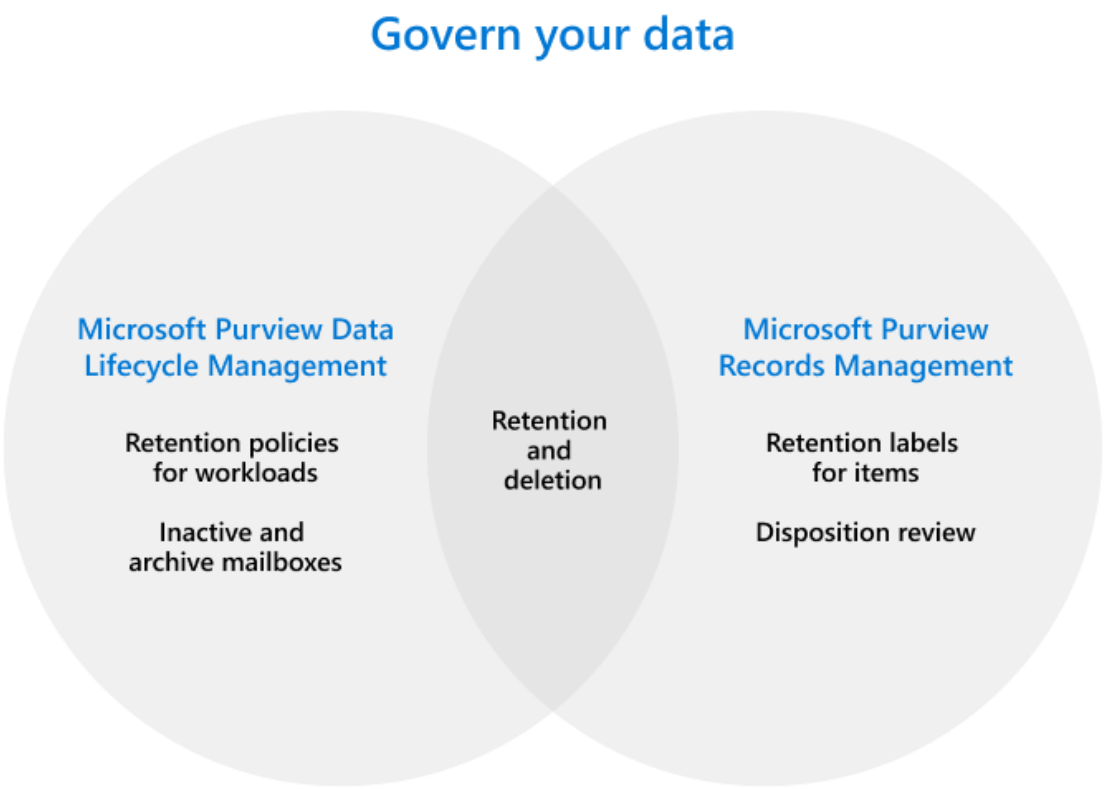
Prevent Data Loss

Microsoft Purview Data Loss Prevention (DLP) can be used to help unintentional sharing of sensitive items. These capabilities can be extended to:

- Browsers like Chrome and Firefox with browser extensions.
- Windows 10 endpoints by using Endpoint data loss prevention.
- Your on-premises file shares and Sharepoint Document Libraries with Microsoft Purview DLP on-premises repositories.
- Microsoft Teams chat and channel messages.

Govern your Data

Governing your data within the Microsoft 365 ecosystem is done using 2 solutions. "Microsoft Purview Data Lifecycle Management" and "Microsoft Purview Records Management". The following image shows the overlap in both solutions:



Data Governing Tools | Source

Remember that data governing was all about "keeping what you need and deleting what you don't"? Here are your tools of the trade for this to happen:

Microsoft Purview Data Lifecycle Management

- Retention policies for Microsoft 365 workloads let you retain or delete content. This can be done for email, documents, Teams and Viva Engage messages.
- Inactive mailboxes lets you keep mailbox content after an employee leaves the organization.
- (Online) Archive mailboxes can be used to give users additional mailbox space.
- Import service for PST files. No explanation needed here.

Microsoft Purview Records Management

- A File plan can be used to bulk create retention labels or export information from existing labels. File plan descriptors support additional information for each label as metadata.
- Retention policies can be used to assign the same retention settings for content at a site or mailbox level, Retention labels can be assigned at item-level. See the first bullet under "Microsoft Purview Data Lifecycle Management" for more information.
- Event-driven retention gives you the capability to automatically implement labels and actions based on certain events.

- Disposition Review gives you the ability to manually review content before it's permanently deleted. Proof of disposition of records is included.

Investigate (Bonus step)

After (all of) the above is in place, there are a few features to keep in mind:

- Auditing and alert policies combined with reporting can be used to keep being informed about your environment.
- Data subject requests (by for example regulatory bodies) can be met by the content search and eDiscovery features.

Are you still with me? Good. I reckon this is a large list of features that take some time to take in, but I hope the tools make more sense now that they're categorized in the know, protect, prevent and govern categories.

Data Classifiers Explained

When talking about Microsoft Purview, it goes often hand in hand with data classification. But how can we classify our data? Microsoft Purview provides us with a few different options to do this:

1. Manually by an administrator or your users.
2. By using automated pattern-matching.
3. By using classifiers

After your data has been classified, you can take a closer look at where your sensitive data resides (for example with Data Explorer or eDiscovery) to get an overview of your information, or use the various tools in Purview to protect your sensitive data. This chapter covers classifying your data, if you want to take a closer look at the tools that protect your data, take a look at the chapters on Data Loss Prevention and Data Lifecycle Management.

Introduction to Data Classifiers in Purview

When talking about manually categorizing your content you can use pre-existing labels or sensitive information types or you can create custom ones yourself and use these to protect your data and manage it's lifecycle.

Automated pattern matching can find content automatically using the following techniques:

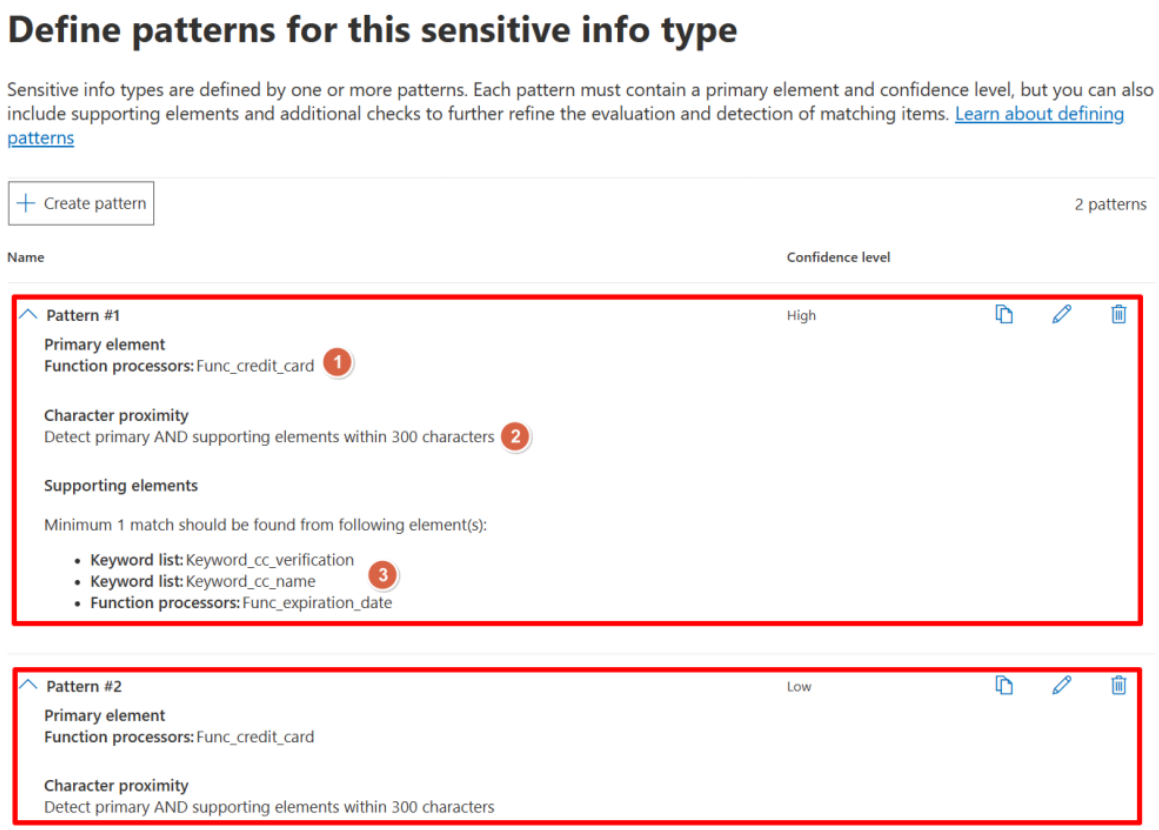
- Matching of keyword or metadata values using the Kusto Query Language (KQL)
- Previously identified patterns of sensitive information. Examples are credit card numbers or social security numbers which can be identified using a specific pattern. In Purview terms, this is called a Sensitive Information Type (or SIT in brief). At time of writing, 324 SIT's are preconfigured to identify sensitive information ranging from Azure Storage Account Shared Access Signatures to U.S. Physical Addresses. If these don't suit your needs, you can also create custom SIT's.
- A variation on the SIT's above are Fingerprint based SIT's, which can identify items when they are based on a template.
- Exact Data Match which searches for -you guessed it- exact data (strings) in items.

If your items aren't easily identifiable by one of the methods above, a classifier can be used as a categorization method to identify items on what the item is, instead of matching elements in the item which is done with pattern matching. These come in two flavors: pretrained classifiers that are provided by Microsoft and trainable classifiers, which can be used when pretrained classifiers don't match your needs. Trainable classifiers use AI and machine learning to recognize items.

Let's dive in and take a look at how each of these classifiers can be configured!

Sensitive Information Types (SIT's)

Let's navigate to the Purview Portal, select 'Data Classification' and 'Classifiers'. On the right hand side, let's go for 'Sensitive Info types'. Search the list for 'Credit Card Number' and open it. Now let's create a copy so we can edit it's properties to take a look at it's configuration.



As can be seen in the image above, the 'Credit Card Number' SIT checks items for 2 patterns:

- Pattern #1, which is considered a high confidence level when matched.
- Pattern #2, which is considered a low confidence level when matched.

Now let's dive in the details of Pattern #1. When editing the pattern (I will spare you all the screenshots), the following can be examined:

- It's primary element is to use a function called 'func_credit_card' which is a function written by Microsoft that looks for Credit Card Numbers. The number found must pass a test in the function so the function can be sure that it is indeed a Credit Card Number.
- In addition to the above primary element, it searches the 300 characters before and after the found Credit Card Number for an supporting element. Which in this case, is 1 of the following:
    - A keyword from the 'keyword_cc_verification' list which contains a list of variations of the word 'card identification number'.
    - A keyword from the 'keyword_cc_name' list which contains a list of Credit Card companies.
    - A function that looks for an expiration date.

When the logic from the above pattern is true and thus the primary element is found AND is accompanied by 1 of the 3 supporting elements, it's considered a match with a high confidence level.

Now, what about Pattern #2? It only uses the 'func_credit_card' function to look for a Credit Card Number but doesn't use any supporting elements. When the logic from Pattern2 matches it's also considered a match, albeit with low confidence.

When building your own SIT, all of the elements in the examples above can be manually configured and created to match your needs. Ain't that great?

Fingerprint based SIT's

A fingerprint based SIT is somewhat different than your regular SIT. Where the regular version looks for certain elements in a document, the fingerprint based SIT has knowledge of a certain template that is being used for a certain document type.

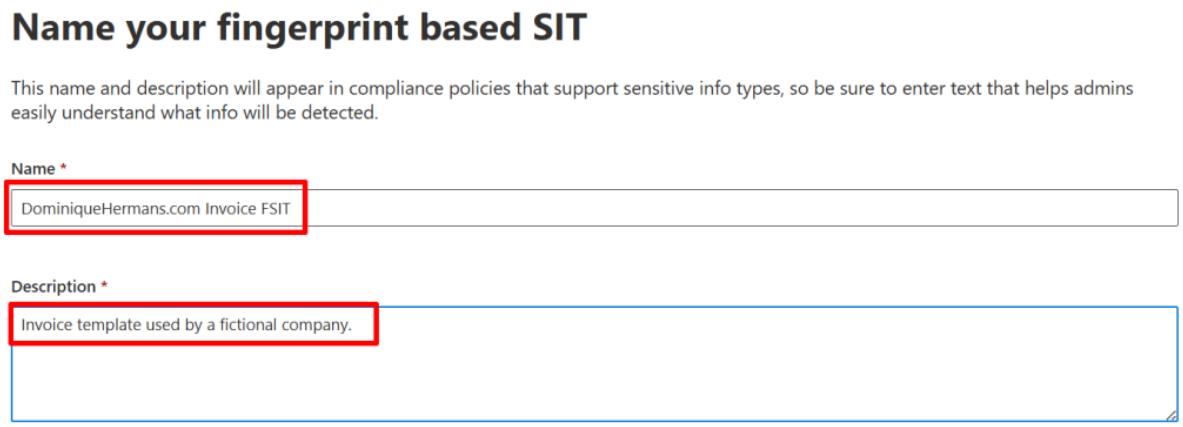
Let's go with an example here. Say your organization has a document template that it uses for all their invoices. You are absolutely sure that this template is used for every invoice that is being sent out the door. You can use the following procedure to create a document fingerprint of the template that you use for your invoices in this case. Let's configure this.


Invoice from a fictional company
A demo document by DominiqueHermans.com

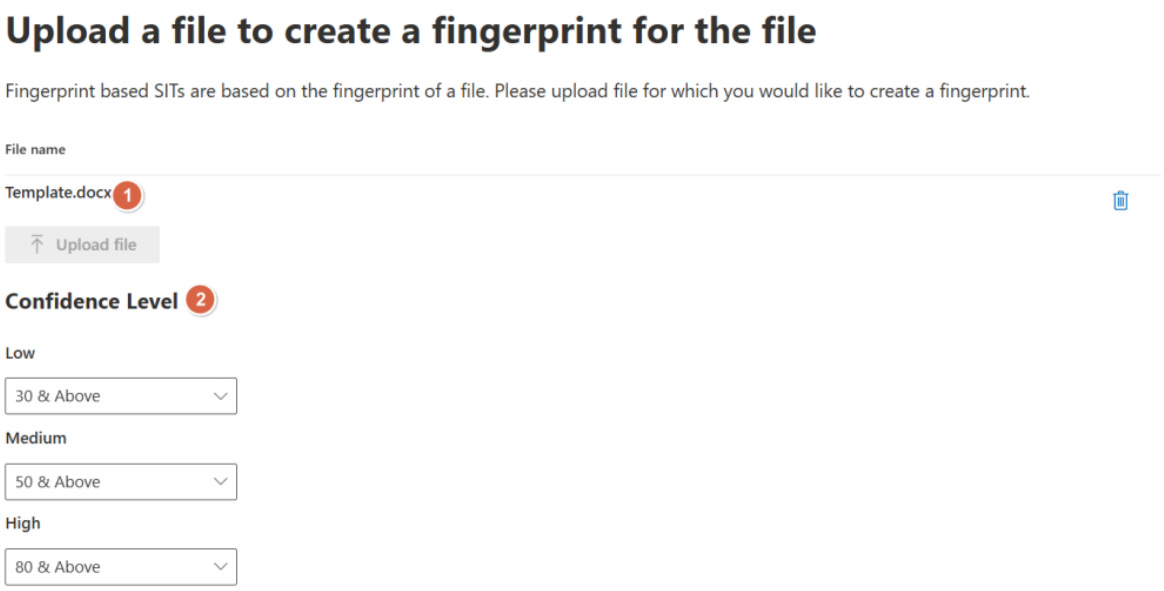
Invoice

Start by creating a docx file from your template if it exists as an dotx file. The one I use can be seen in the picture above. This is needed cause the dotx file type is not supported. Purview creates it's own small XML file that acts as the document fingerprint, or template if you will.

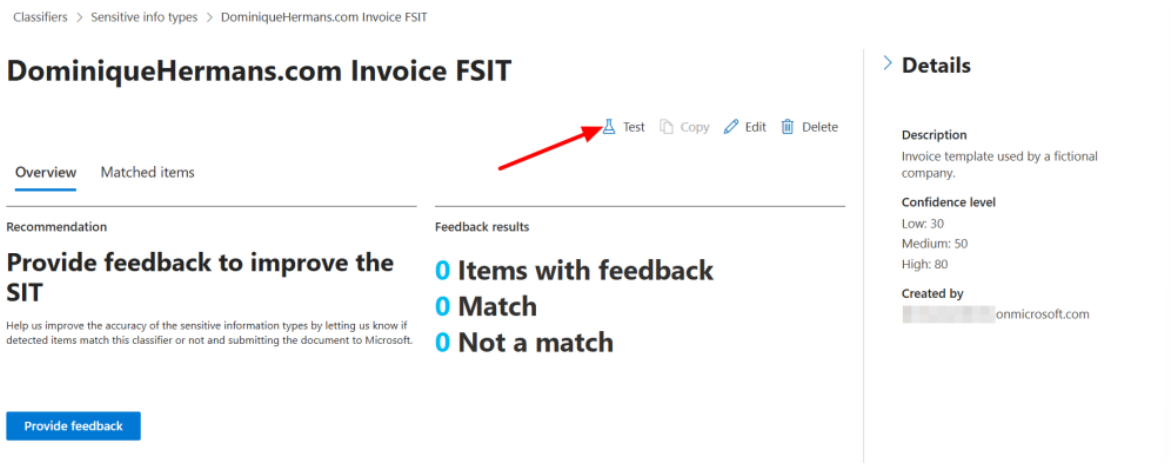
Now let's navigate to the purview portal and navigate to 'Data Classification' and 'Classifiers'. On the right hand side, let's go for 'Sensitive Info types'. Click 'Create Fingerprint based SIT'.



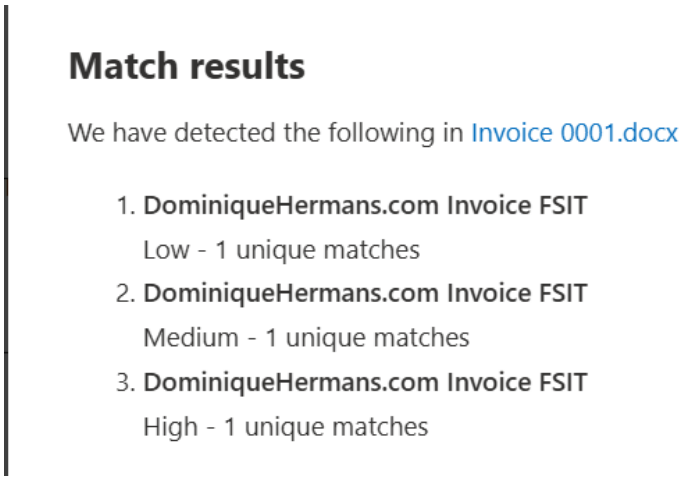
Give your SIT a name and description and click next.



Now, select your docx file that contains the template. Confidence levels may be adjusted if you want. The numbers here resemble the percentage of text that has to be available in the document you encounter and match against the fingerprint based SIT. So, a 30% or above text match generates a low confidence level, a 50% or above match generates a medium confidence level and so on.



Let's test our fingerprint based SIT. Navigate to Sensitive Info Types, scroll down and select your newly generated fingerprint based SIT. Click 'Test' and upload a document that has been created based on your template.



It will now show you the match results of the file you uploaded against the created fingerprint based SIT.

Exact Data Match (EDM) Classification

Let's move on to Exact Data Match (EDM) Classification. The previous classifiers we've talked about all use a mechanism to match items using a certain technique, being able to get a closest match as possible when classifying data. But, if you are sure that certain elements reside in your documents, why not let it classify data using an exact match? You guessed it, that's where Exact Data Match (EDM) comes into play.

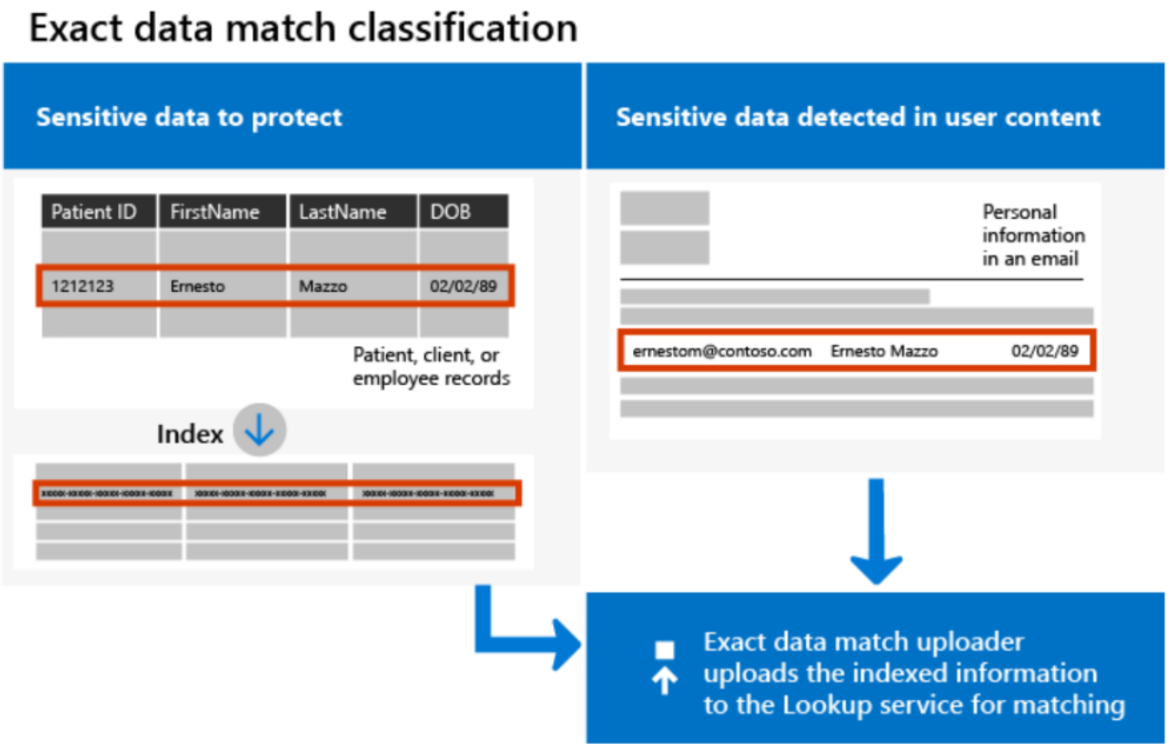


Image Source: Microsoft

With EDM, you feed Purview with a database of information that it should look for in your documents. In the example above, a list of employee records is uploaded into Purview so the service can recognize files that are present in the database. Let's take a look at the process involved.

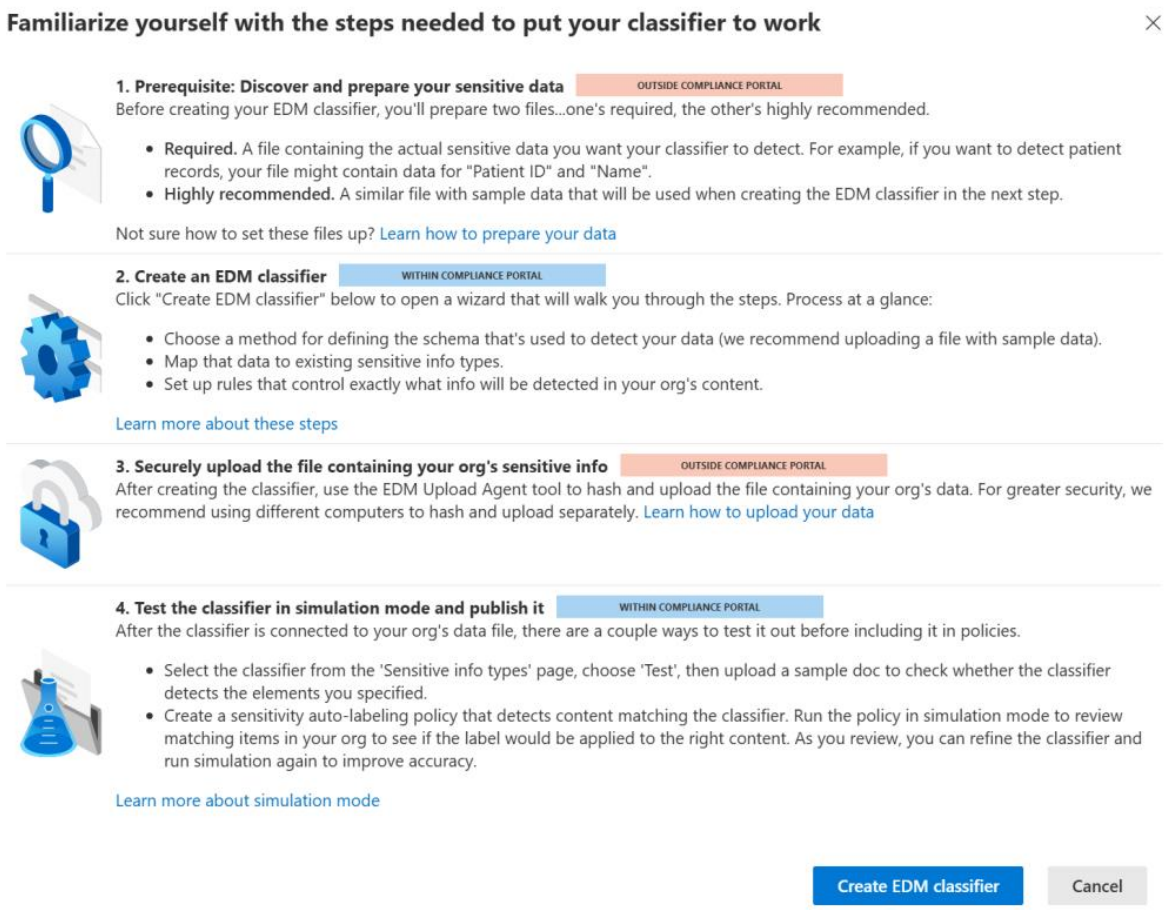


Image Source: Microsoft

Creating an EDM classifier involves navigating through different steps. They are neatly outlined by Microsoft in the image above, which you are presented with when creating EDM classifiers. Let's walk through the steps one by one.

Discover and prepare your sensitive data

	A	B	C	D	E	F	G	H	I
1	SSN	IndividualID	AccountID	MRN	FirstName	LastName	DOB	Phone	Email
2	270 34 7884	A12345678	B12345678	AB12345678	Richard	Jackson	01/01/1990	12065254152	Richard@contoso.onmicrosoft.com
3	030 72 7381	A12345678	B12345678	80002910	Sarah	Jefferson	02/02/1985	1-206-234-7492	sarah.jefferson@contoso.com
4	757-85-7495	A12345678	B12345678	1482928	Bradly	McGordon	04/12/1978	2039871092	bradly.mcgordon@testcompany.com
5	781-70-8498	A12345678	B12345678	5551212	Shiva	Agarwal	11/05/2003	(425)289-5498	sargarwal@national.onmicrosoft.com
6	749 25 3016	A12345678	B12345678	AB-87654321	Flash	Gordon	06/04/1969	203-596-2109	flash.gordon@outlook.com
7	789-21-8631	12345678	12345678	12358	Andrew	O'Donnal	05/09/1994	91-421-94-9012	andrew.odonnal@contoso.onmicrosoft.com
8	182-73-1694	12345678	12345678	JZ00127498	Angelica	Jackson	02/12/1968	44823291203	angelica.jackson@msn.com
9	303-81-0470	12345678	12345678	CO-00003417	Ruchi	Gupta	12/31/2001	360-524-9812	ruchig@office.com
10	758 13 4820	12345678	12345678	8726182745	William	Richardso	3/28/1999	2534375906	william.richardson@contoso2.onmicrosoft.com
11	111-69-8921	12345678	12345678	92298375	Joseph	Smith	10/03/1987	1(920)590-2397	joseph.smith@outlook.com

In this step you'll need to create 2 files in a supported file format (csv, tsv or pipe-formatted). The first file contains sample data, as the one that is shown in the picture above. The service uses this file to detect colums so you can specify which will be your primary fields (unique values) and secondary fields (values that are present in close proximity with your primary fields).

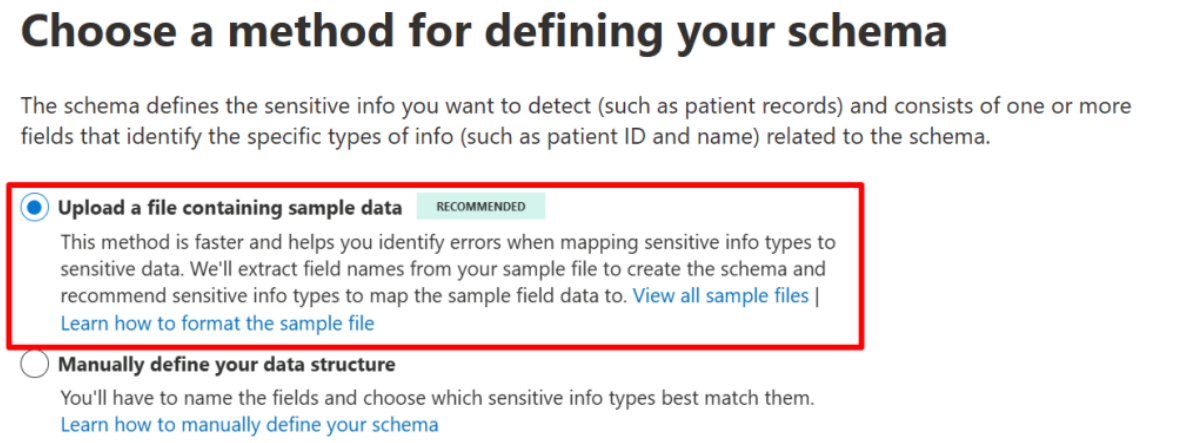
Next, you'll need a file that uses the same colums as the ones you used in your sample data. However this time, you need to fill the file with actual data from your environment. As this is data that can be highly sensitive, only hashes of the values in the file will be uploaded to the

Purview service. There's even a procedure to hash the values on a system that is not connected to the internet so that you can be sure the actual values are not uploaded. The file with actual values can contain up to 100 million rows of sensitive data!

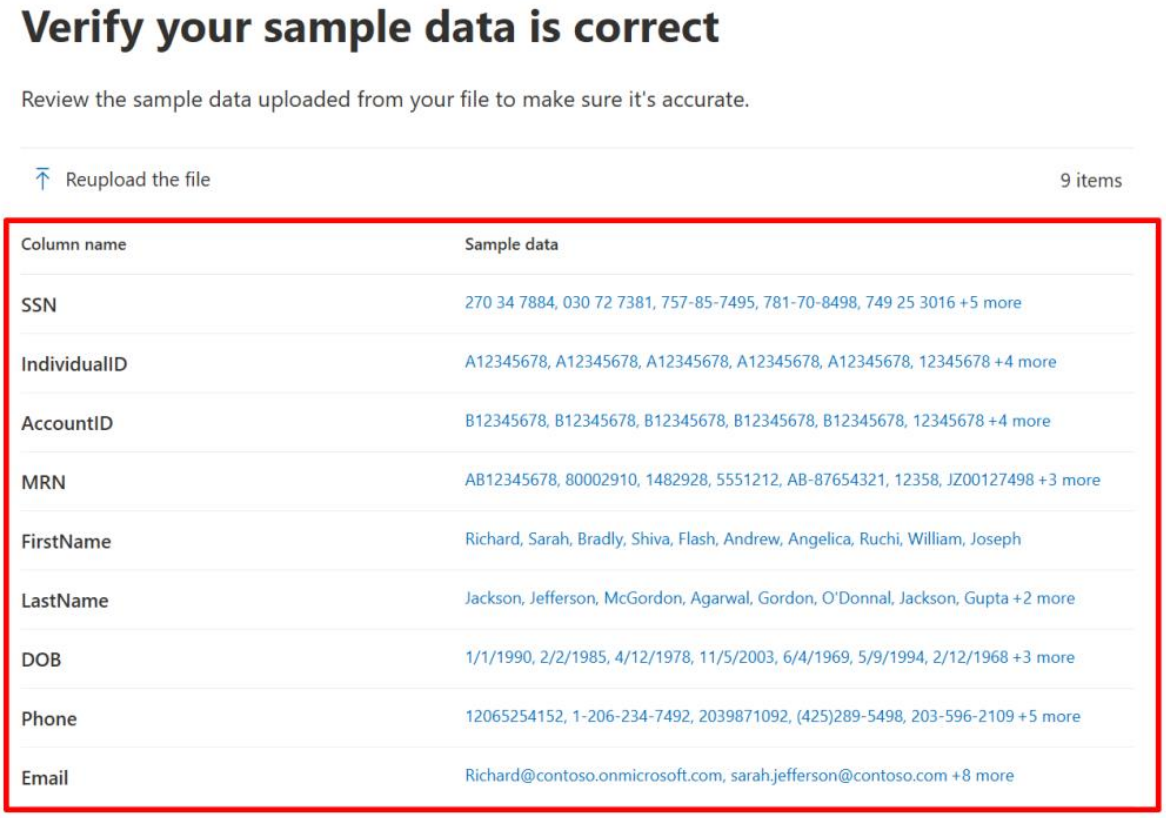
Create the EDM classifier

Now it's time to dive in the Purview portal and put the data we've created in the first step to work. Navigate to 'Data Classification' and 'Classifiers'. On the right hand side, let's go for 'EDM classifiers'. Click 'Create EDM classifier'.

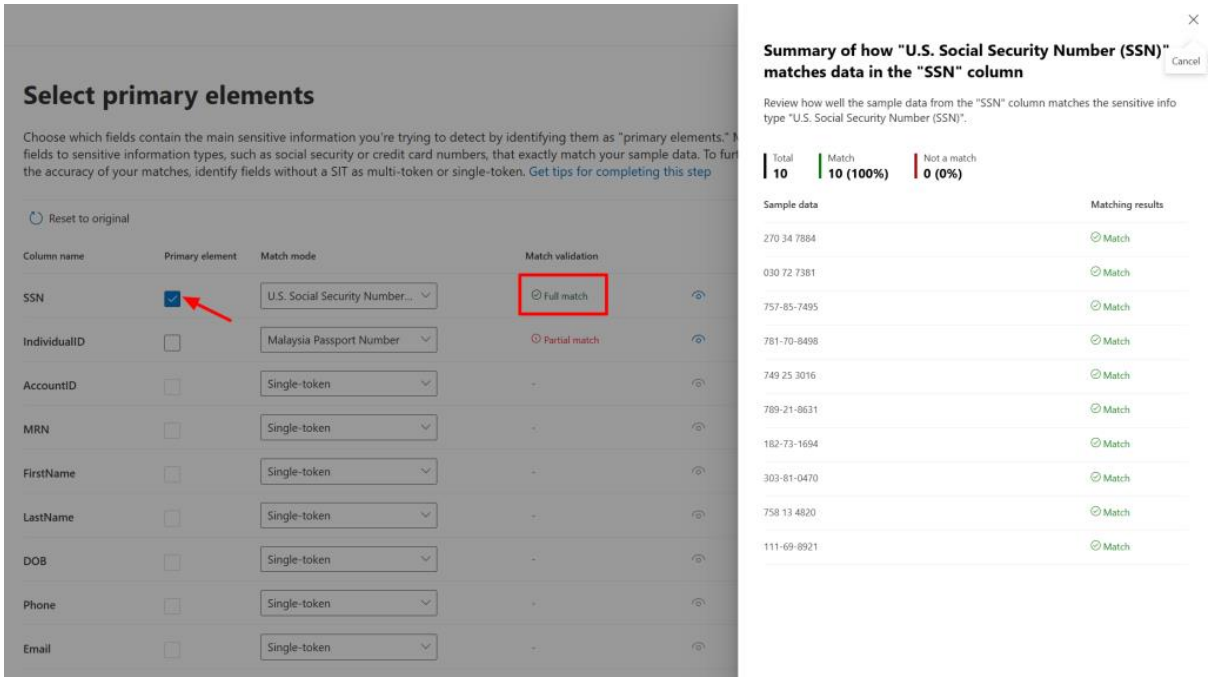
You'll be greeted with a familiar screen that outlines the process. Click 'Create EDM classifier' en give your EDM Classifier a name and description.



Next, we can choose 2 options. The first (recommended) one is to use our sample file to identity primary and secondary field names and create the schema for the EDM classifier. We also have to map the sample field data to a sensitive information type, which we'll get a recommendation for. The second option is to manually define your data structure. I choose for the first (recommended) approach. Click next and upload your sample file, which is then processed by the service.



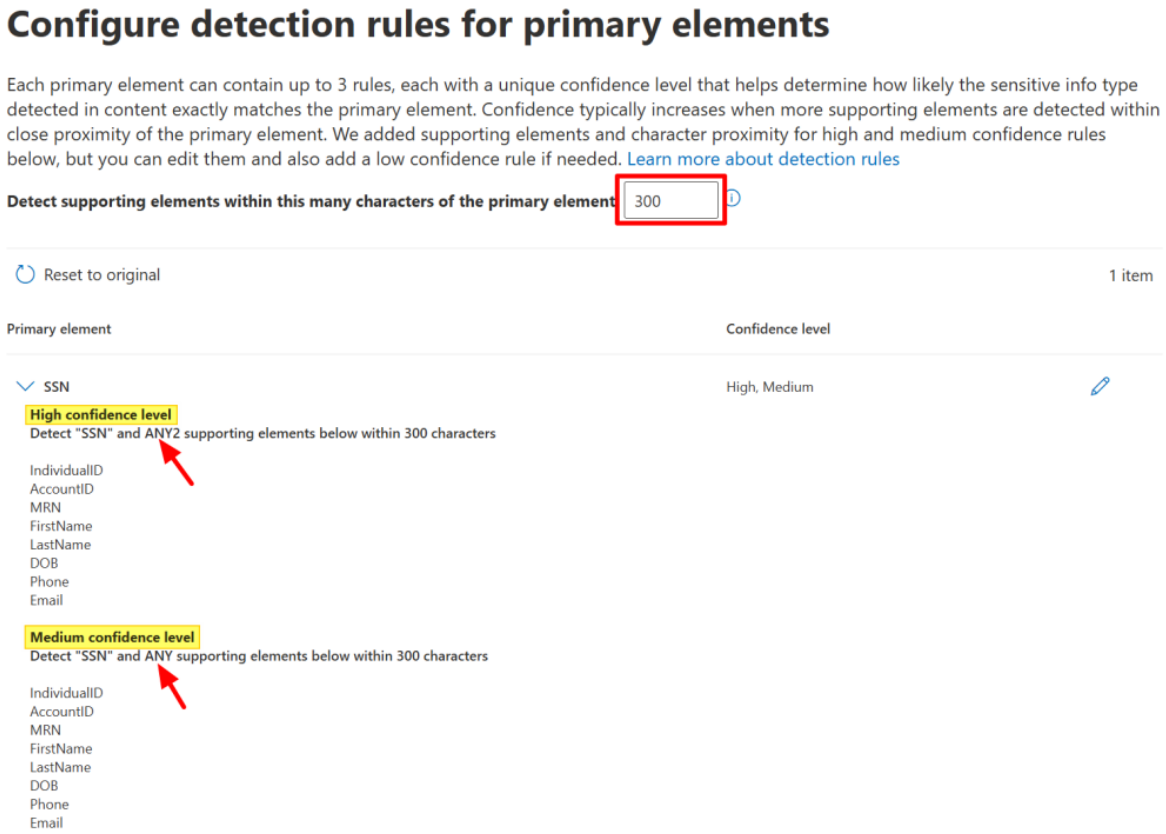
Once the processing is done, you'll be presented with the columns that are identified and sample data inside those columns. I would like to stress here that you'll walk through this process with sample (not actual) data because this data is not hashed offline before uploaded to the service! Click next.



Now for the cool part. The service takes a look at the data in the columns and recommends a SIT that would match the data in the column. In my case, the 'Social Security Number' (SSN)

column matches the 'US Social Security Number' SIT. Because I know this is always a unique value in the data I provide, I select the SSN to be the primary element and click next.

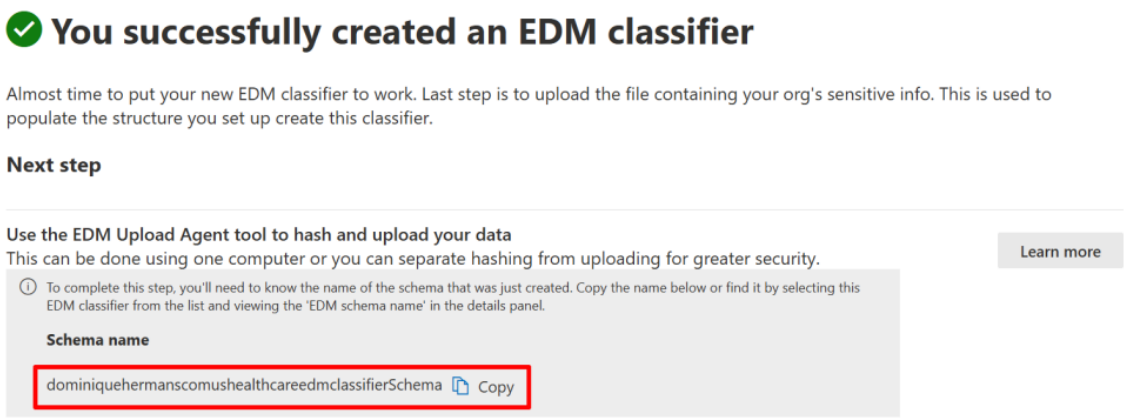
In the next screen you can select whether data in the columns is case-sensitive or whether delimiters and punctuation should be ignored. Click Next.



Remember that we talked about that secondary elements should be in close proximity to the primary element? In our case the primary element is the Social Security Number (SSN). For the service to consider the match as a 'high confidence level', the primary value should be accompanied by 2 supporting (or secondary) elements within 300 characters.

For the service to consider the match as a 'medium confidence level', the primary value should be accompanied by 1 supporting (or secondary) element within 300 characters. If you want, you can change this configuration in this screen.

Select next, review your settings and click 'Submit'.



When done, the service reminds you that you now have to upload your sensitive data and tells you the schema name it generated. The schema holds the structure for the data you upload, consisting of columns, primary and secondary elements. Copy the schema name and finish the wizard.

So, to recap what we've done so far:

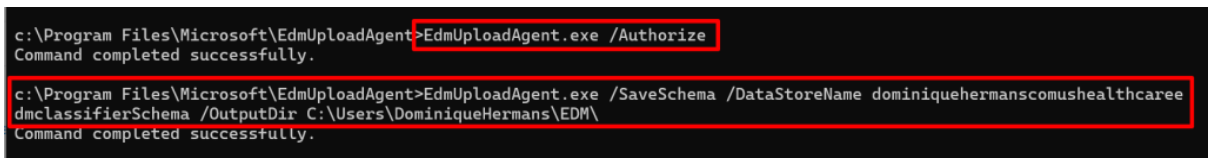
Created 2 tables (CSV format); 1 with sample data to set up our database schema, for which we configured the primary and secondary columns and matching SIT for the primary column. A second table containing the actual data in our environment. In a real world scenario, this data would have been extracted from a database for example and put in the CSV.

Securely upload the values in the table with sensitive data

Next we are going to securely upload the values in the table with sensitive data to Purview. We use a tool called the 'EDM Upload Agent Tool' to hash and upload the data. Like I told earlier, you could separate this process and hash the data on a non-internet connected system but for simplicity's sake we use 1 system in this demo.

First, you make sure you meet all the prerequisites. Second, create a security group in your Microsoft 365 environment and name it 'EDM_DataUploaders'. Add members of your organization that will be maintaining the database with sensitive information.

Next, download and install the EDM Upload Agent Tool from Microsoft Learn (https://learn.microsoft.com/en-us/purview/sit-get-started-exact-data-match-hash-upload?tabs=single-computer#hash-and-upload-your-data).



Start a cmd window as administrator and logon to your tenant using the 'EdmUploadAgent.exe /Authorize' command. Next, download the XML file that contains the schema we just created using the GUI by using the following command:

EdmUploadAgent.exe /SaveSchema /DataStoreName dominiquehermanscomushealthcareedmclassifierSchema /OutputDir C:\Users\Username\EDM\

Next, we are running a check on our CSV file to see if it contains any characters that might be a problem. To do this, run the following command against your CSV File:

EdmUploadAgent.exe /ValidateData /DataFile US_Healthcare_ActualData.csv /Schema dominiquehermanscomushealthcareedmclassifierSchema.xml

The command should return 'passed the schema validation.'

Now let's hash our sensitive data and upload it to the service by using the following command:

EdmUploadAgent.exe /UploadData /DataStoreName dominiquehermanscomushealthcareedmclassifierSchema /DataFile C:\Users\UserName\EDM\US_Healthcare_ActualData.csv /HashLocation C:\Users\UserName\EDM\Hash /Schema C:\Users\UserName\EDM\dominiquehermanscomushealthcareedmclassifierSchema.XML /AllowedBadLinesPercentage 0

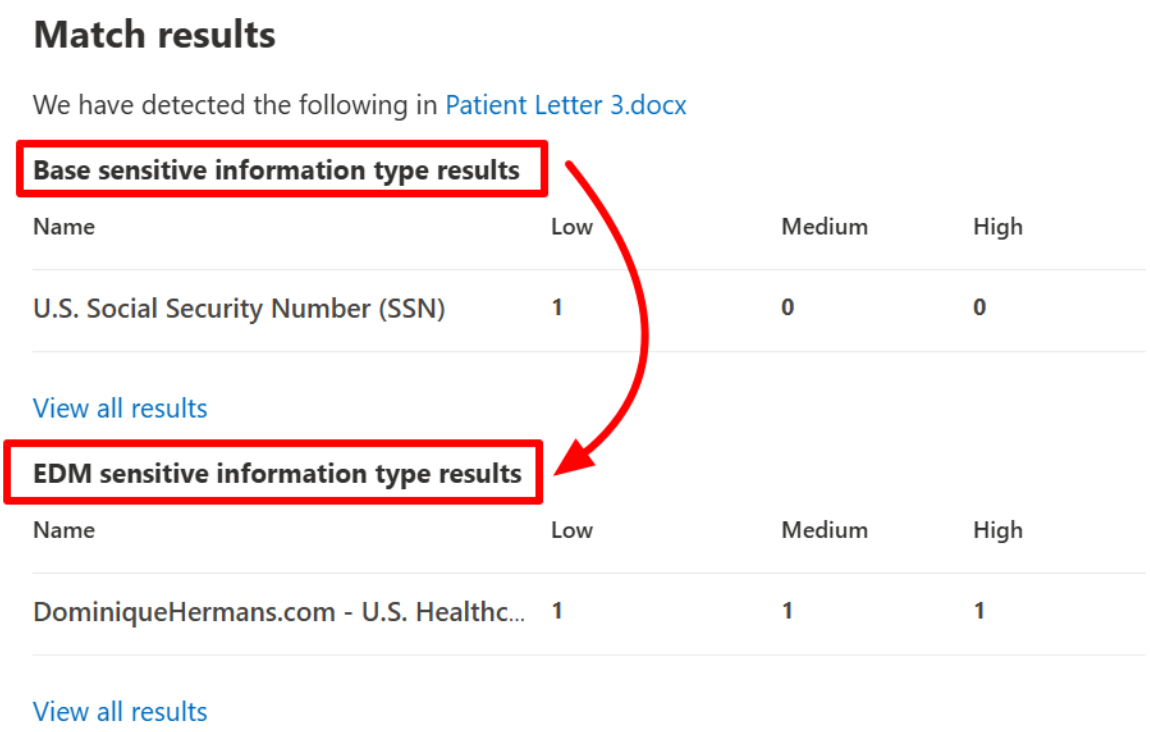
```
c:\Program Files\Microsoft\EdmUploadAgent>EdmUploadAgent.exe /GetDataStore
Printing list of Datastores.
Id, Name, DataLastUpdatedTime
dominiquehermanscomushealthcareedmclassifierschema, dominiquehermanscomushealthcareedmclassifierschema, 18/09/2024 09:31
:09
Command completed successfully.
```

Now when you run the 'EdmUploadAgent.exe /GetDataStore' command, you will receive a list of datastores and when the datastore was last updated.

Let's Test!

Now with our EDM Classifier in place and data uploaded, we can test our EDM classifier. To do this, navigate to 'Data Classification' and 'Classifiers'. On the right hand side, let's go for 'EDM classifiers'. Select your newly created EDM classifier and select 'Test' at the right hand side.

Next, upload a document that you want to test against your EDM classifier. For this demo, I've cooked up a sample letter to one of my fictional patients.



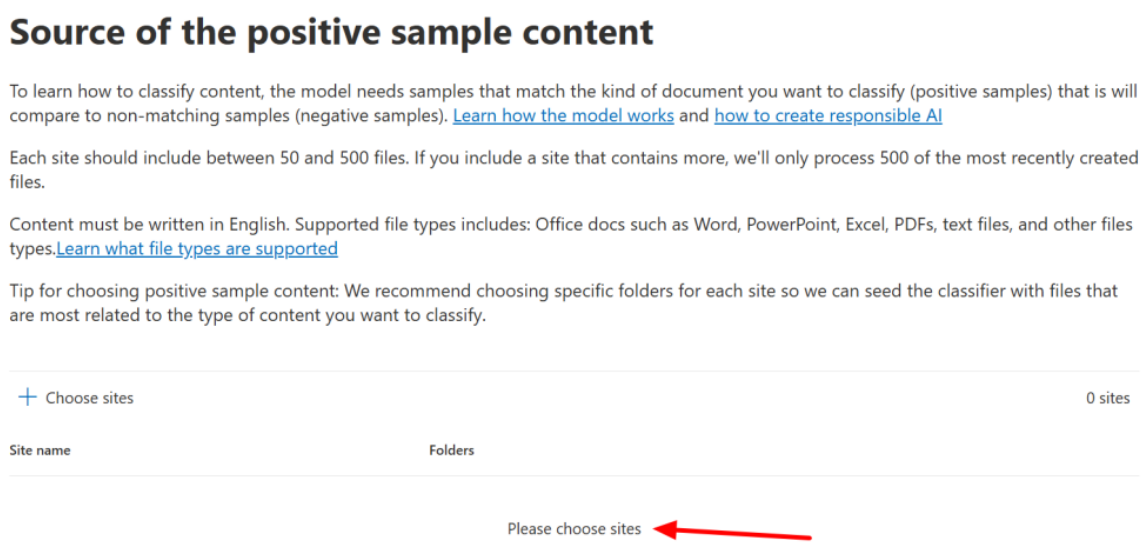
As you can see, the elements in the document are discovered by the SIT that's attached to the primary element, and the EDM SIT itself!

Trainable Classifiers

Now let's talk about the most extensive classification feature in Purview. Trainable classifiers. In short, they are custom built classifiers that can find (mostly unique) data that cannot be found by using other methods, like the ones we spoke about in this chapter.

They are configured in the following manner:

Navigate to Purview, data classification, classifiers, trainable classifiers and select 'start scanning process'. The process will identify the content that you have in your organization. This process can take up to 14 days to complete!



1. Gather seed data (at least 50 samples/documents) and upload it to the trainable classifier using a SharePoint site. In this case the idiom 'the more the merrier' applies. The more samples you feed the trainable classifier, the more reliable it will be. The samples will then be processed by the service using Artificial Intelligence (AI) and Machine Learning (ML) techniques to identify similarities. This process can take up to 24 hours to complete. Note that you need at least 50 samples that are a strong match and at least 50 samples that are not a match.
2. Now, when the first process is done, your trainable classifier has to be trained and tested. To do this, use a seperate SharePoint site in which you feed it with (at least 30, again, the more the merrier) test samples/documents. This should be positive, negative and somewhat vague items to train your classifier. After the service goes through it's paces again, you will get the oppertunity to review the testdata from this step in the process. Once the accuracy score for your trainable classifier stabilizes, you have the option to publish the trainable classifier.
3. You publish the Trainable classifier so it can be used in your policies.

Note that also in the case of Trainable Classifiers, Microsoft provides you with a list of pre-trained trainable classifiers that you can utilize!

Where can I apply all this goodness?

Now let's talk about where we can use all of the classifiers we talked about in this chapter.

- **Sensitive Information Types (SIT's)**: Data Loss Prevention, Sensitivity Labels, Retention Labels, Insider Risk Management, Communication Compliance, Auto-labeling policies, Microsoft Priva.
- **Fingerprint Sensitive Information Types:** Data Loss Prevention
- **Exact Data Match Classifiers:** DLP Policies, Auto-labeling policies, Microsoft Defender for Cloud Apps

- **Trainable Classifiers:** Auto-labeling Office files with sensitivity labels, auto-applying a retention label policy based on a condition, communication compliance, Data Loss Prevention.

Phew, this chapter got a little longer than I initially thought. But hey, if you made it to the end, you now know all about sensitive info types and classifiers!

Data Lifecycle Management (DLM)

One of the core features of Microsoft Purview is Data Lifecycle Management (DLM), formerly known as Microsoft Information Governance. DLM is all about providing you with the tools you need to keep information that you need, and delete the information that you don't. This process is of great importance for compliance with regulations, risk management en liability management.

Data Lifecycle Management in Microsoft Purview has a great overlap with Records Management, although they also have their differences. This chapter will explain how to configure the basics of Data Lifecycle Management, and will show you the end-user experience.

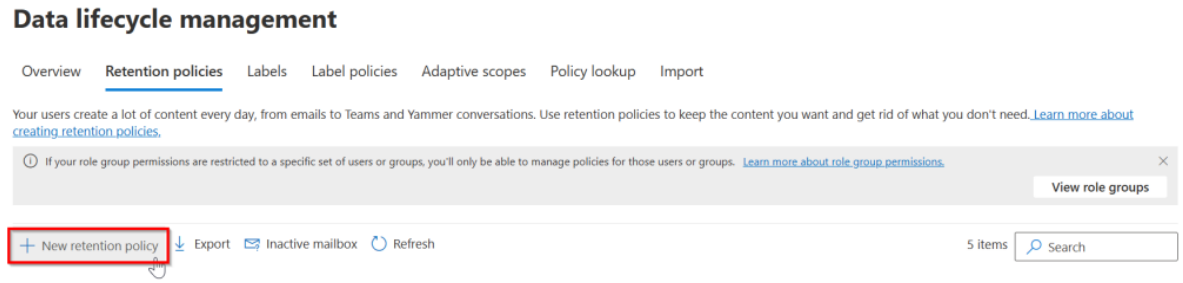
Terminology

Let's start with some terminology:

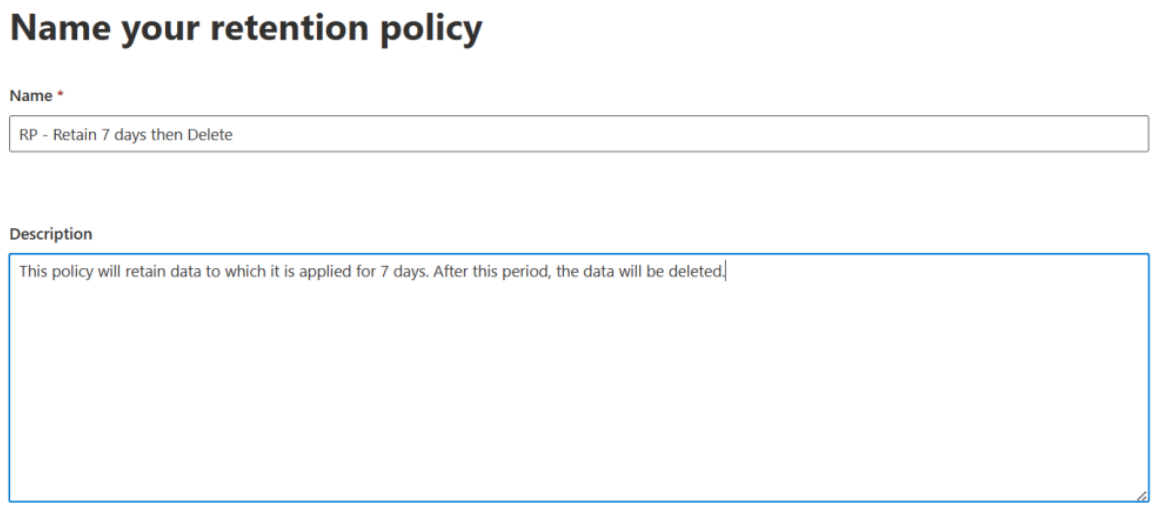
- **Retention Policies** are applied to containers by DLM administrators. Examples of a container can be a SharePoint site, Microsoft 365 group, a team in Microsoft Teams or a mailbox in Exchange Online. All information within these containers will inherit the retention policy that is set at the container level. Note that retention policies are not visible to your end-users. The recommended approach here is that Retention Policies should be your foundational solution, where labels should be used to configure documents that are an exception to this rule.
- **Labels** are applied at the item level, such as Word, Excel or PowerPoint files within a container. They can be auto-applied (for example by using pattern matching) or manually applied by your end-users.
- **Label Policies** determine where labels are published. For example a SharePoint Site, Exchange Mailbox or OneDrive accounts.

Configuring Retention Policies

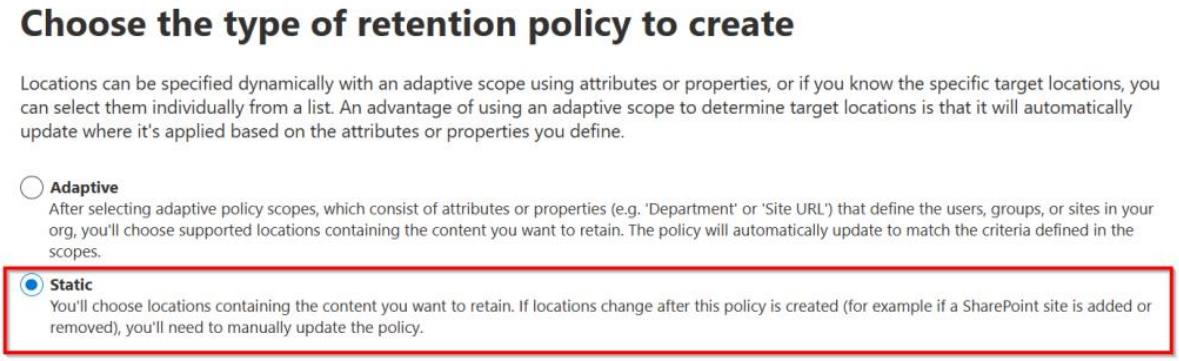
With the terminology out of the way, let's dive in and configure a retention policy.



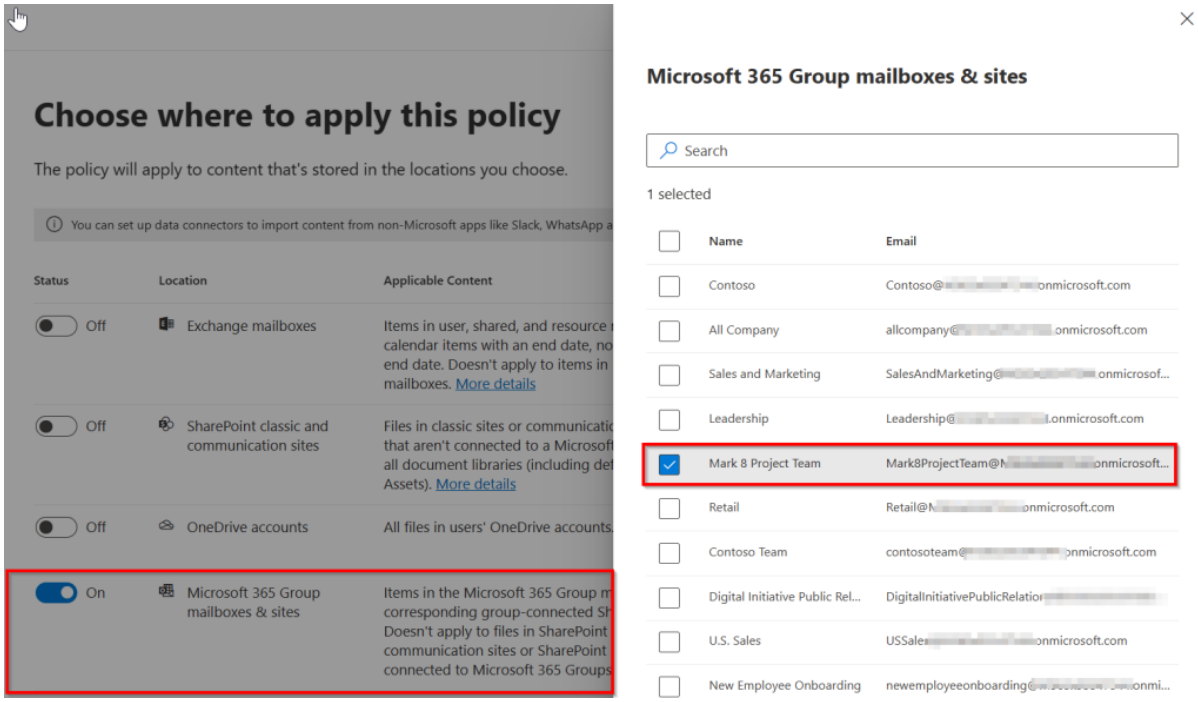
Navigate to the Microsoft Purview portal at https://compliance.microsoft.com and navigate to "Data Lifecycle Management" and "Microsoft 365". Click "New Retention Policy".



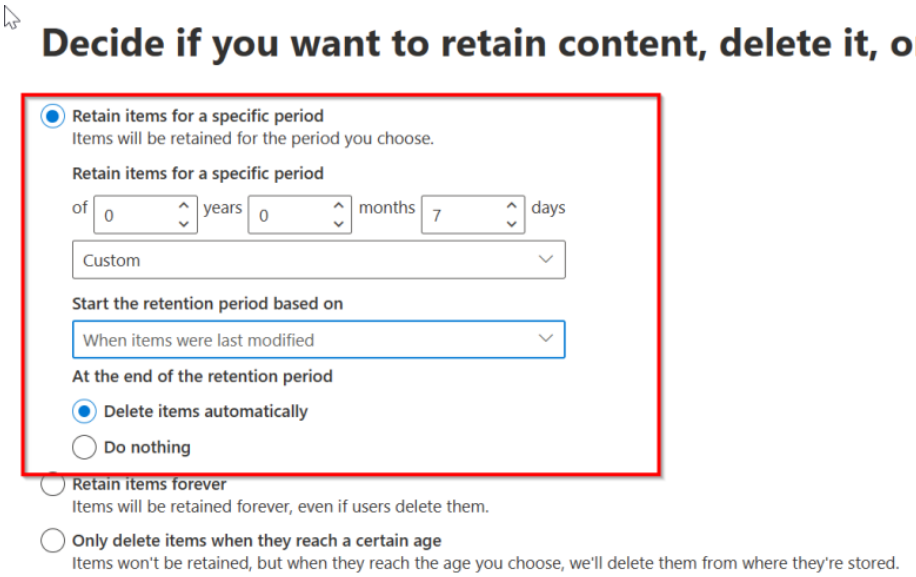
Give your retention policy a name that makes sense and is an explanation to what the retention policy will achieve. Also provide a description with the same thing in mind. In the next screen, admin units can be provided if you configured your environment to be divided in those units. Each unit can be managed by a specific set of administrators. However, his is beyond the scope of this chapter so we'll go with the standard "Full Directory" admin unit.



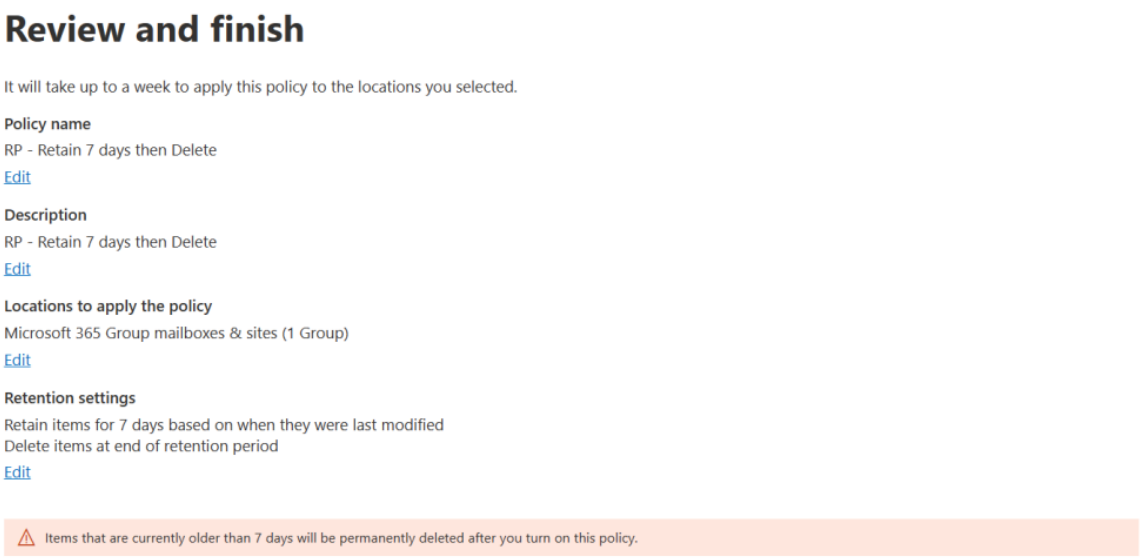
Next, we can choose the type of retention policy that should be created. An adaptive policy scope can be used to select locations containing the content you want to retain or delete in a dynamic way. When new locations are added that match the adaptive policy scope, they are automatically added. This is, in fact, the recommended way that Microsoft wants you to assign your retention policy. However, I would like to make clear how retention policies work before throwing in adaptive scopes in the equation. So for now, I'll select "Static" which let's you manually select the location to where the retention policy should be applied. As the descriptive text explains, when new locations are added or existing ones change, you'll have to manually update the policy to include these locations.



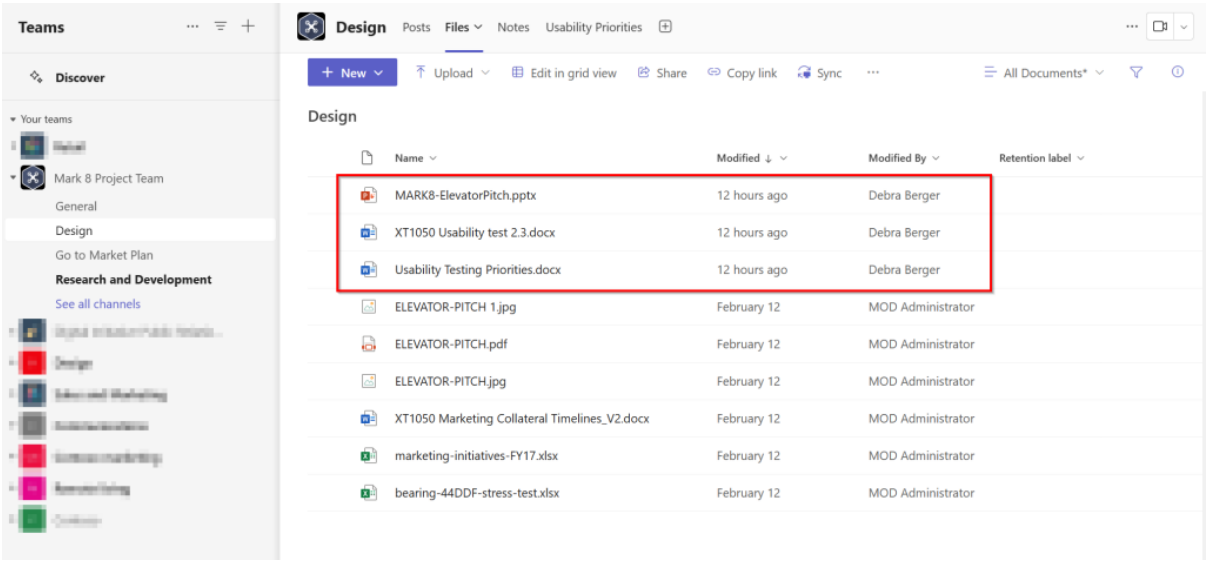
In the next screen we can select the locations to where this policy will apply. Here I've chosen "Microsoft 365 Group Mailboxes & Sites" and further narrowed it down to just the "Mark 8 Project Team" Microsoft 365 group mailbox & site.



The next screen is where the action is at. Here we can choose what needs to happen with the content we specified in the previous screen. Items can be retained for a specific period after which they can be automatically deleted, they can be retained for ever or can be deleted when they reach a certain age. In this example, I choose to retain them for 7 days after which they will be deleted automatically. Note that this is just for demonstration purposes, in a live environment a period of a couple of years would be more realistic.



Take a look at the review screen and note that "items that are currently older than 7 days will be permanently deleted after you turn on this policy". Also take a look at the line on the top of the summary mentioning "it will take up to a week to apply this policy to the locations you selected". You will be notified of this fact once more when you end the wizard to create the policy.



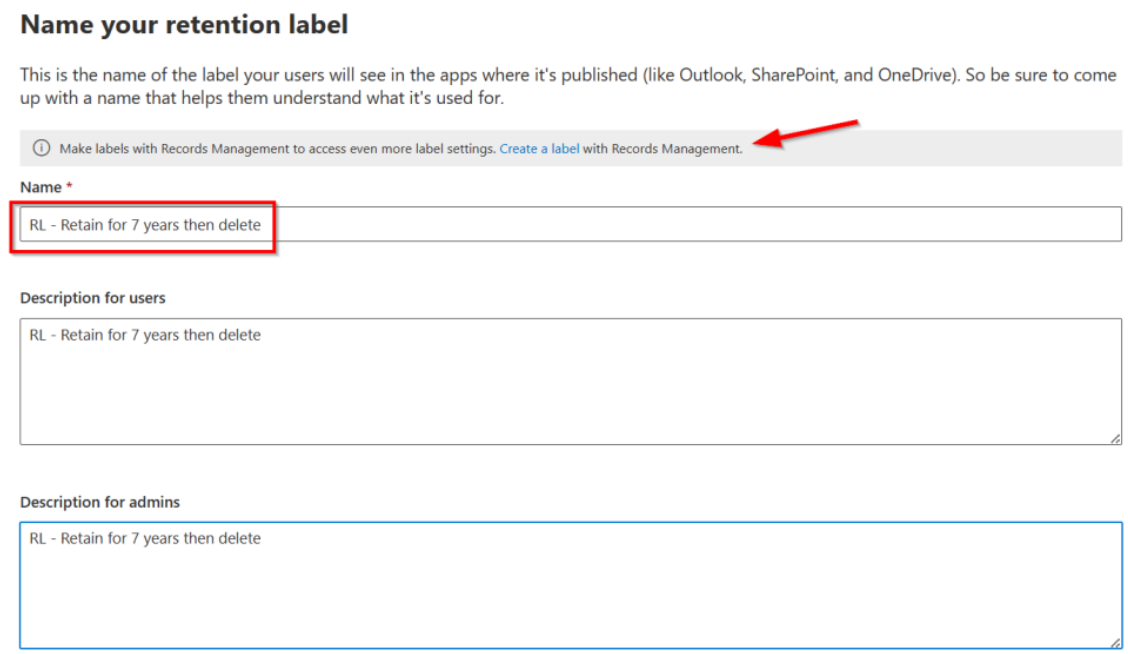
To close out this chapter, take a look at the "design" channel of the "Mark 8 Project Plan" team to which the retention policy was applied. Files in the Teams channel / SharePoint teamsite are all older then 7 days, with the exception of the files that are highlighted in the screenshot above.

Remember, retention policies are the foundation of your DLM configuration!

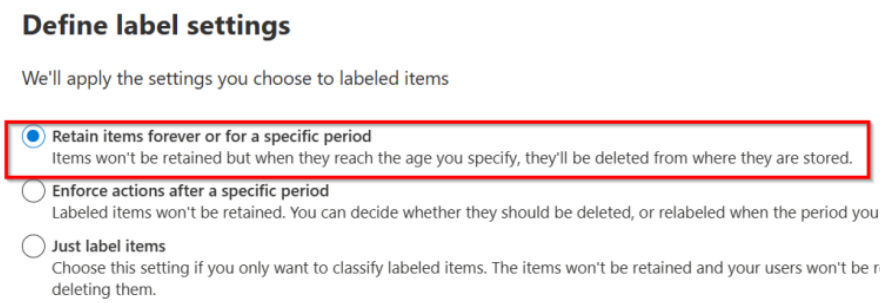
Configuring (Retention) Labels

Now that the foundation is in place with retention policies, let's focus on the progress of configuring (retention) labels so that they can be used as an exception to the configured retention policy.

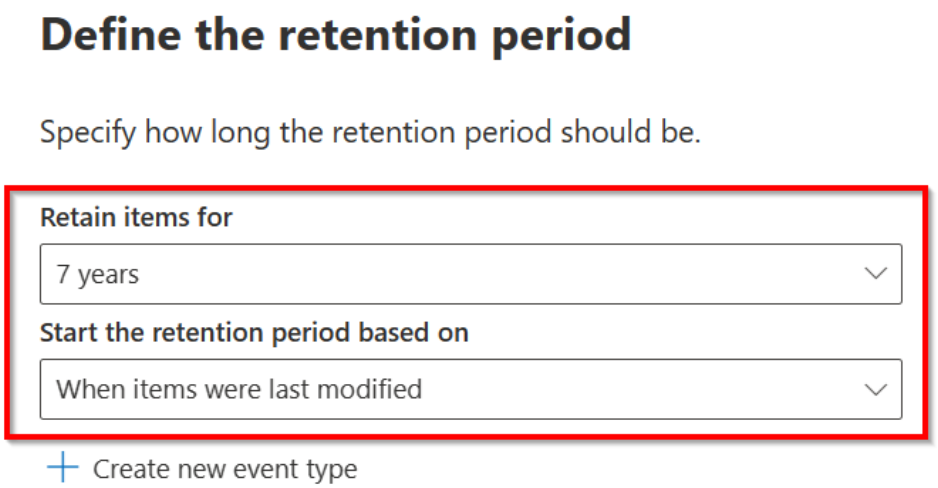
Navigate to “Data Lifecycle Management” and “Microsoft 365”. Click the “Labels” tab and click “Create a label”.



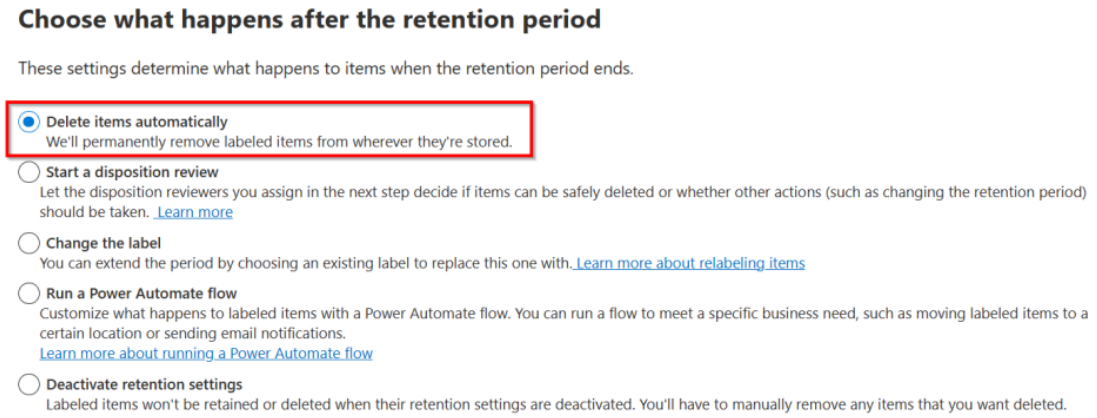
Again, create a name for your label that makes sense and can be used later to distinguish the label from other labels. Also, create a description for users and admins that make clear where the label should be used for.



In the next screen, the label settings can be configured. You can configure to retain items for a certain period, enforce actions after a specific period or just label items with no action applied. In this demonstration I’ll retain items for a specific period.



The retention period has to be configured next. Here I choose to retain items for 7 years. The retention period is based on the last modification date of the item.



What has to happen after the retention period should be configured next. To keep this progress simple I've chosen to "delete items automatically". Review the summary next and click "create label". A new wizard appears telling you that your label has been created but that one of 2 actions have to happen next:

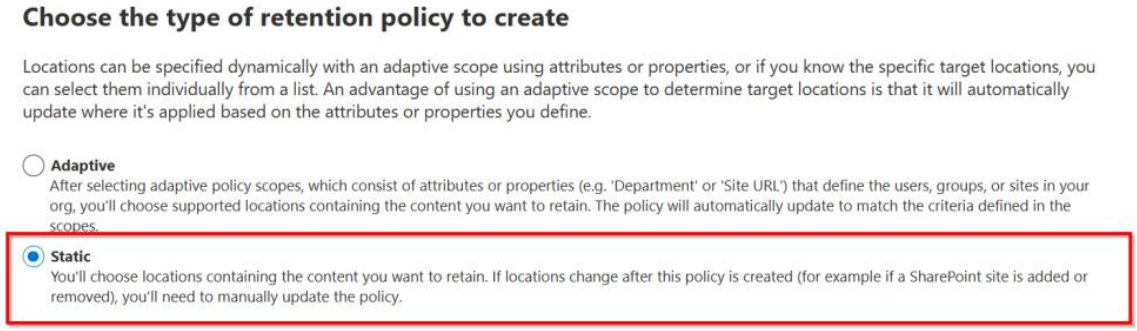
1. Publish the label to Microsoft 365 locations. This way, users can use the label to manually apply it to their content.
2. Auto-apply this label to a specific type of content. Using this path, you can create conditions that are used to match your content to which the label is then automatically applied.

For now, select "do nothing" and finish the wizard. This way, we can see each step of the process.

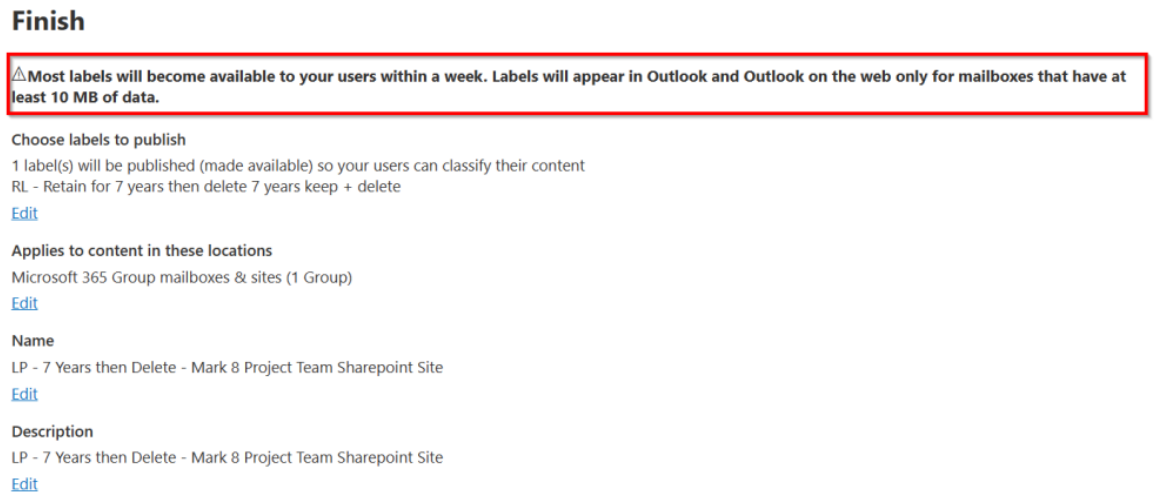
Publishing (Retention) Labels

As I would like to keep auto-applying of labels for another time, let's publish the label to a Microsoft 365 location to see the (end-user) impact there. Let's go!

Back in the Purview portal, make sure the "Label policies" tab is selected and choose "Publish Labels". In the first pane of the wizard click "Choose labels to publish" and select the label that was just created. In my case that's "RL – Retain for 7 years then delete". In the admin units screen, click "next".

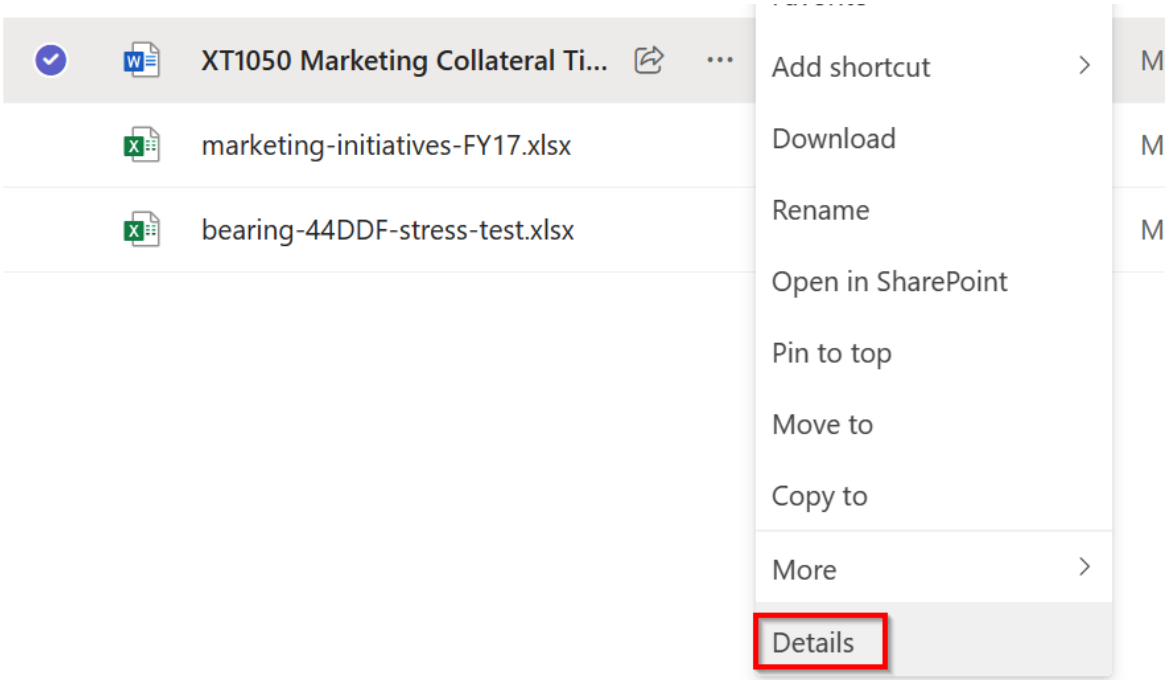


The next screen asks us again whether it should use a adaptive or static scope, just as with the creation of our retention policy (even the title is the same 😄). Choose static for the sake of simplicity and in the next screen -which is also the same as with the creation of our retention policy- choose "Microsoft 365 group mailboxes & sites" and select "Mark 8 project Team". In the last screen, give your label policy a name and description that makes sense. In my case it's "LP – 7 Years then delete – Mark 8 Project Team SharePoint site".



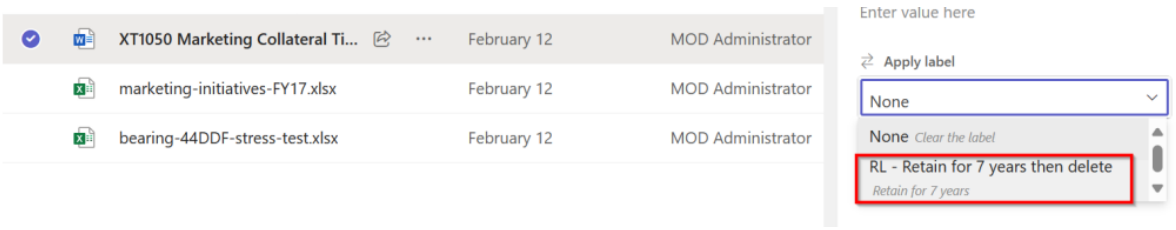
In the summary, be sure to notice that it can take up to a week for your labels to become available in the chosen location. If this label was published to a mailbox, the mailbox needs to have 10 MB of data before the label will appear. Now your retention label is published to the Mark 8 project team SharePoint site / Teams channel.

The user experience

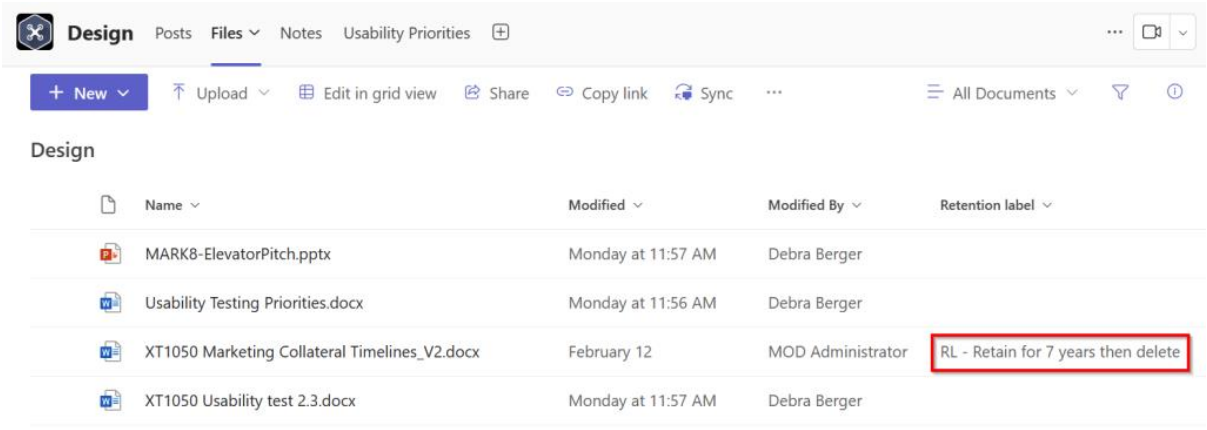


So, what about the user experience? As stated in the beginning of the chapter, labels that are published to a location using a label policy can be manually applied by users or automatically applied by using pattern matching for example. In this example, we've published the labels so that a user can apply them manually to items. These items would be an exception to the retention policy we applied at the container level.

In the above screenshot, I've logged in to Microsoft Teams with user "Debra Berger". Debra has permissions to apply retention labels. In the "Mark 8 Project Team" team, she selects a file and clicks "details".



Here we can apply our published retention label "RL – Retain for 7 years then delete".



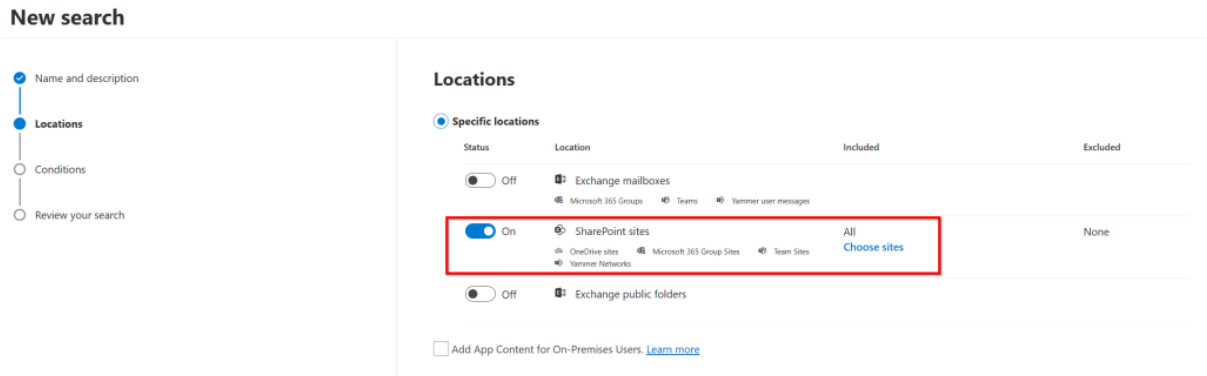
Fast forward a few days for all policies to take effect and notice how our files view in the "Mark 8 Project Team" – "Design" channel has changed. I've added a column to easily see which retention label is applied to which file. Remember the files that were shown at the start of this chapter? A lot of them are gone because:

1. We applied a retention policy at the container level (Team / SharePoint teamsite) as an admin that deleted items that were older then 7 days.
2. We manually applied a retention label that we published to the Team / SharePoint teamsite and added to the "XT101 Marketing Collateral Timelines_V2.docx" file.
3. So only the files that are not older then 7 days and the file that was manually tagged remain in place.

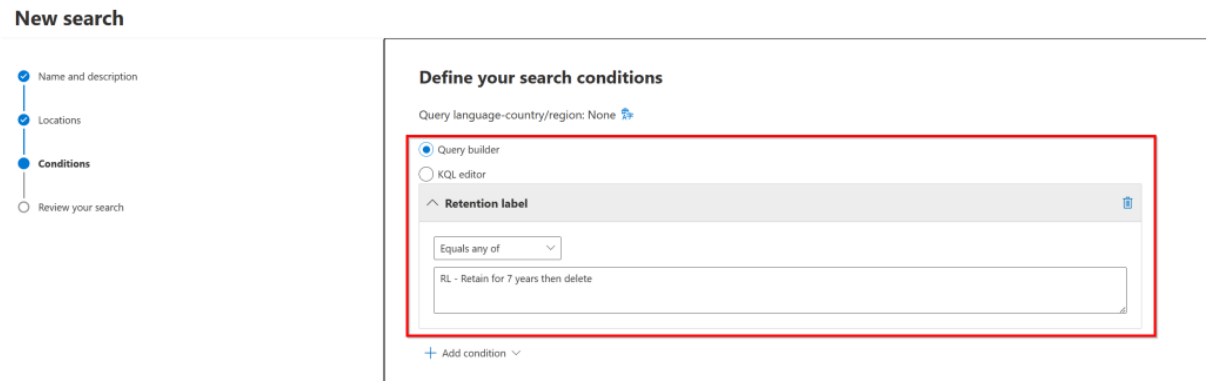
How to see where labels are applied?

If you want to get a complete view of where your retention labels are applied, you can do so as follows:

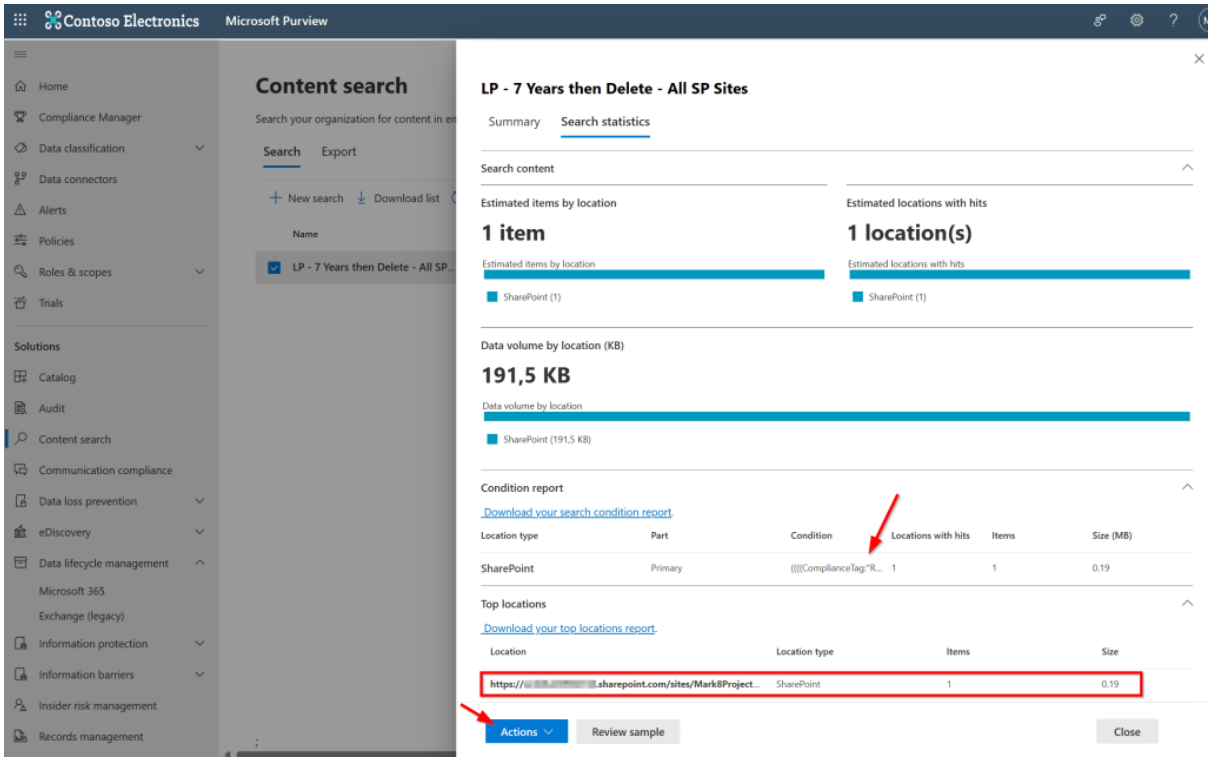
Navigate to the Purview Portal and select "Content Search", "New Search". Give the search an appropriate name and description so you can easily find and re-run the search later.



Specify locations. Here, I'll use "SharePoint Sites".

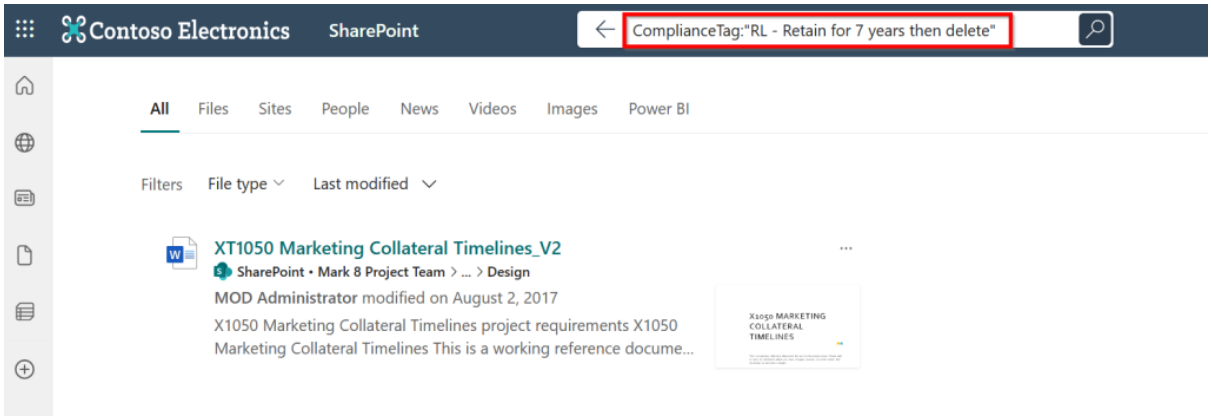


Define your search condition, in this example I'll use "Retention Label", "Equals any of", "RL – Retain for 7 years then delete". Review the summary screen and finish the wizard.



When looking in the details of the search result, you can see exactly where your labels are applied!

When only looking for documents that are labeled from within SharePoint Online, you can use the following trick.



Navigate to Sharepoint Online and in the search bar type:

ComplianceTag:"Your TagName here"

Documents labeled with your retention label will automatically show up! Note that this only shows documents that are within SharePoint online and are accessible by the user that performs the search!

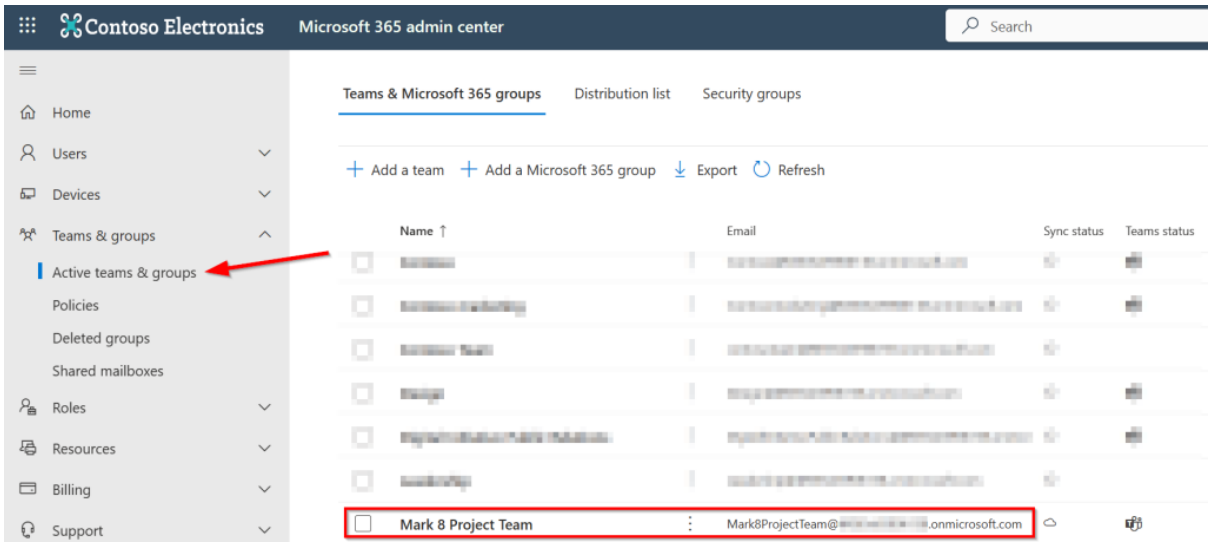
How to see where Retention Policies are applied?

So as we saw above, retention labels can be easily seen by the user -whether it's in Teams or in SharePoint- by looking at the details of a file or adding the "retention label" column to your view. Administrators can also utilize Content Search or users may use SharePoint Search.

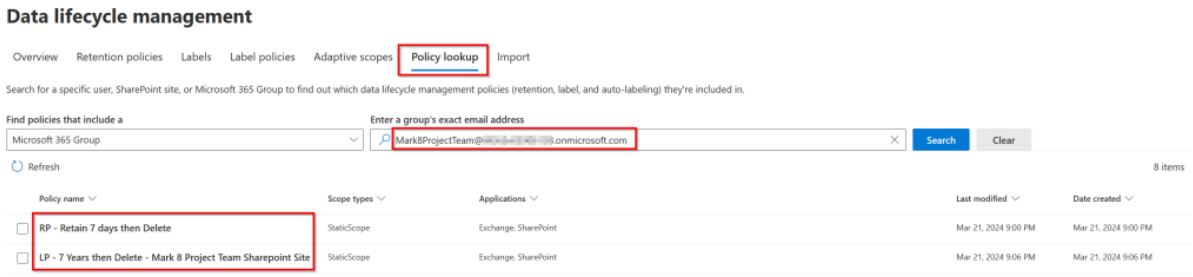
So what about retention policies? As stated earlier, they are invisible to the end user as they are applied by your admin or lifecycle management department at the container level. So we can use "policy lookup" as admin or someone with the appropriate role group to check where retention policies are applied.

Policy Lookup – Search within a Team / Microsoft 365 group

In the DLM toolbox, we can use "Policy Lookup" to see where certain retention policies are applied. First, navigate to your Microsoft 365 admin center and navigate to "Teams & Groups", "Active Teams and Groups".



Look for the Team that you want to look up retention policies for and copy it's email address.



Now navigate to the Purview portal, Data Lifecycle Management, Microsoft 365, Policy lookup and select "Microsoft 365 Group". Next, paste your copied group email address and click "search". There you have it, it shows all your retention policies AND label policies that are applied!

Records Management (RM)

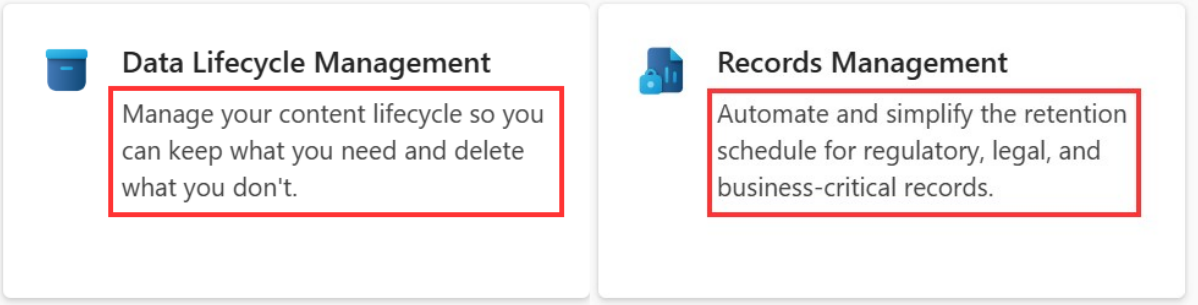
Records Management in Microsoft Purview can be used to:

- Setup a retention schedule for your files or folders (Just as with Purview Data Lifecycle Management)
- Mark items such as Word, Excel or Powerpoint files as records.

When an item such as a file or folder becomes a record, the item or it's contents cannot be changed any more. This is often done to comply with legal requirements, such as those that require a certain company to retain their documents for a certain period of time and during that time, the files (that have become records) cannot be altered by anyone. This chapter will explain how to configure the basics of Records Management, and will show you the end-user experience.

Differences between Records Management (RM) and Data Lifecycle Management (DLM)

Let's start by looking at the differences between Data Lifecycle Management and Records Management.



The new Microsoft Purview portal explains the differences pretty nice actually. Both features have a certain amount of overlap as they both use retention labeling to manage retention of your items. However, it's the purpose of configuring retention labeling where both features differ. Data Lifecycle Management is used to manage your content so you keep what you need, and delete what you don't. Items that are not present in your environment can not be misused, right?

Records Management on the other hand is used to automate and simplify the retention schedule for regulatory, legal, and business-critical records. And as said earlier, "records" are your items (or files) now turned into a static object called a record. They still look like a Word, Excel or PowerPoint file for example, but they can't be changed in any way. In other words, marking items as a records makes the item immutable. The following actions are prevented when an item is marked as a record:

- Changing the retention of an item.
- Change the contents or metadata of the item.
- Deletion of an item or removal of the retention label that is applied to the item.
- Moving a file between SharePoint libraries.

File Plans

The Microsoft Purview Records Management solution uses a file plan to manage retention labels. Using the File Plan, you can (bulk) create labels and publish or auto-apply labels to a certain location, such as Exchange mailboxes, SharePoint sites and OneDrive Accounts.

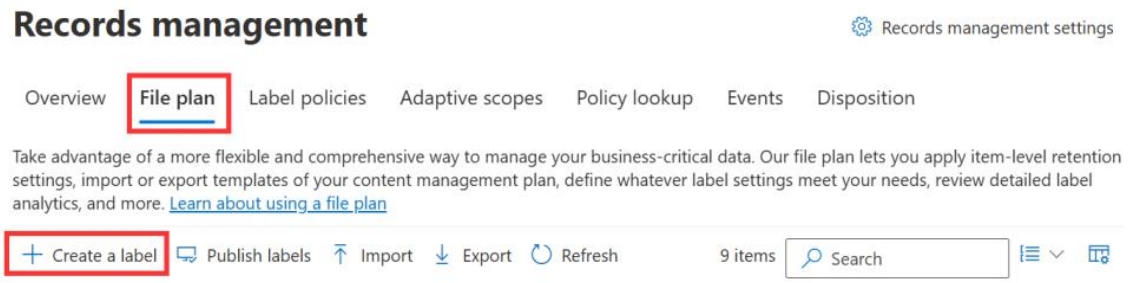
Publishing to a certain SharePoint site for example can be done manually by selecting the site, or by using Adaptive Scopes. When auto-applying labels, you can target your label to be automatically applied to content that matches a certain filter, for example content that contains sensitive info, content that contains specific words or phrases, or has certain properties.

Other properties that your file plan includes are:

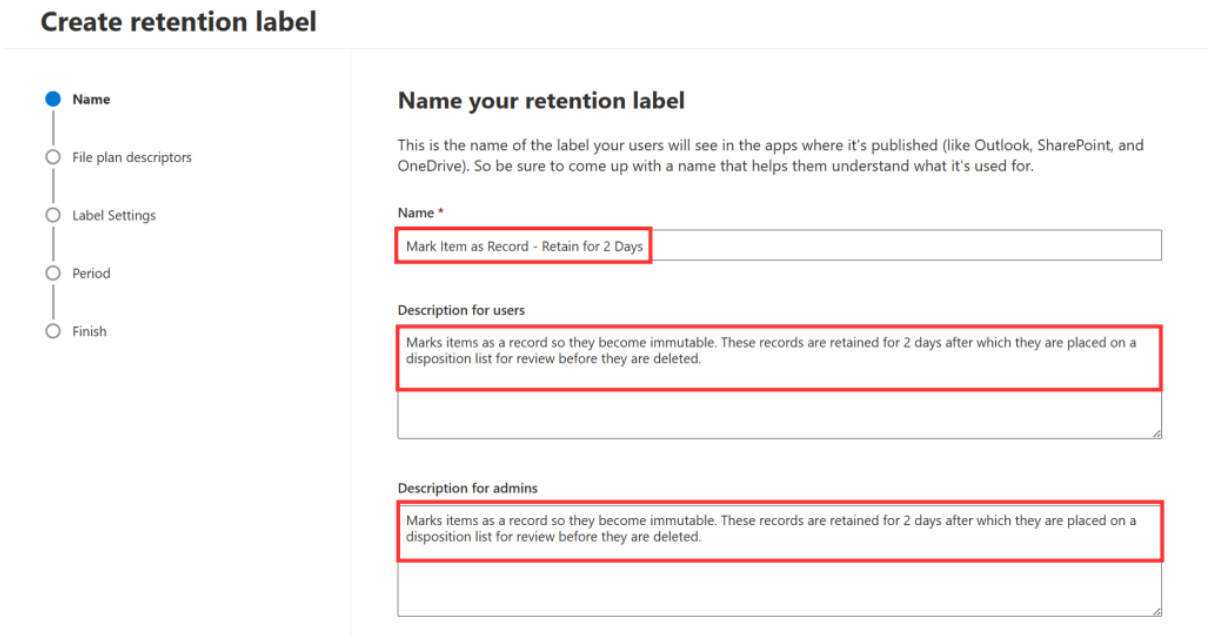
- Status of your labels (Active, or Inactive)
- Where your label is based on (for example "when created" or "last modified")
- Whether your label marks item as a record.
- Whether your records should be unlocked by default.
- Whether content should be relabeled.
- The duration of the retention.
- The disposition type that applies when items are to be deleted (for example "No Action", "Auto-delete" or "Review required").
- Metadata of your labels (not required).
- Last modification date of the label and who was responsible for the modification.

Configuring Records Management

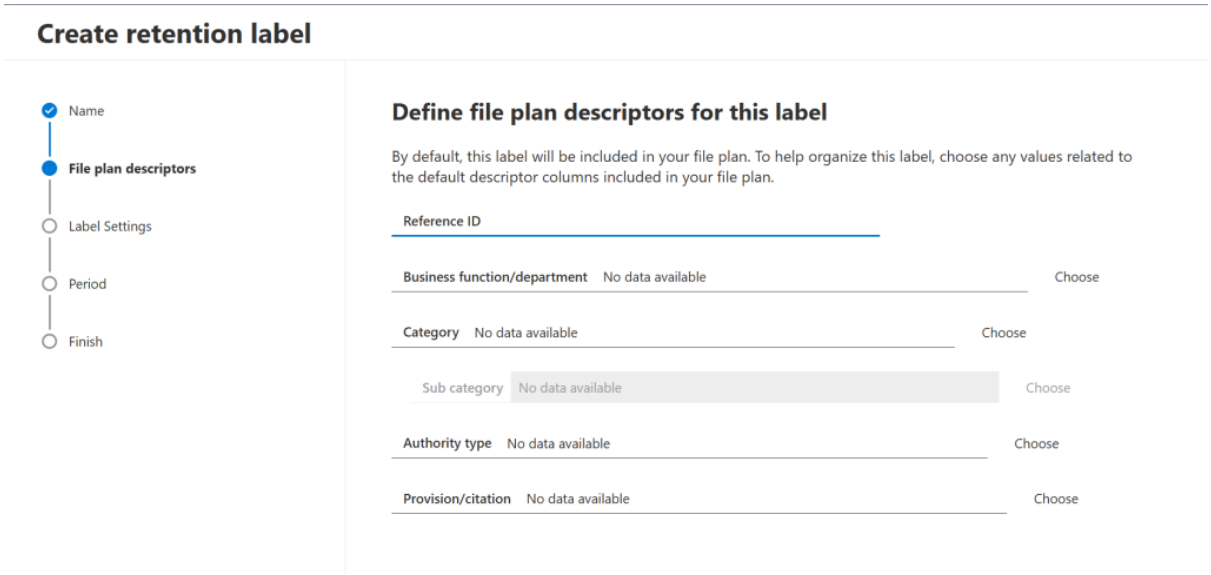
Let's configure some labels from within the Records Management Console. Let's say for this demo we want to create a retention label that is published to a certain SharePoint site so users can label folders (and items within that folder) to become a record. After a couple of days (because I don't want to wait a year before showing you the result) the items marked as records are placed on a disposition list for review after which they are deleted. Ready? Let's go!



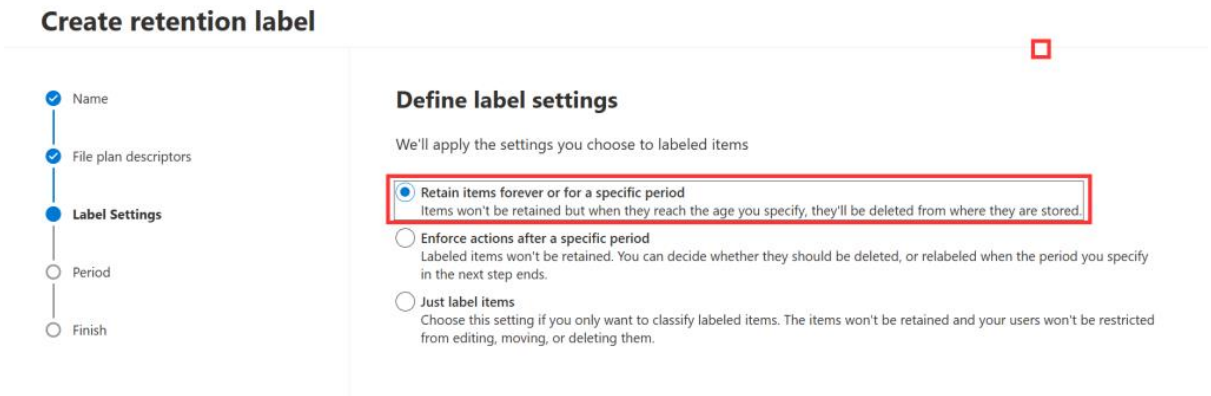
Navigate to the Microsoft Purview portal and click "Records Management" on the left hand side. Within Records Management, navigate to file plan (remember the name?) and click "Create a label".



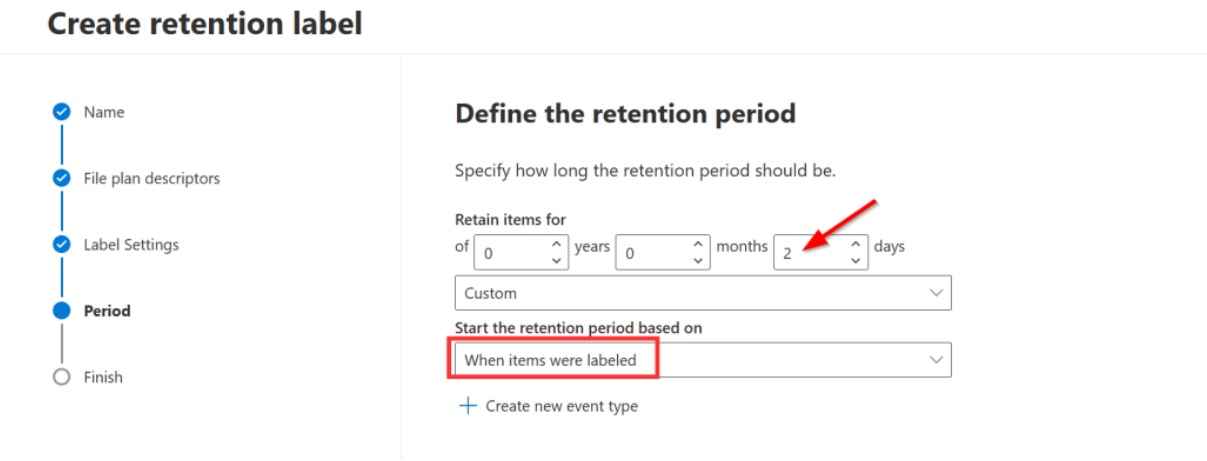
Give your label a logical name, as it will show up in your users Teams or SharePoint environment alongside the description for users. So this will be equally important.



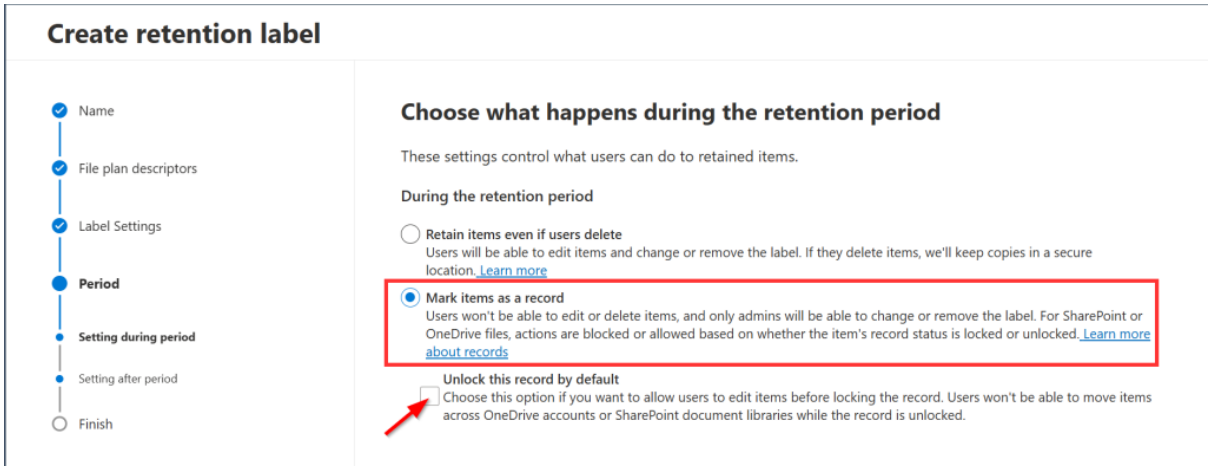
In the next screen, you can configure file plan descriptors (metadata of your label), which I've discussed earlier in this chapter. I'll ignore them for now.



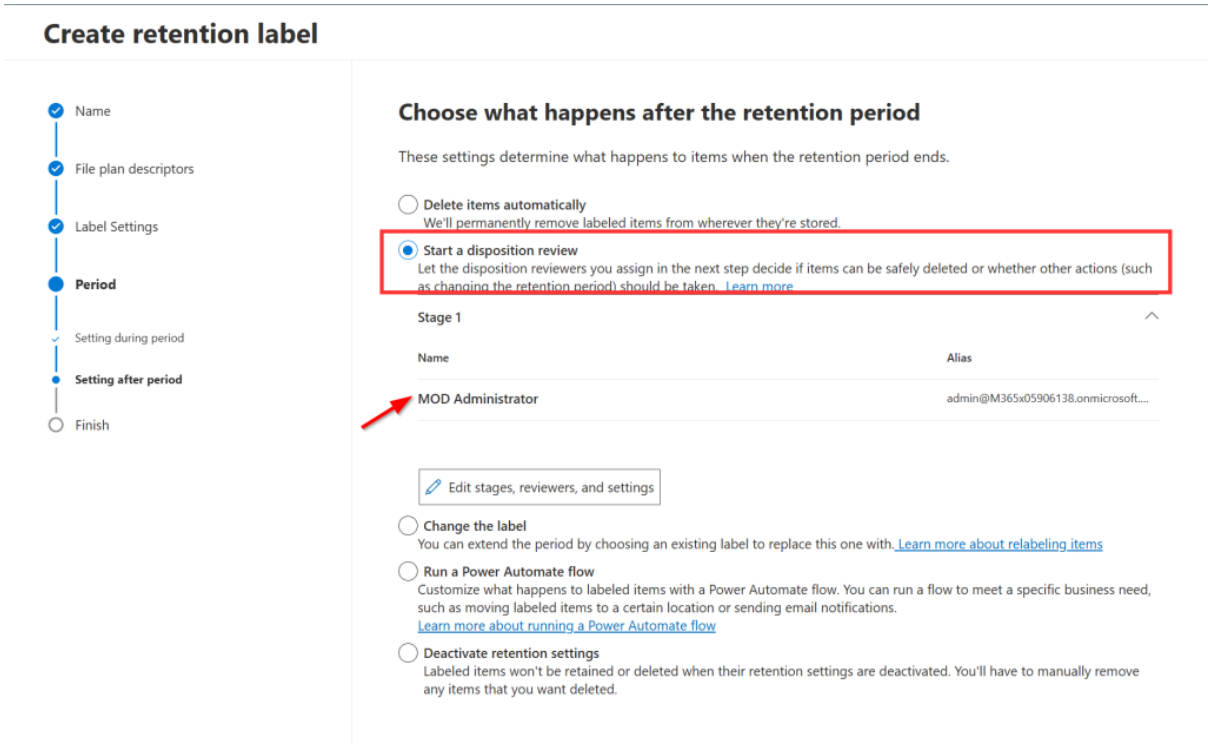
In the next screen we can configure what will be done to files or items that are labeled with this label. For this demo, I choose to go with “Retain items forever or for a specific period” because I want to show you the disposition list feature in Records Management.



So as I told earlier, I’ll go with a retention period of 2 days and that retention period will start when the label is applied.

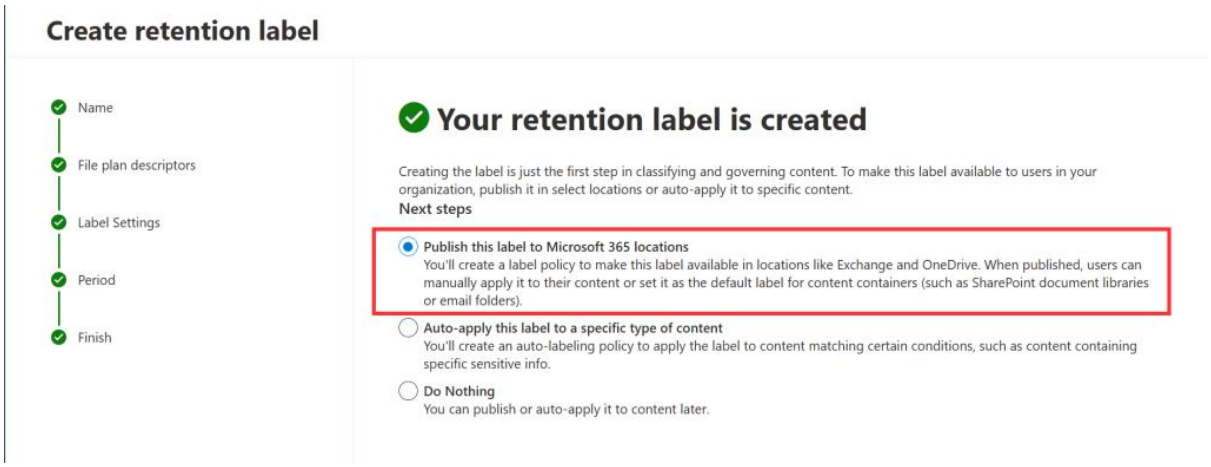


First, we’ll have to choose what happens with your items (files) during the retention period. Since we want to check out record management, we’ll mark the items as a record.



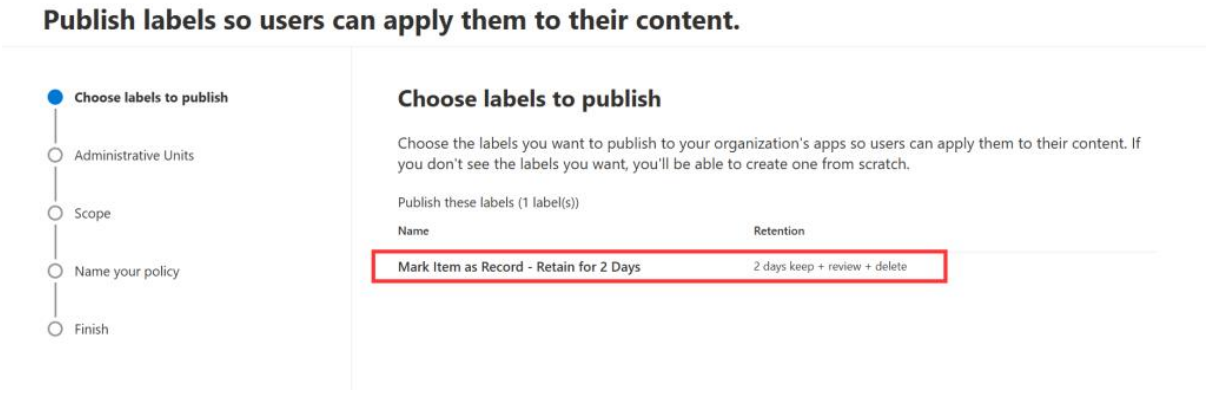
Second, you get to choose what happens with your items after the retention period. I want to show you what a disposition review does since it's a feature specific to records management. With disposition reviews, certain users or departments in your organization are tasked with reviewing items after the retention period is over, but before the items are deleted. The items will show up in a disposition list that needs to be reviewed by one or multiple users. This is what is set up in this screen. Here you can configure 1 or multiple stages and add certain people or groups to each stage. When you configure multiple stages, a user in each stage should review an item before it is actually deleted or for example is configured with another label that can extend the lifetime of an item.

After the disposition review has been configured, take a look at the summary screen and finish the wizard.

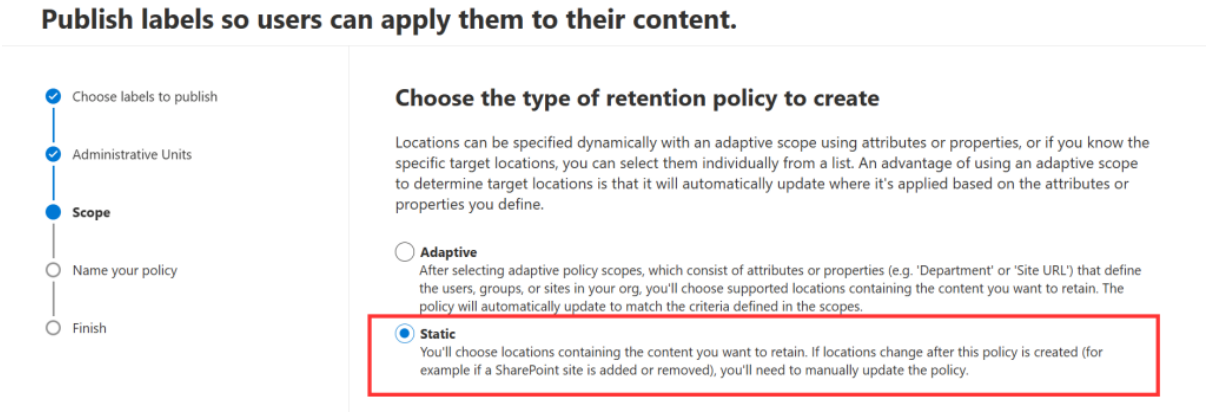


As with Data Lifecycle Management, labels have to be published to a location before it can be used by your users. It can also be auto-applied as stated earlier, but this is out of scope for this chapter.

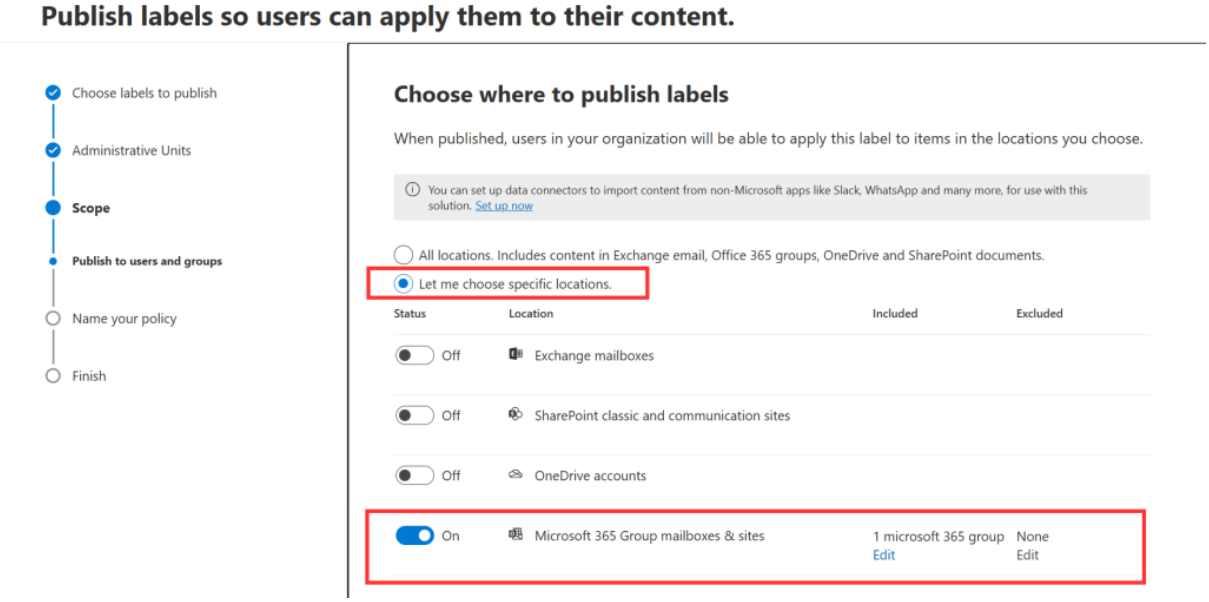
I'll select "publish this label to Microsoft 365 locations" so the next wizard to publish the new label is automatically started.



The label that's just created is already selected. In the policy scope screen, we are going to use the default of "Full Directory".



The publication of labels isn't different than if you would use Data Lifecycle Management, so to keep this chapter as simple as possible our new label will be targeted to 1 site. If you would like to know more about adaptive scopes, I would urge you to take a look at the chapter 'Adaptive Scopes'.

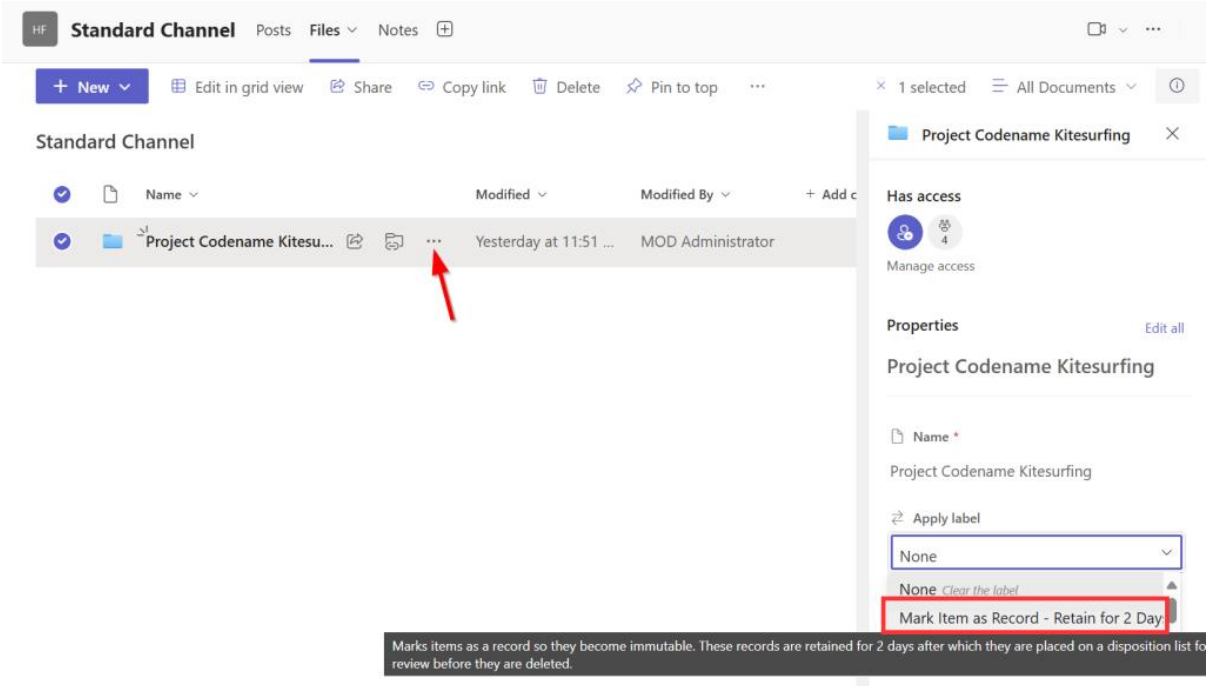


Select “let me choose specific locations” and in the “included” column, select your desired SharePoint site or the Microsoft 365 group where it’s based upon. I’ve included my “High Five Sky High” Microsoft 365 Group / SharePoint site.

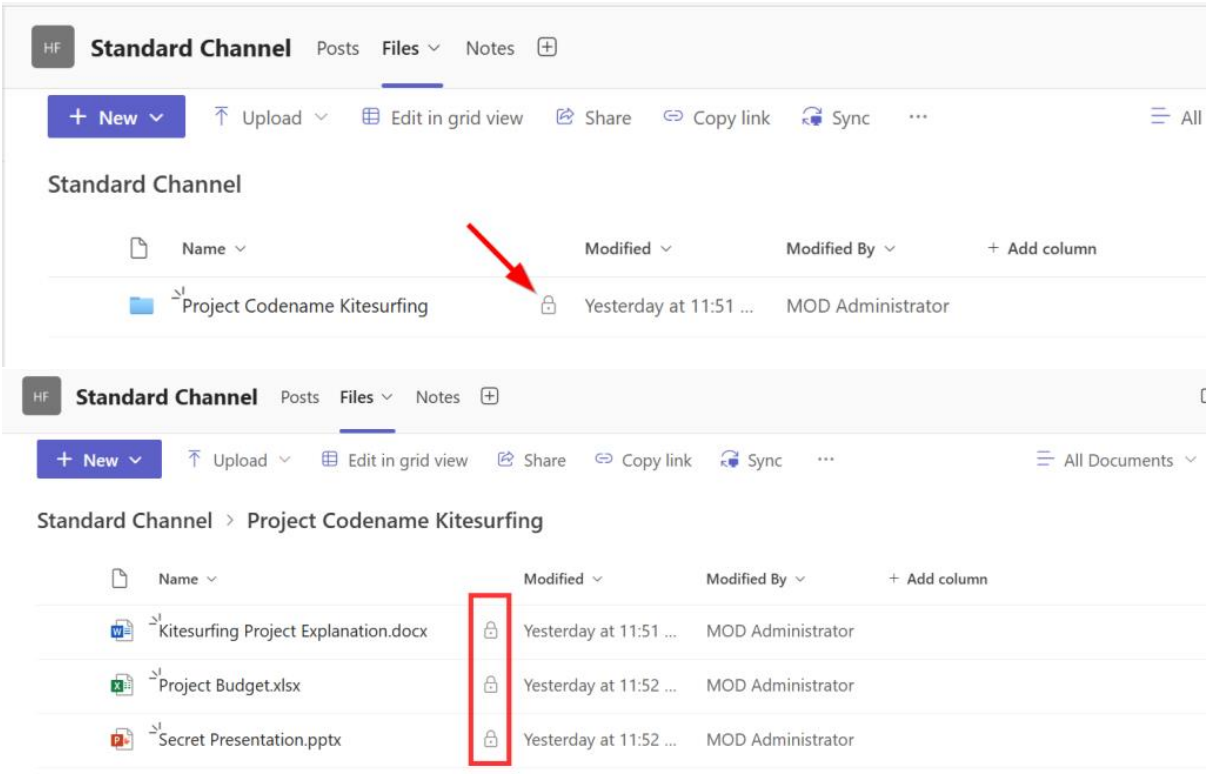
Next up, name your policy and take a look at the review screen. Finish the wizard.

The view from the user / Records Manager

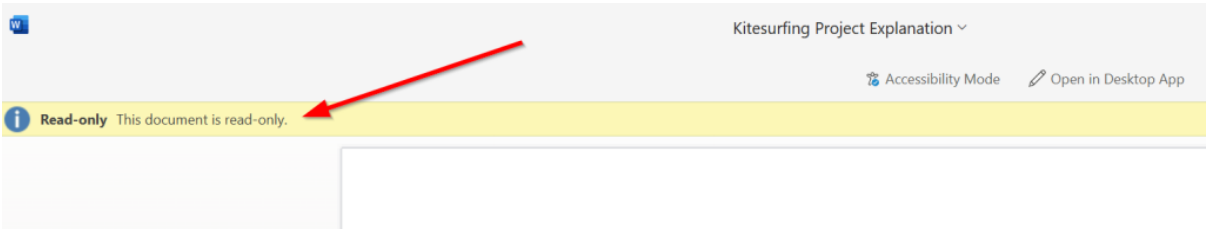
Let’s take a look on the user side of things. Ideally, the upcoming tasks will be performed by someone of your records management department. For this demo, I’ve created a folder called “Project Codename Kitesurfing” within a standard channel with an equal name in the SharePoint Site / Team “High Five Sky High”.



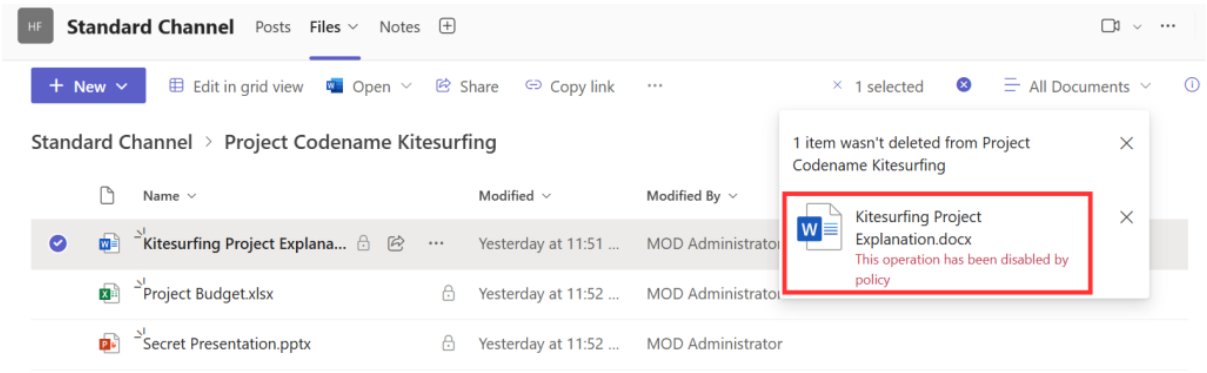
Since the project has come to an end I want to mark the folder and it’s contents as a record. To do this, I click the 3 dots, choose “details” so the flyout menu on the right side opens. Under “Label”, our label “Mark Item as Record – Retain for 2 Days” (note that it also shows the configured description) can now be selected.



Immediately, the folder gains a padlock icon on the right, telling us that the folder and it's contents are now marked as record. So let's bring some of the theory above into practice. Let's try to edit the contents of the document.



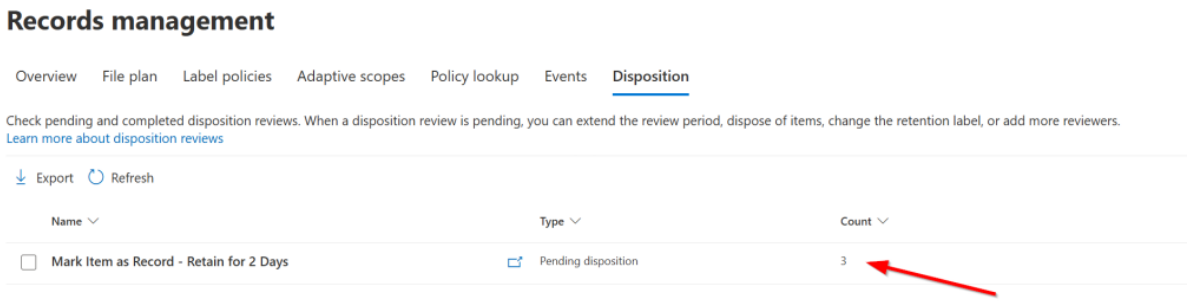
As expected, this fails. The yellow ribbon tells us the document is read-only.



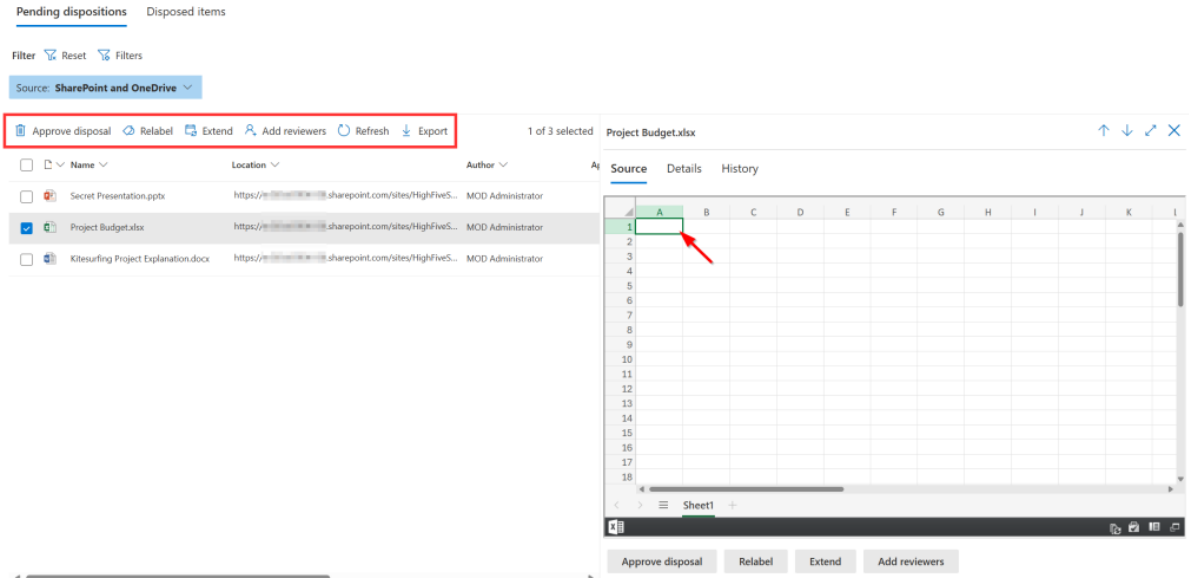
Trying to delete the document also fails with error "This operation has been disabled by policy". Ain't that great?

Fast forward a couple of days…

…And the files will show up on your disposition list. The disposition list can be seen by navigating to the Microsoft Purview portal and clicking the “Records Management” button on the left hand side. Within Records Management, navigate to “Disposition”.



As can be seen, the name of your file plan and the current number of documents included on it’s disposition list is present.



Now when you click your file plan followed by the “open in a new window” button you’ll see an overview of the items currently pending disposition. You can filter the list by using the filter button on the top of the screen.

Note that if you want to see previews of your items you’ll have to be a member of the “Content Explorer Content Viewer” role group, which can be found in the Purview portal, Roles & Scopes, Permissions. If you only want to see a file’s label but not its contents, you can add a user to the “Content Explorer List Viewer” role group.

In the portal, you are able to execute the following actions on the items in the disposition list:

- Approve disposal, after which the files will be removed. This process can take up to 15 days before the files are permanently deleted from the location where they’re stored.
- Relabel the files, after which a new label will be applied (with different settings).
- Extend the disposition date, after which the files will show up on the disposition list again.

- Add reviewers, to select someone from your organization to also review the pending disposition.
- Export a comma separated file that contains the files name, location, title or subject, tagname (label name), comment, name of the account that deleted the content and the delete date.

Differences between Retention Labels, Records and Regulatory Records

Action	Retention label	Record - locked	Record - unlocked	Regulatory record
Edit contents	Allowed	**Blocked**	Allowed	**Blocked**
Edit properties, including rename	Allowed	Allowed [1]	Allowed	**Blocked**
Delete	Allowed [2]	**Blocked**	**Blocked**	**Blocked**
Copy	Allowed	Allowed	Allowed	Allowed
Move within container [3]	Allowed	Allowed	Allowed	Allowed
Move across containers [3]	Allowed	Allowed if never unlocked	**Blocked**	**Blocked**
Open/Read	Allowed	Allowed	Allowed	Allowed
Change label	Allowed	Allowed - container admin only	**Blocked**	**Blocked**
Remove label	Allowed	Allowed - container admin only	**Blocked**	**Blocked**

Image source: Microsoft

As can be seen in the table above, records have certain allowed actions but also restrictions. Where all actions are allowed with retention labels (that are configured using Data Lifecycle Management), items that have the "record" status cannot -for example- be edited or deleted. Of course this make sense, because the exact function of declaring an item as a record is making sure its contents cannot be altered anymore.

But even when an item is declared a record, properties can still be edited by default. If you don't want this, there is a tenant option to block this behavior. This option can be found at Records management – Records management settings – Retention labels – Allow editing of record properties.

Another -more restrictive option- is to declare items as a regulatory record. The table above shows exactly how restrictive this option is. When comparing regulatory records to normal records, items declared as regulatory records properties cannot be changed, the items declared as regulatory record cannot be moved across containers (SharePoint sites, OneDrive accounts, and Exchange mailboxes), but the most restrictive option is that labels cannot be changed or removed anymore (not even by global administrators!).

Also good to note about regulatory records is:

- Retention period of an item declared as regulatory record cannot be made shorter, but only be extended.
- Retention labels that configure items as regulatory records do not support auto-labeling policies.
- Retention labels that configure items as regulatory records cannot be applied to items that are checked-out.

When you've gone through all of the above and you still want to declare items as regulatory records, you will have to enable the option first by connecting to the Office 365 Security & Compliance PowerShell and running the following cmdlet after which you can select marking content as regulatory record in the retention label wizard:

Set-RegulatoryComplianceUI -Enabled $true

Be sure to take a look at the following Microsoft Learn articles before you decide you need to have regulatory records:

- https://learn.microsoft.com/en-us/purview/declare-records
- https://learn.microsoft.com/en-us/purview/records-management#compare-restrictions-for-what-actions-are-allowed-or-blocked

How to see where labels are applied?

If you want to get an overview of where your retention labels are applied, take a look at the Data Lifecycle Management (DLM) chapter as the steps to get an overview of locations where your record labels are applied is the same as with DLM!

Sensitivity Labels

One of the most distinct features of Purview is of course sensitivity labeling, which is part of the information protection section in the Purview portal. Before we head off to configuring sensitivity labeling and dive into what it looks like from a users perspective, let's first talk about what sensitivity labels are.

Introduction

You can think of a sensitivity label like a stamp, which you can apply to content like documents, email and meetings. The cool thing is that the sensitivity label is added in clear text to the metadata of the files, so it travels together with the content (hence the reference to the stamp 😉). Because it's stored in clear text, applications and services can use the sensitivity label to apply logic to it. Examples of this logic is adding a watermark to a document, protecting content from being openend by unauthorized people or content being protected from being sent outside your organization. This protection part can be done by Microsoft 365 or a third-party application. But a sensitivity label by itself can inform users of the sensitivity level of a certain item.

There are various automatic methods of applying labels to your content, but for this chapter we'll focus on manually adding labels to content so we understand how the basic process works before we move on to some form of automatic labeling.

Labels should go with the flow of your document in a certain process. An example process could be like this.

1. You create a document.
2. You apply the label "internal" which shows users that the document is not ready to be sent outside your organization.
3. You work with internal colleagues on the document.
4. The document is ready to be distributed outside your organization to be edited by external coworkers.
5. You apply a new label "external".
6. You finish working on the document and publish it to it's final destination. Depending on the process, you apply another label or remove the sensitivity label.

When looking at the implementation of sensitivity labels, there's a certain learning curve that you must guide your users through. Because of this, I recommend to first introduce sensitivity labels to your organization without applying restrictions based on it to give your users a visual introduction that a sensitivity label is applied and learn how to work with them. After this, it's possible to extend the labels functionality with content protection or some other restriction.

In short, this would be a great way to introduce sensitivity labels to your organization:

1. Create sensitivity labels (less is more).
2. Implement sensitivity labels and guide your users on how to apply and use them.
3. Monitor your environment and keep educating your users

4. Collect feedback from your users and use it to optimize labels.
5. When labeling is well embedded in your organization, start restricting content based on your sensitivity labels.

Lastly, you should remember the following about sensitivity labels:

- Content can hold 1 sensitivity label, however it can be combined with a retention label.
- Sensitivity labels can be seen by members of your organization but are not visible to guests or users from other organizations.

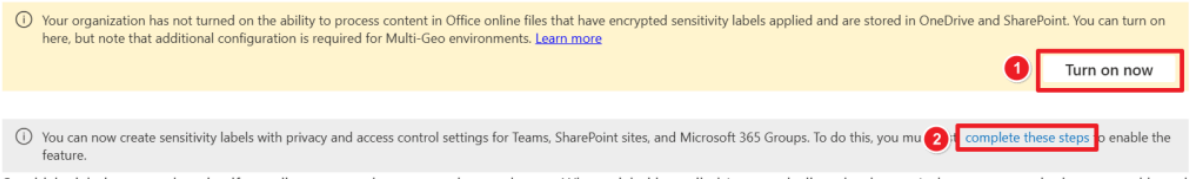
Configuring Sensitivity Labels

Configuration of sensitivity labels that can be manually applied consists of steps:

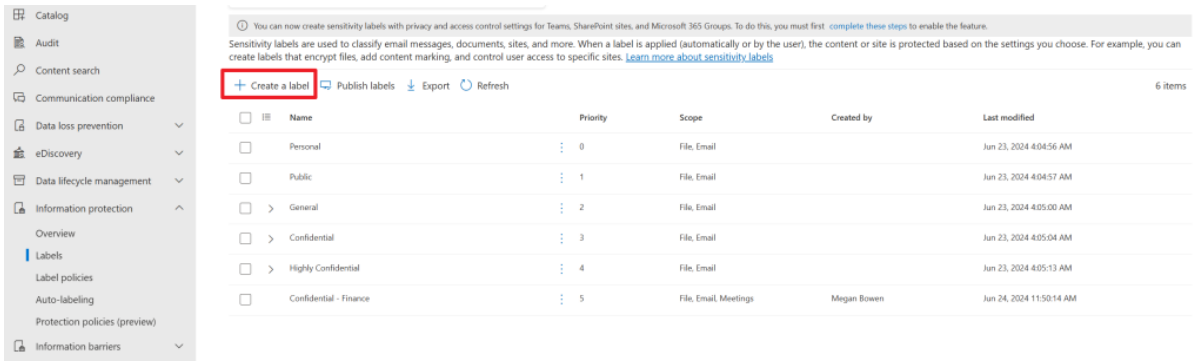
1. Create and configure your sensitivity label.
2. Publish the label to end-users.

Create and configure your sensitivity label

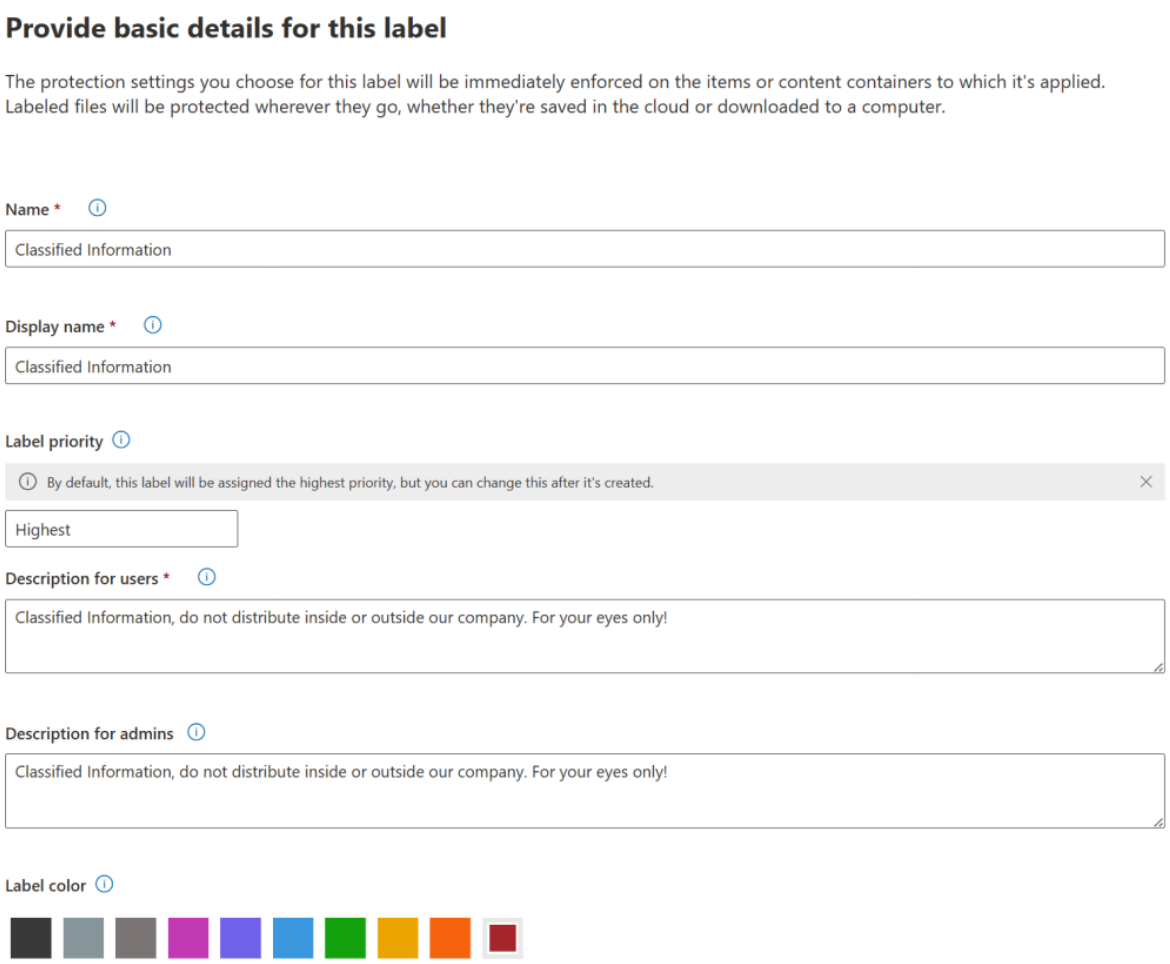
To start, navigate to the Microsoft Purview portal and navigate to Information Protection, Labels.



Right away, we are greeted with 2 messages where number 1 is telling us to turn on the ability to process content in Office online files that have encrypted sensitivity labels applied and are stored in OneDrive and SharePoint. When you don't use a multi-geo Microsoft 365 environment, you can safely enable the feature. Feature 2 however makes it possible to create sensitivity labels and access control settings for Teams, SharePoint sites and Microsoft 365 Groups. However in this chapter, we stick to the basics and go with manual labeling.

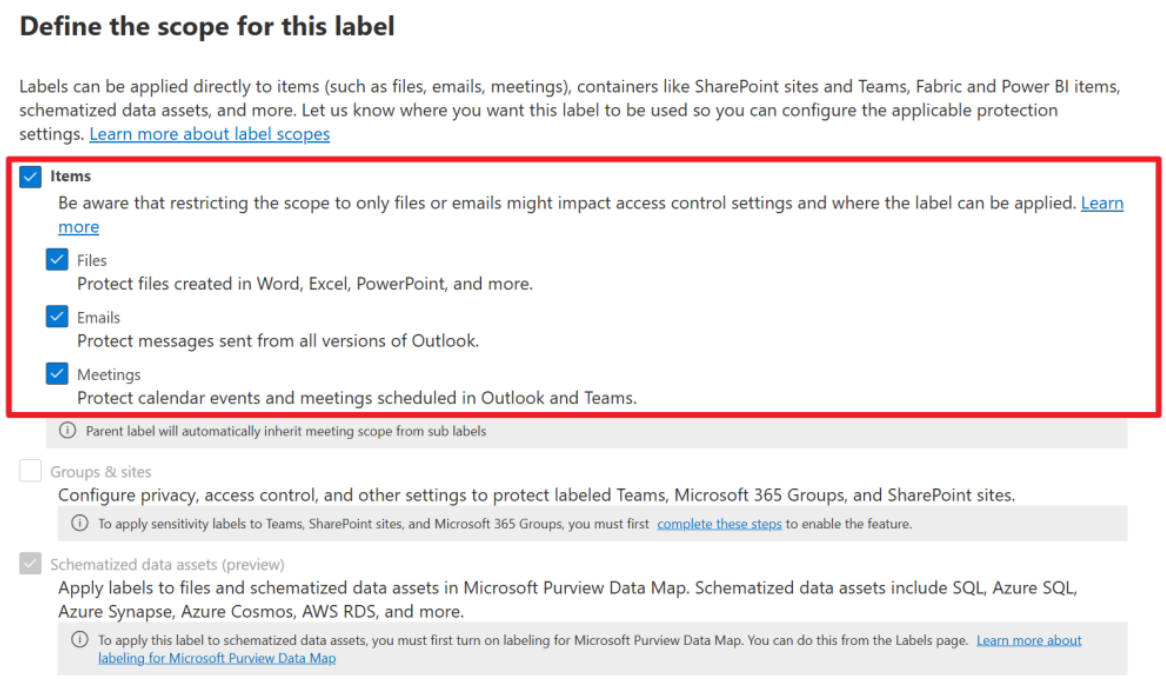


Click "Create a label" in the "Labels" screen.

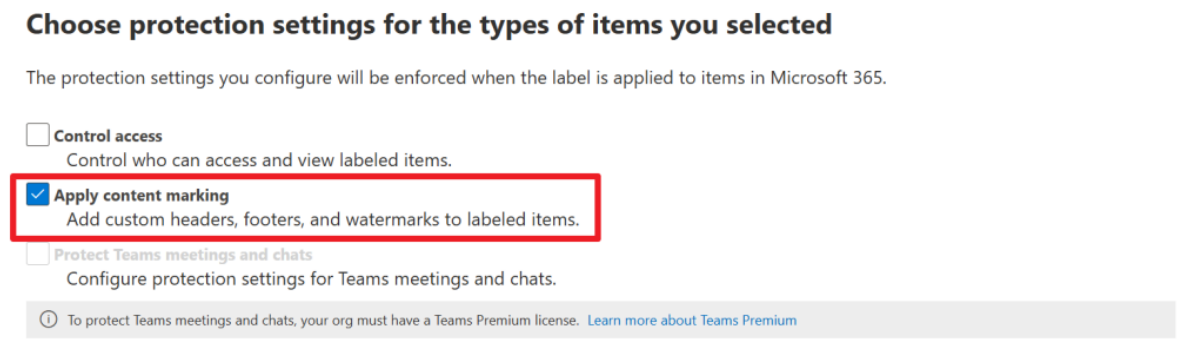


Here we can configure the basics of our label: it's name, display name, priority, a description for users and administrators and a label color. They're all quite basic, however we need to discuss the label priority. If you take a look back to the second screenshot of this chapter you'll see that there are various sensitivity labels already present. They all have a priority set ranging from 0 to 5, where 5 is the highest priority (most restrictive) and 0 being the lowest (least restrictive). In an upcoming step in the label creation wizard, we're able to set an option to make it mandatory for users to provide a justification when they lower the sensitivity label on an item. This is why you should think the prioritization of your labels through before going all-in on configuration mode 😉 . You can change the priority of a label using the 3-dotted-menu next to a label to move it up or down.

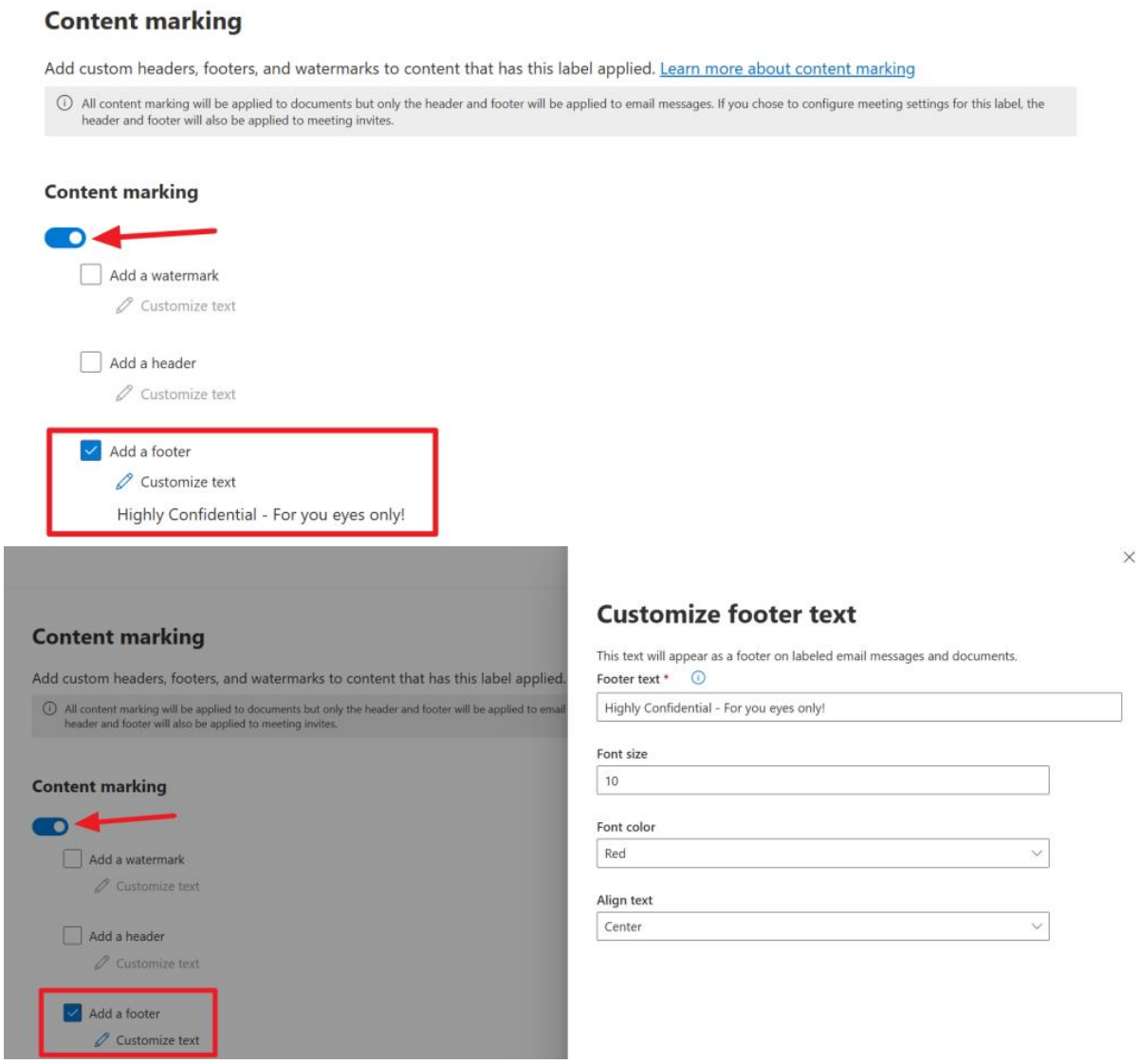
This behavior however, doesn't apply to sublabels. Sublabels are taken into account with automatic labeling, which is for another time.



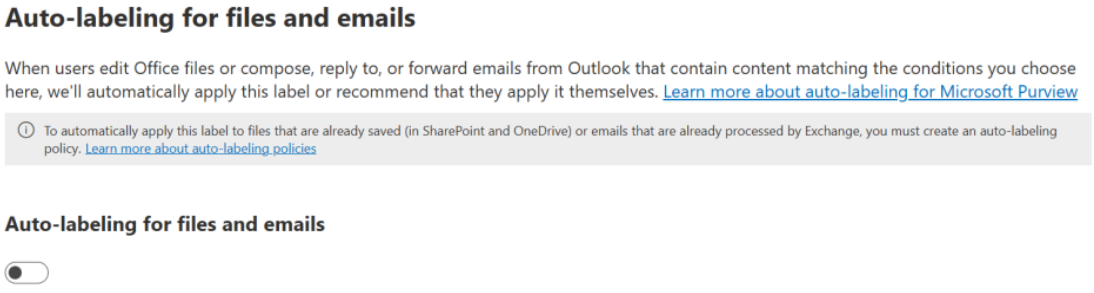
On with configuration of our label. Here we set where we want our labels to be available. I've chosen for items, which are files, emails and meetings. Groups and sites is not yet possible because -as discussed at the beginning of this chapter- we have some configuration to do for this to be possible. Schematized data assets can be used to apply labels to files and schematized data assets in SQL, Azure SQL, Azure Synapse, Azure Cosmos, AWS RDS and more and hence, are out of scope for this ebook.



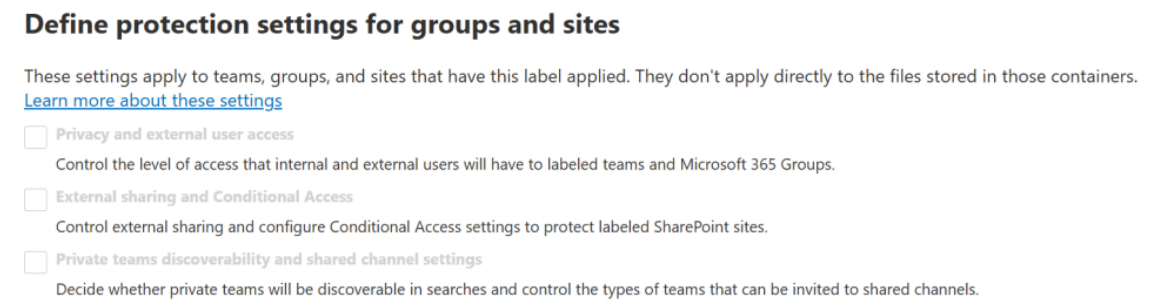
In the next screen, we can choose the protection settings we want, which can be "control access", "apply content marking" or "protect teams meeting and chats". Note that it isn't mandatory to pick an option here. Sensitivity labels can easily be applied without having protection settings added to them, which will only show you the document has a sensitivity label applied showing it's name and description. For this demo however I'd like to add a little bit of content marking so we can see what that looks like.



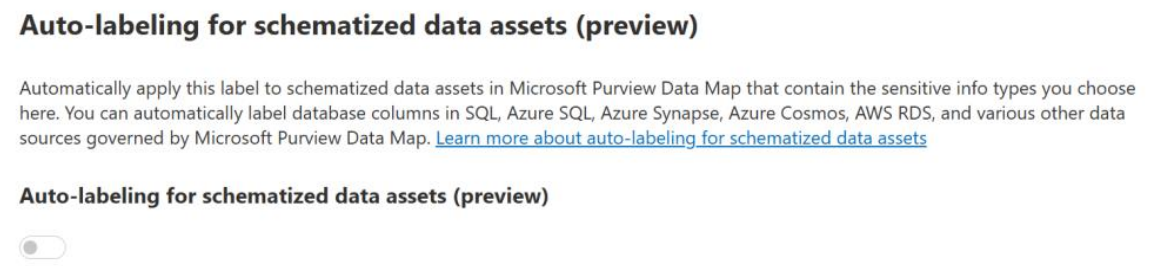
To be precise, I've chosen to add a footer, which can be displayed on documents, or email. Please note that a watermark will not be present on email messages, should you configure this.



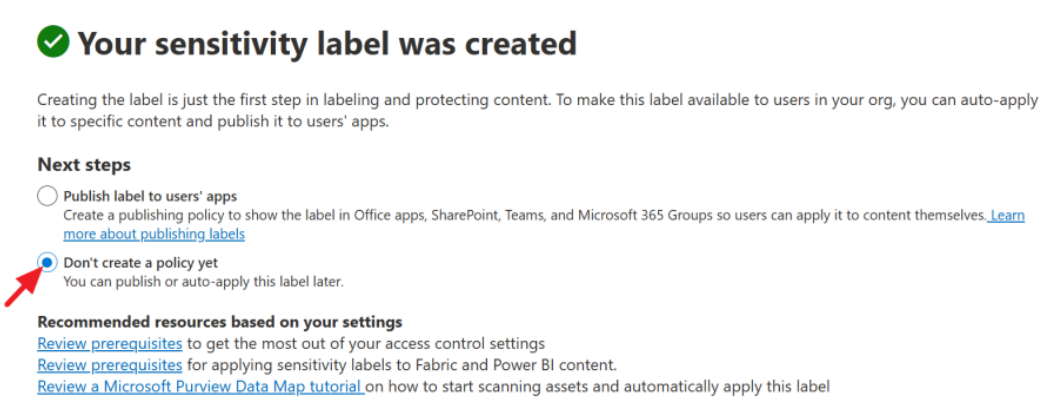
In the next screen auto-labeling (or semi-auto labeling that can give users some recommendation to apply a label) can be configured for files and emails. We'll keep this as is for now since we want to take a look at what manual labeling looks like.



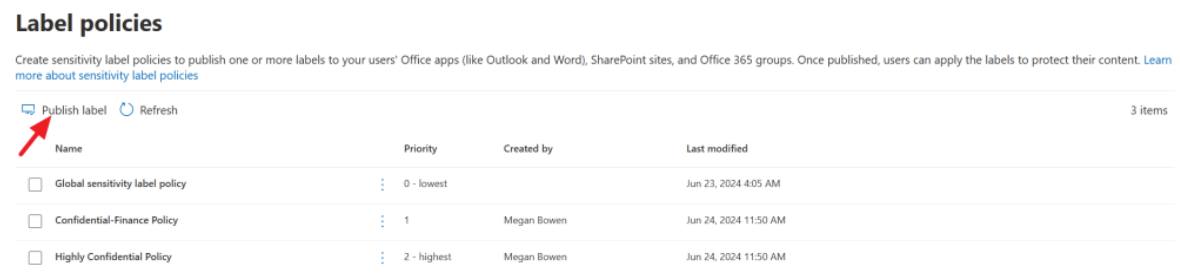
This next screen is of use when labeling for groups and sites is configured (remember action number 2 that popped up when opening the labeling console?). So, skip for now.



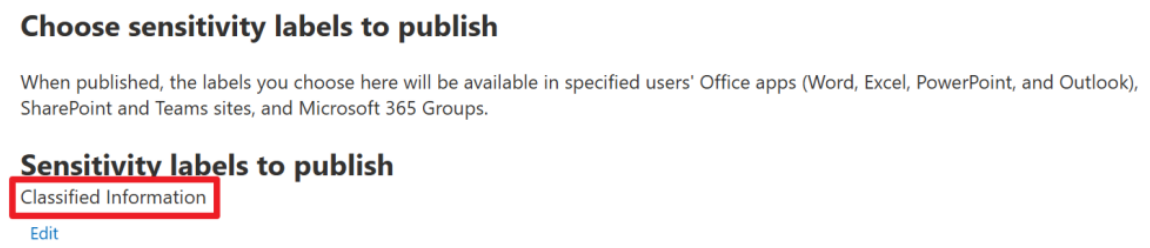
Last but not least, auto-labeling for schematized data assets can be enabled. As discussed, we'll leave this out of scope for now. After this, check the settings displayed in the summary and click "create label" when you are satisfied with it's contents.



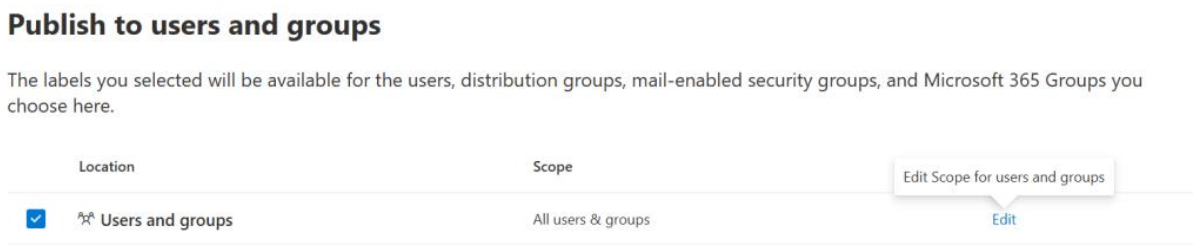
When your label is created, the wizard will ask you whether to publish the label to users' apps or to do this later. To see all of the wizard pages, I've opted to not create a label policy yet.



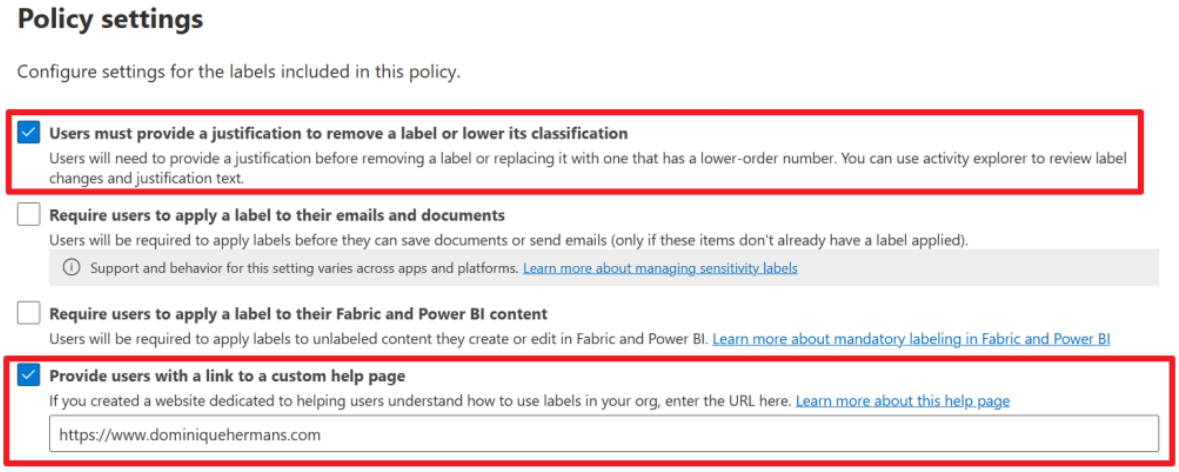
Instead, point your browser to Information Protection, Label Policies and click "publish label".



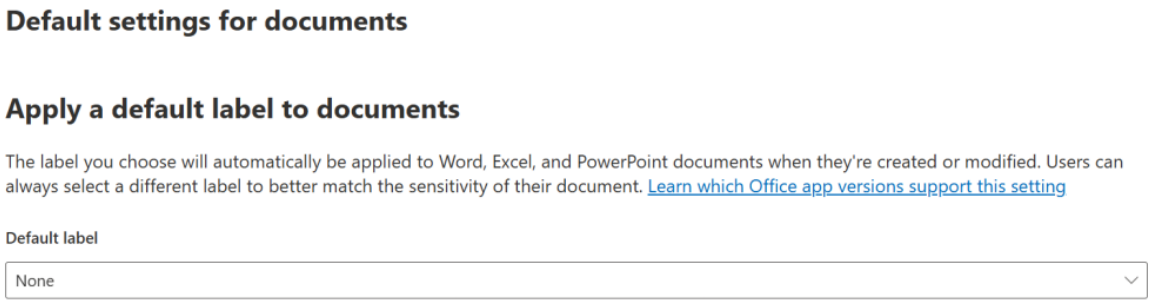
In the first step of the wizard, select the label that we've just created. In my case, it's the "Classified Information" label. We'll skip the admin units screen for now and continue to the next screen.



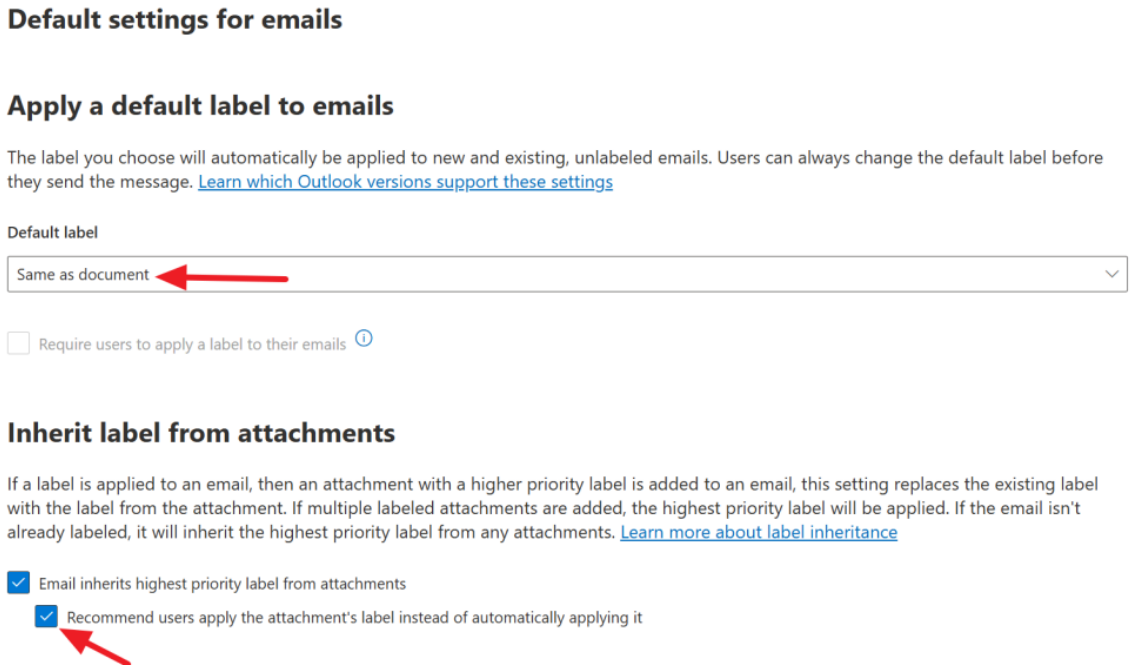
Here, we can select the users and groups we want the label to be available for. In my case I select "all users and groups". You can however, narrow this down if you'll want.



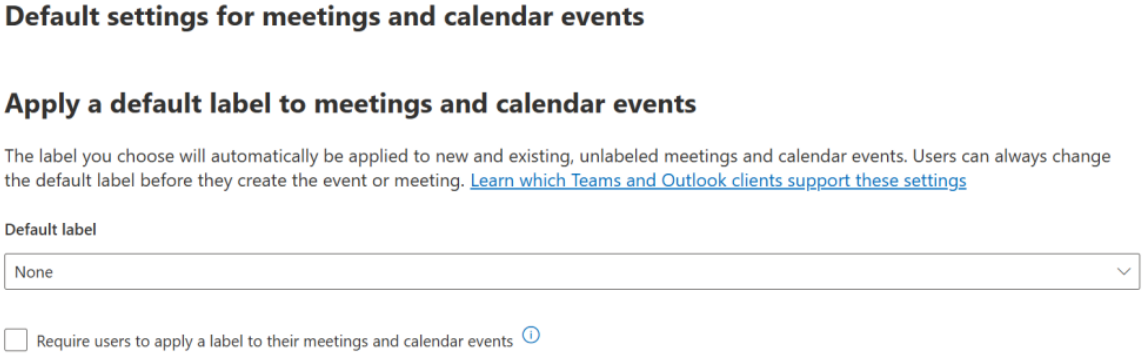
Now an interesting part. In this next screen we can make sure users have to provide a justification when they remove a label or lower it's classification (which we talked about earlier in this chapter). This I'll select. It's also possible to require users to apply a label to their emails, documents or Fabric and Power BI content. This I will not select for this demo because not each item will have to have a sensitivity label in my case. Lastly, we can provide users with a link to a custom help page, which I configured with the URL of my blog so you'll get the idea. Ideally you'll provide users to a place on your intranet for example where you guide them through the process of labeling items with a set of best practices that are present for your company.



In this next screen another important choice should be made. Will you automatically apply a default sensitivity label to (Word, Excel and PowerPoint) ***documents*** when they're created or modified or do you want your items to be "label less" by default? I opt for the latter in this demo.

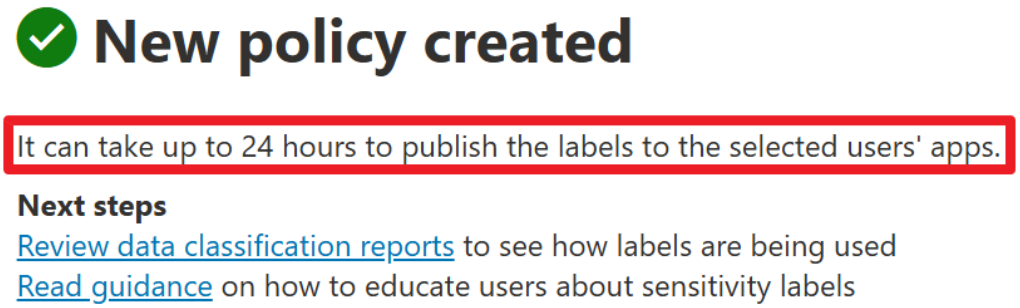


Next, a default label can be selected for ***emails*** if you want. Also, you can configure whether an email message inherits the highest priority label from the attachments it contains (handy stuff!) and whether you want to give users a recommendation to apply the labels to the email message or to automatically apply it. I choose to give the user a recommendation to label the email message with the highest priority label of it's attachments.



Another default action to be considered is up next. Do you want to apply a default label to ***meetings and calendar events***? I don't in my case but think this through for your environment. Another screen appears to select a default label for ***Fabric and Power BI content*** which we'll won't use in this demo.

Next, name your policy, review the summary and "submit" when you're happy with the results it shows!

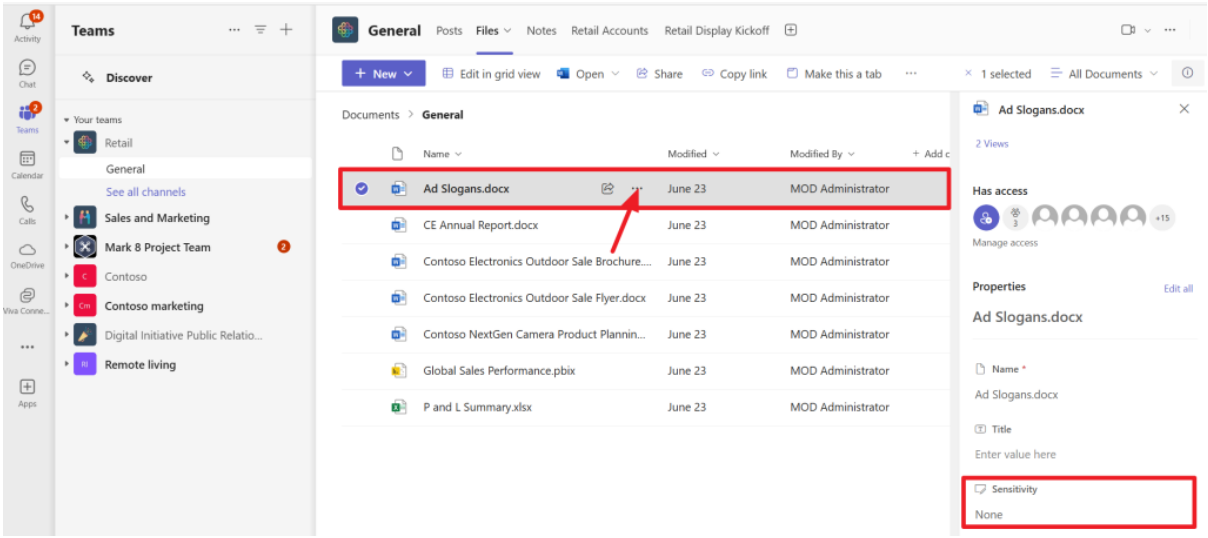


Do take note of the message stating that it can take up to 24 hours to publish the labels to the selected users' apps.

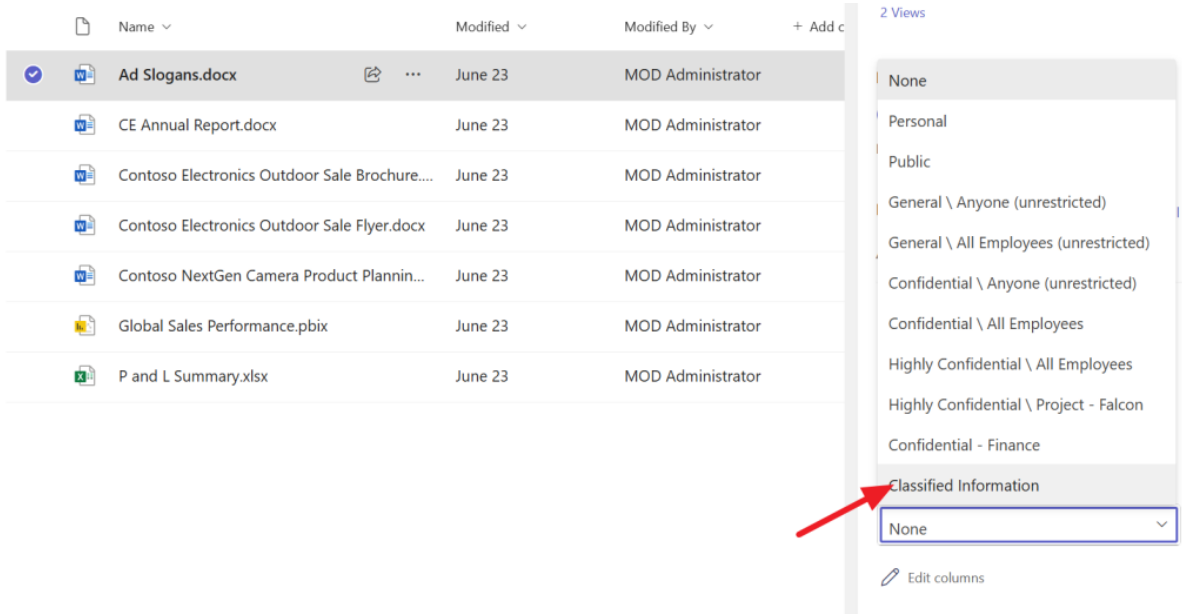
The view from the user

Files

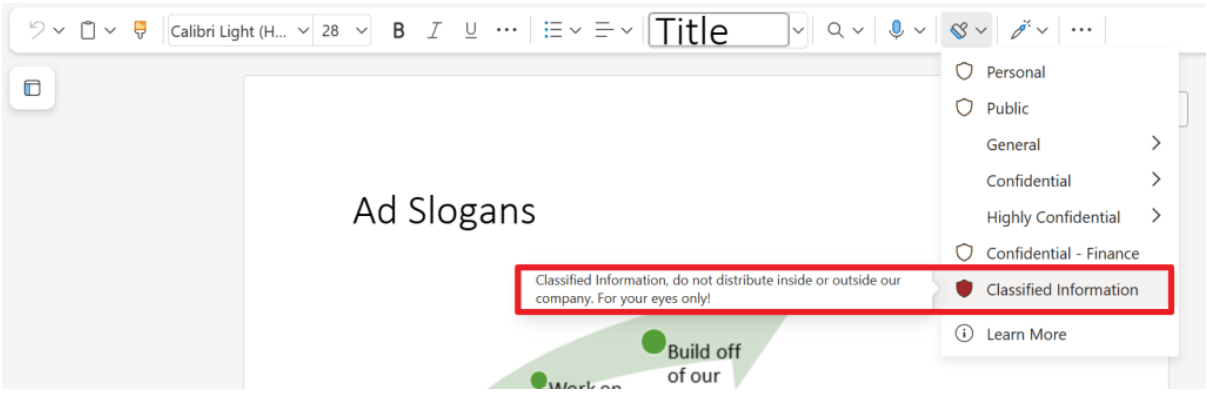
Now that configuration of our sensitivity label is done and 24 hours have passed, let's take a look at the user side of things.



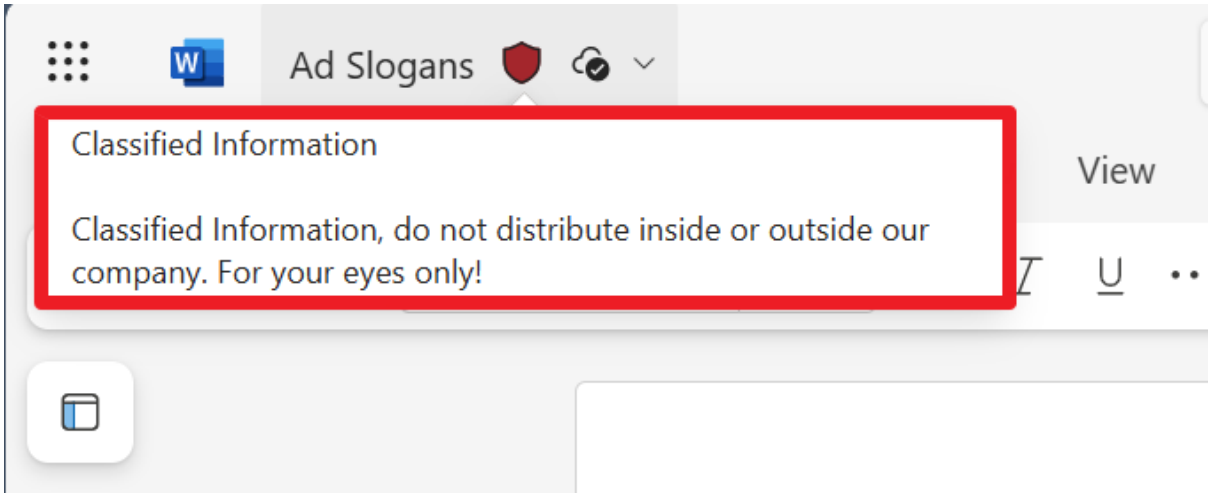
In this screen I've opened Teams as a user in my tenant and navigated to the team that holds a document called "Ad Slogans.docx". When you press the 3-dotted menu to the right and select "details" you immediately see that at this point, there is no sensitivity label applied.



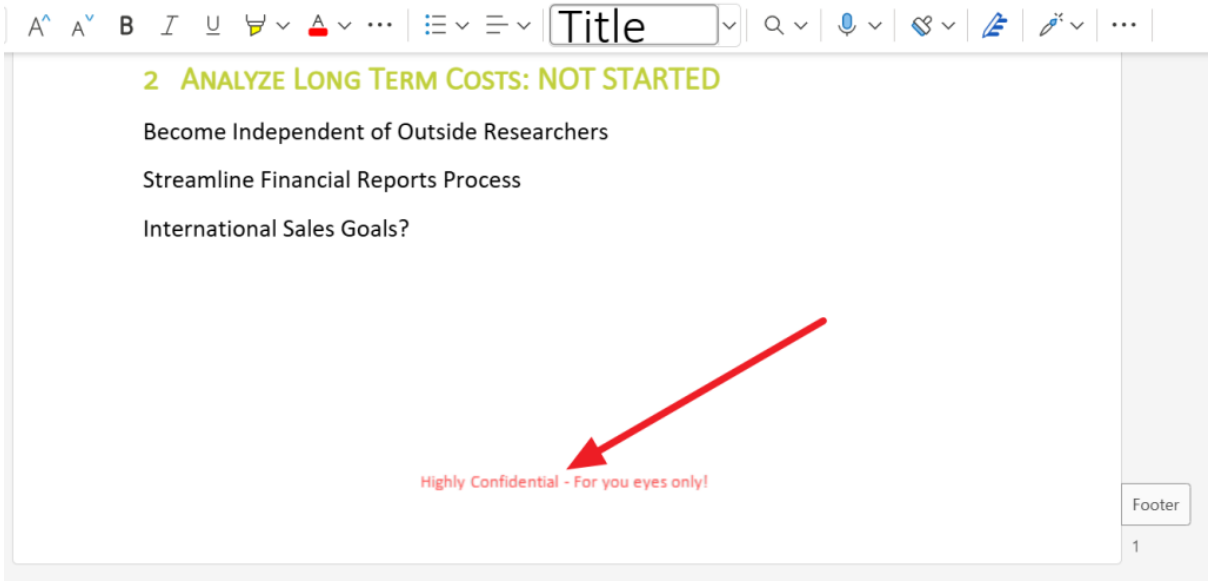
It's possible to add a sensitivity label to the document from here, but let's open the document and check out the view from Word Online.



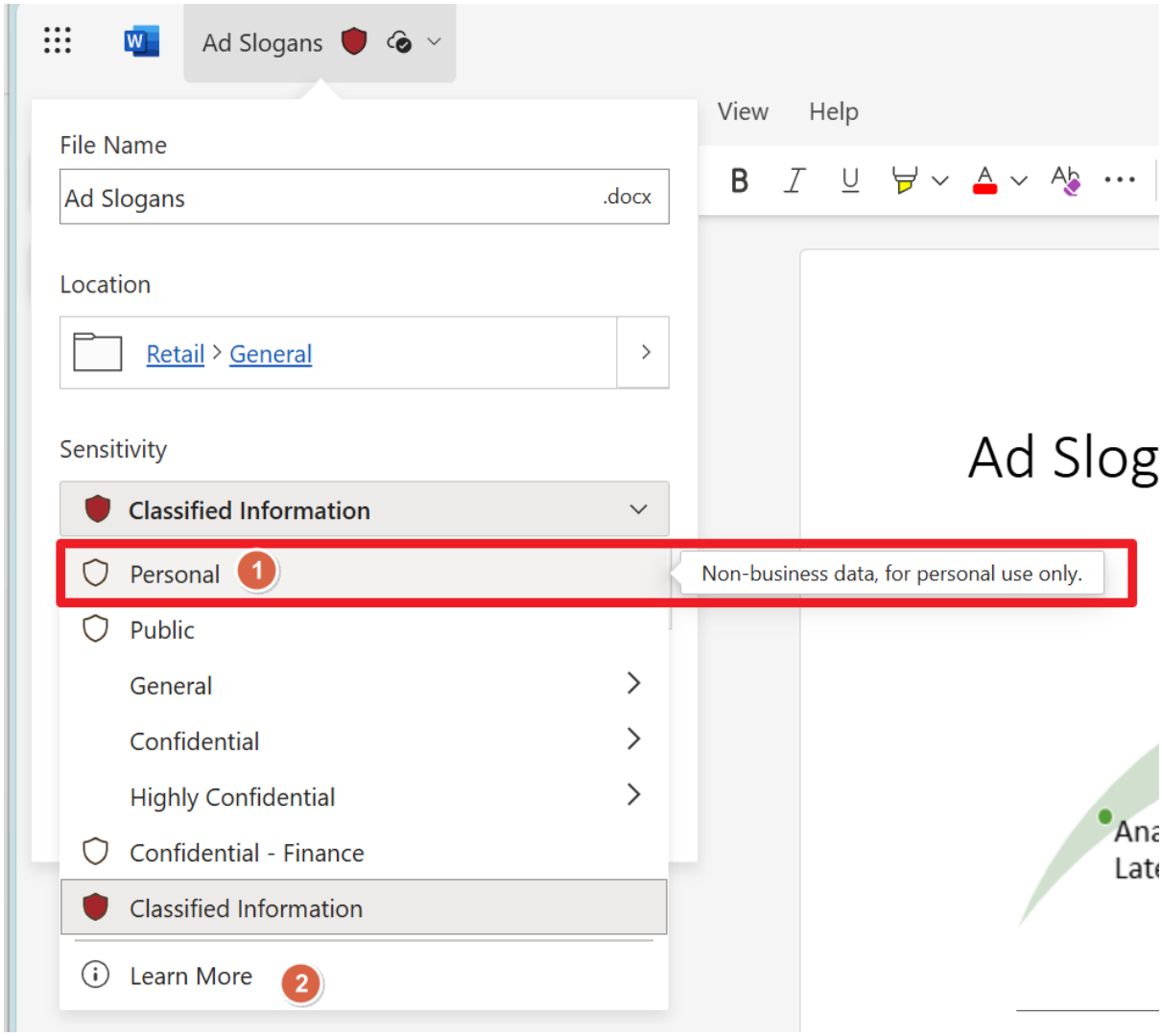
When we open the document in Word (Online in my case, however the desktop app responds just the same), you will see a “stamp” icon that can be used to stamp a sensitivity label to the document. In my case there are several, and amongst them is the “classified information” label we created earlier. Notice the red color we selected and when we hover over it, the description for the user is shown. Let’s click it to apply the label to the file.



When the label is applied (or stamped if you will), the top bar immediately shows the updated sensitivity information (in red, like we selected) and here also the description for the user is shown. Great!

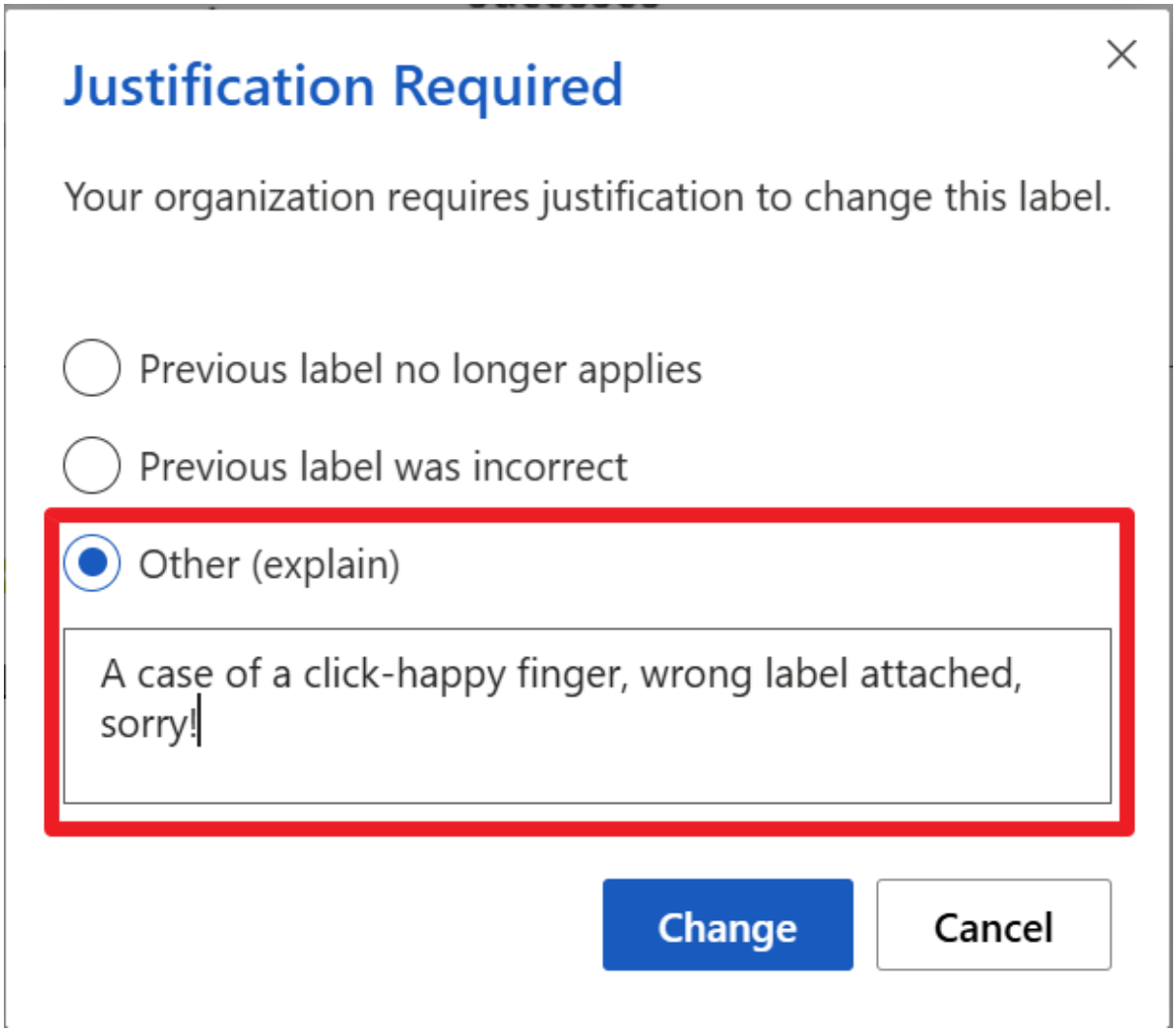


Remember we configured the label to show content marking in the form of a footer? Here you go, that’s also present!



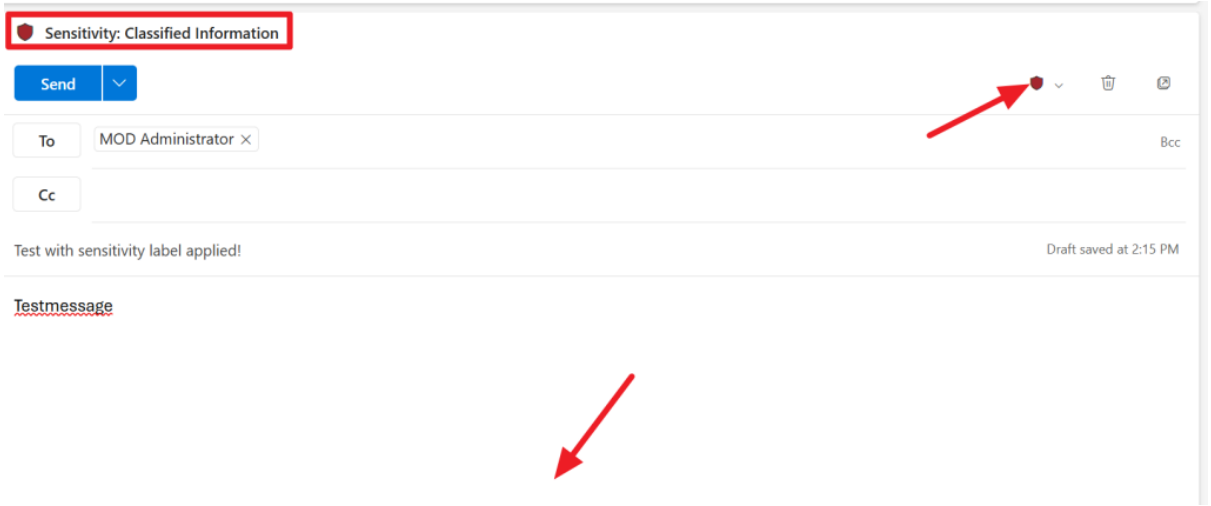
When you click the sensitivity label on the top left, you can click the “Learn More” (2) link. This will guide you to the page that you set up to give your users more information on your labeling process (in this demo, I configured it to navigate to the URL of my blog).

When we want to lower the sensitivity to -for example- the “personal” sensitivity label, the following message appears:



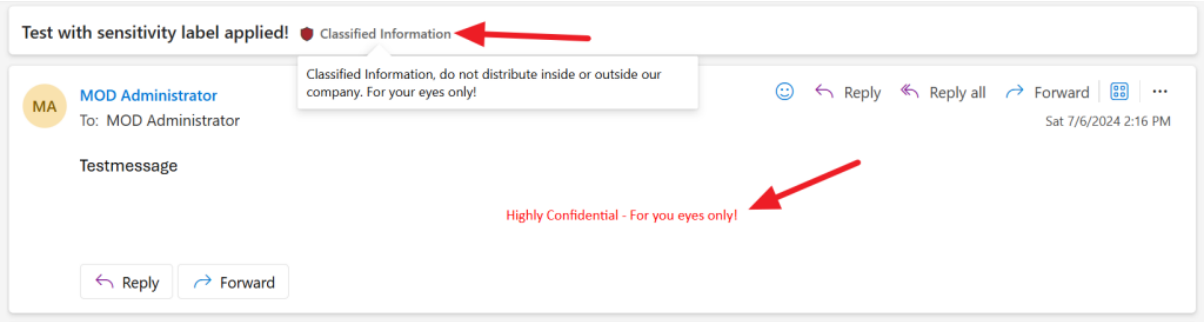
Remember we configured the option to require users to justify their action if they lower the documents sensitivity? That's the setting that shows you this dialog box.

Emails



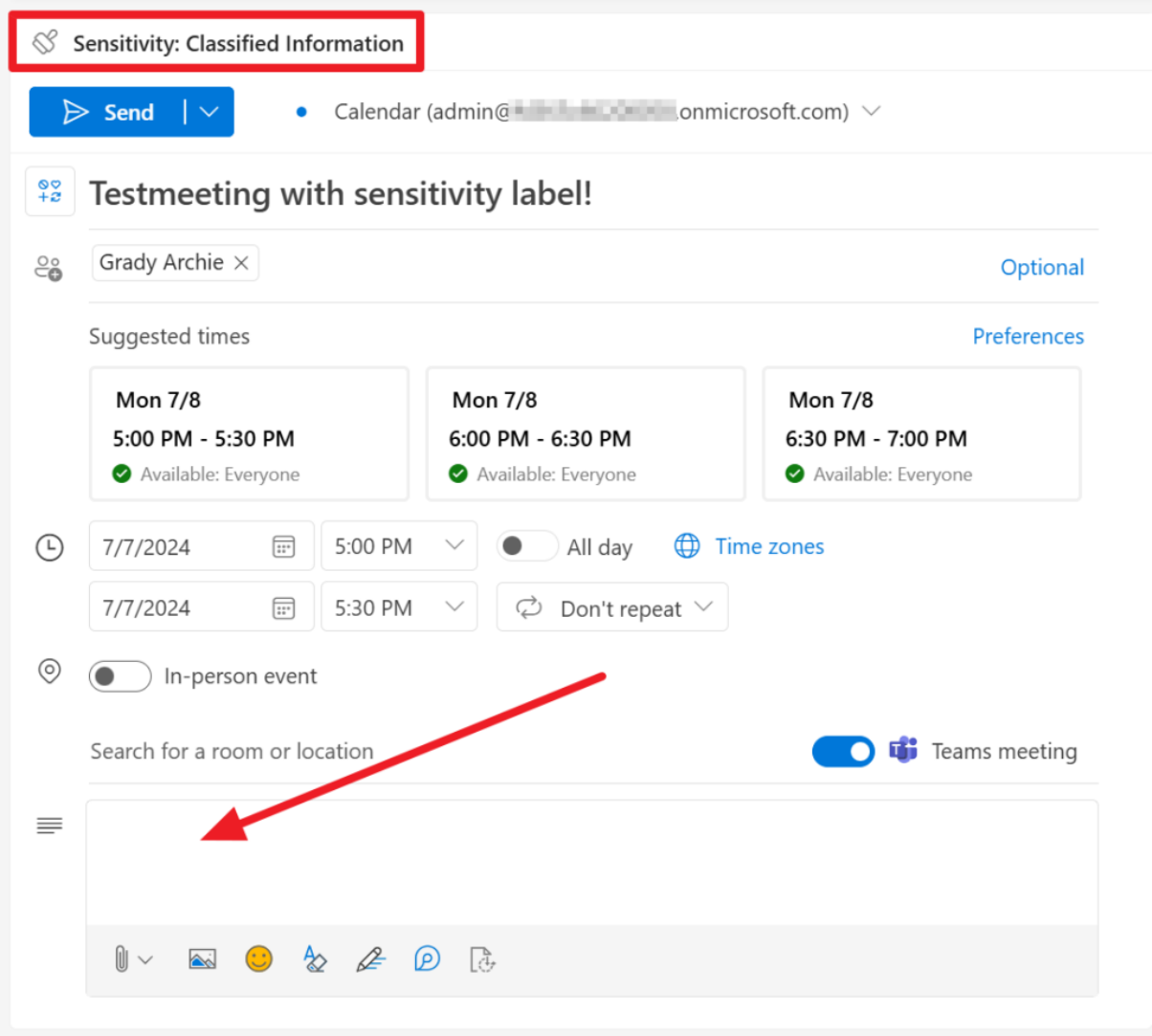
When drafting an email and configuring it with our label by clicking on the button on the top right, we can see immediately that our label is stamped on the email, but the configured markup

(footer) is not shown. This is because it's applied after the message is being sent, and can be seen when the message has been the delivered to the recipient:

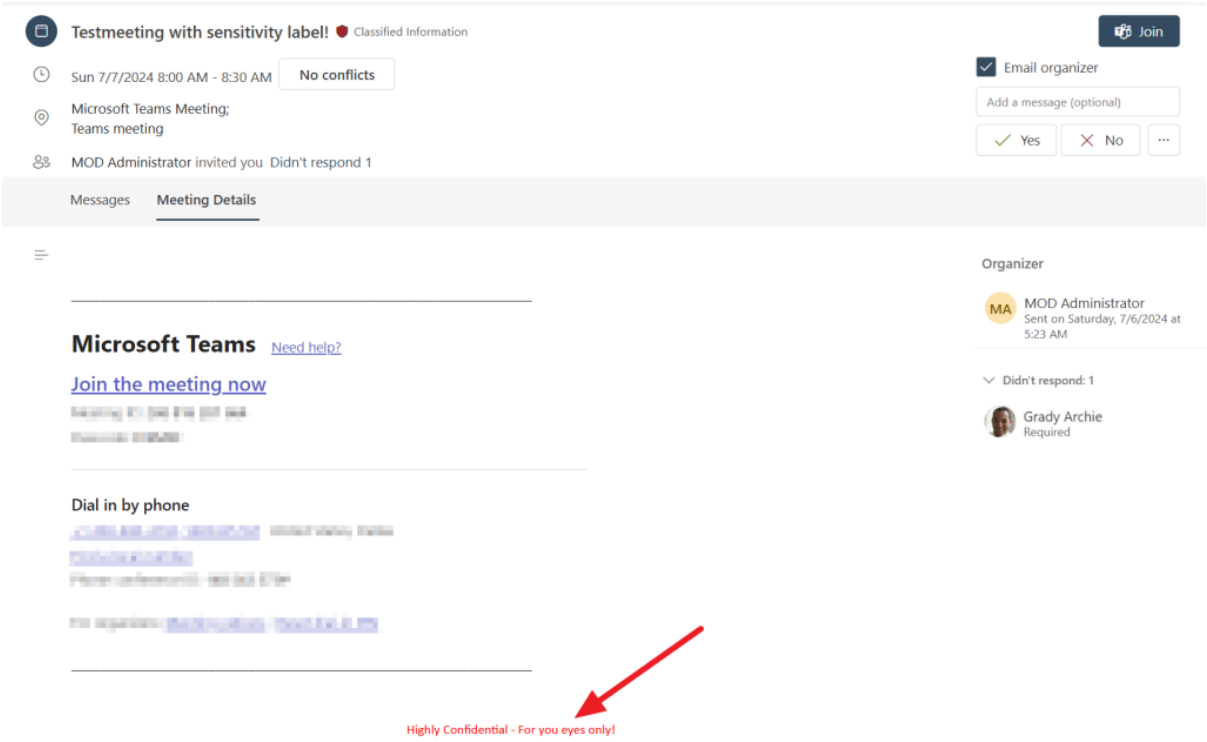


When the message is delivered, the footer is attached and the sensitivity label of course remains on the email message.

Meetings



The fact that markup is not applied on email also goes for meetings. After stamping the meeting with a sensitivity label and sending it out, the recipient does have the markup attached to the message and meeting details:



There you have it! As a closing note, always take a look at the "Minimum versions for sensitivity labels in Office apps" document on Microsoft Learn (https://learn.microsoft.com/en-us/purview/sensitivity-labels-versions) to check whether your required behavior is supported by the app you are using. As an example, Outlook for the Web does not support the option to inherit an attachments sensitivity label and apply it to your email message.

In conclusion

- You can think of a sensitivity label as a ***stamp***, that you "stamp" onto documents to give it a certain level of "sensitivity". The higher the number, the higher the sensitivity.
- It teaches your users to think about with who to share documents that have a certain sensitivity.
- The label travels with your documents.
- You can attach ***logic*** to sensitivity labels. Examples of this logic is adding watermarks or protecting content from being openend by unauthorized people.
- Create a ***sensitivity label*** to provide a name, priority, description for users and admins, color, scope and protection settings for your label.
- Create a ***label policy*** to publish your label, provide additional settings like the fact that users should provide a justification to remove or lower a labels classification, require users to apply labels in certain locations or to provide users with a link to a custom help page. You can also use the policy to apply a default label to documents, emails, meeting and calendar events and whether attachments in an email should dictate the label of the email.

Did you make it till the end? Then now you can call yourself an expert on configuring sensitivity labels!

Data Loss Prevention (DLP)

Data Loss Prevention (DLP) in Microsoft Purview can be used to prevent your users from oversharing information. Oversharing information is the process of accidently or purposely sharing information with recipients that are not allowed to have or view this information.

While there are various ways to implement DLP with Microsoft Purview, one of the main ones is by leveraging DLP Policies. When taking a look at the DLP Policies pages in Purview, Microsoft gives us the following introductory text:

Use data loss prevention (DLP) policies to help identify and protect your organization's sensitive info. For example you can set up policies to help make sure information in email and docs isn't shared with the wrong people.

DLP makes use of so-called Sensitive info types, often referred to as SIT's. Microsoft includes an enormous list of SIT's you can use out-of-the-box. You can look at SIT's as the engine in DLP, as each SIT holds a pattern and/or logic for recognizing content. A few examples of these classifiers are:

- Credit Card Number
- U.K. Physical Addresses
- User Login Credentials

If you want to take a look at the entire list I would recommend to navigate to the Purview portal, Data classification, Classifiers, Sensitive info types. At the time of writing this ebook the list consists of 324 items. If the pattern/logic for classifying a piece of information in your environment isn't present, you also have the option to create a SIT yourself.

Plan first, implement second

A few questions that you should ask yourself before heading out and start configuring DLP enthusiastically:

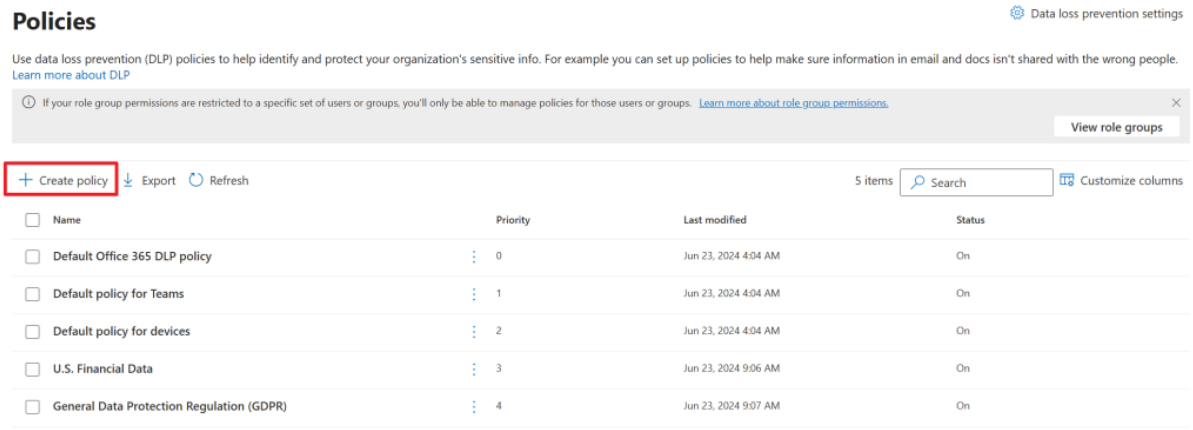
- Which stakeholders do I have to interview or include in my team to select the right types of sensitive information for my company?
- How do I validate my setup before enforcing policies on users?
- What is my scope? What is included in my scope and what is not?
- What is my business planning and what is my planning on technology?
- How do I introduce DLP to my end-users. Should I include training or adoption?

Generally, the following step-by-step action plan would give you the opportunity to get some insights and let your users get acquainted with the introduction of DLP in their day to day jobs.

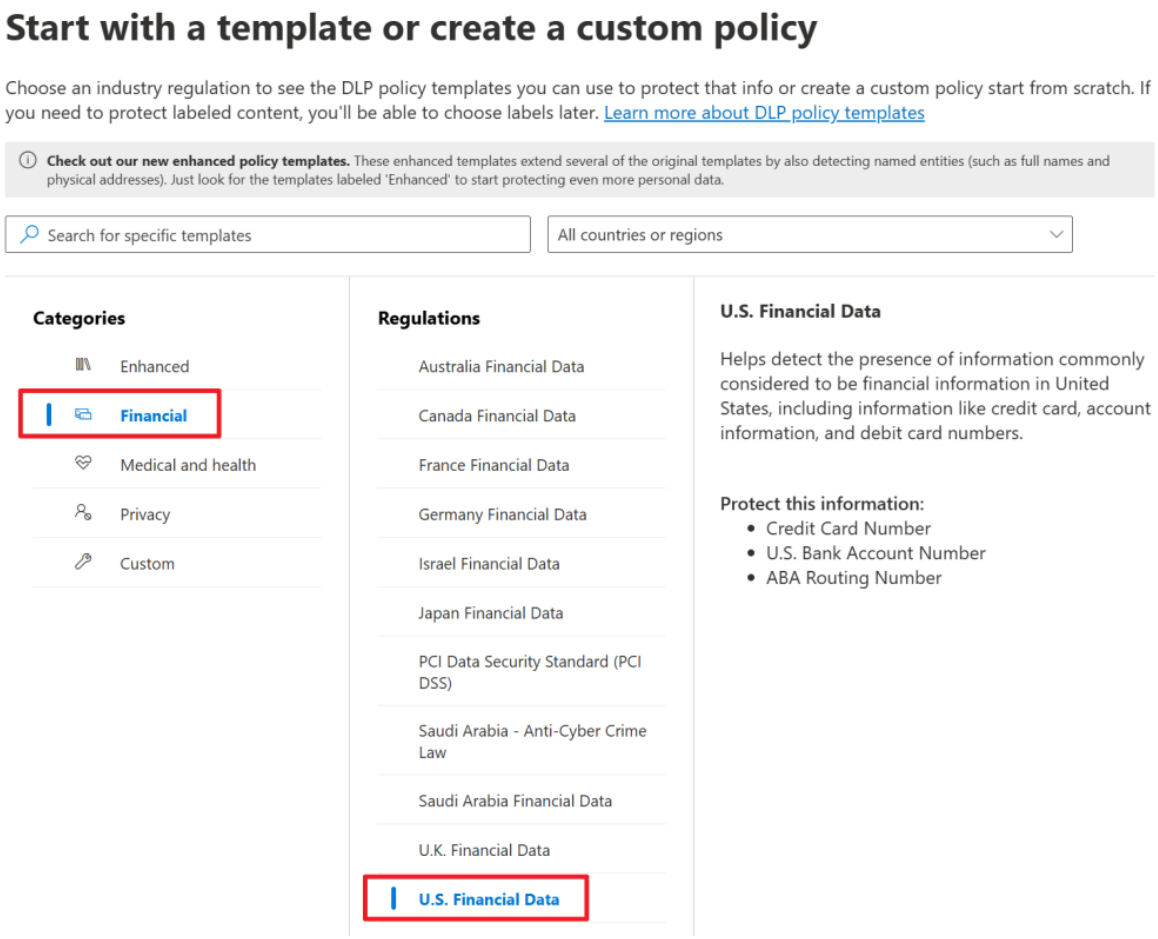
1. Design the DLP policies you would like to configure.
2. Make a deployment plan.
3. Configure your policies to first run in simulation mode.

4. Use statistics and information from simulation mode to finetune your policies.
5. Place policies in production according to your deployment plan.

Configure Data Loss Prevention (DLP)

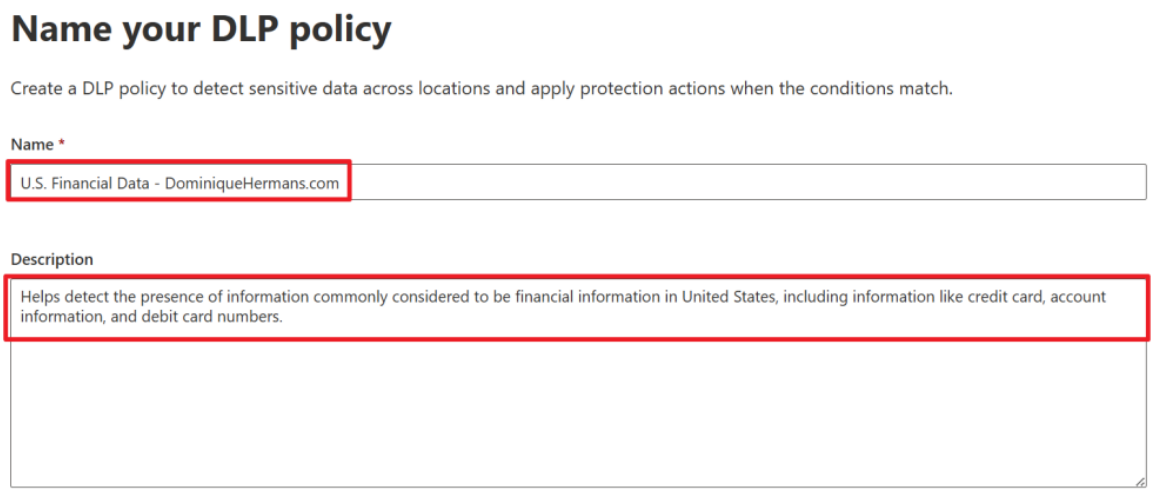


After you've done your homework we can start configuring the DLP policies. To start, we move to the Purview portal and select 'Data Loss Prevention', 'Policies'. Here, let's click 'Create policy'.

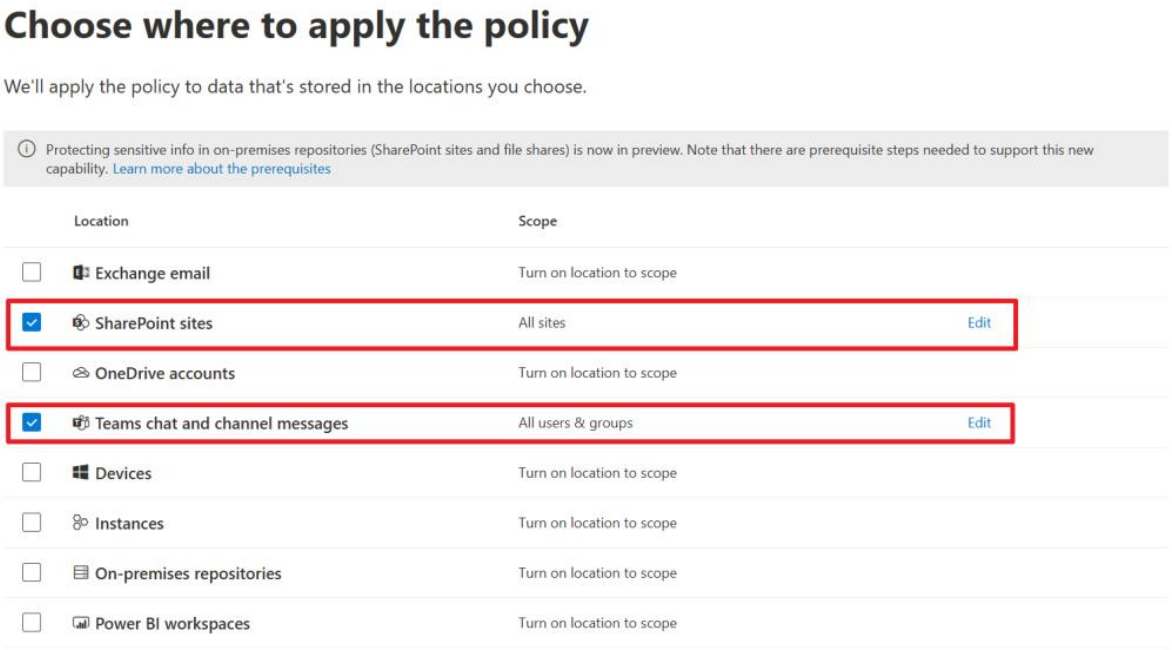


In the first screen of the wizard, we are able to select one of the regulations that are provided by Microsoft and are divided into various categories. In this example, we want to protect U.S.

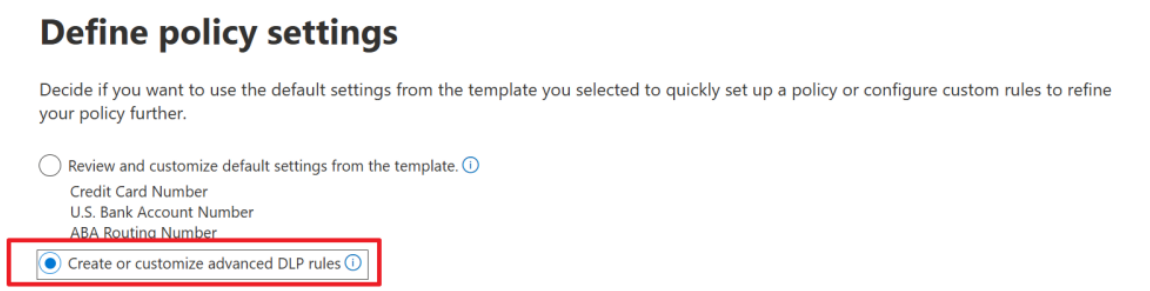
Financial info that is found in data. As said, if there's no category or regulation that fits your needs, you can also create your own custom rules to match data in your environment.



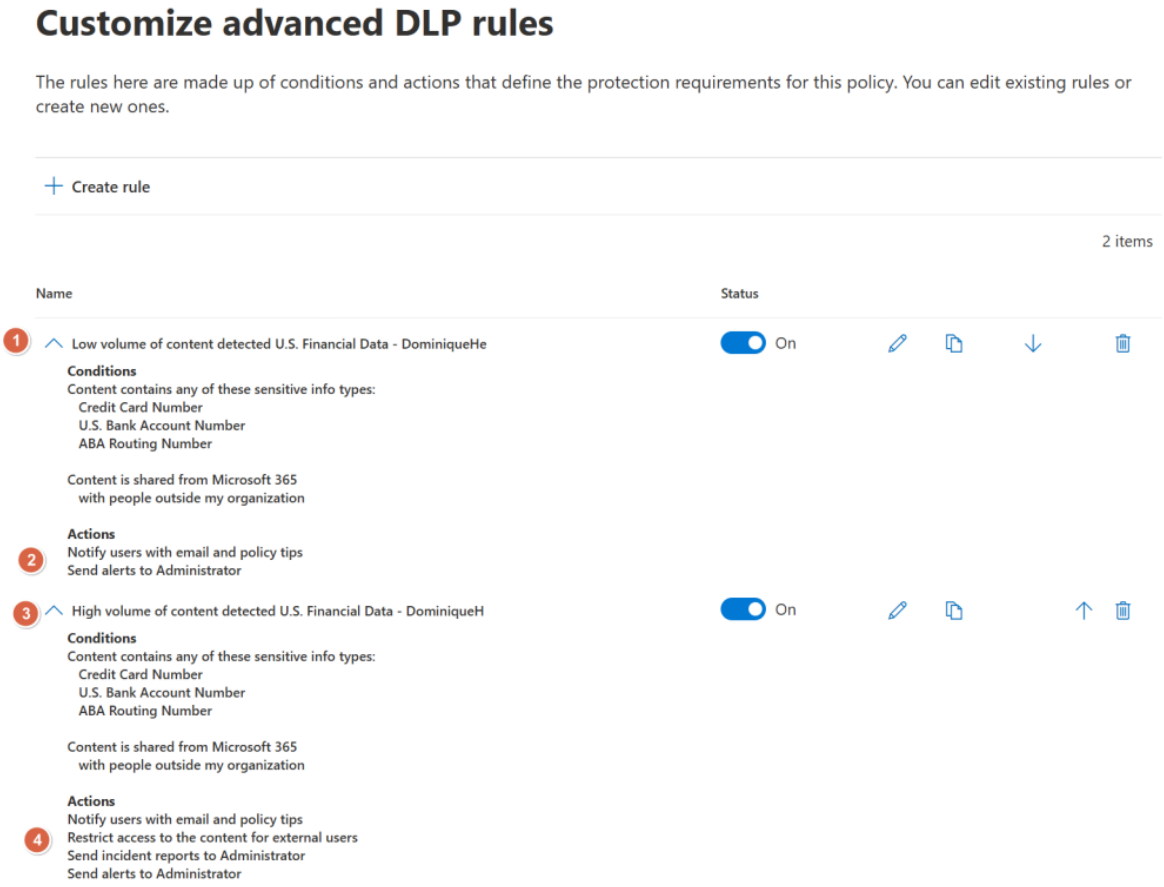
In the next step, name your policy and create a matching description and select Admin Units if you use them.



Select where you want your policy to apply. In this demo, I choose to go with all SharePoint sites and Teams chat and channel messages for all users and groups. If you need, you can filter down this list.



Now for the fun part. The template you choose in the first step of the wizard came with a predefined set of rules and conditions to match data in your environment. You can go with the defaults here, but it's also possible to edit them. Let's go with 'create or customize advanced DLP rules' to see what's in store for us in these policies.



The rules that are included in the 'U.S. Financial data' policy match data on the following sensitive info types, or SIT's, that can be seen in the screenshot above tagged with label '1' and '3':

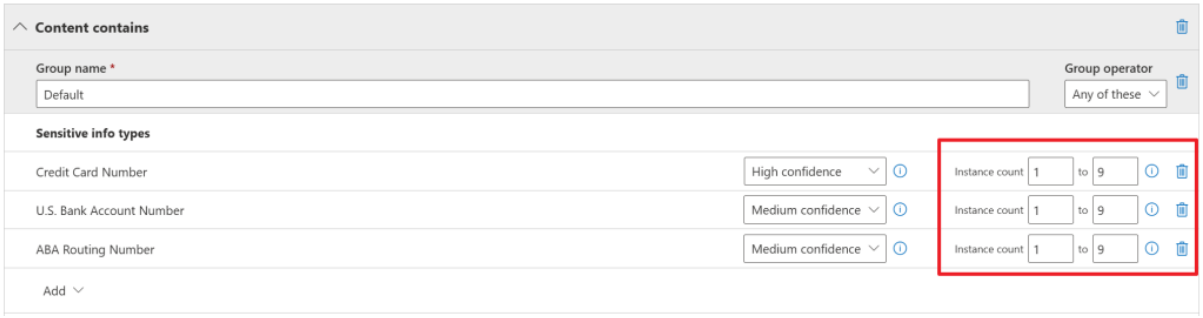
- Credit Card Number OR
- U.S. Bank Account Number OR
- ABA Routing Number

AND

- Content is **shared** from Microsoft 365 with people **outside my organization**.

As you can see, the policy is configured twice, with the difference being that the first one is for ‘low volume of content detected U.S. Financial data’ and the second being ‘High volume of content detected U.S. Financial Data’.

When we press the edit button on the policies, we can see the exact difference between ‘high volume’ and ‘low volume’.



When looking at the ‘low volume’ policy properties first, you’ll see that a sensitive info type has to be found in a certain document between 1 and 9 times for it to fall into this category and for the policy to be applied. When looking back at the screenshot before this one, actions applied with the ‘low volume’ policy are:

- Notify users with email and policy tips
- Send alerts to administrator

Now let’s take a look at the properties for the ‘high volume’ policy. We can see that a SIT has to be found between 10 and ‘any’ times for this policy to apply. Actions applied for this policy are of course much stricter:

- Notify users with email and policy tips
- Restrict access to the content for external users
- Send incident reports to administrator
- Send alerts to administrator

A detour into Sensitive Information Types (SIT’s)

For additional knowledge, let’s take a look at one of the SIT’s used in the policies, ‘Credit Card Number’.

Credit Card Number

Description

Detects credit card numbers for American Express, Diner's Club, Discover Card, JCB, BrandSmart, Mastercard, and Visa.

High confidence, Medium confidence (recommended)

Primary element

Function processor: Func_credit_card

Supporting element

Minimum 1 matches should be found from following elements:
Keyword from keyword list: Keyword_cc_verification
Keyword from keyword list: Keyword_cc_name
Function processor: Func_expiration_date

Low confidence

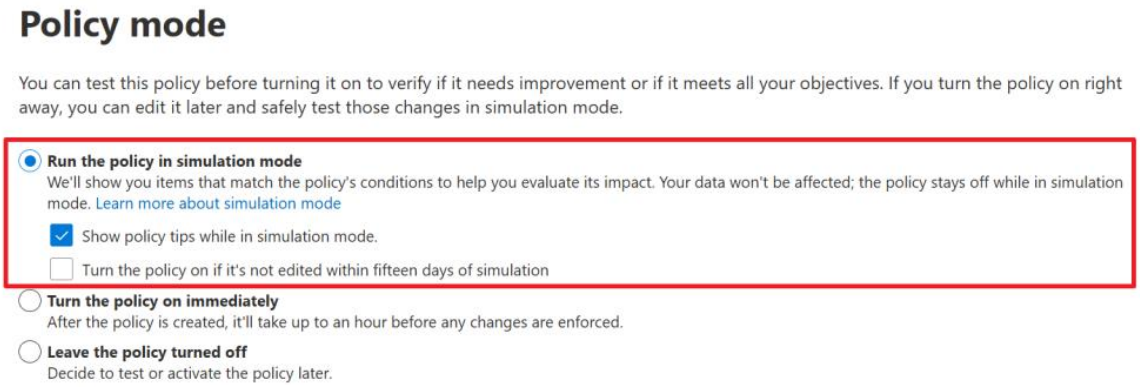
Primary element

Function processor: Func_credit_card

The ‘Credit Card Number’ SIT consists of the following elements:

- Name
- Description
- Primary and supporting elements that define the logic to find that a number found is actually a Credit Card Number. The more elements that are matched, the more certain Purview is that a match is actually a Credit Card Number in this case. If all of the above elements match, it’s considered to be a High confidence or Medium confidence match. If only the ‘Function processor: Func_credit_card’ matches, it’s considered to be a Low confidence match. You can see that this confidence level is also used in the policy properties where we looked at ‘high volume’ and ‘low volume’ properties.

Back to configuration of our DLP policy

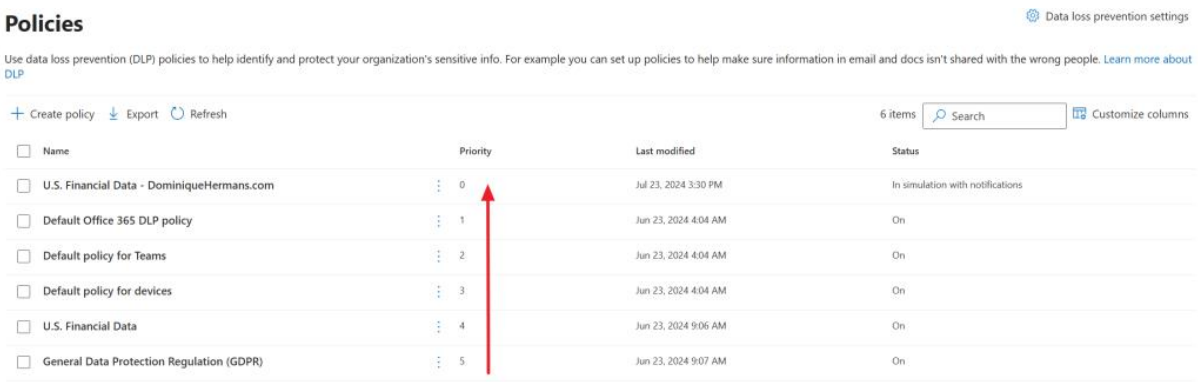


In the 'policy mode' screen we can configure the policy to:

- Run in simulation mode. This doesn't enable the policy but will run a scan that you can evaluate before enabling the policy. This gives you the opportunity to fine-tune your policy before placing it into production. We'll take a look at this later. While in simulation, you can show policy tips to users, which I'll enable. It's also possible to turn the policy on automatically if it's not edited within 15 days. I'll skip this for now.
- Turn the policy on right away (not recommended).
- Leave the policy turned off.

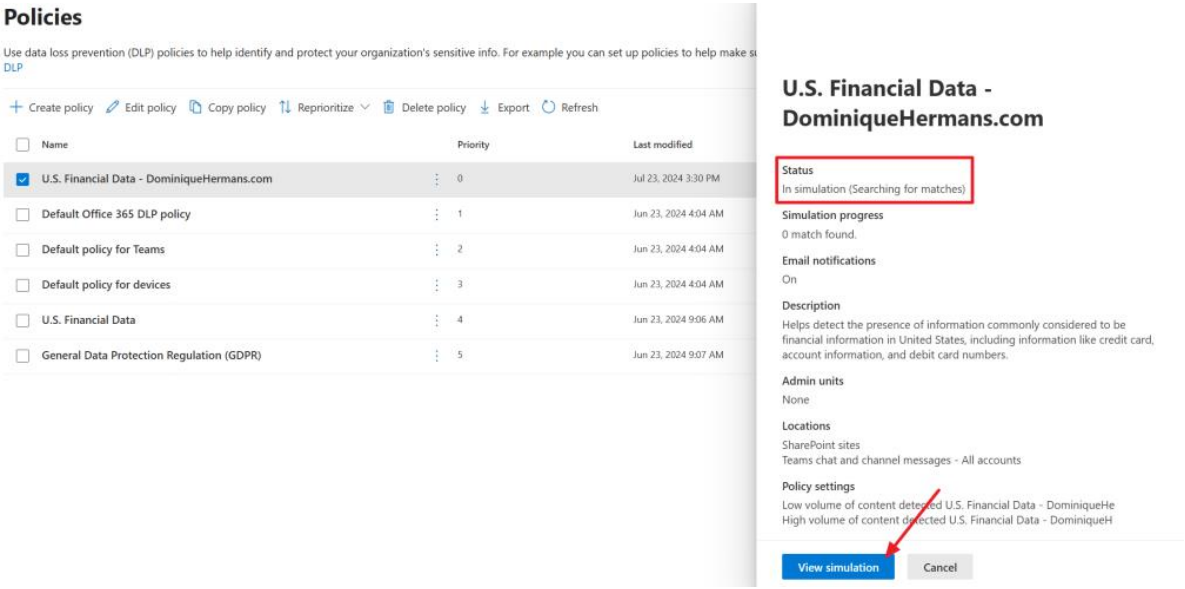
Let's go with the first option, and do show policy tips in simulation mode.

All set! Review the summary and finish the wizard.



Back in the policies screen, I configure the new policy to have top priority for it to be applied before any other matching policy is applied.

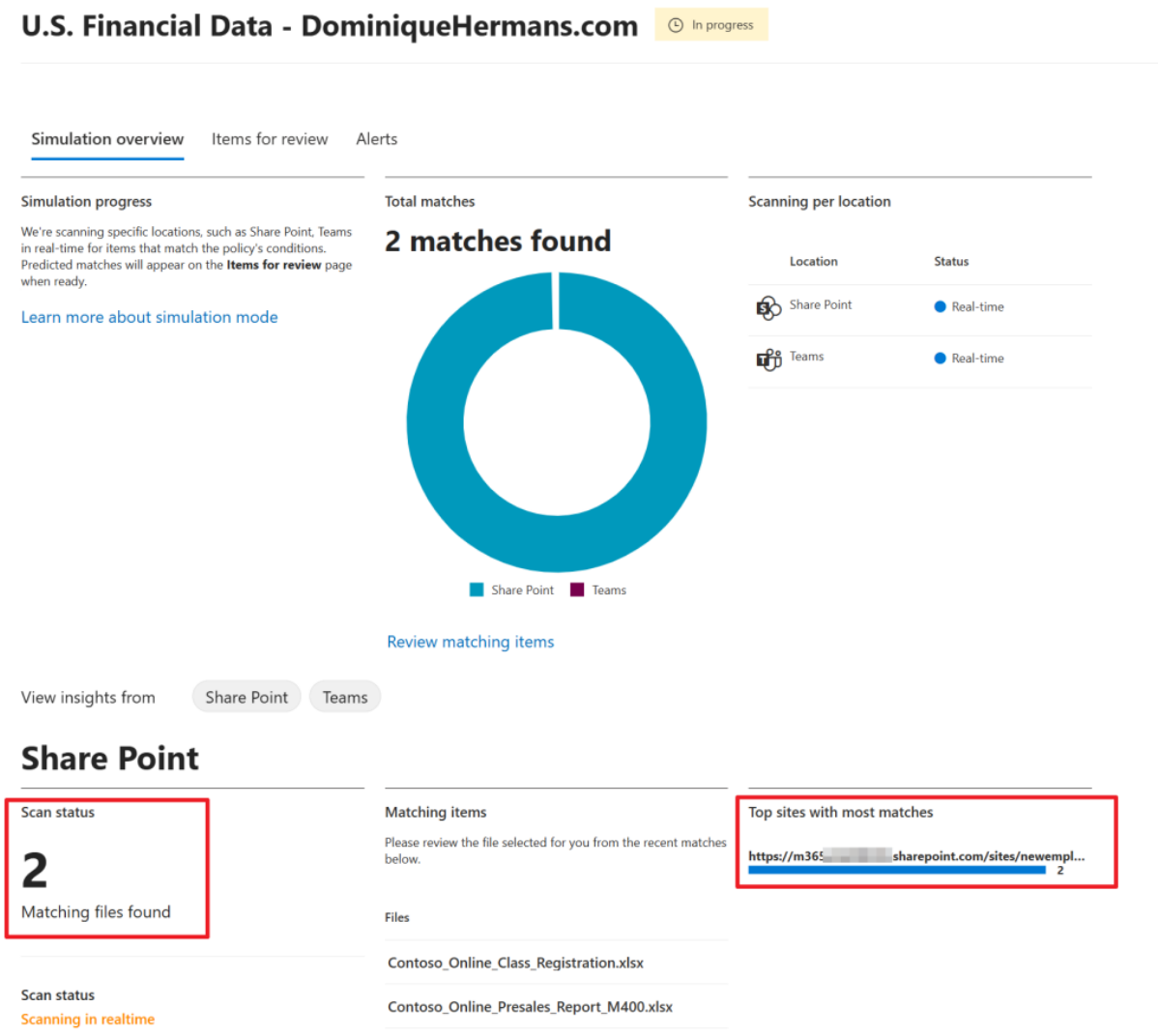
Reviewing simulation results



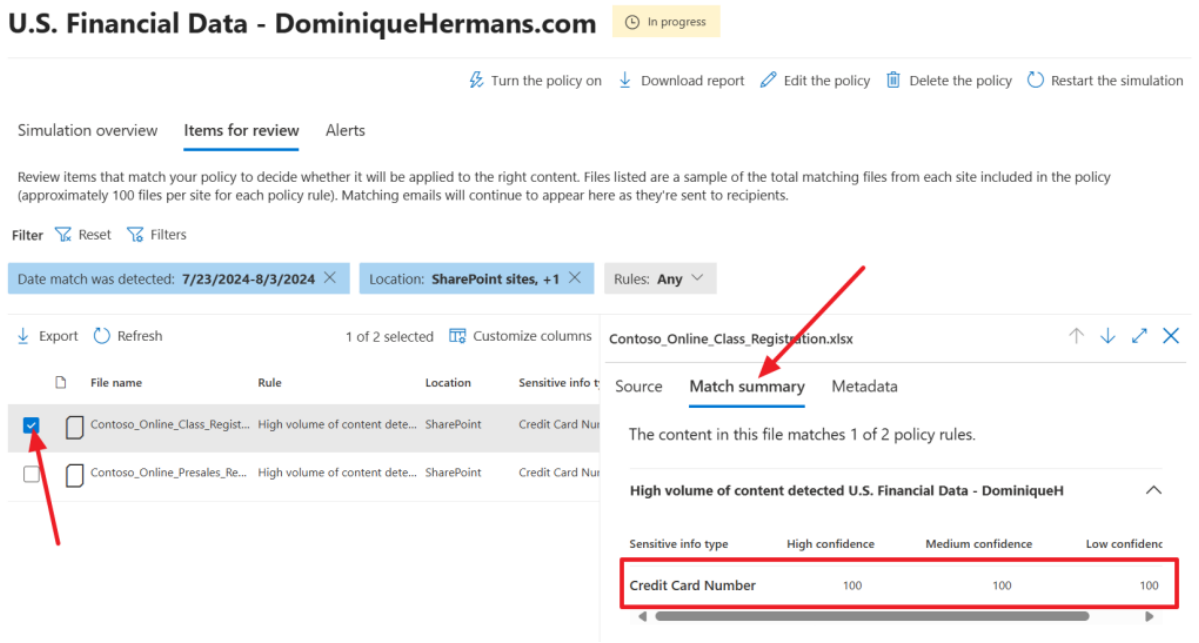
When clicking the newly created policy, we can see the status is 'In simulation (searching for matches)'. Now it's time to take a well-deserved break and enjoy your weekend en come back a few days later. The exact time it takes to run the simulation depends on the size of your environment and data it contains.

Now before continuing, make sure to grant yourself the 'Data Classification Content Viewer' role by adding yourself to the 'Content Explorer Content Viewer' role group. If you don't, you won't be able to look into sensitive info details.

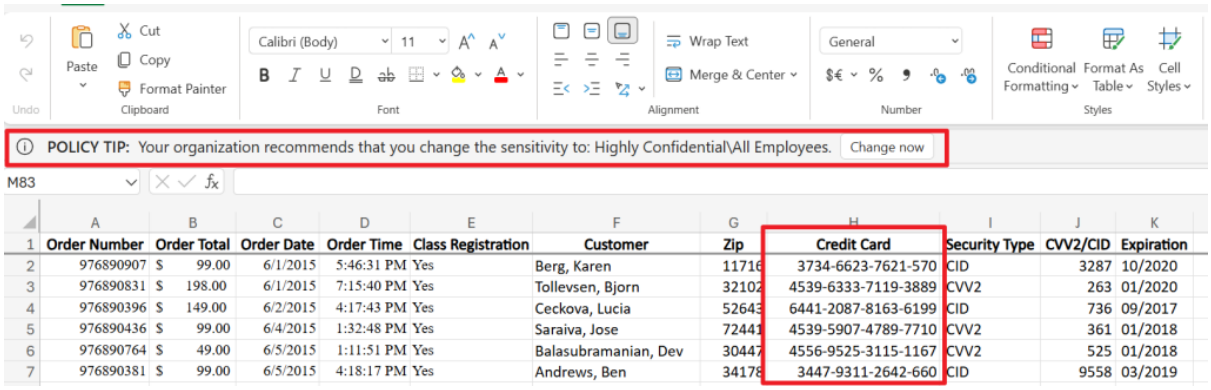
When returning and matches are actually found, click the 'view simulation' button.



Here you'll find an overview of the matches found in your organization. In my case, 2 matching files are found which both are found in 1 SharePoint site.



When you click on the 'items for review' tab followed by the 'match summary' tab, you can select an item. At the right hand side, the portal shows which sensitive information type was found in your document by confidence level. So it could be true that a SIT was identified using the 'low confidence' logic, but not by the medium or high confidence logic that was configured in the SIT. In this document however, the configured SIT (Credit Card Number) was found 100 times by low, medium and high logic defined in the SIT.

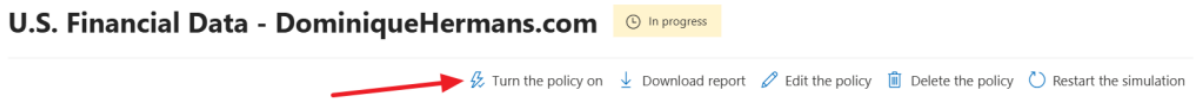


	A	B	C	D	E	F	G	H	I	J	K
1	Order Number	Order Total	Order Date	Order Time	Class Registration	Customer	Zip	Credit Card	Security Type	CVV2/CID	Expiration
2	976890907	$ 99.00	6/1/2015	5:46:31 PM	Yes	Berg, Karen	11716	3734-6623-7621-570	CID	3287	10/2020
3	976890831	$ 198.00	6/1/2015	7:15:40 PM	Yes	Tollevsen, Bjorn	32102	4539-6333-7119-3889	CVV2	263	01/2020
4	976890396	$ 149.00	6/2/2015	4:17:43 PM	Yes	Ceckova, Lucia	52643	6441-2087-8163-6199	CID	736	09/2017
5	976890436	$ 99.00	6/4/2015	1:32:48 PM	Yes	Saraiva, Jose	72441	4539-5907-4789-7710	CVV2	361	01/2018
6	976890764	$ 49.00	6/5/2015	1:11:51 PM	Yes	Balasubramanian, Dev	30447	4556-9525-3115-1167	CVV2	525	01/2018
7	976890381	$ 99.00	6/5/2015	4:18:17 PM	Yes	Andrews, Ben	34178	3447-9311-2642-660	CID	9558	03/2019

Let's take a look at the 'Contoso_Online_Class_Registration.xlsx' sheet. Here, credit card info is found. Actually a list of 100 entries (which I shortened for readability) can be found in the sheet which matches the score above. As configured, the policy tip is also shown to the user. It's also possible to customize the policy tip if necessary.

At this point you would review some items and if all seems ok, you can enable the policy so it becomes active in your environment.

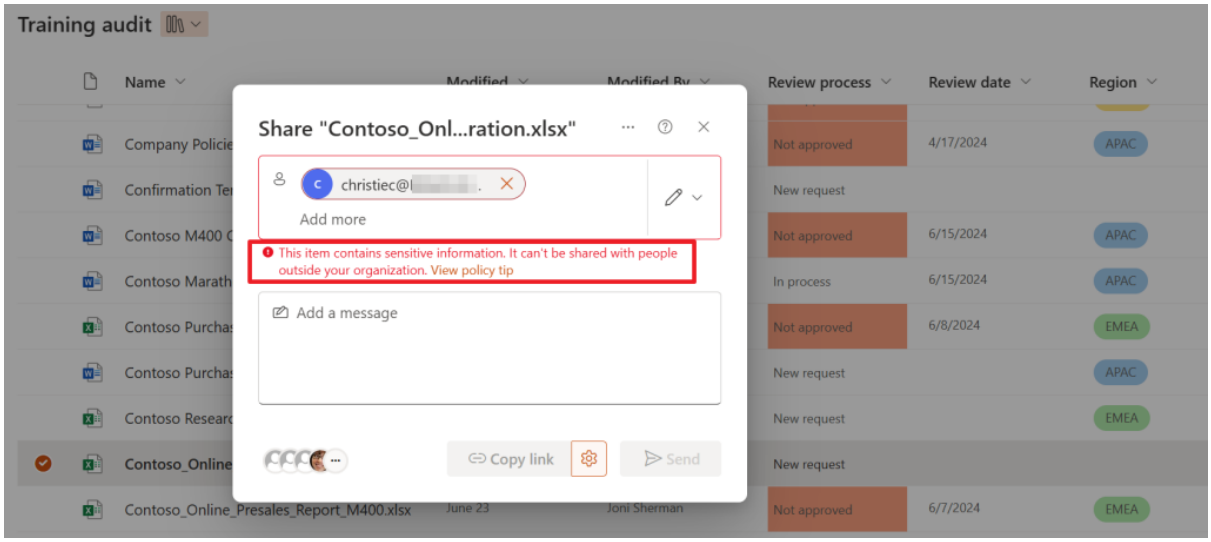
Enabling the policy



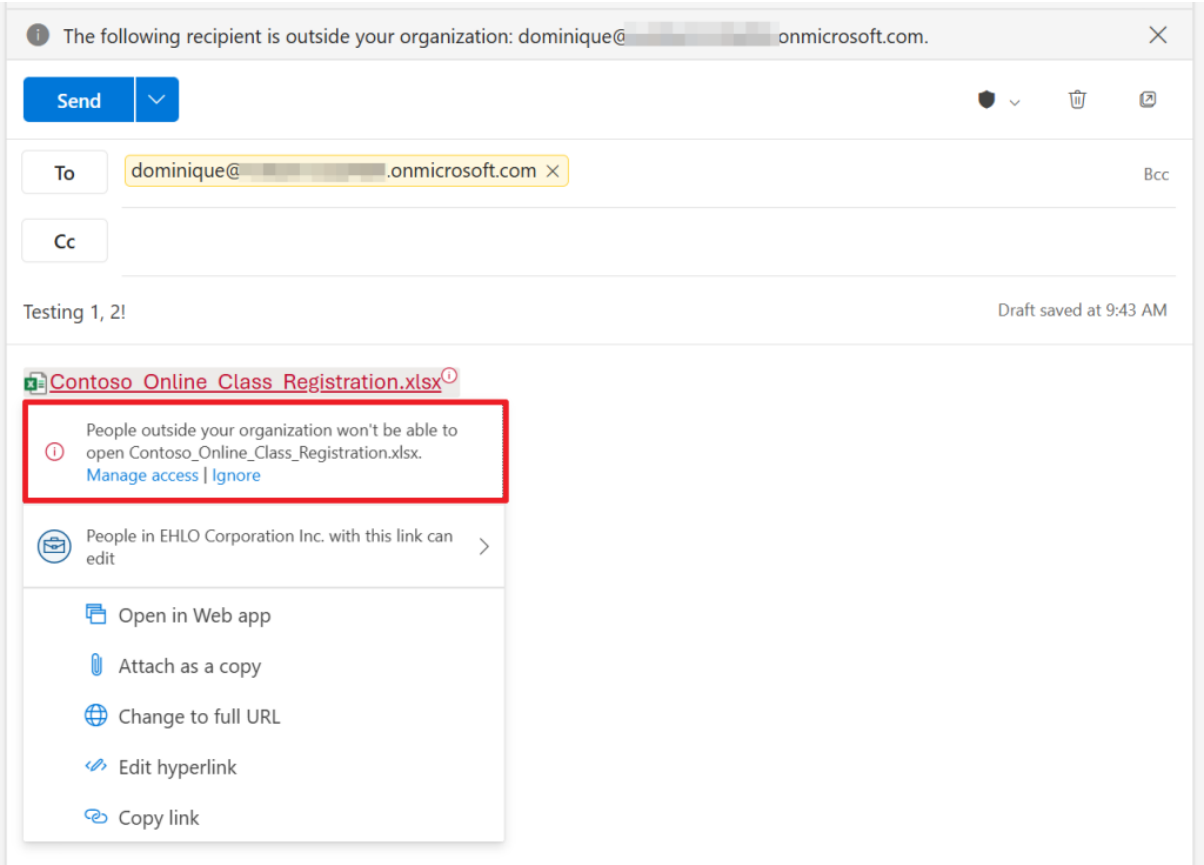
We can enable the policy by going back to the 'view simulations' screen and selecting 'Turn the policy on'. Confirm the dialog box and refresh the page. According to the documentation, it can take about 1 hour for changes to apply across your environment.

- **Verifying results from the users perspective**

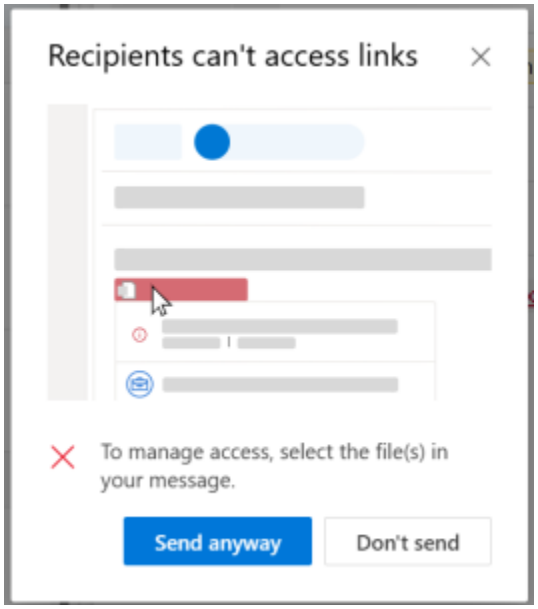
Now, let's see how the protective actions of our policy look like when viewed from a users point of view. Let's do this by trying to share a document that's considered to be a sensitive information type (Credit Card Number) via SharePoint.



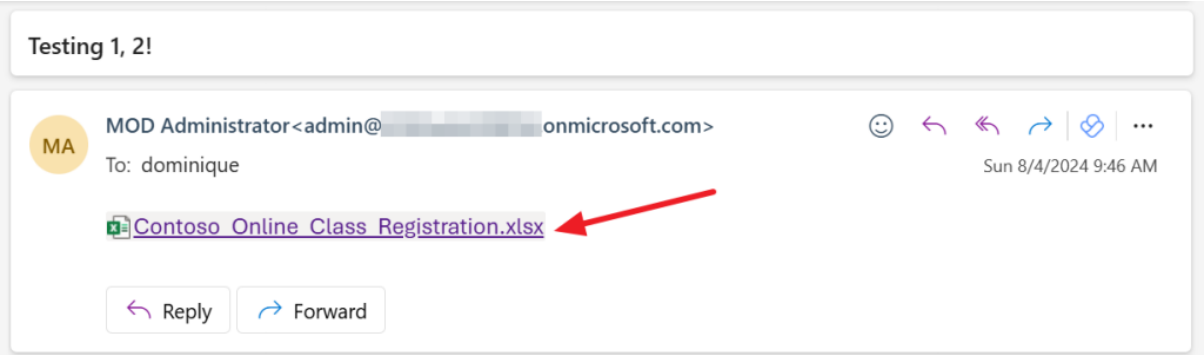
As you can see, the file can't be shared because it contains sensitive information, which was found using the SIT we configured in our DLP policy!



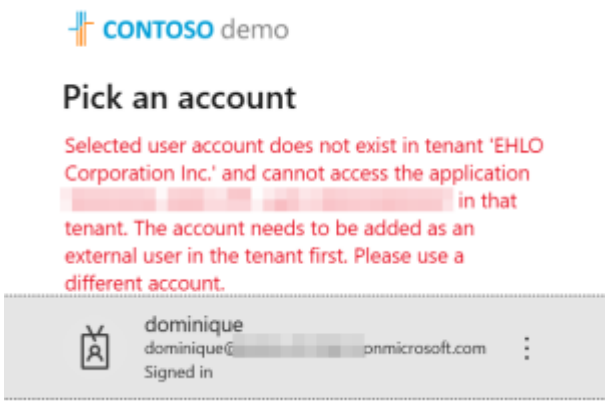
Now let's try to work around this by using Outlook for Web. When adding a link to the document, here also a message appears that people outside your organization won't be able to open the file.



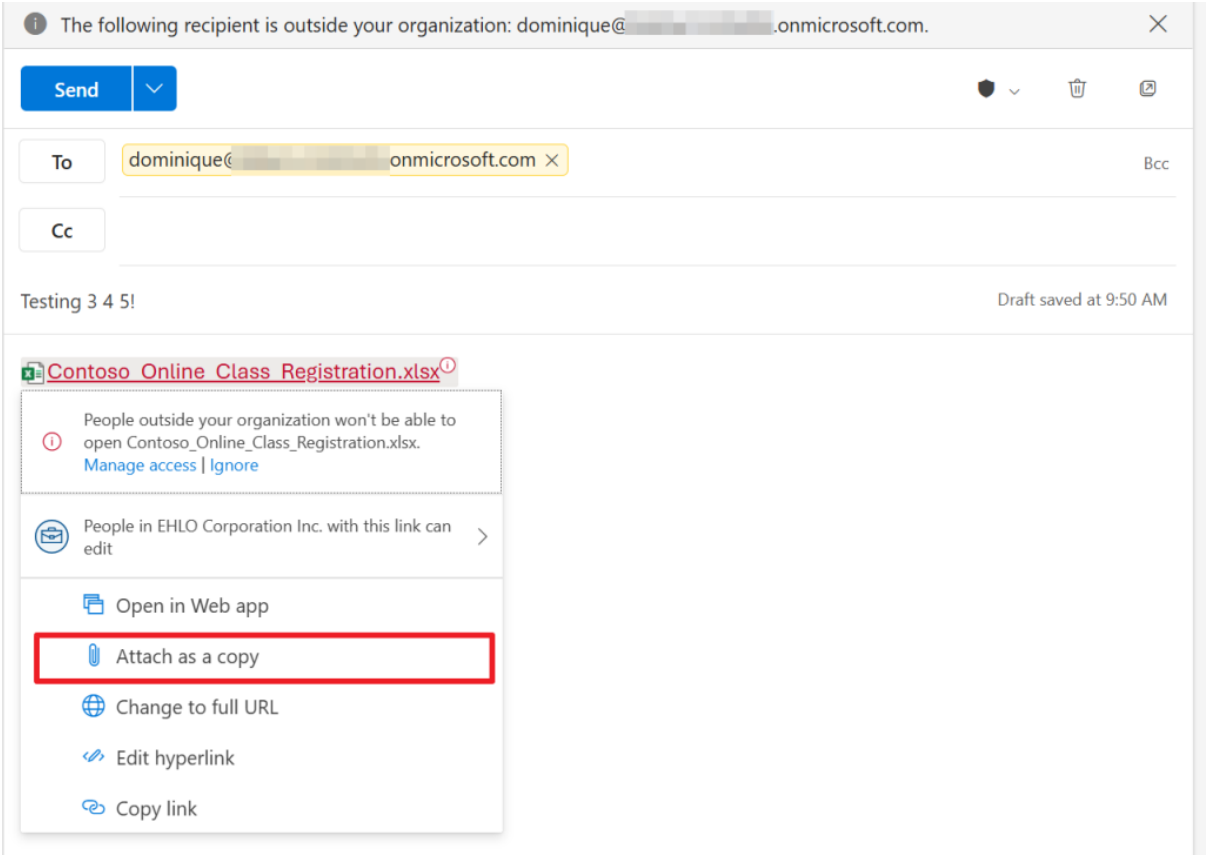
When sending the message anyway, another message pops up telling you that the recipients can't access the links in the document, after which you can send the message anyway (with an inaccessible link in it) or to don't send the message.



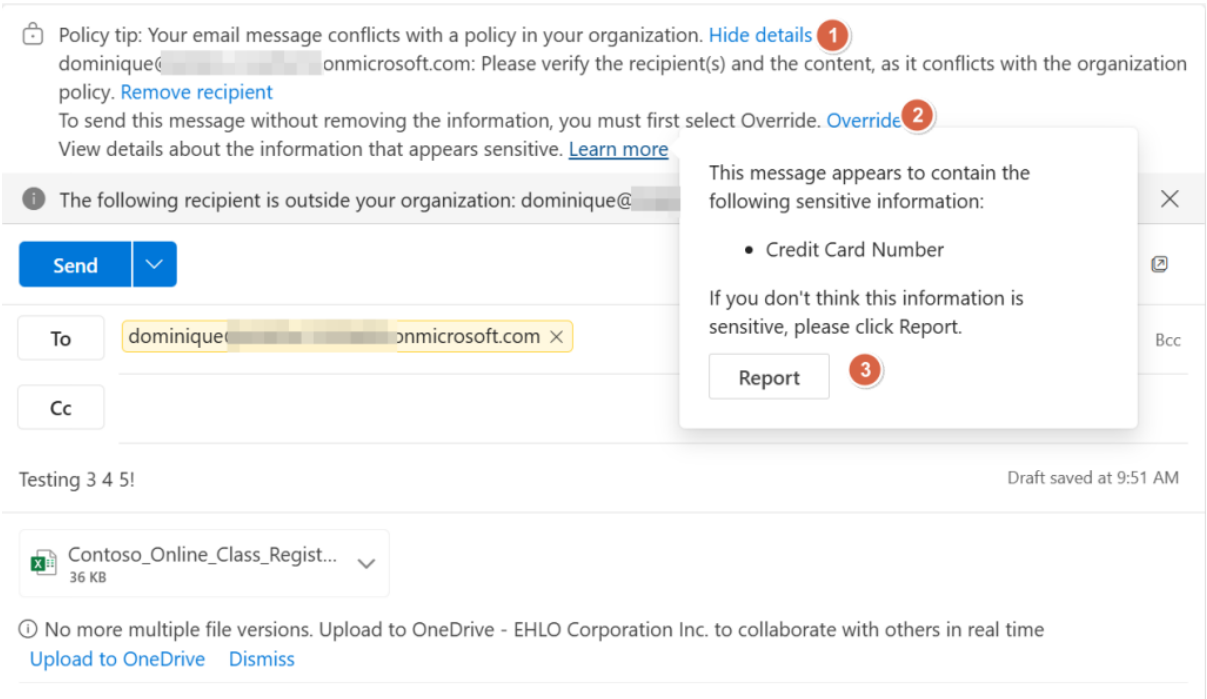
When the recipient receives the message, and tries to access the document:



This won't work because the tenant from which we shared the document did not create a guest account for the guest user. The simple reason for not creating the guest user is that the document could not be shared because of our DLP policy!



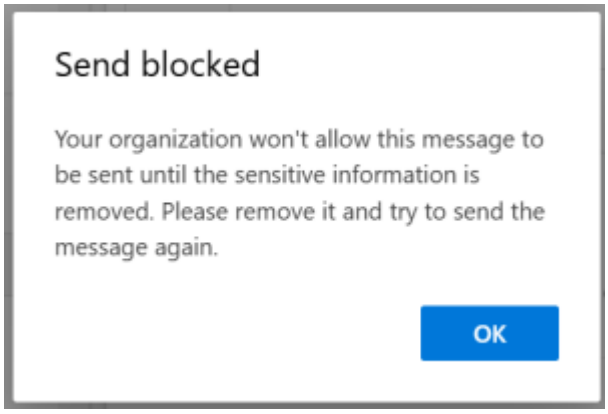
Let's try something else. Let's attach the file as a copy. Would this work?



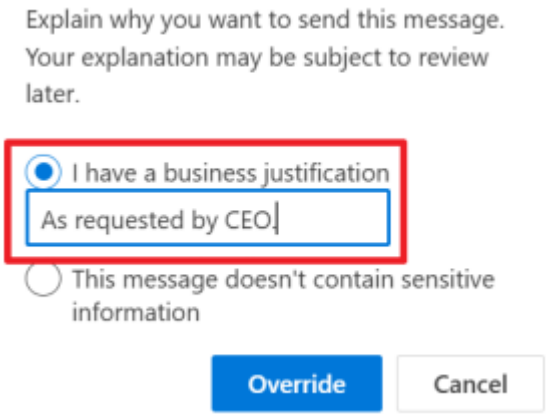
As you can see, we are greeted with a couple of warnings:

1. A policy tip is shown that tells us that the email message conflicts with a (DLP) policy in our organization.

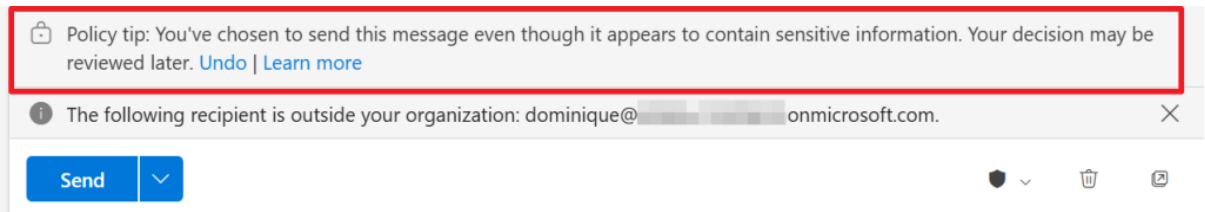
2. To send the message without removing the information (attachment in this case) we have to first select the 'override' button.
3. When selecting 'learn more', we can see that the document we attached contains Credit Card Numbers, which of course is found using the SIT we configured in our policy. We here have the option to report a false positive.



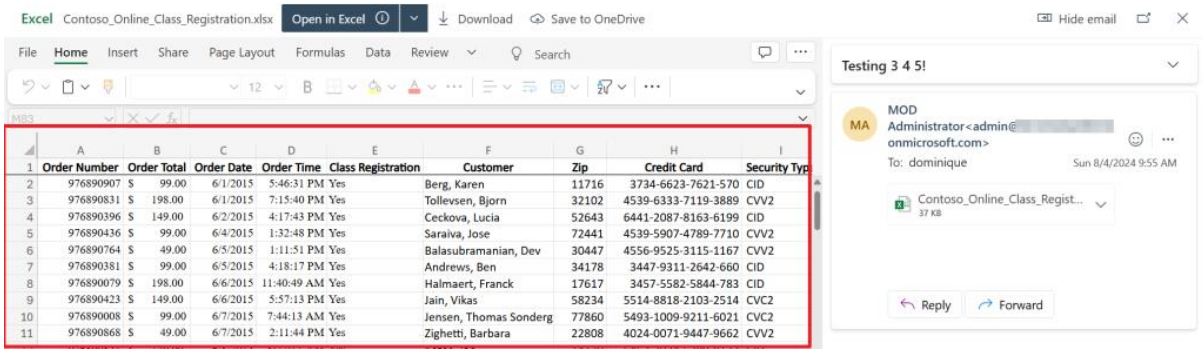
When trying to send the message without overriding, we see a message stating that we still won't be able to send the message without removing the attachment that contains sensitive information.



Now let's select 'override'. Now a business justification has to be entered or we have to select that we think the message doesn't contain sensitive information. Let's go with the first option and enter 'As requested by CEO'.



Another policy tip appears stating that your decision may be reviewed later as you've chosen to send this message even though it appears to contain sensitive information.



Order Number	Order Total	Order Date	Order Time	Class Registration	Customer	Zip	Credit Card	Security Typ
976890907	$ 99.00	6/1/2015	5:46:31 PM	Yes	Berg, Karen	11716	3734-6623-7621-570	CID
976890831	$ 198.00	6/1/2015	7:15:40 PM	Yes	Tollevsen, Bjorn	32102	4539-6333-7119-3889	CVV2
976890396	$ 149.00	6/2/2015	4:17:43 PM	Yes	Ceckova, Lucia	52643	6441-2087-8163-6199	CID
976890436	$ 99.00	6/4/2015	1:32:48 PM	Yes	Saraiva, Jose	72441	4539-5907-4789-7710	CVV2
976890764	$ 49.00	6/5/2015	1:11:51 PM	Yes	Balasubramanian, Dev	30447	4556-9525-3115-1167	CVV2
976890381	$ 99.00	6/5/2015	4:18:17 PM	Yes	Andrews, Ben	34178	3447-9311-2642-660	CID
976890079	$ 198.00	6/6/2015	11:40:49 AM	Yes	Halmaert, Franck	17617	3457-5582-5844-783	CID
976890423	$ 149.00	6/6/2015	5:57:13 PM	Yes	Jain, Vikas	58234	5514-8818-2103-2514	CVC2
976890008	$ 99.00	6/7/2015	7:44:13 AM	Yes	Jensen, Thomas Sonderg	77860	5493-1009-9211-6021	CVC2
976890868	$ 49.00	6/7/2015	2:11:44 PM	Yes	Zighetti, Barbara	22808	4024-0071-9447-9662	CVV2

When the user receives the message, he/she is able to open the document containing the sensitive information. Let's understand why:

1. The user has overridden warnings from DLP stating that he/she is sending sensitive information to a party that should not have this information.
2. A business justification was added, that can be reviewed by a legal department of your organization for example.
3. Microsoft DLP does not encrypt files, so when an attachment is added a recipient can open the file as it's not encrypted. You could use encryption to counter this by using sensitivity labels. These sensitivity labels can be teamed up with DLP for optimal protection!

In conclusion

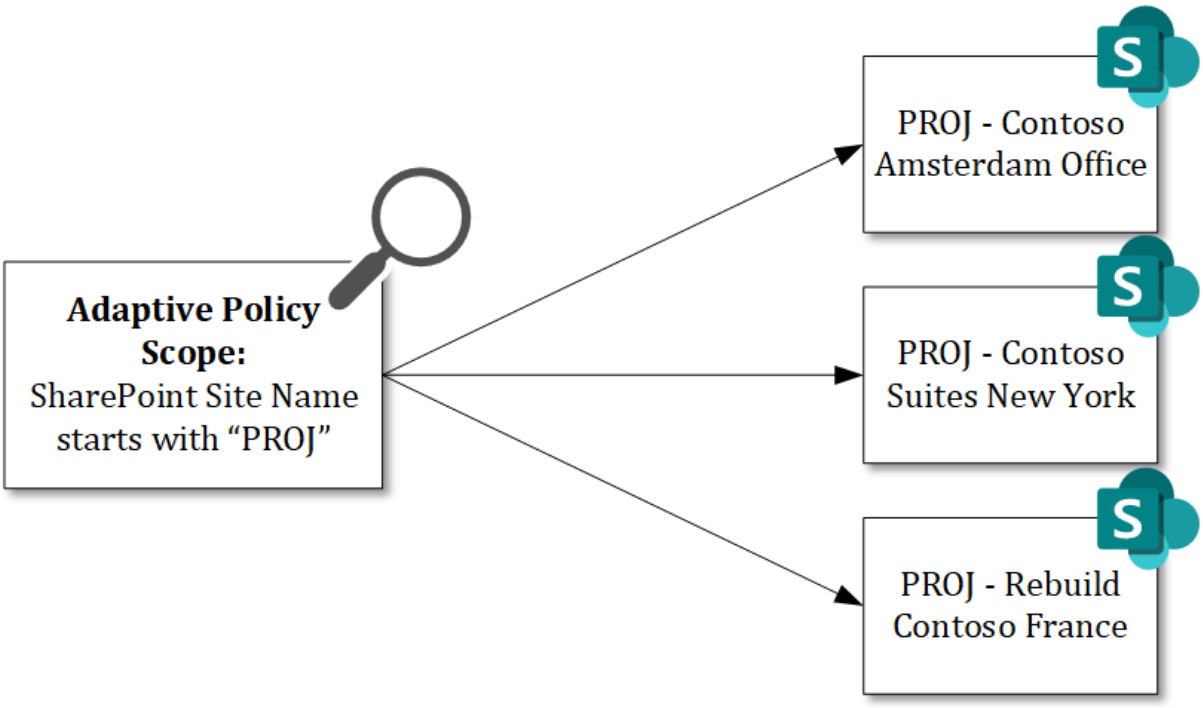
As we have seen in this chapter:

- Microsoft Data Loss Prevention (DLP) can be used to prevent users from oversharing information.
- It does this by applying actions to items that are considered to contain sensitive information.
- Sensitive information is found using Sensitive Information Types, also called SIT's.
- Policies can be ran in simulation mode first before enabling the policy in your environment.

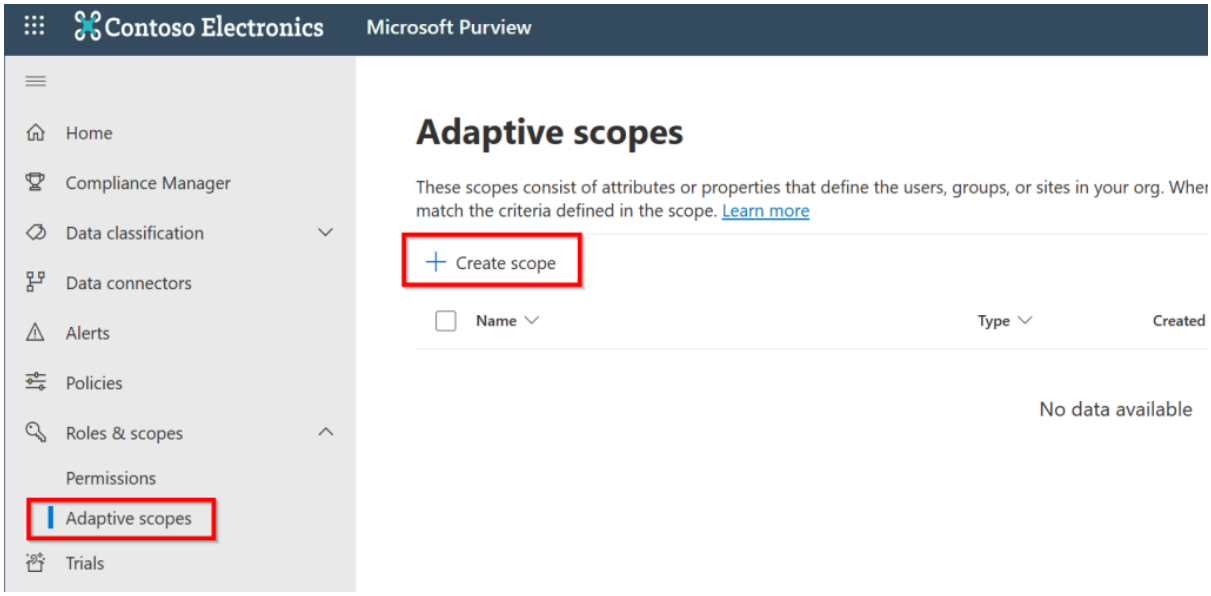
Adaptive Scopes

In the chapter 'Retention Policies (RM)' I talked about retention policies and how you can apply them to your environment. To keep things simple, I used static scopes in that chapter. But since adaptive scopes are the recommended approach for retention policies I want to show you what they can do, and why Microsoft recommends them to be used instead of static scopes.

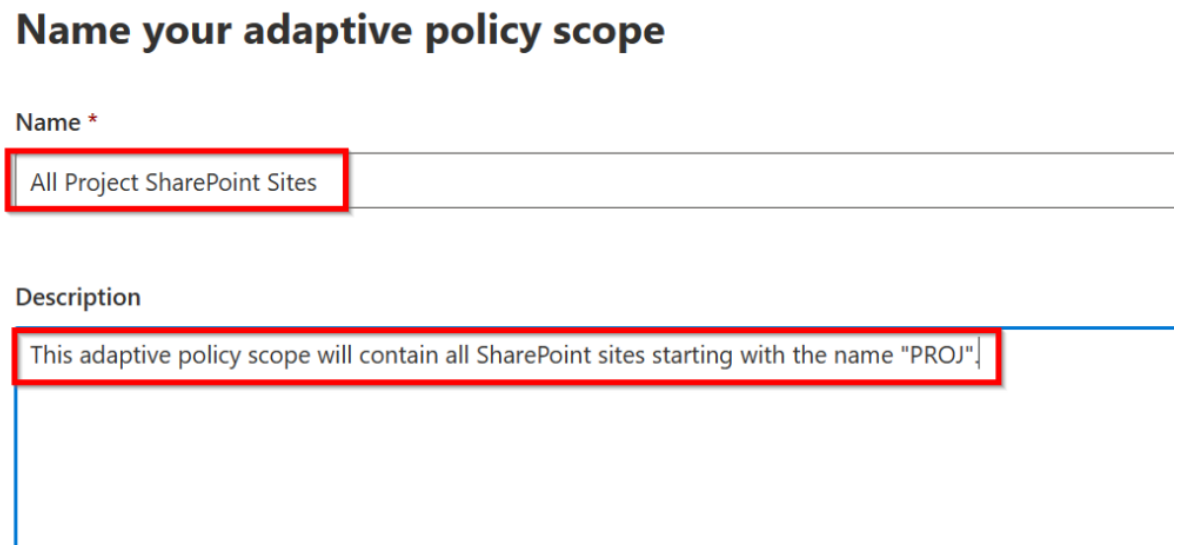
An adaptive scope is a scope that is dynamically filled based on a query. With that in the back of our mind, let's start with the following scheme:



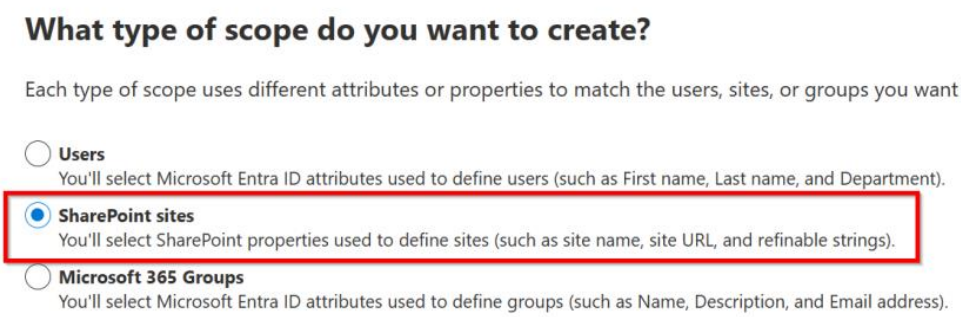
In this example, I've created 3 SharePoint sites. There's also a naming convention that states that all project teamsites names should start with "PROJ". Now we are going to create an adaptive policy scope that should find all of our sites.



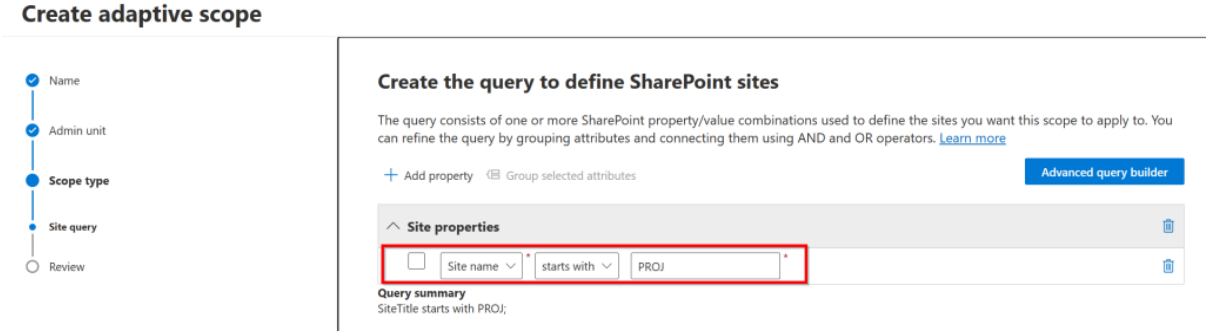
As adaptive scopes can be used in retention policies and communication compliance policies, they can be found under “Roles & Scopes”, “Adaptive Scopes” in the Microsoft Purview portal. Click “Create Scope” to create a new adaptive scope.



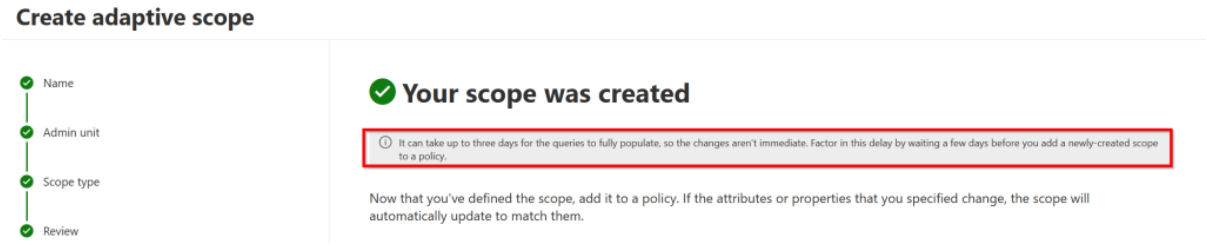
Now, give the adaptive policy scope a logical name and description and click “Next”. In the following screen admin units can be selected. However, to keep things simple we’re going with “Full Directory”. If you would like to know more about admin units, take a look at the chapter about Data Lifecycle Management.



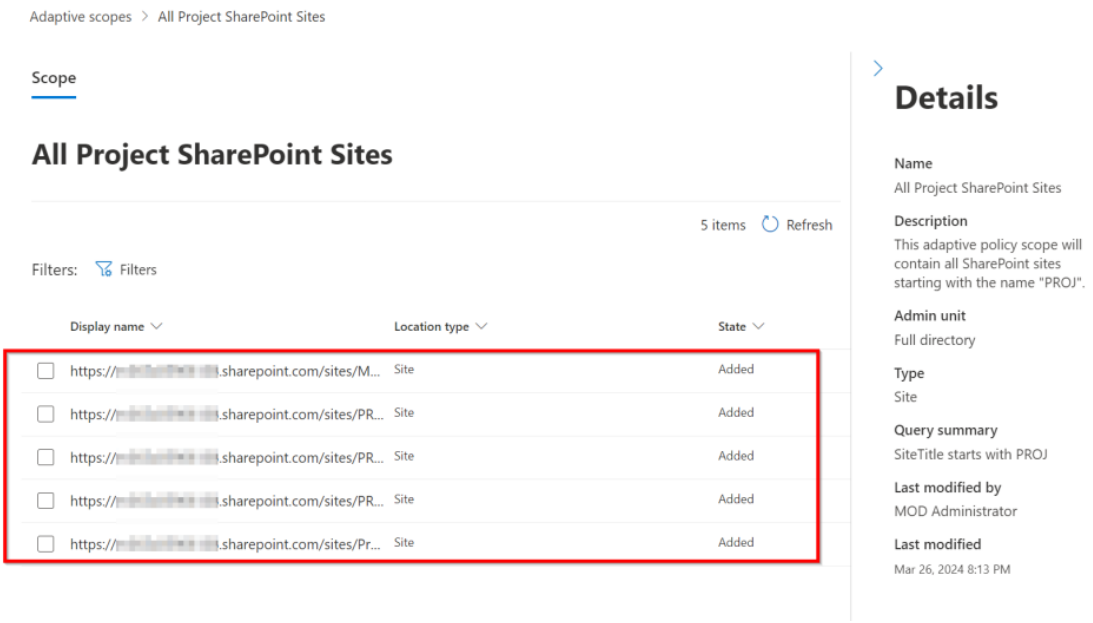
As an adaptive policy scope “groups” objects together based on a query, we have to specify which objects we want to group. This can be users, SharePoint sites or Microsoft 365 groups. If you want to know what type of attributes or properties you can query, take a look at this Learn article (https://learn.microsoft.com/en-us/purview/purview-adaptive-scopes#configure-adaptive-scopes). In this example, I choose “SharePoint sites”.



Now for the query page. This is where the real magic happens. Here it is possible to enter the query or queries that contain the logic on which objects are selected to be part of the adaptive scope. As explained in the drawing above, we want to select all SharePoint sites that have a site name that starts with “PROJ”. Review the summary and finish the wizard.



Now take note of the message that appears. It can take up to 3 days for the queries to fully populate, so keep that in mind when using your adaptive scope in a policy. When checking back a couple of days later, the following procedure can be followed to see whether our adaptive scope has queried our environment successfully:



1. Navigate to “Roles & Scopes”, “Adaptive Scopes” in the Microsoft Purview portal
2. Click on the created adaptive scope.
3. Select “Scope Details” on the bottom of the screen.
4. You should see all objects that are now a “member” of your adaptive scope.

And now for the cool part, adaptive scopes are re-evaluated on a daily basis, so if you should create more SharePoint sites for projects like in this example (starting with “PROJ”), they are added to your retention policy within a day. The nice thing about this is that there’s no manual action needed to add the new SharePoint site to your retention policy. This adds to the reliability of your retention policies. This is exactly why it’s recommended to use adaptive scopes instead of static scopes. In the case of static scopes, the retention policy would have to be edited every time a new SharePoint site was added, for example.

Of course, this was just 1 example. With the flexibility that adaptive scopes provide, numerous options are possible!

Now you can use your adaptive scope in a retention policy. You can combine this chapter with information learned in the Data Lifecycle Management (DLM) chapter to create retention policies based on an adaptive scope!

eDiscovery (Premium)

Imagine you're a guy in a basement searching through millions and millions of boxes with documents (OK, that sentence may be a little exaggerated). You're responsible for processing requests for information for a government. These requests occur worldwide and are often enshrined in legislation. Examples include:

- The Netherlands: Wet Open Overheid (WOO)
- United States of America: Freedom of Information Act (FOIA)
- Canada: Access to Information Act
- United Kingdom: Freedom of Information Act

These requests often need to be handled within a specified timeframe. Not exactly doable if you have to comb through al these boxes like the guy in the picture. Good thing in reality you are not really that guy in the picture! You use modern methods and services like Microsoft 365 to store your information. And that's where the magic comes in that I will explain in this chapter. With Microsoft 365 you can use the eDiscovery feature to fulfill the requests for information. A really handy and quick tool that takes a lot of the manual work out of your hands. Let's see how this works by putting a request for information through it's paces in eDiscovery Premium.

A quick note on licenses

Content Search	eDiscovery (Standard)	eDiscovery (Premium)
- Search for content - Keyword queries and search conditions - Export search results - Role-based permissions	- Search and export - Case management - Legal hold	- Custodian management - Legal hold notifications - Advanced indexing - Review set filtering - Tagging - Analytics - Predictive coding models And more...

Source: Microsoft

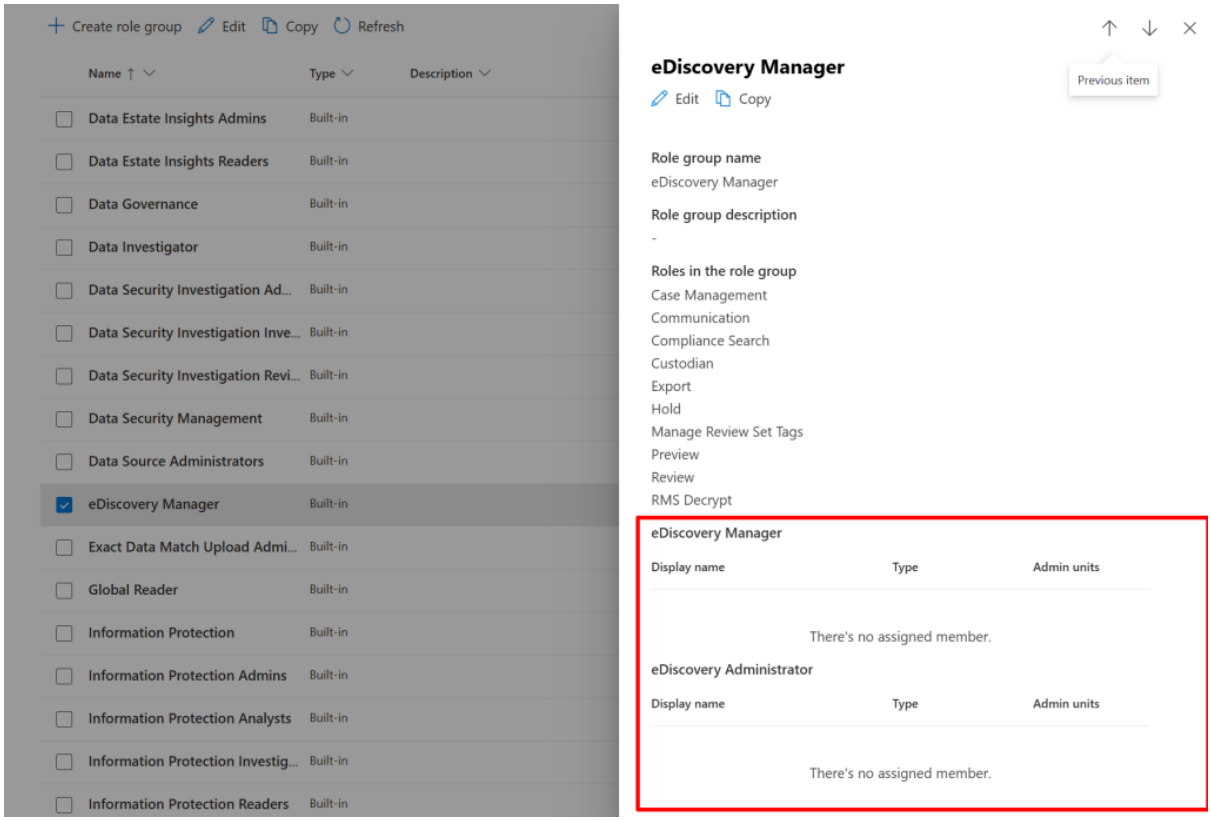
eDiscovery within Purview comes in 2 flavours: Standard and Premium. You can see the differences in the table above. There's also Content Search which can be used for the same purposes but has less features in terms of case management. In this chapter I will use eDiscovery Premium to demonstrate what features it has in store.

eDiscovery Roles

Role	Compliance Administrator	eDiscovery Manager & Administrator	Organization Management	Reviewer
Case Management	✓	✓	✓	
Communication		✓		
Compliance Search	✓	✓	✓	
Custodian		✓		
Export		✓		
Hold	✓	✓	✓	
Manage review set tags		✓		
Preview		✓		
Review		✓		✓
RMS Decrypt		✓		
Search And Purge			✓	

Source: Microsoft

To get your work done in eDiscovery you have to be assigned roles. The easiest way to get this done is to add the account that you will be using for eDiscovery to one of the available role groups: eDiscovery Manager, eDiscovery Administrator, Compliance administrator, Organization Management or Reviewer. As you can see in the table above, the eDiscovery manager and administrator roles give you the most extensive permissions available.



Both are present in the roles & scopes -> permissions section of Purview. However, they're both available as a subgroup in parent role group 'eDiscovery Manager', as can be seen in the example above. Now, when navigating to eDiscovery, eDiscovery premium you can see the permissions that are assigned to you on the right hand of the screen.

eDiscovery Workflow

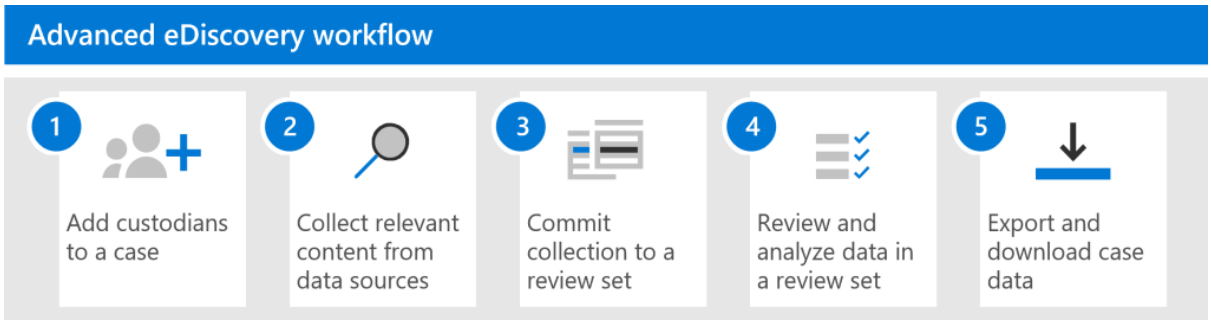
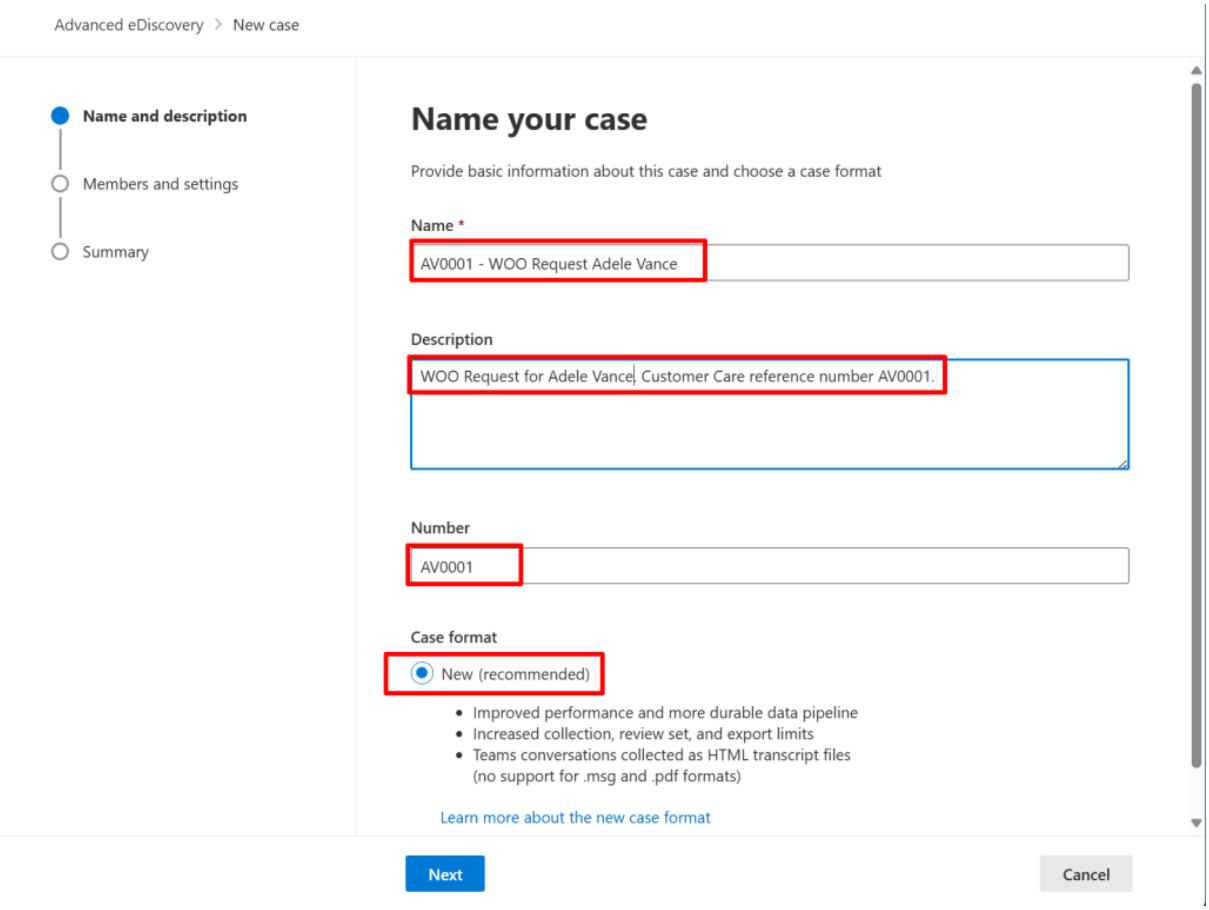


Image source: Microsoft

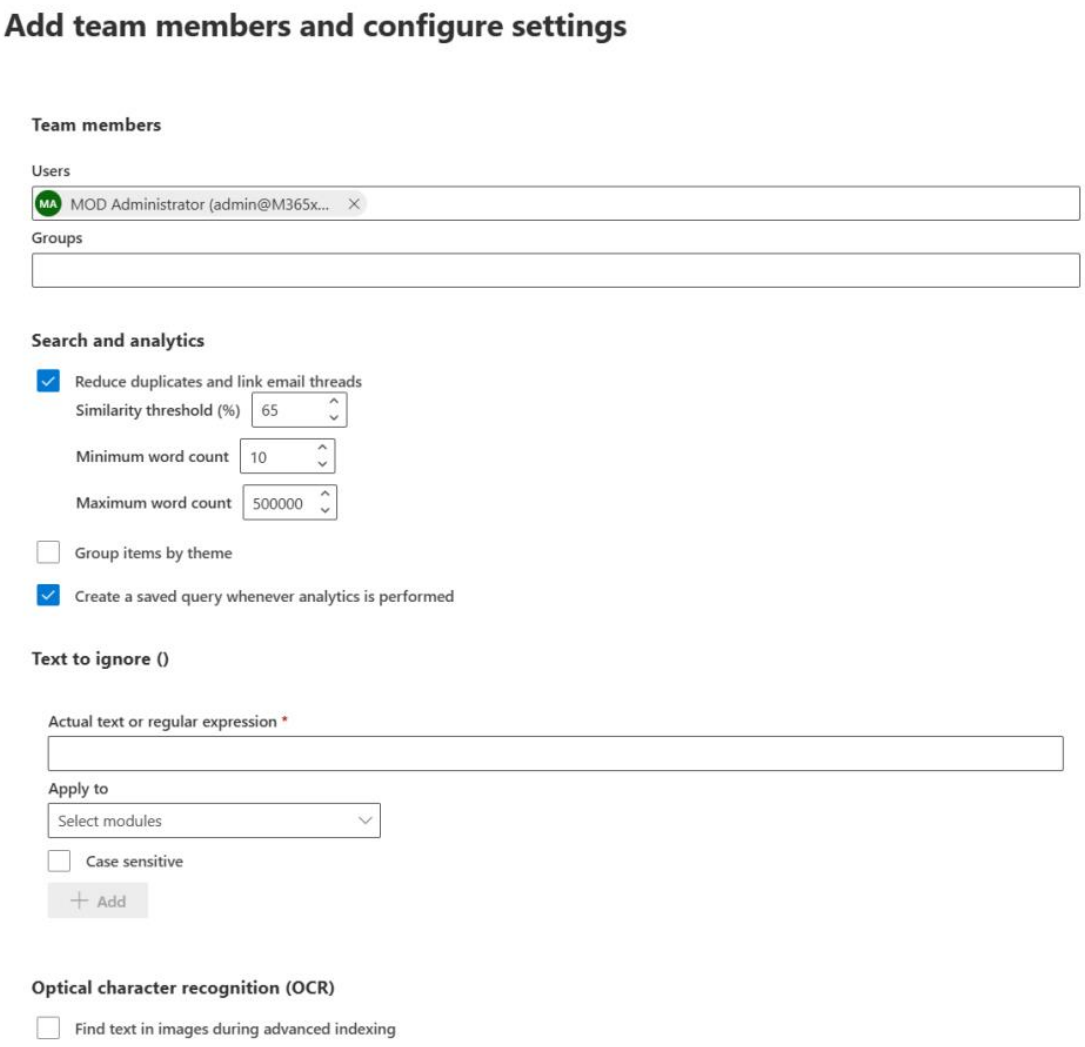
eDiscovery works with a workflow that helps you find the exact information that you need. Using this workflow, you will narrow down the volume of your data with each step, while making the results that remain at the end of the workflow as relevant as possible. Now that you are aware of the workflow we can dive in and take a look at what each step of the process looks like!

1. Create a case

Let's start by creating a case. Navigate to the Purview portal, eDiscovery, eDiscovery premium and select the 'cases' tab. Click 'Create a case'.



In the first screen, we have to create a name, description and Number for the case. The name and description speak for itself. The number can be any number that you can use as a reference to your customer management system for example. The new case format gives you more performance when having cases with a large number of items or a large size. Today, the old case format can not be used anymore. If you would like to have more information on the benefits of the new format, take a look at this Microsoft learn page (https://learn.microsoft.com/en-us/purview/ediscovery-new-case-format).



In the next screen, add your team members. These team members will investigate this case. Be sure to grant this members the correct eDiscovery permissions, as without them, they cannot access the correct parts of eDiscovery. Team members can be added as individuals or as groups.

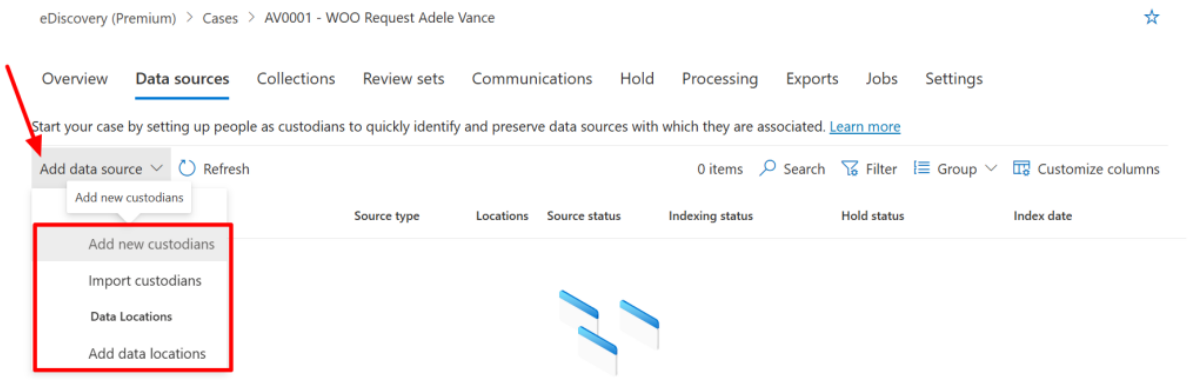
We can also configure the search and analytics features here like reducing duplicates in the information that is found or linking email threads. The parameters for these features can be altered here, or when the case is created. Also, items can be grouped by theme and your search query can be saved.

If you have certain items with text you want to ignore, you can add them here. This actual text or regex can be applied to near-duplicates, email threads or themes and can be configured as case sensitive if you prefer.

Lastly, you can enable optical character recognition to find the text you specify in images.

Note that the actual search query is not defined in this screens. For this, we will configure a collection later.

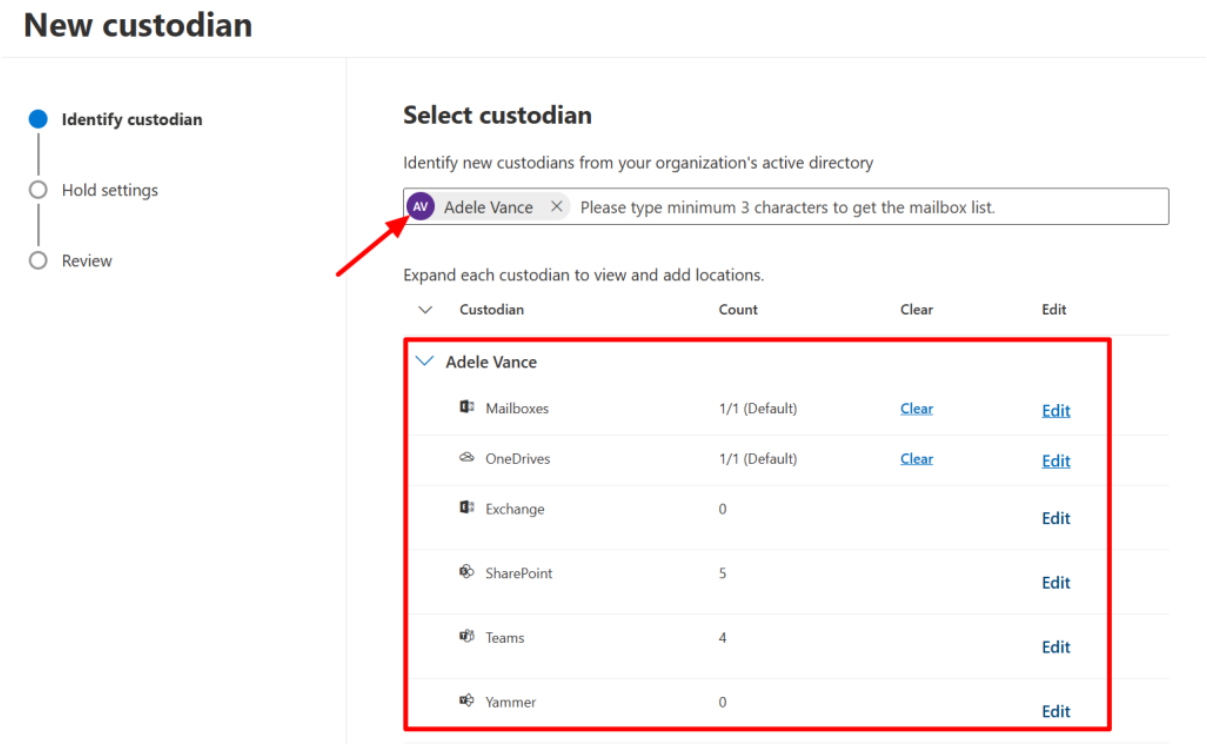
2. Add Custodian(s)



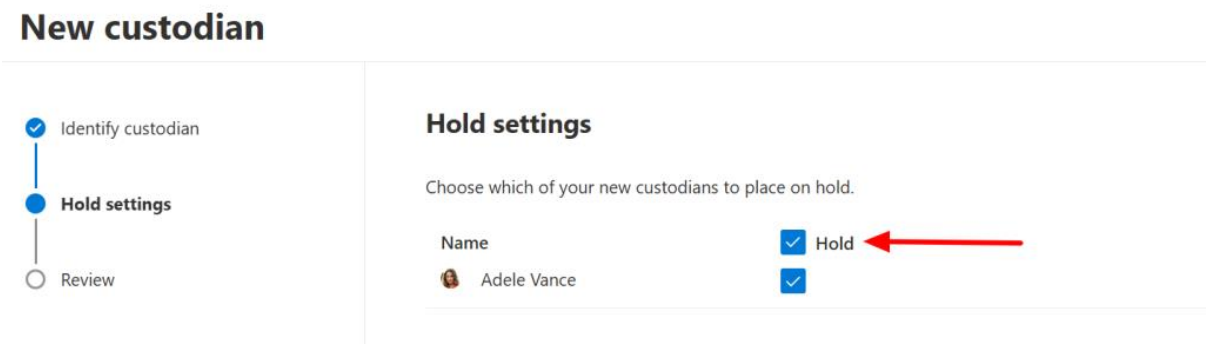
Now that our case is created we have to add data sources. Data sources can be of one of two types:

- Custodial data sources: a custodian is someone who has access to a piece of information that might be relevant to this case. This piece of information can be an email, document, Teams group, SharePoint site or other type of information.
- Data Locations: A data location is a location that has data that isn't tied to a person but can be relevant to your case. This is also called a non-custodial data source.

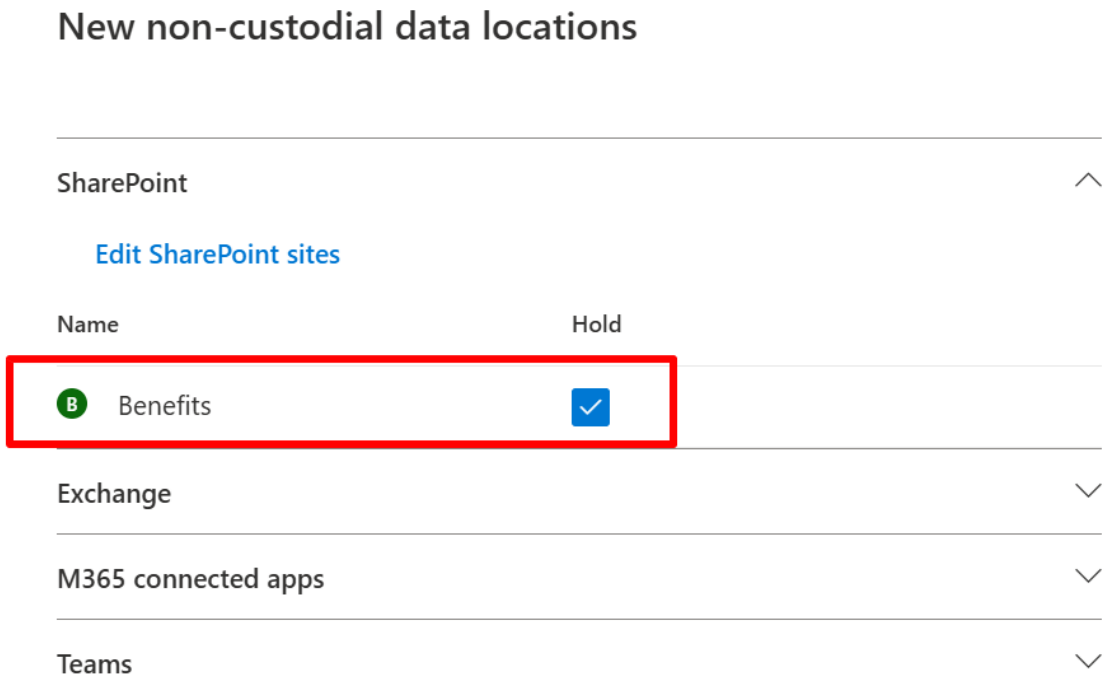
Both data types above are indexed by a process called advanced indexing. This process optimizes searching for it in the next step.



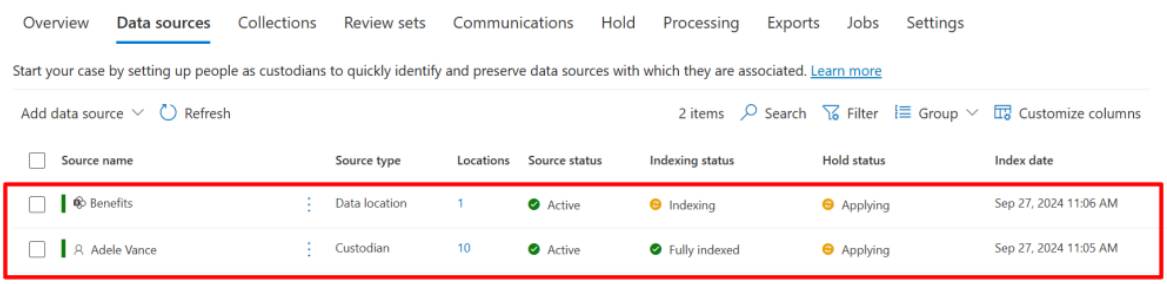
In this demonstration, I add Adele Vance as a custodian and map her mailbox, OneDrive and various SharePoint sites and Teams groups to be linked to her as a custodian.



In the next step, I can choose to place this data on hold. This preserves the data and makes sure it can't be deleted by the user or anyone else because we need it in our case.



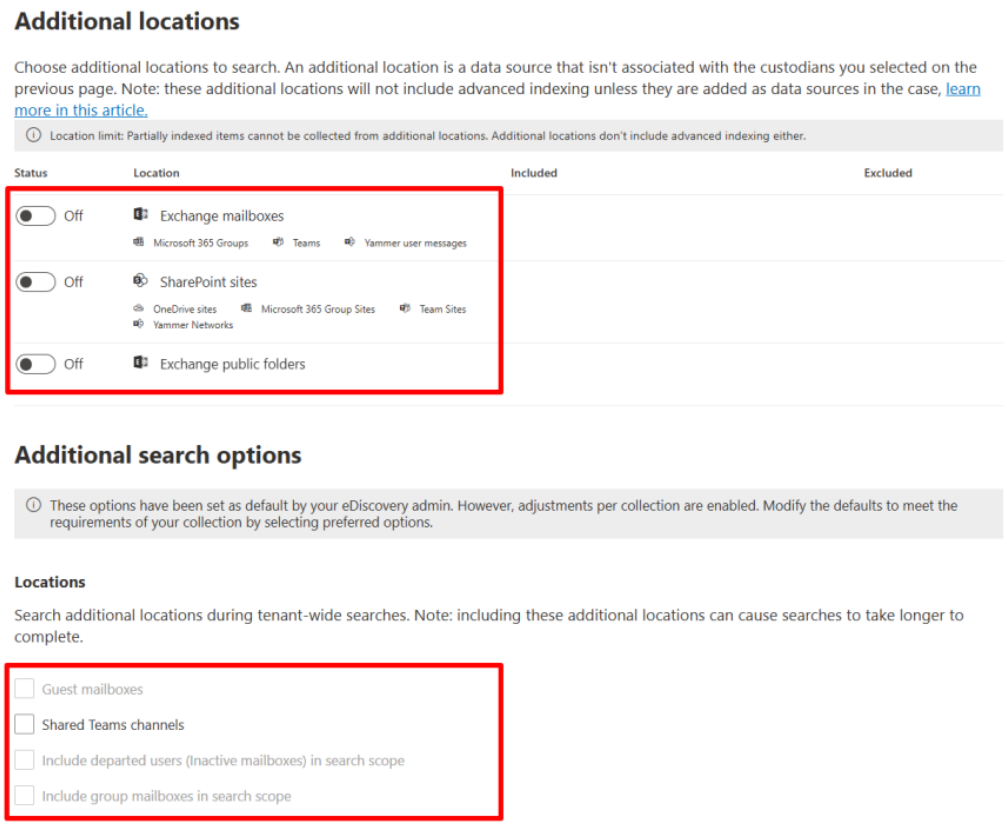
For completeness I also added the 'Benefits' SharePoint site as a data source that isn't tied to a custodian and also place this location on hold.



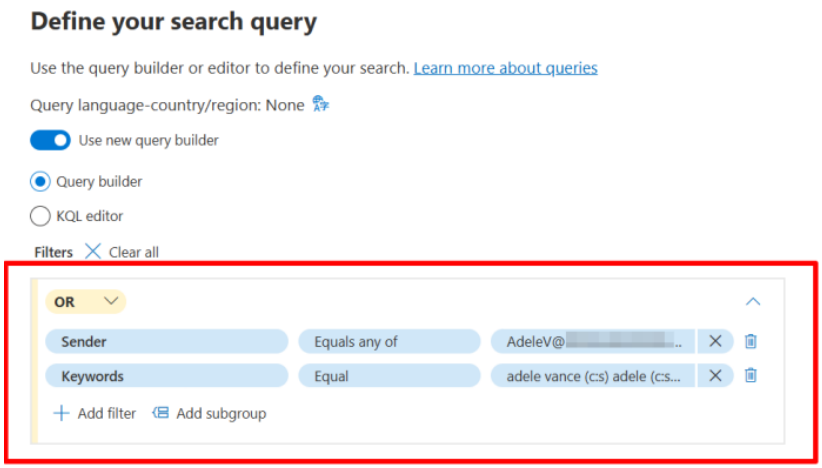
When this is done the system goes through it's paces to index the sources and apply the holds.

3. Create a collection

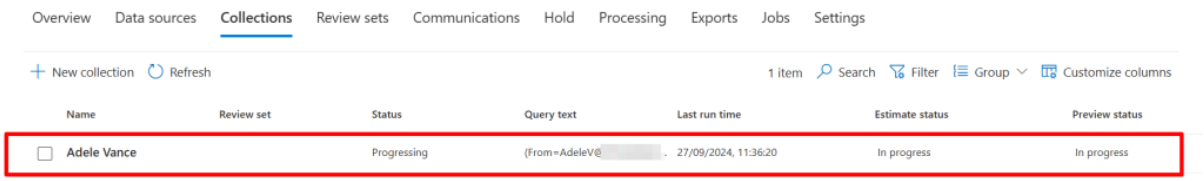
Now indexing is complete and holds have been applied, let's move to the 'collections' tab. The creation of a collection allows you to build search queries to fetch the information you need from the data sources you added to the case. As with most wizards, let's start by specifying a name and description for the collection. Next, we have to select the custodial and non-custodial data sources that we want to use in this collection. As this is just a simple case, we select each custodial and non-custodial data source that's created and include all services to be included. In a real-world scenario, you would use collections to narrow down your search result.



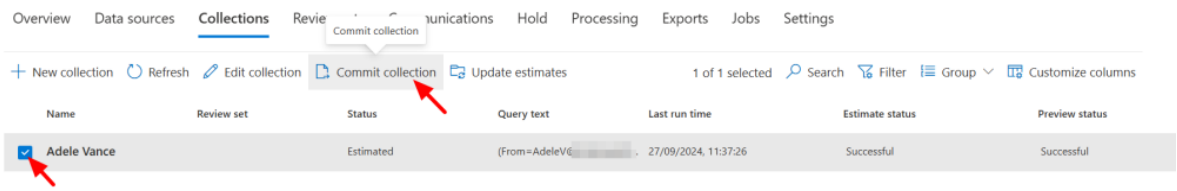
On the next page, you can specify additional locations to be included in your collection. It's good to be aware of the fact that the locations or search options selected here will not be indexed by the advanced index process!



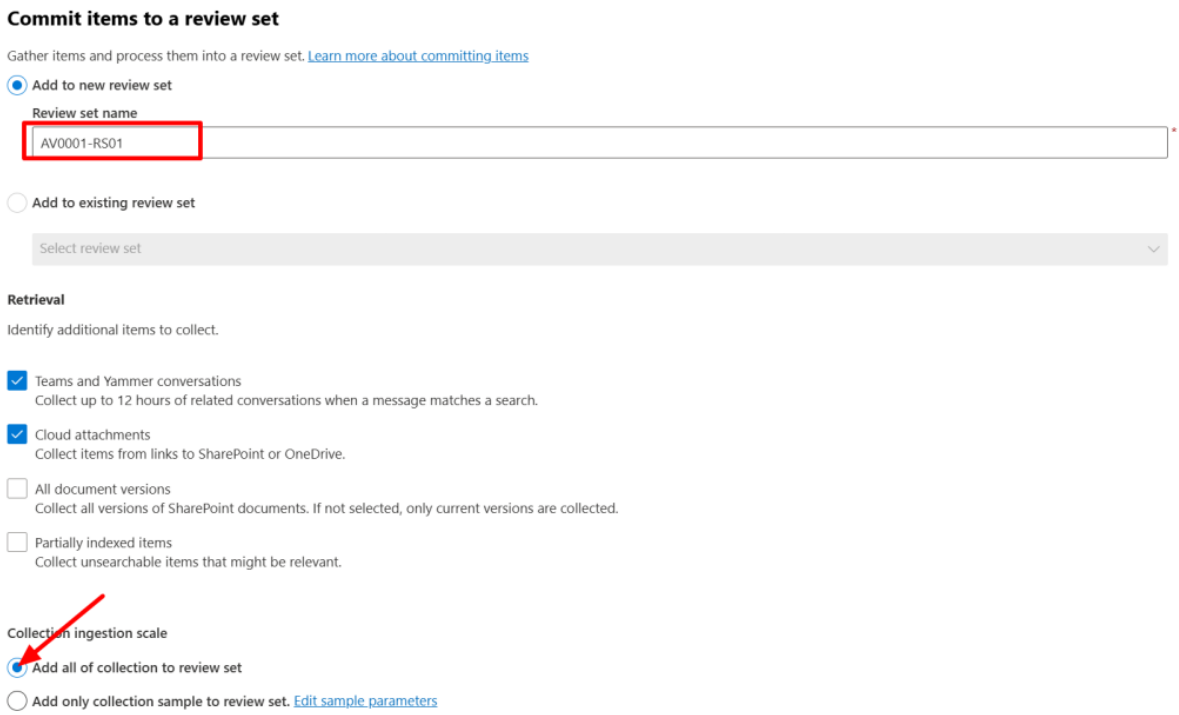
Now we arrive on the page where we can construct our query that actually will fetch the data we are searching for. You'll have the option to do this with the query builder or by using the KQL editor. I opted to go for a simple query i drafted up with the query builder. It will search for Adele as the sender OR adele vance, adele or vance as keywords in items. In a production environment, this is where serious thought goes into creating your query to be able to fetch the right information.



Once again, the system starts running to fetch the information you requested from the data sources that where specified earlier! When the search is complete you can click the collection and take a look at the statistics of the data found. Now you can edit your query to better match your needs or when you're happy with the end result, you can commit the collection to a review set by selecting the collection and pressing 'commit collection'.



When you commit a collection, the data that is found using the query is copied to a secure Azure Storage location. When the data is arrived at that destination, it is indexed again so you are provided with fast search results when looking at the items in your review set.



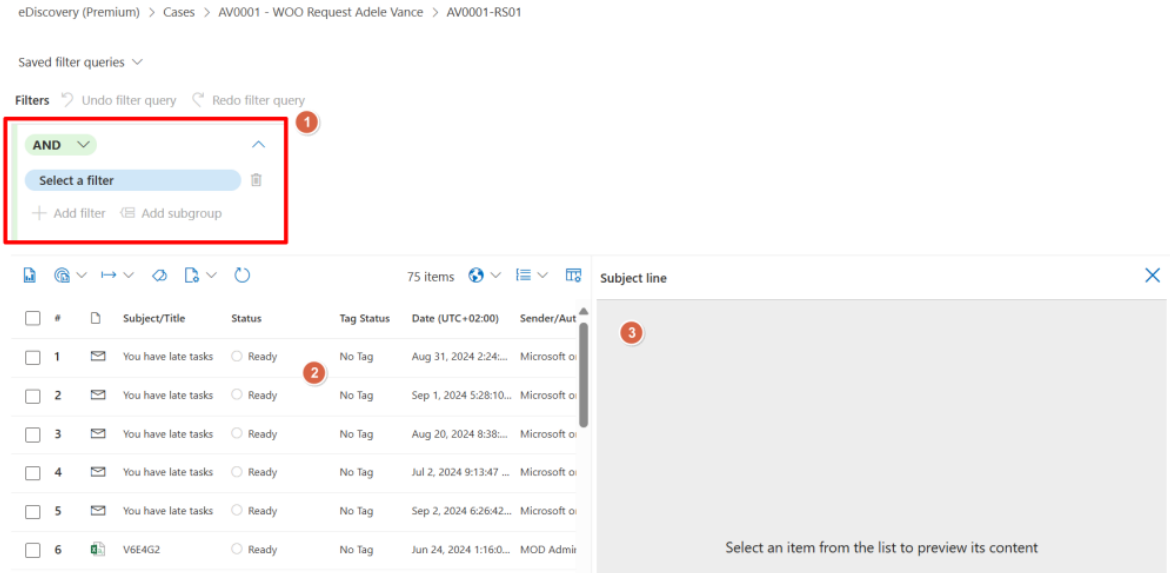
When committing the items to a review set, you have to specify a name for the set and choose if you would like the retrieve additional items like Teams and Yammer messages, cloud attachments by following links to SharePoint or OneDrive or by including all document versions or partially indexed items.

Lastly, you can choose to add all of your collection to the review set or use a collection sample. This sample can consist of documents based on a confidence level or a random sample size which you can specify.

4. Review your review set

When your data is comitted to the review set, you can select the 'review sets' tab to see it. Select your review set and select 'open review set'. Let's see what we can do with our review set.

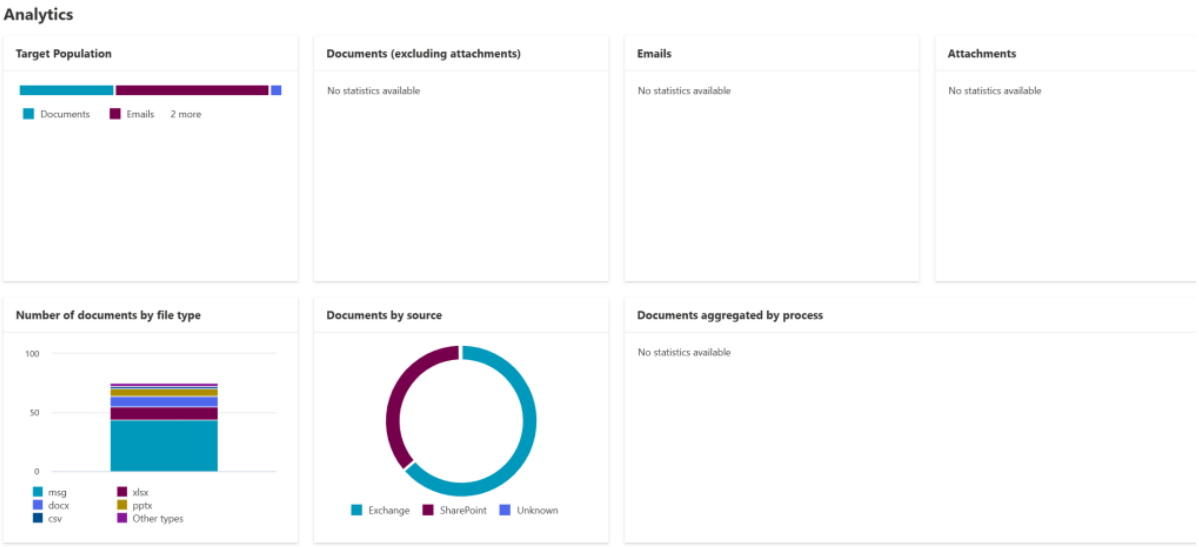
Overview



In the overview pane, we can set (and save) filters to further narrow down the list of documents in this review set (1). We can also see the list of all files in this review set (2) and even take a look at the document content in the preview pane (3).

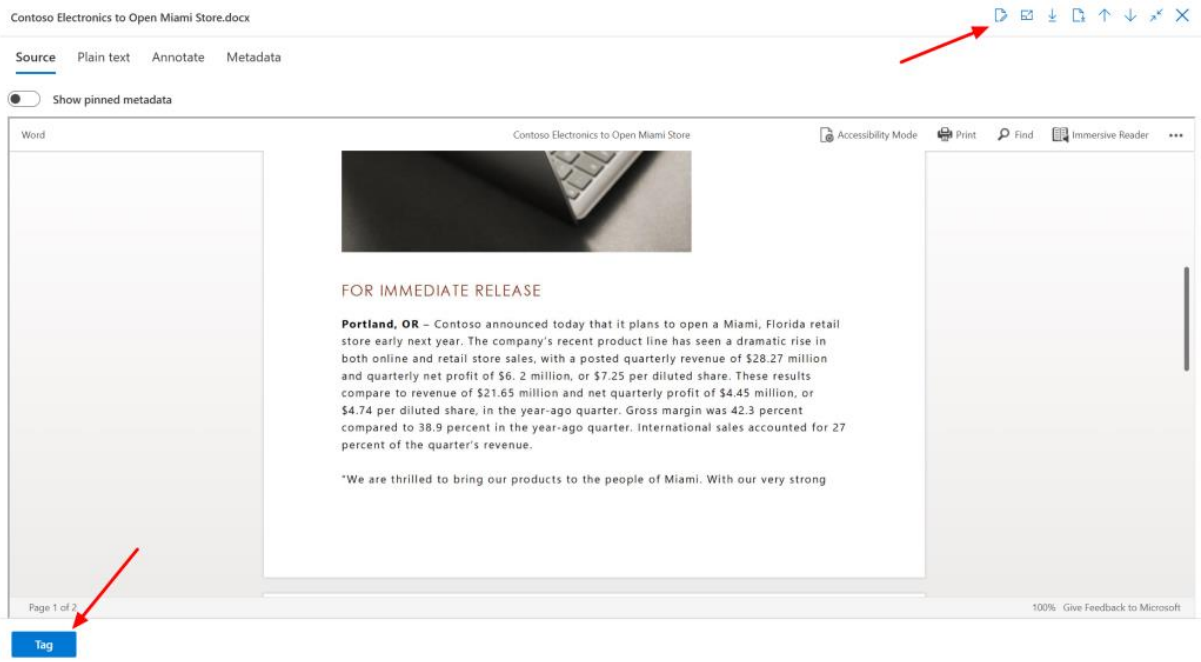
The first button provides you with an overview of the current review set, which includes the total extracted documents, total processed items and total number of failed extracted documents. It also shows you how many load sets are in this review set. A load set is a given number of documents that are added to a review set at a single time.

Analytics



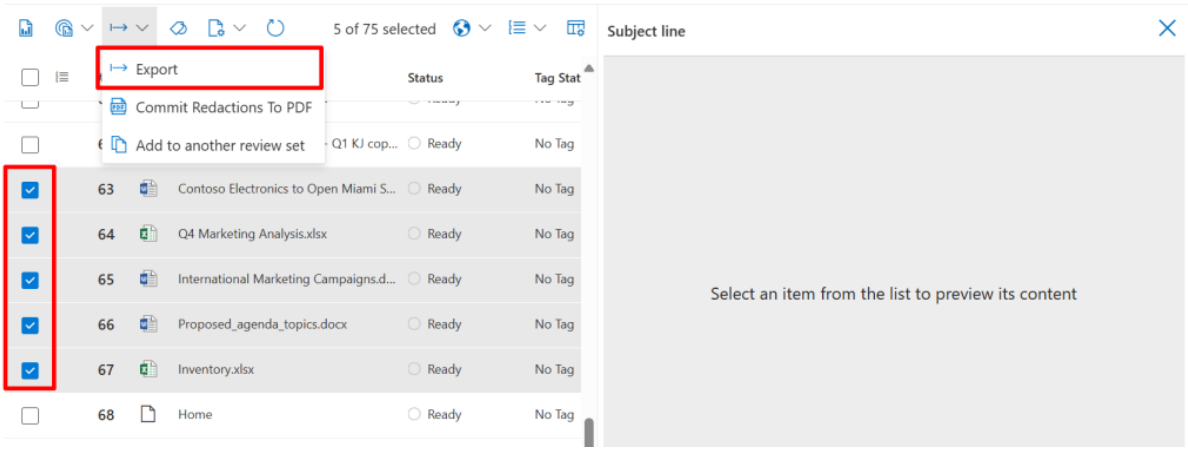
The second button allows you to run document and email analytics which in turn provide you with some nice analytics as can be seen in the image above.

Document Review

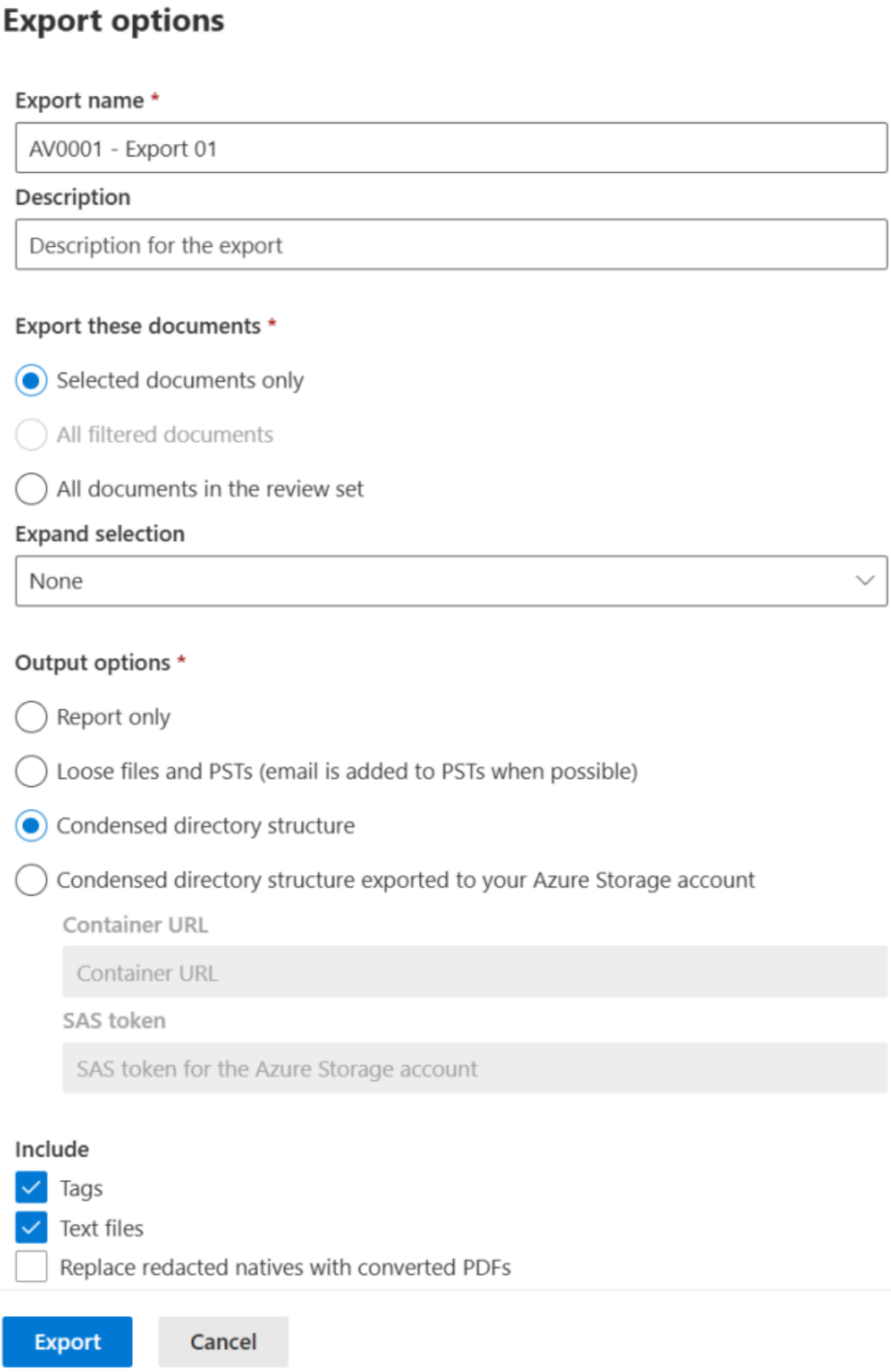


Now when we select a document there's a couple of things we can do that help us in the review process. Let's start with the button on the lower left. This provides us with a tagging option to provide the document with a tag. This tag can be part of a tag group that you can use within other documents as well and you can use them in search queries. We can also add notes, download the original file or pdf. It's even possible to take a look at the metadata or plain text version of the files!

Take a look at the video above to see the annotation possibilities in action, really cool stuff if you ask me. Select actions, commit redactions to pdf to save them when you are done. You can also use the same menu to add documents to another review set. Another powerful tool in this menu is the ability to group documents by conversations/related items or by families. If you want to know more about this, see the following Microsoft Learn article (https://learn.microsoft.com/en-us/purview/ediscovery-view-documents-in-review-set#grouping).

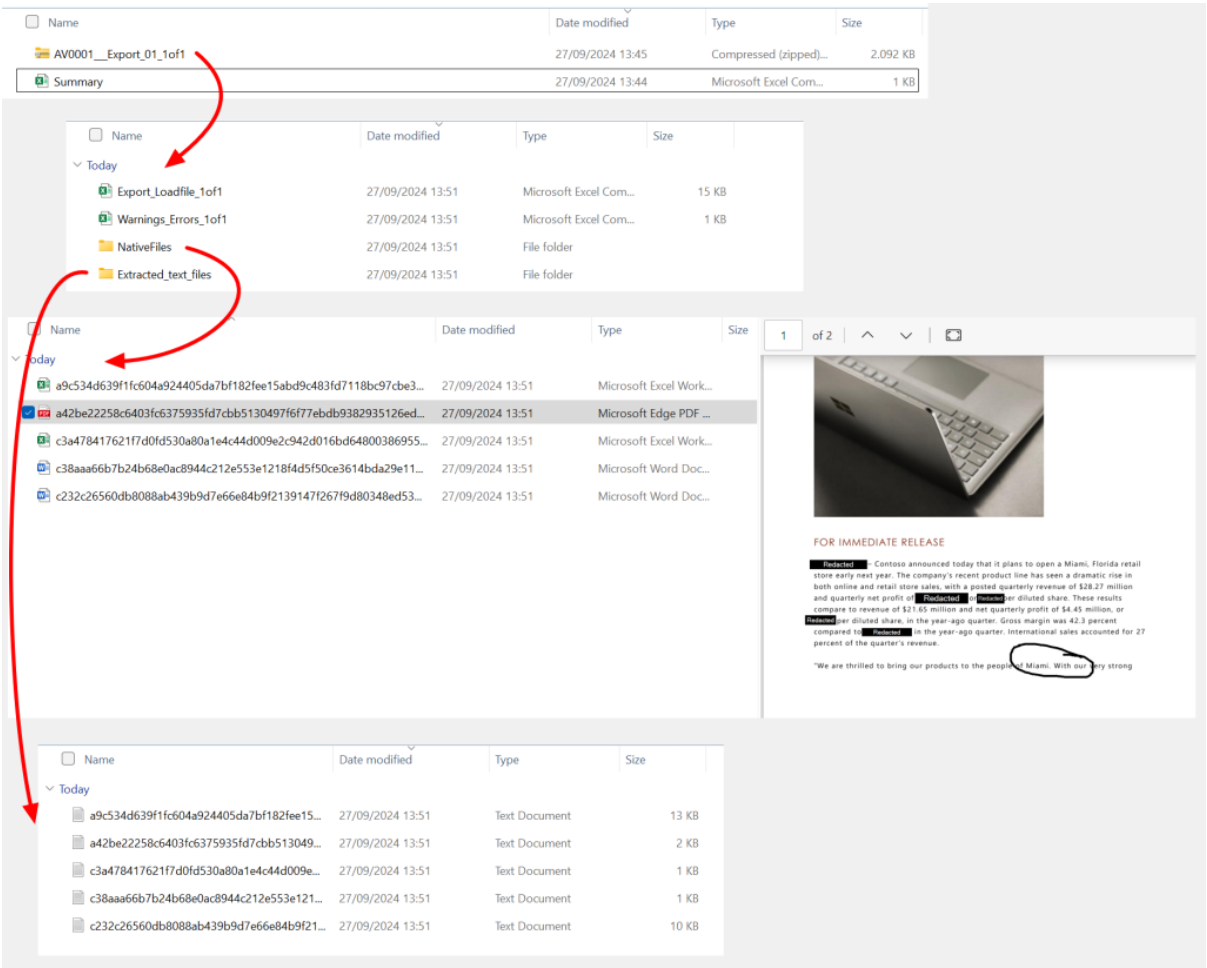


When you are done with reviewing all the files, there are several ways to export the information for further review by third parties. You can do this by downloading the documents in source or pdf (containing annotations) format, but it's also possible to export a selection or all documents in bulk. This contains the metadata, native files, text files, and redacted documents that have been saved to a PDF file. You can do this by selecting the files and pressing 'export'.


Export options
Export name *
AV0001 - Export 01
Description
Description for the export
Export these documents *
Selected documents only
All filtered documents
All documents in the review set
Expand selection
None
Output options *
Report only
Loose files and PSTs (email is added to PSTs when possible)
Condensed directory structure
Condensed directory structure exported to your Azure Storage account
Container URL
Container URL
SAS token
SAS token for the Azure Storage account
Include
Tags
Text files
Replace redacted natives with converted PDFs
Export
Cancel

To conclude this chapter, let's take a look at the options we have here. We can provide a name and description for the export and select which documents we want. (Selected, all filtered, all documents in the review set). This selection can be expanded by using family groups or conversation groups if you have these created.

The output options at our disposal are really nice to, we can only export a report, loose files and PST's or a condensed directory structure which you can download directly to your pc or to your Azure Storage Account. I also opted to include Tags, text files and to replace redacted natives with converted PDF's (not shown in image).



The output is displayed above.

Communication Compliance

Communication Compliance in Microsoft Purview can detect messages in your organization that are considered to be inappropriate. Besides detection it can also capture and take action on the messages that it finds. Microsoft Purview is equipped with several out-of-the-box policies and gives you the possibility to create your own. Communication compliance policies can be used to check for inappropriate messages in internal and external communications that take place in email (Exchange), Meeting/IM (Teams chat, channel messages, meeting transcripts with recordings), Viva Engage and interactions with Microsoft 365 Copilot.

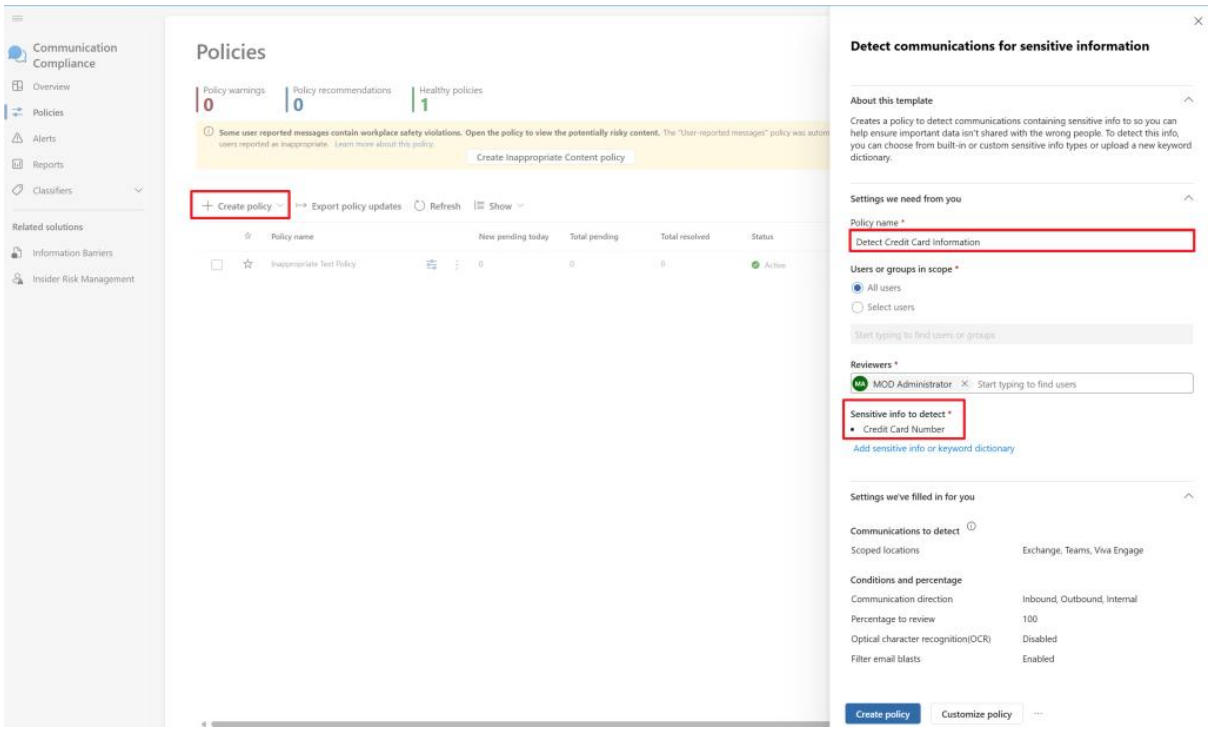
You can think of the following messages being inappropriate in your environment:

- Messages that contain sensitive content.
- Messages that contain inappropriate content, text or images.
- Messages that contain conflict of interest.
- Messages that contain information that is against laws or compliance policies.
- And so on!

In this chapter I want to show you how to create a communication compliance policy, what it looks like for the user that sends messages being inappropriate, how these messages are captured and how you can take action. Are you ready? Let's go!

Communication Compliance Policy Configuration

In this example we're going to set up a Communication Compliance policy that detects credit card numbers and we'll use Microsoft Teams to demonstrate what this looks like for the users involved. Before we begin though, make sure the audit log is enabled in your environment.

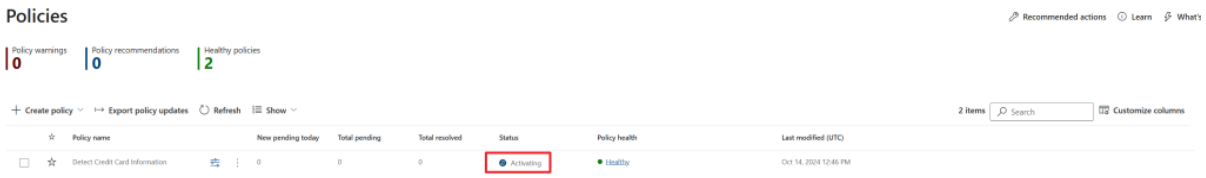


Now, let's start by navigating to the Microsoft Purview portal, select the Communication Compliance solution and navigate to the policies window. There, select 'Create policy' to create a new policy. Here we'll need to configure a few fields of information:

1. Give our policy a name. I'll go with 'Detect Credit Card Information'.
2. I select all users to be in scope of this policy, which means that this policy will apply to all users in my tenant.
3. The reviewer will be 'MOD Administrator'. As this is just for demo purposes, selecting the administrator is fine, however in a real world scenario I would advise you to delegate the task of reviewing policy matches to a dedicated resource.
4. For sensitive info to detect we'll select 'Credit Card Number'. Do note that you can select any Sensitive Info Type (SIT) or keyword dictionary to be detected in communications.
5. The scope of where this policy will be applied is Exchange, Teams and Viva Engage and this will be applied for inbound, outbound and internal communication.
6. We will leave 'percentage to review' at 100%, so we'll have to review all policy matches.
7. Optical Character Recognition is turned off at this screen, but is enabled later when selecting 'customize policy'. This feature can even detect forbidden communications in images that are being sent, really cool!
8. The 'Filter email blasts' feature is enabled, so messages from bulk email senders will not generate alerts.

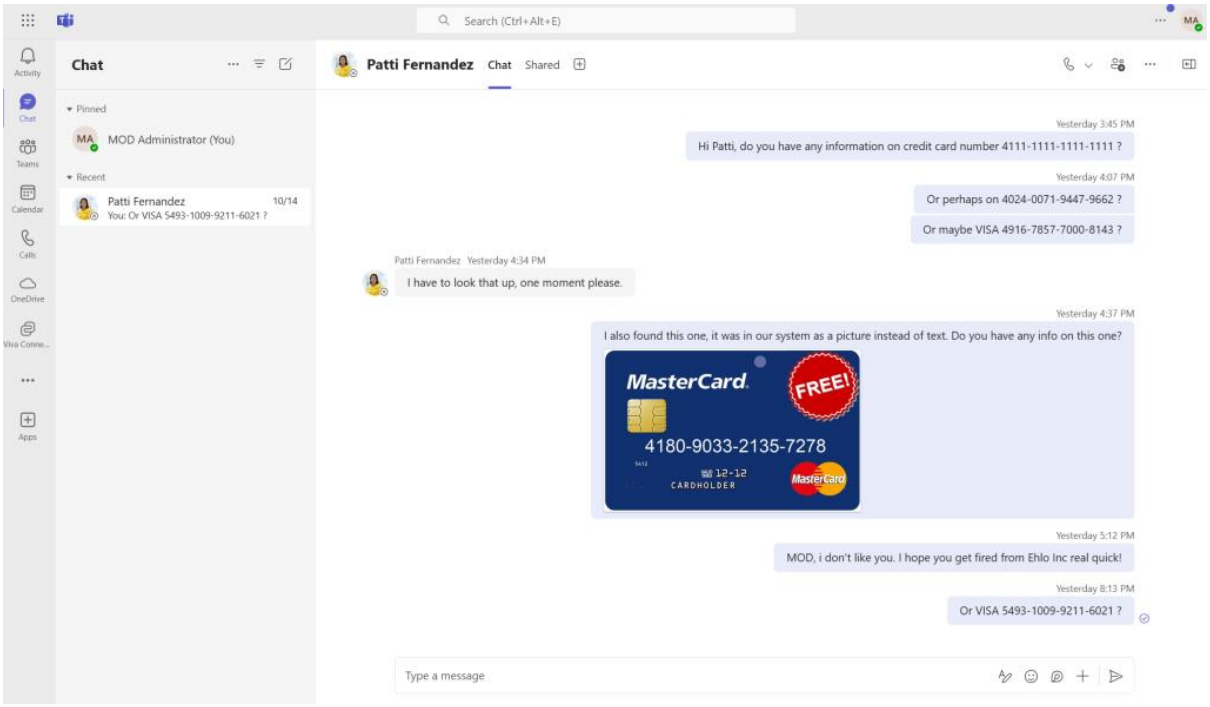
When done, we'll click 'customize policy', so we have a chance to:

- Exclude users and groups from the policy.
- Select additional Microsoft 365 locations (like Microsoft 365 Copilot) or non-Microsoft apps.
- Edit the SIT.



When done you will see that the status of your new policy is now 'Activating'. After a while the policy will have a status of 'Active' and policy health of 'Healthy'. When this is the case, we can start our testing.

Testing, 1, 2, 3



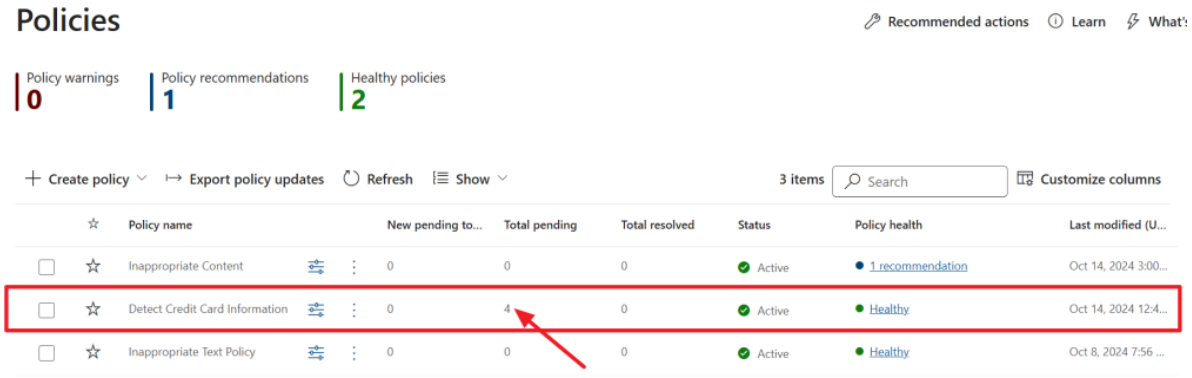
To demonstrate what is going to happen, I set up a chat between MOD Administrator and Patti Fernandez as you can see in the image above. The Administrator has sent various messages that contain (fictional) credit card numbers and even sends 1 (fictional) credit card number as a picture.

Content type	Time to detection
Email body content	1 hour
Teams body content	1 hour
Viva Engage body content	1 hour
Viva Engage attachment	Up to 24 hours
Microsoft 365 Copilot and Microsoft Copilot body content (prompts and responses)	1 hour
Email OCR	24 hours
Teams OCR	24 hours
Email attachment	24 hours
Team attachment	24 hours
Teams modern attachment	24 hours
Teams metadata	1 hour
Email metadata	1 hour
Teams shared channels	24 hours
Teams transcripts	1 hour

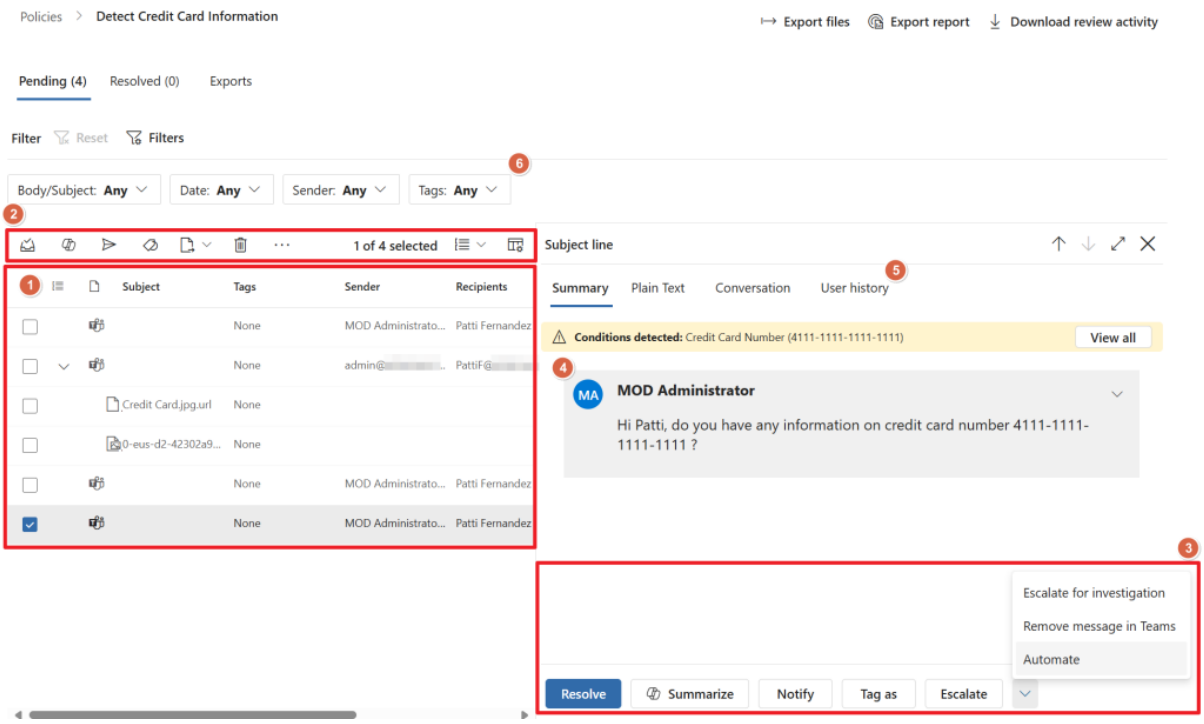
Image Source: Microsoft

Now, the Communication Compliance service starts detecting and processing these messages after which they pop up in the Communication Compliance policy screen. In the screenshot above you can see how long it takes for the service to pick up the various types of content.

Communication Policy Match Overview



Back at the Purview Communication Compliance policies screen, you can see that our 'Detect Credit Card Information' Policy has picked up 4 messages that match our policy.



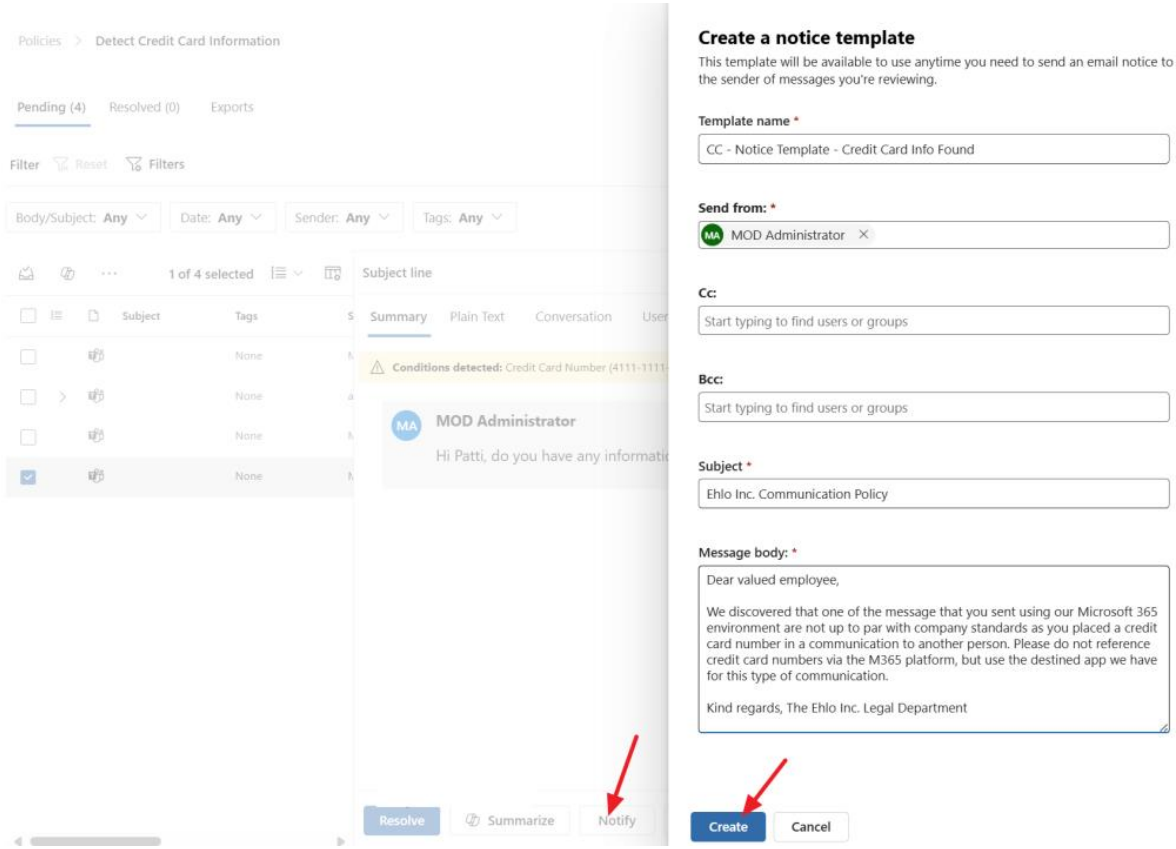
When clicking the policy, we get some insights on what's exactly going on. We can (numbers below match numbers in the picture above):

1. See an overview of all messages that match with our communication policy and included SIT.
2. Apply various actions to one or multiple messages:
    - Resolve: Move the message from the pending queue to the resolved queue. No further action is taken.
    - Summarize: Let Copilot summarize a message (requires separate license)

- Notify: Notify the sender of the message using a notice template.
- Tag as: Tag the message with one of the predefined filters or with a custom one that can both be used to filter messages.
- Escalate: Let other people in your organization review the message.
- Escalate for investigation: Create an eDiscovery (premium) case for further review.
- Remove message in Teams: Removes the message for sender and recipient in Teams and shows a help tip why the message was blocked.
- Automate: Use a Power Automate action on the selected message.

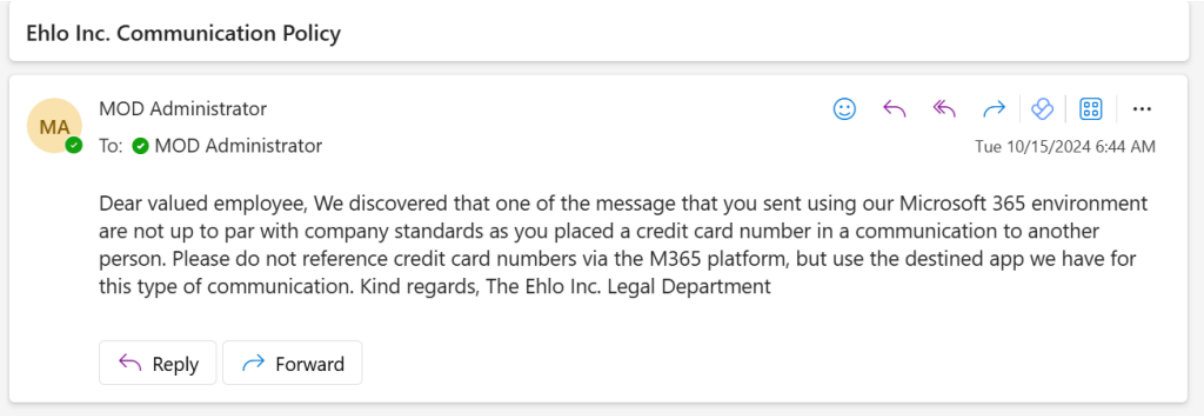
3. Same actions as for number 2, however in this case the scope is only the highlighted message.
4. Preview of the message selected.
5. Show the message summary, in plain text, a snippet of the conversation or the user history.
6. Filter the message list.

Notify the user



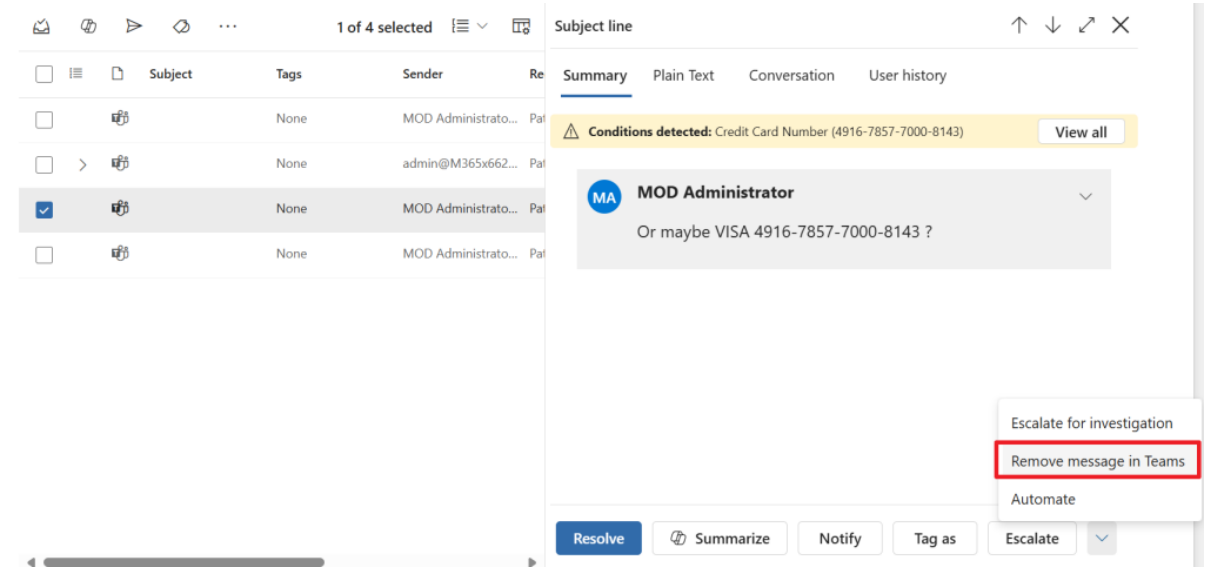
By selecting one or multiple messages and selecting 'Notify', we can notify the sender of a message. When no notice templates are configured yet, here you also have the opportunity to create one. I choose to create one that informs our user that a message he or she has sent isn't

up to par to the company's standards. After selecting your template you have the opportunity to change it to your liking.

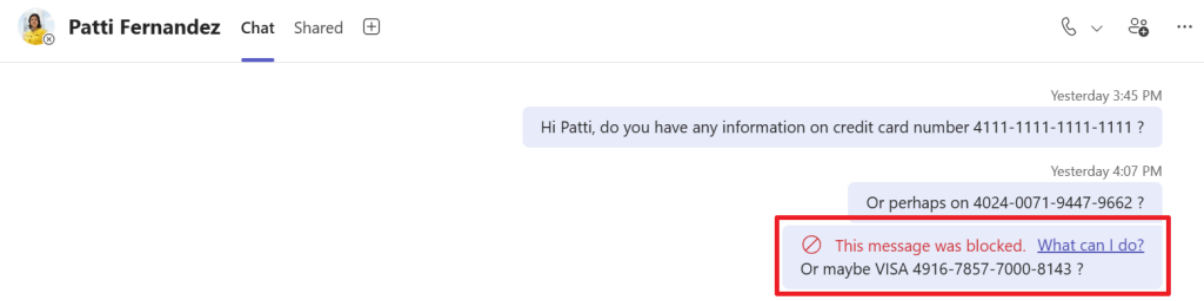


See above what the message looks like in the mailbox of the user. Unfortunately the original message isn't present so the user can't easily match the notice with a message he might have sent.

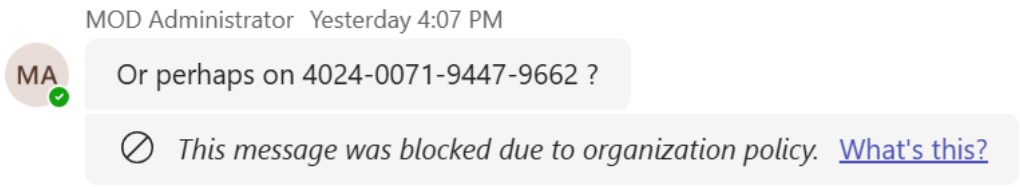
Message Removal



When selecting 'remove message in Teams' the message is... removed in Teams! This is a quite powerful feature to dispose of messages that do not comply with company standards.



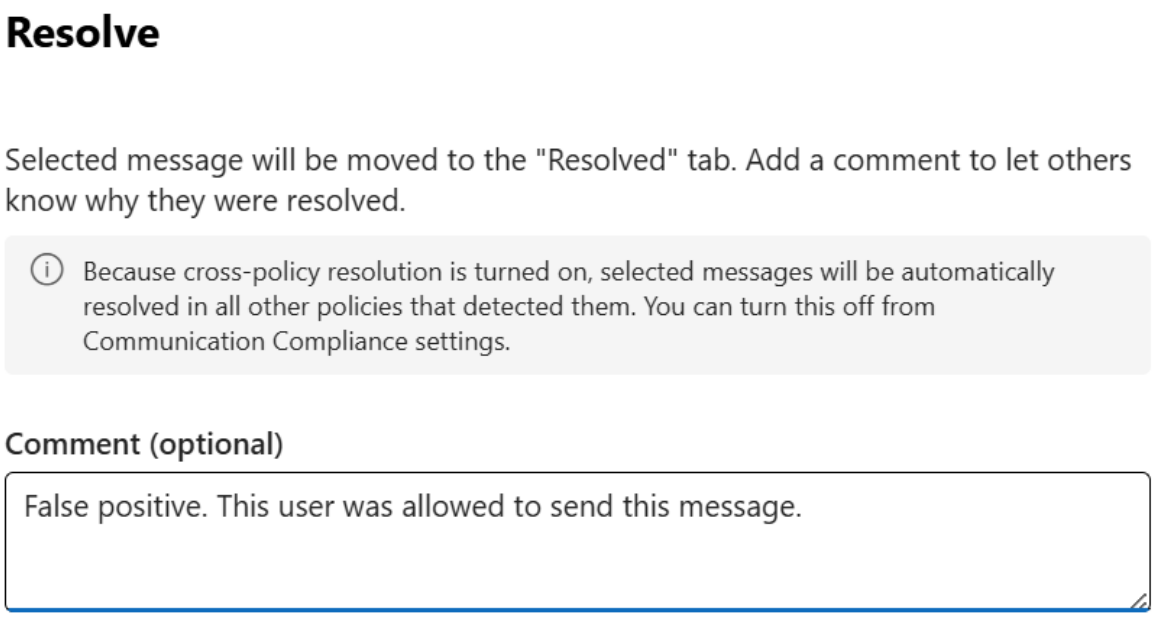
From the sender's point of view, the message is still displayed, but with an added note that the message is actually blocked. The message contains a help link to inform the user of the process that took place to actually block the message.



On the recipient side, the message is completely removed and is replaced by a message stating that the message was blocked due to organization policy. Ain't that nice?

Resolve a message

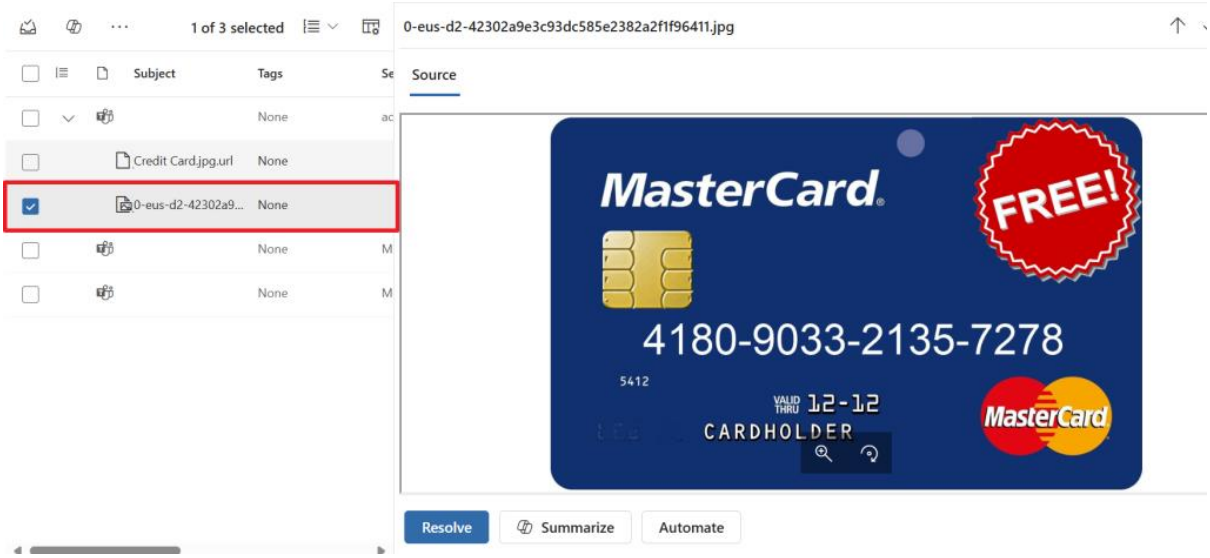
By pressing the resolve button, one or multiple messages are being moved from the pending queue to the resolved queue. This indicates that no further action has to take place on the message.



A comment can be placed that will be stored with the message in the Communication Compliance Center. Notice that by default, the message will be resolved in all other policies that detected it. This can be turned off if it not to your liking.

Optical Character Recognition (OCR)

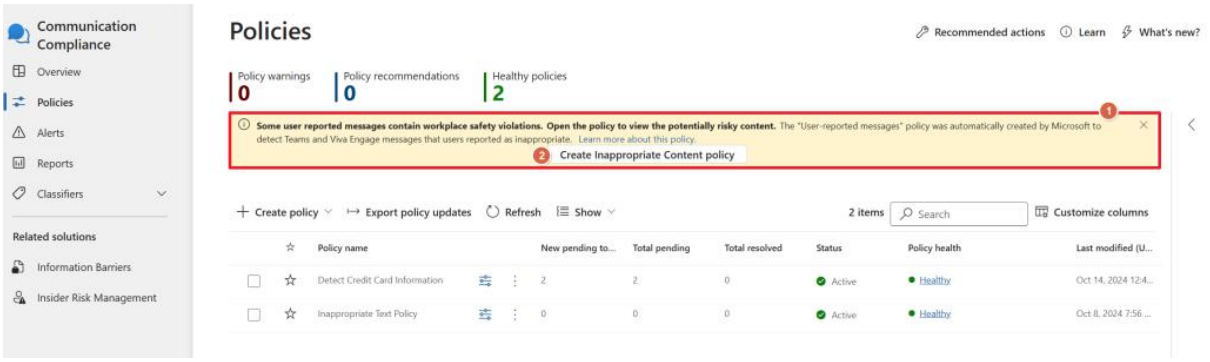
This has to be one of the coolest parts of this feature. In the picture above a message is linked with an image. Take a look at the credit card number that the OCR feature found.



It's actually found in a picture! So your SIT's will also be detected when hidden in a picture! Also the picture can be removed from the chat in this case!

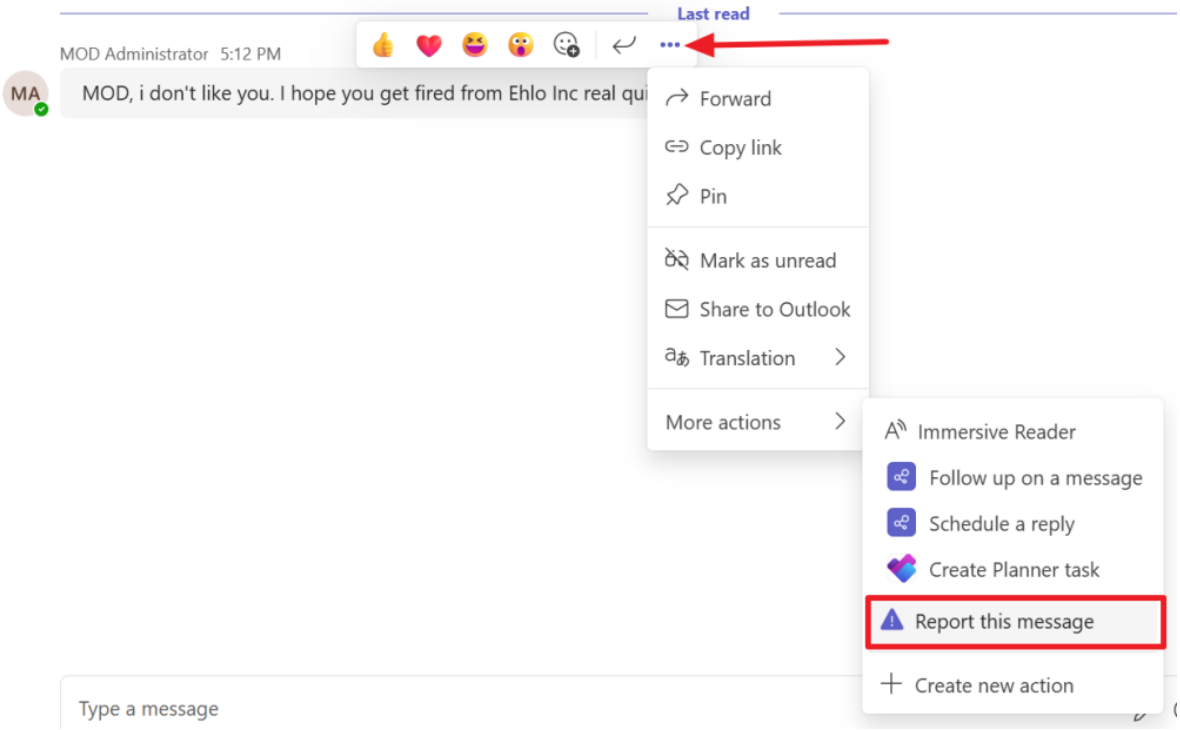
Bonus: Quick Setup: User-reported messages & Inappropriate Content

I hope the above explanation was a good example of the inner workings of communication compliance. However, when you don't want to go through the hassle of setting up policies yourself, Communication Compliance provides you with 2 out of the box options. The first one is 'user-reported messages'.



When you first enter the Communication Compliance console, a yellow bar appears stating 2 things:

1. The ‘user-reported messages’ policy was automatically created by Microsoft to detect Teams and Viva Engage messages that *users reported* as inappropriate.
2. The option to create an ‘Inappropriate Content Policy’.



The first option creates a policy that will kick in whenever a user reports a message in Teams or Viva Engage via the ‘Report this message’ button. After the button is clicked, the user can mark the message as a security risk or as inappropriate. The message is then shown in the Communication Compliance console for further investigation.

The second recommended policy (which can be created with the button in the yellow bar) creates an ‘Inappropriate Content Policy’ that monitors communications for content that matches one of the following trainable classifiers:

- Sexual
- Violence
- Hate
- Self-Harm

This is a pretty powerful feature that starts monitoring your messages on the topics above with little configuration and is great to start your Communication Compliance policy with!

Insider Risk Management (IRM)

Let's talk about the following scenario. You have an employee that is leaving your company. Because the leaving employee thinks that he has the rights to all of the companies documents he starts downloading them for later use and sends the documents to his private email account using Dropbox. Wouldn't you want to be notified of such a scenario?

Enter Microsoft Purview Insider Risk Management (IRM). A solution that collects information from all kinds of different sources like Microsoft 365 and perhaps other services like your HR-system. In IRM, you can create various policies that let you monitor all sorts of policy violations. A few examples are:

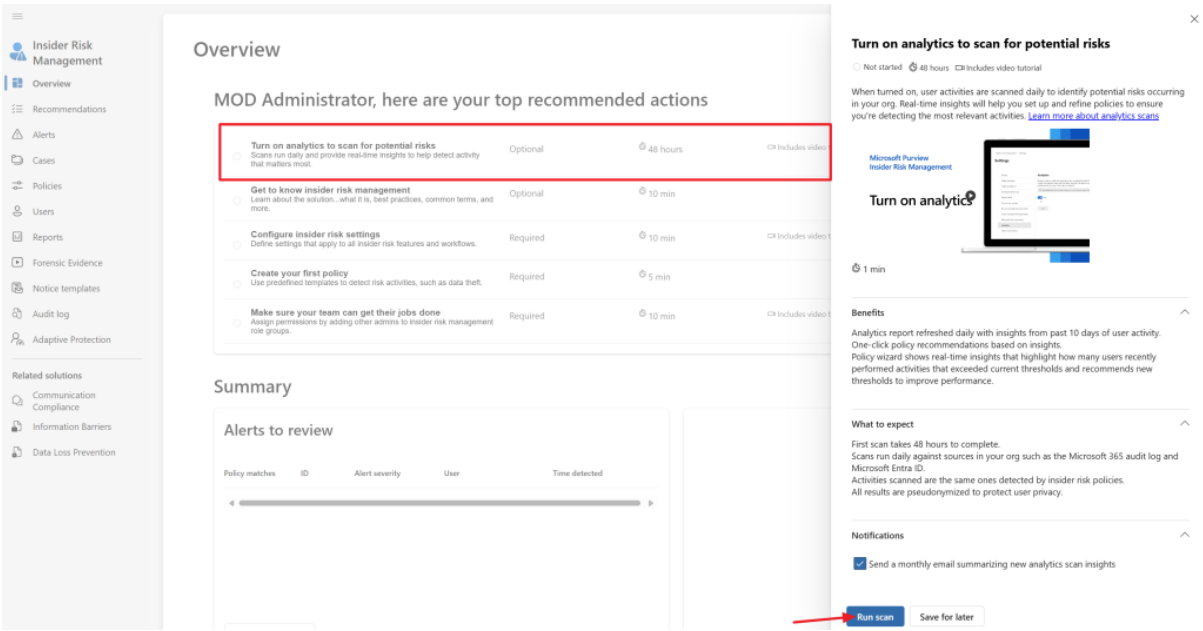
- Data theft by departing users
- Various kinds of data leaks
- Various kinds of policy violations
- Health record misuse
- Risky browser usage

IRM provides you with workflows to help your organization detect the above potential risks, manage them by cases and take various actions on the risks that are found in your environment. Ready to find out more by using an example? Let's go!

Prerequisites

When you first navigate to the IRM console, you are greeted with a few recommendations to get you started.

Turn on analytics



The first one is shown in the picture above and let's you turn on analytics to scan for potential risks. When you enable this, user activities are scanned on a daily basis to identify potential

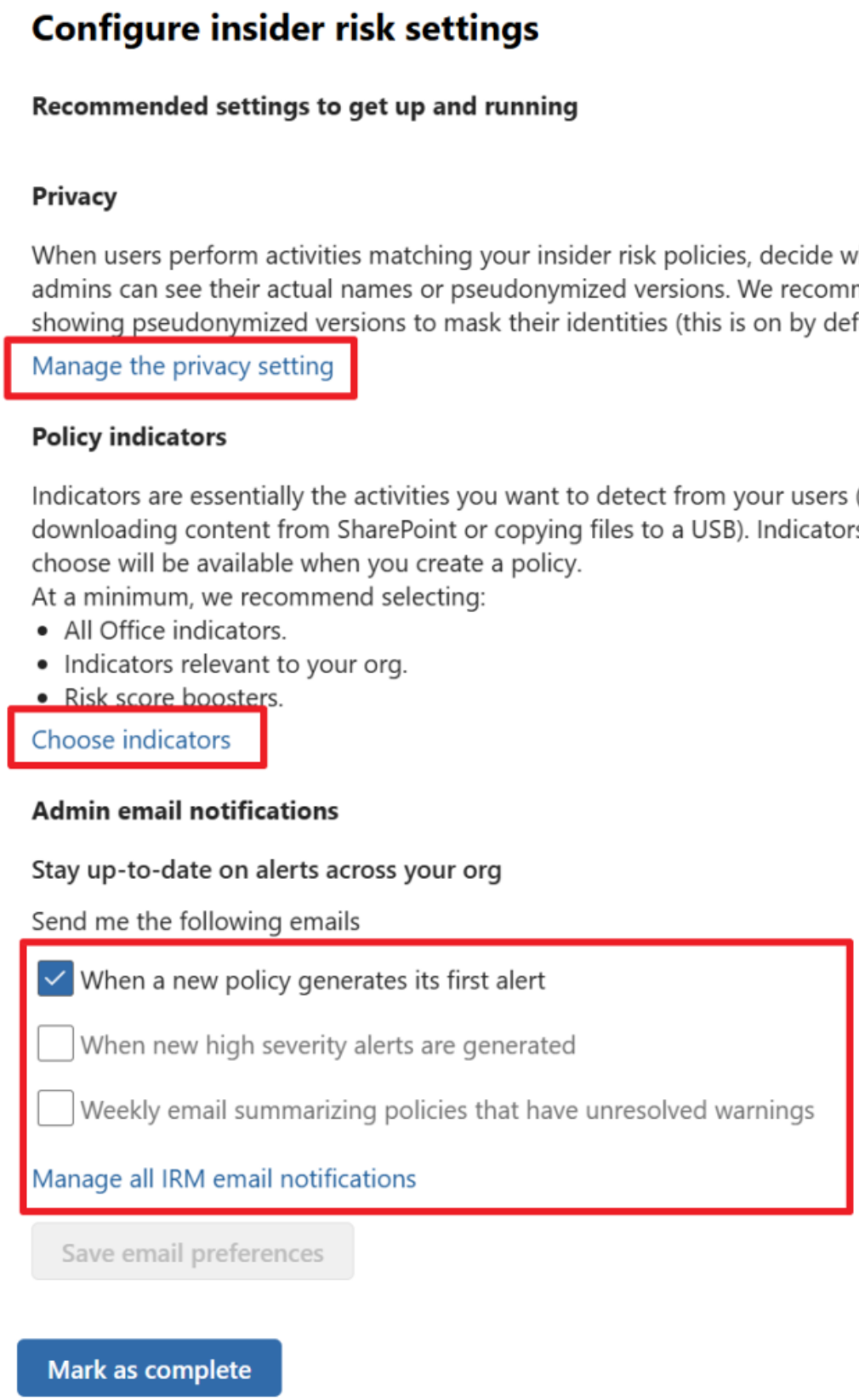
risks occurring in you environment. The first scan can take 48 hours to complete as it scans your audit log and Microsoft Entra ID. When it's done, it provides you with an email when there are insights and IRM policy recommendations to check up on. Note that if you don't have audit logging enabled for your tenant (which is enabled by default nowadays) now is a good time to do so.

Read the Manual

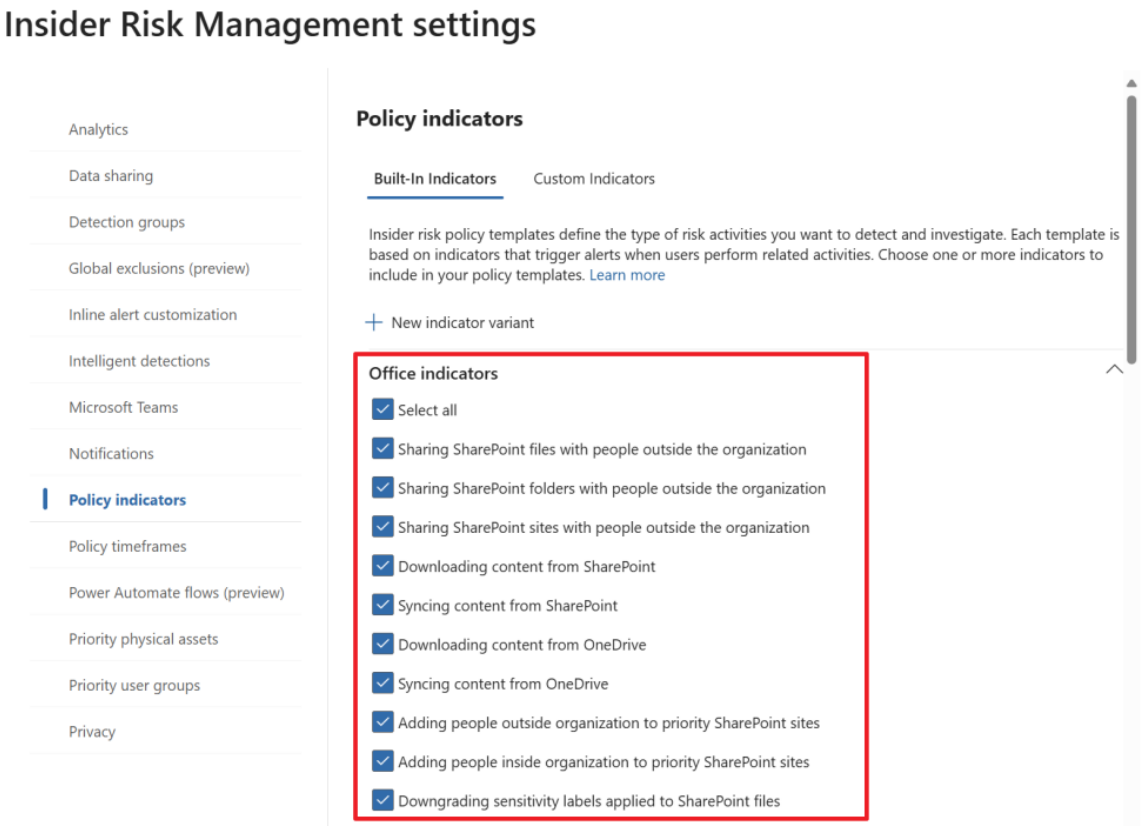
When you have taken the first hurdle, the second recommendation is to read about the solution on Microsoft Learn so be sure to take a night out of your schedule to read up on the latest and greatest of IRM.

Configure global IRM settings

After this, we can get to work by configuring the global IRM settings.



Here there are various settings to think about and take care of. Let's start with the **privacy setting**. Here, you can choose whether you want the portal to show actual usernames or pseudonymized versions of the usernames. Do note that pseudonymizing usernames disables data sharing between IRM and other solutions within Purview.



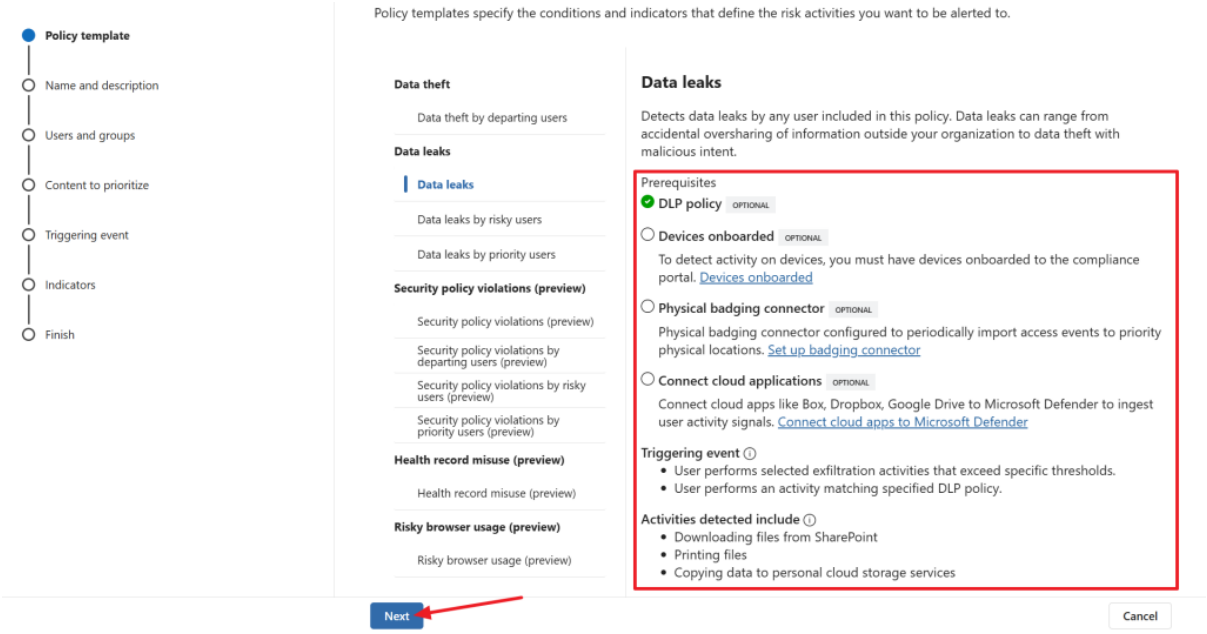
Like the help text tells us, **policy indicators** are the actual activities you want to detect in your environment. These can be Office indicators like in the screenshot above. For example, downloading content from SharePoint, Syncing content from OneDrive and so on. There are also indicators from other categories, like device indicators which let us monitor activities on devices. Examples here are creating or copying files to USB, printing files and using a browser to download content from a third-party site. In this case, I select all available office indicators for our demo. If the default indicators don't match your needs, you can always create your custom indicators.

The last thing to set up is which **email notifications** your admin account should receive. I leave the defaults to only receive emails when a new policy receives it's first alert.

When this is taken care of the last steps let you set up permissions for IRM so your team can do their job and lastly **create your first policy**. Let's zoom in on creating a policy and what it's effects are in your environment.

Setting up a policy

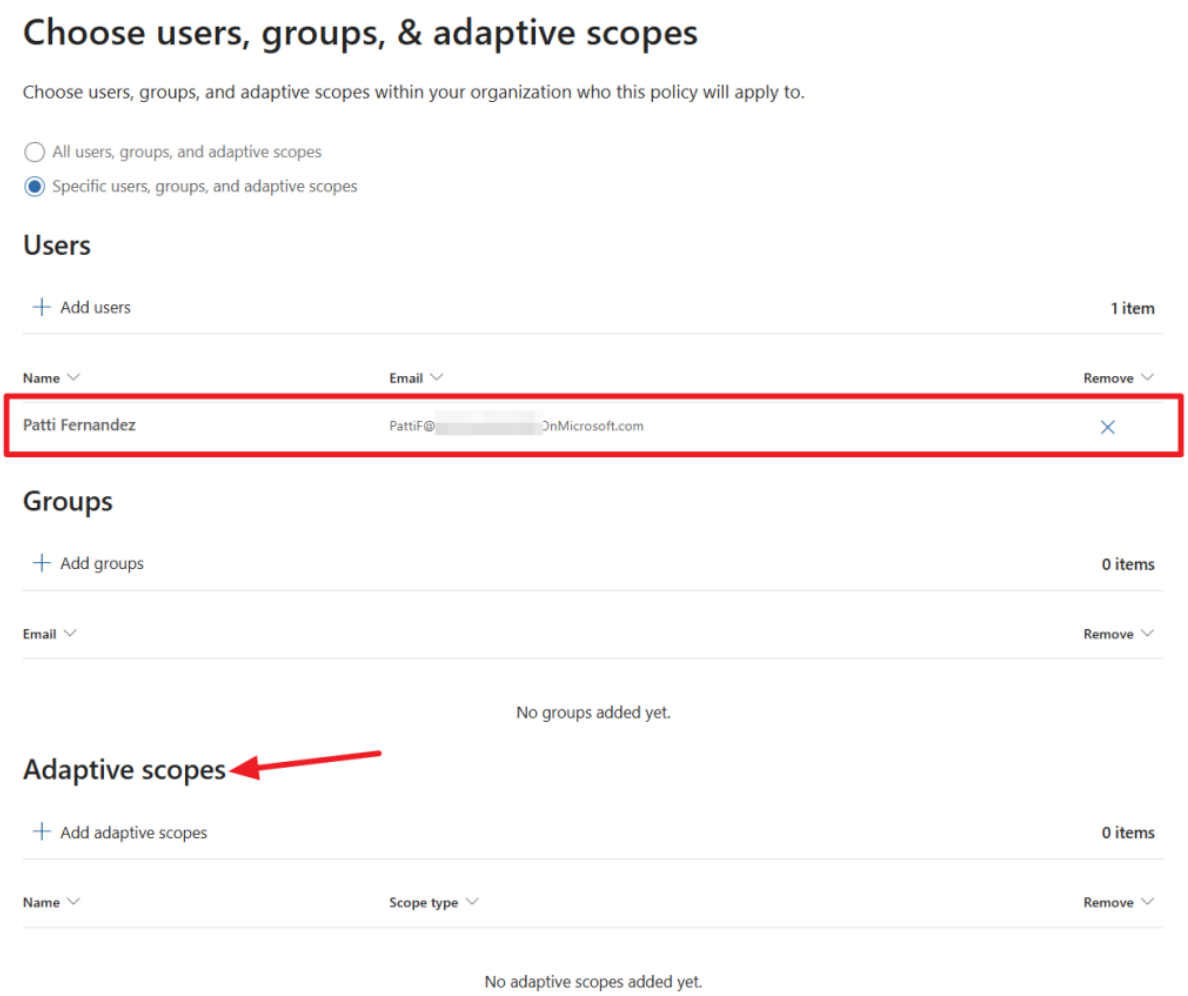
Let's navigate to the Microsoft Purview portal and select the Insider Risk Management solution. Next, click policies and select 'Create policy'.



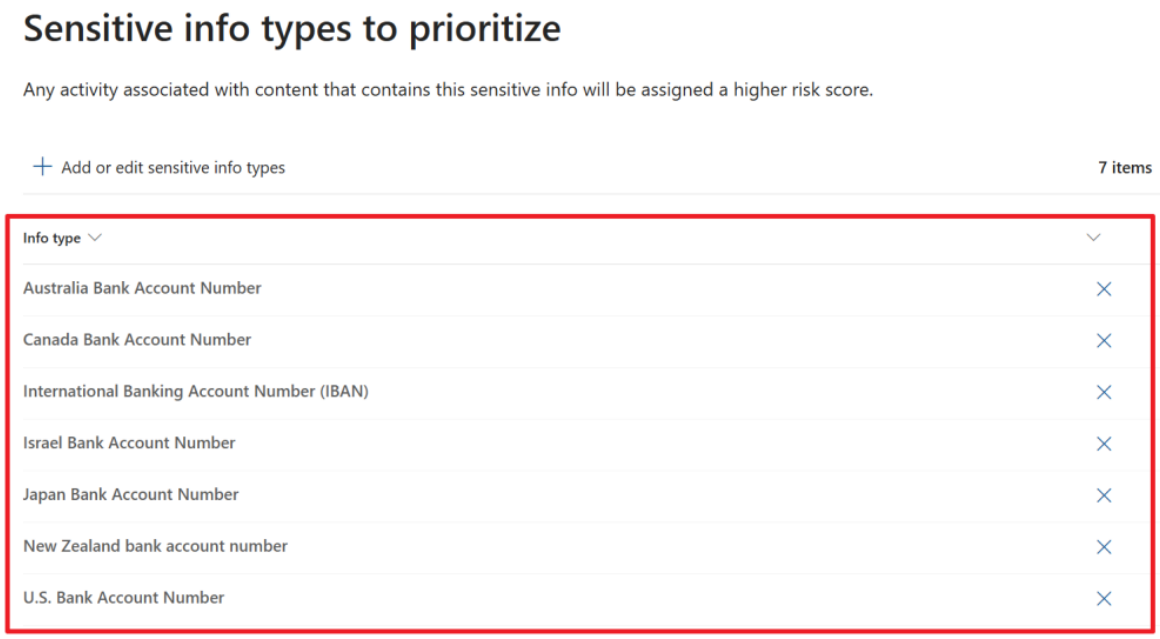
Immediately we are shown with a dialog asking us what kind of policy that we want to create. Let's select 'Data leaks'. Remember those data sources we talked about? Here it's time to review which data sources are mandatory or optional for this policy type. As I already have a Data Loss Prevention (DLP) policy in my environment, it is found by the wizard. As can be seen it's also possible to connect a physical badging connector to see to which physical locations a user had access and use this in the policy or you can choose to connect cloud applications like Dropbox and Google drive, so you can monitor them for data being uploaded or downloaded to or from the services.

To trigger this policy, a user has to perform an exfiltration activity that exceeds specific tresholds or a user performs an activity matching specified DLP policy. Activities that are detected in this policy are downloading files from SharePoint, printing files or copying data to personal cloud storage services (which is why one would want to connect Dropbox and the likes).

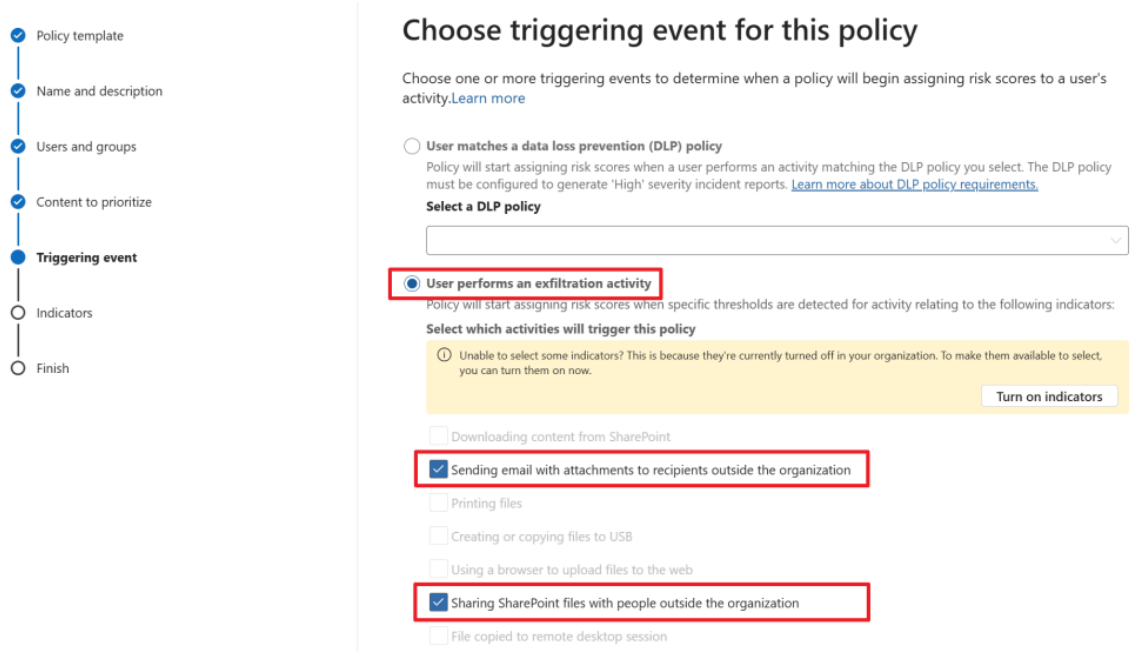
Next, name your policy and give it a nice description.



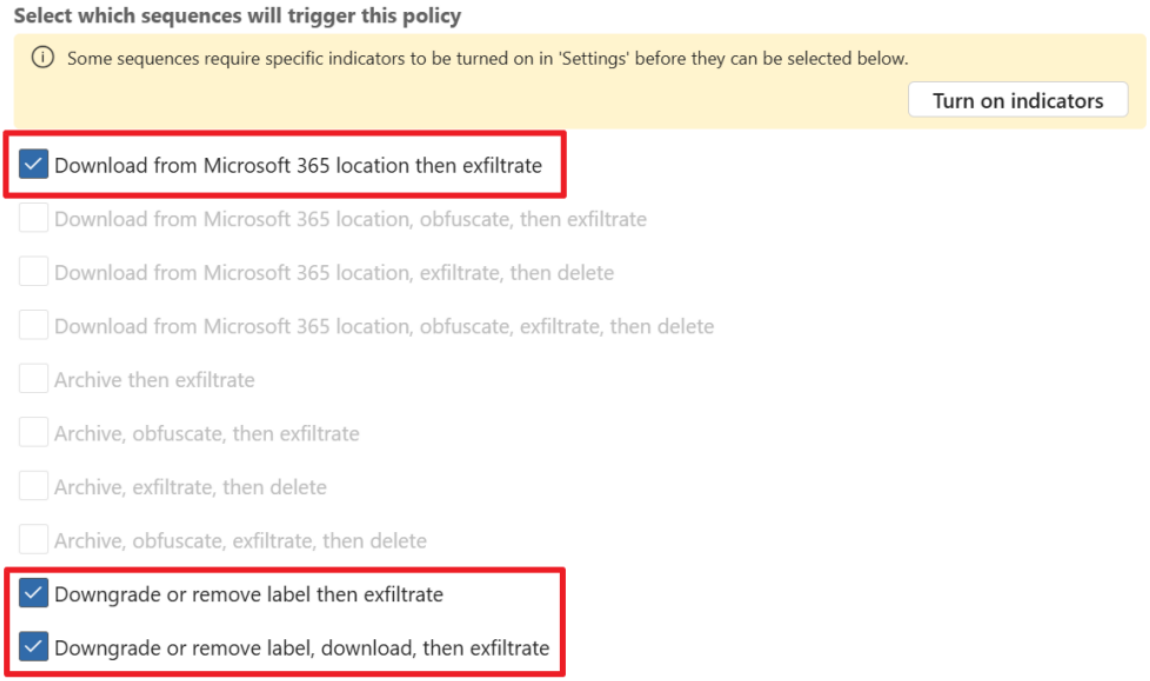
Next we can use an adaptive scope or select users and groups to which we want to apply this policy. To makes things simple for this example, I've chosen to apply the policy to a user named 'Patti Fernandez' only. In the next screen, we can choose to prioritize content on a specific SharePoint site, or content that contains sensitivity labels or certain sensitive info types.



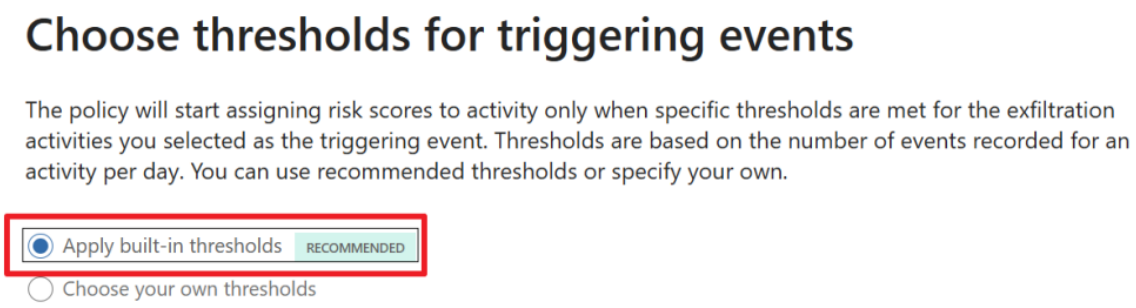
In this example, I have chosen to prioritize content in the 'Sales and Marketing' SharePoint site, content that holds the 'Confidential – Finance' sensitivity label or one of the sensitive info types that are shown above. If you want, you can also choose to get only alerts for activities that include priority content, or get an alert for all activity that is seen in your environment that matches this policy.



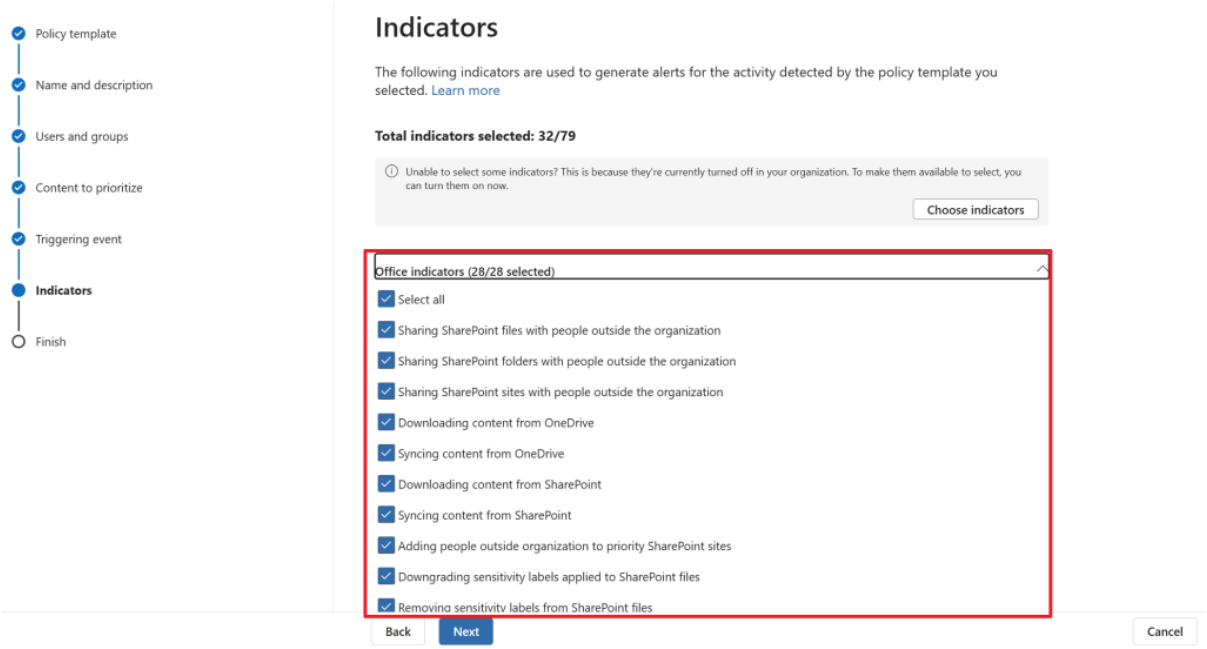
Now for the part that we (or at least I) have been waiting for. How is this policy triggered? We can do so by choosing a DLP policy that has to be matched OR select an exfiltration activity that takes place. I've chosen the latter option. In this policy, a user (Patti Fernandez in this case) has to send an email with attachments to recipients outside the organization or share SharePoint files with people outside the organization to trigger this policy.



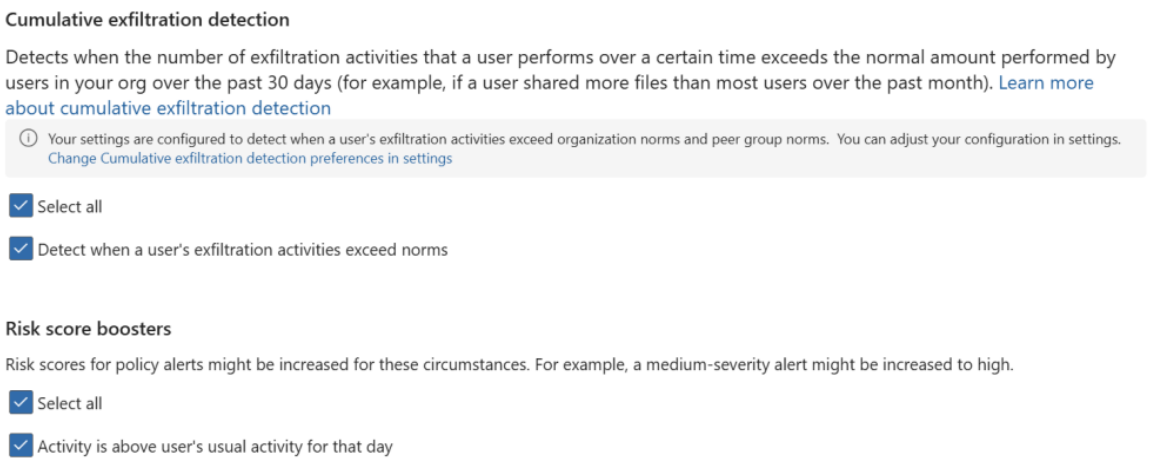
Next, we have to choose which sequence will trigger the policy. In my case I've selected the ones above. Exfiltration is the fact that data is stolen from your environment.



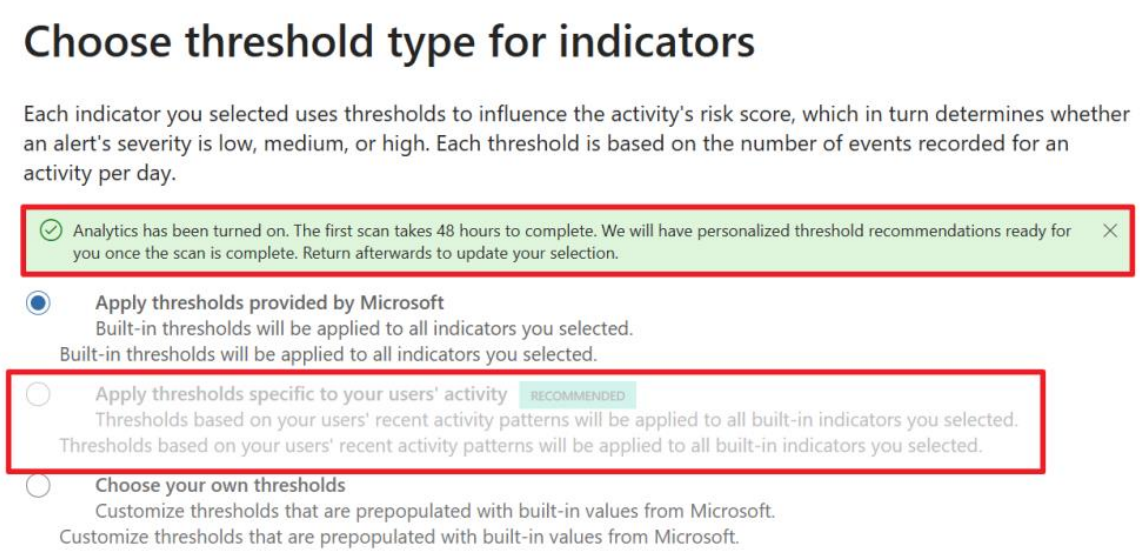
In the next screen, we have to choose which thresholds we want for triggering events. For example, here you can choose the number of times that a document is downloaded from a Microsoft 365 location and then exfiltrated.



Next we have to select indicators (yes, again) which will generate an alert for the activity detected by the policy template we selected (Data leaks in our case). Let's choose to select all. The same alert generation options have to be chosen for detected sequences.



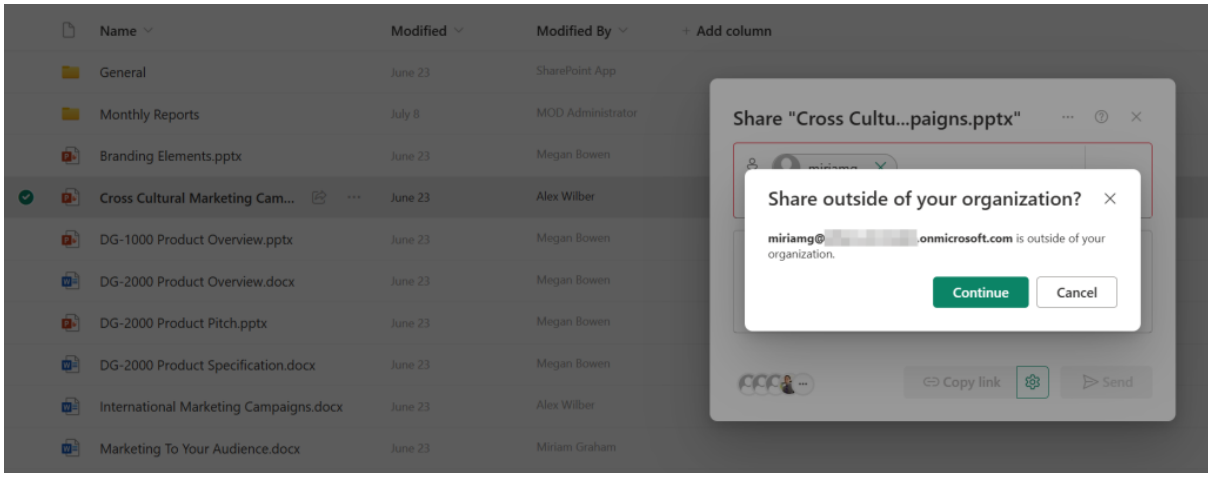
In the 'cumulative exfiltration detection' screen, we can configure whether the service should detect when the exfiltration activities that a user performs over a certain time exceeds the normal amount for users in your org over the past 30 days. This can then be used to boost the risk score in your policy.



The indicators we selected before (downloading content from SharePoint, Syncing content from OneDrive and so on) uses thresholds that influence the activity's risk score, which in turn will determine what the severity for an alert is. For these thresholds we can configure to use the Microsoft defaults or use our own thresholds. However, as can be seen in the screenshot above, after 48 hours it's possible to let the service use personalized threshold recommendations that are based on your users' recent activity patterns!

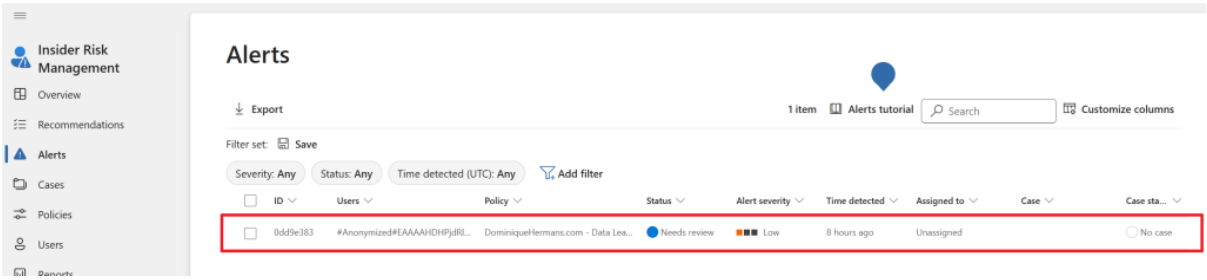
Lastly, as always, review the summary and submit the new policy. Take notice of the screen that tells you that it might take up to 24 hours before policy matches will start showing up on the Alerts tab.

Good user gone bad

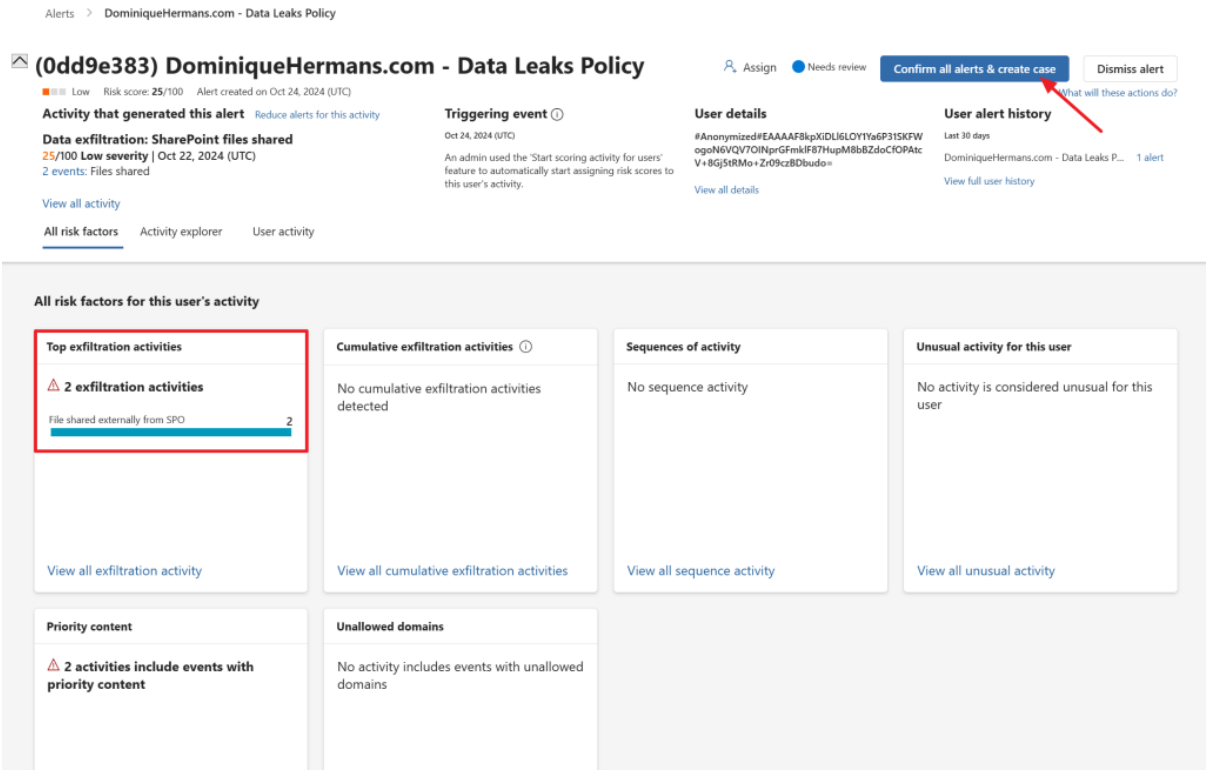


Now let's enter Patti Fernandez as our 'good user gone bad'. Patti starts to share a couple of documents from SharePoint to an external user. She sees the notification above but choses to ignore it and share the data anyway. She shares a couple of files in the same way.

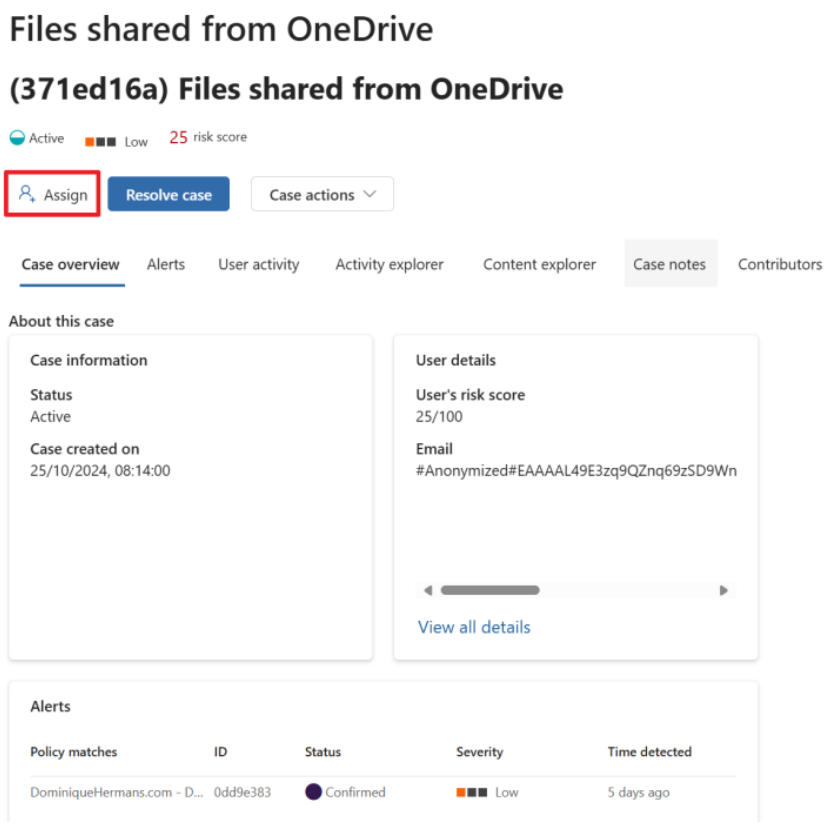
Red alert!



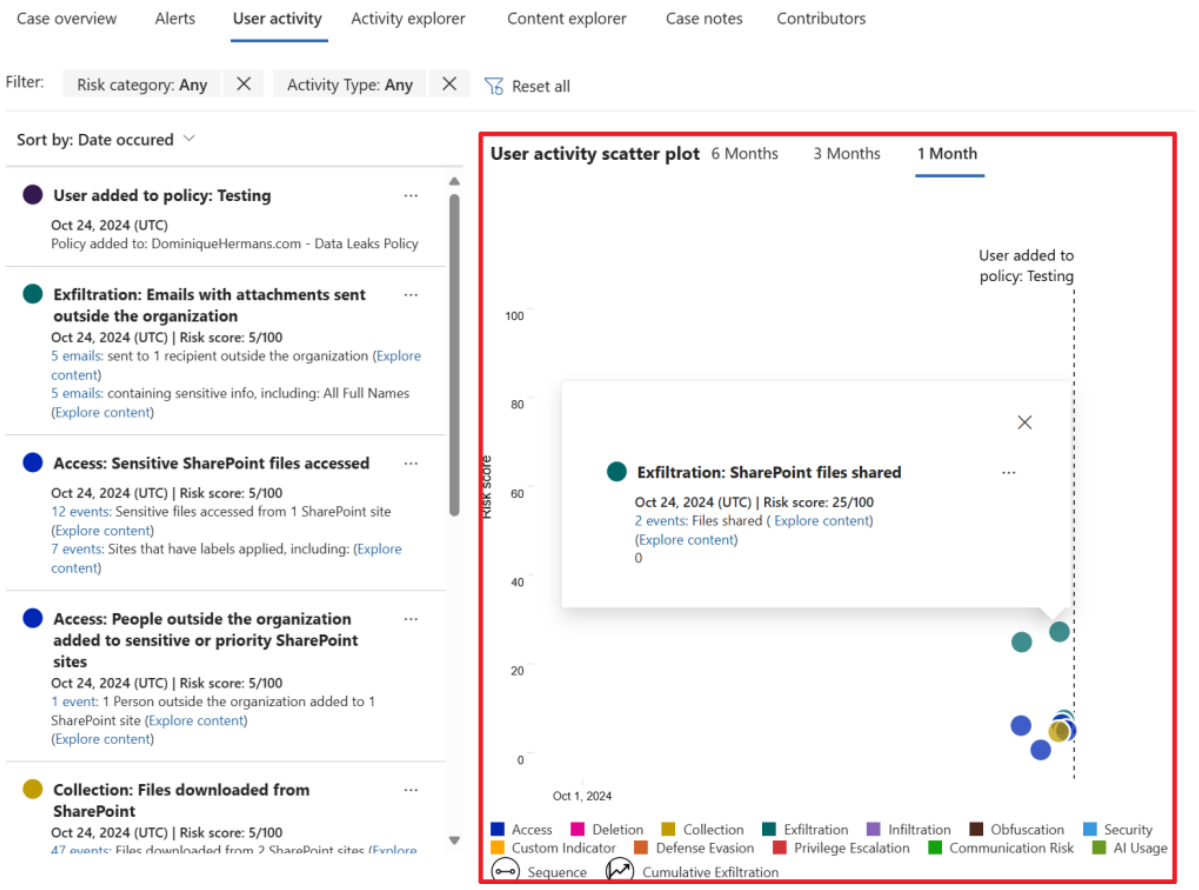
Now let's return to our admin user and select the 'Alerts' screen in IRM. We can see that an alert is generated for a user (which cannot be seen because we choose to pseudonymize usernames) and the status for the alert is set to 'Needs review'. We can also see that the alert is not yet assigned to a user tasked with taking care of alerts and no case has been generated yet.



When the alert is opened, we are provided with a whole world of details. What was the triggering event (which I might have slightly manipulated for the policy to trigger 😉), the top exfiltration activities, the severity of the alert and some other details. Let's confirm the alert and create a case by clicking 'confirm all alerts & create case'.

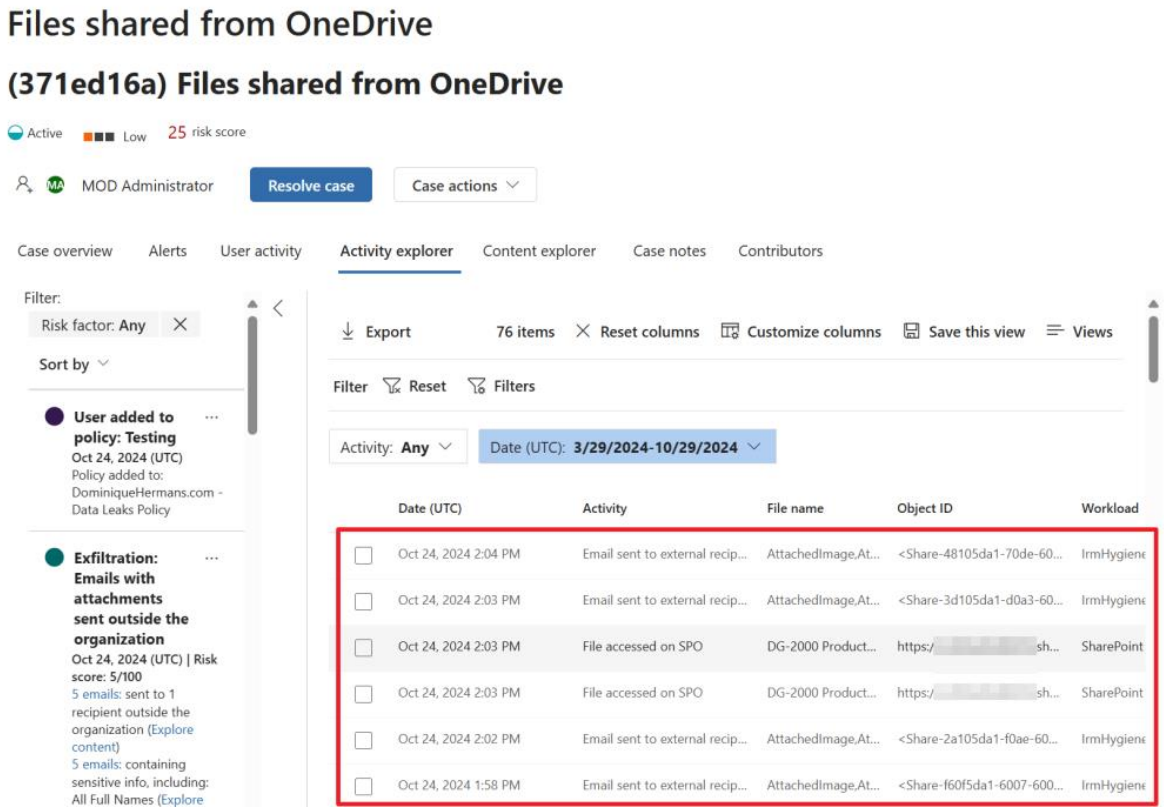


After moving to the cases screen in the IRM portal, select the case we just created and let's assign it to a fellow IRM employee to start reviewing the case. Let's go through each tab of this interface to see what information is provided to us via the case. Note that a case can have multiple alerts attached to it, in this demo it is only 1 alert, which can be seen on the 'alerts' tab.



The user activity tab shows us a list of all activities that lead up to this alert and it accumulates this for us in a so-called 'user activity scatter plot' in which you can see all user activities that happened over time. Now, this is just an example that was created here, but imagine that your HR system noted that an employee is going to leave the company in a few weeks (which would be a great trigger event), and after this the system shows all kinds of data being exfiltrated to the users personal Dropbox.

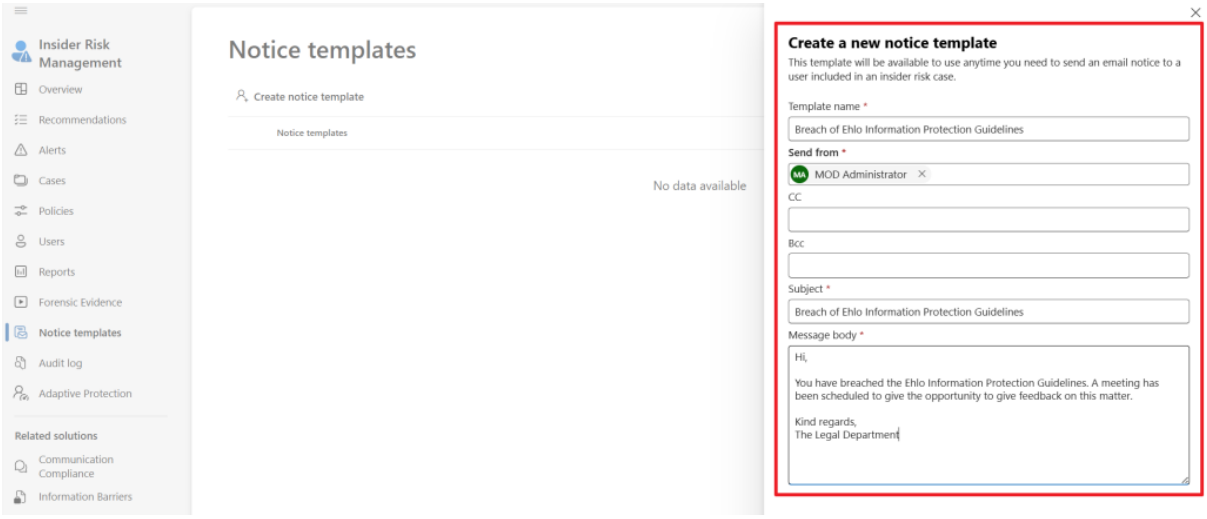
This shows the real power of the IRM solution as it uses all these events to create 1 easy to read chart that shows exactly which risk the user actions pose to your company!



When we select the 'activity explorer' tab we can dive a little deeper by taking a look at all the activities the service linked to this case. This really shows a nice detail of what is going on. We can even take a look at the content included in the case from the 'content explorer' tab. Really nice to have all this features in 1 GUI.

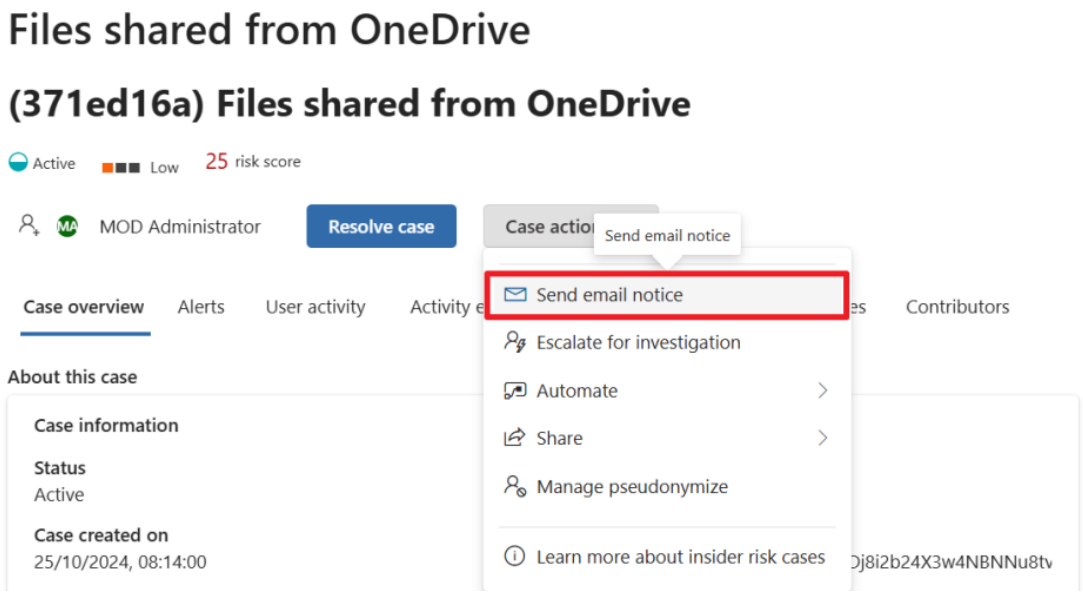
Last but not least, we can use the 'case notes' tab to write down important information about the case and use the 'contributors' tab to add other colleagues that may manage the case.

Notice templates



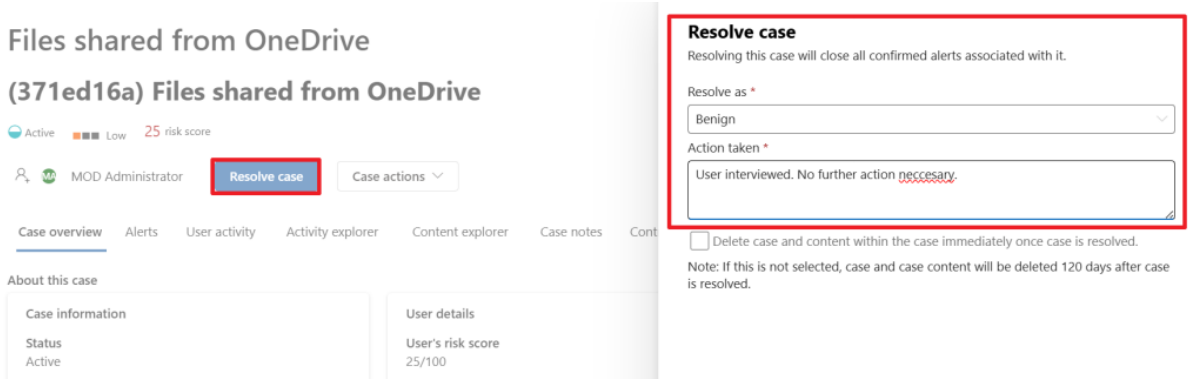
Now, with our case created let's create a notice template by navigating to IRM, Notice templates. These templates can be used as a starting point to communicate about a case with a user involved in this case. I drafted up the one that is shown above.

Case actions



Let's return to the case we've created and select 'case actions'. It provides us with a few options like escalate the case for investigation, which actually opens an eDiscovery (premium) case in your Microsoft 365 environment that allows the IRM case to be further reviewed, for example for legal purposes. We can also apply a Power Automate action or share the case. Lastly we can manage the pseudonymize options for this case.

Let's go for 'send email notice'. We can now select the email notice we created earlier and send the message to the user. We might not be able to identify the user because the data in the IRM portal is pseudonymized, however the system is still able to track down the user.



Lastly, depending on the input of our user, the case would be resolved as 'benign' which closes the case as no further action is necessary. It's also possible to resolve the case as a 'Confirmed policy violation' in which case you have to take appropriate actions depending on the severity of the case.

Mastering the (Unified) Audit Log

The Microsoft Purview (Unified) Audit Log. Not the first component of Purview you think of when there's Data Loss Prevention, Data Lifecycle Management and other cool features. However, the most basic feature like the Audit Log can be quite interesting. So in this chapter, I want to take you through the basics of the Unified Audit Log.

The Audit log is the place where a lot of user and administrator interactions with the various Microsoft 365 services are stored so they are accessible and searchable for security ops, IT admins, insider risk teams, and compliance and legal investigators in your organization. That's exactly why it's called the **unified** audit log. It collects almost everything from the various services in your Microsoft 365 subscription.

Let's talk basics

The Purview Audit Solution comes in 2 flavors: Audit Standard and Audit Premium. Both are enabled by default in newer M365 tenants. If you have an older tenant, you'll need to use the following command in Exchange Online PowerShell to verify whether the Audit Solution is enabled in your tenant:

```
Get-AdminAuditLogConfig | Format-List UnifiedAuditLogIngestionEnabled
```

While both flavors come packed with the Audit Search tool in Purview and Compliance portals and Search-UnifiedAuditLog PowerShell cmdlet to search through audit events, exportable audit records to CSV's and access to audit logs via the Office 365 Management Activity API (albeit that Audit Premium includes higher bandwidth access to the API), differences are noticeable in the following area's:

Audit Standard has a 180-day audit log retention where Audit Premium can be configured for up to 10-year audit log retention. Also, Audit Premium includes Audit Log retention policies and Intelligent Insights. Intelligent insights provides access to important events to conduct forensic and compliance investigations. Take a look at the following Learn Article (https://learn.microsoft.com/en-us/purview/audit-solutions-overview#audit-premium-activity-properties) to see the activity properties that are supported.

Besides the above, you have to be assigned the 'Audit Logs' or 'View-Only Audit Logs' roles in the Microsoft Purview (compliance) portal to be able to search the audit log. These roles are part of the 'Audit Manager' and 'Audit Reader' role groups.

Another thing to note is that Microsoft doesn't guarantee the time it takes for an audit log to be available (or searchable) after an auditable event has happened. It does note however that for the general services (Exchange, SharePoint, OneDrive and Teams) availability is typically 60-90 minutes after an event occurs.

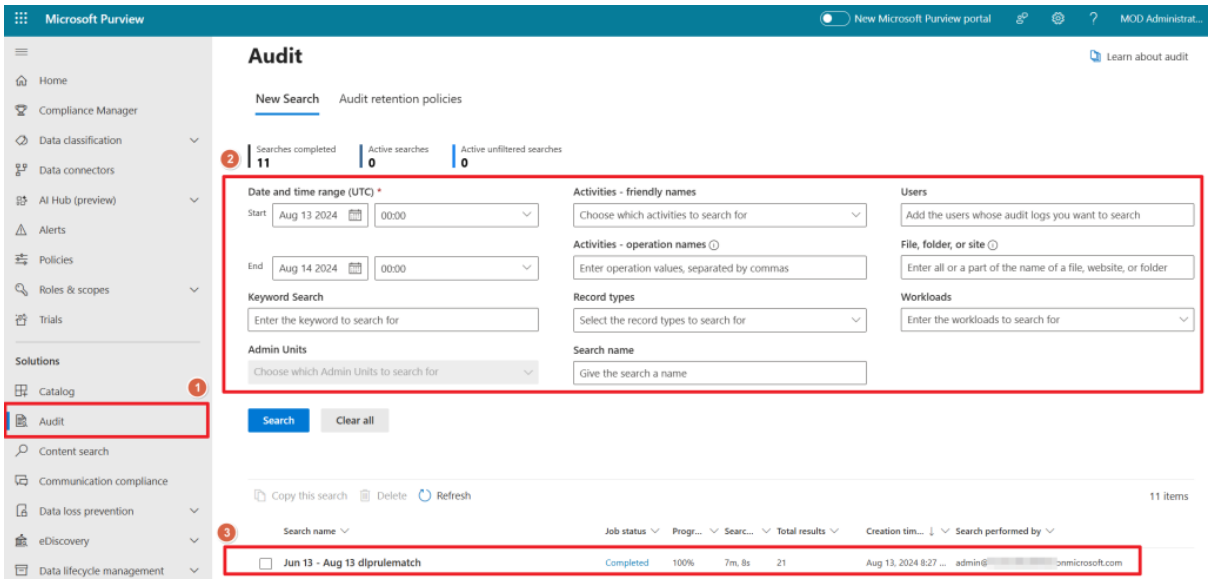
What information is stored in the Unified Audit Log?

The answer to this question depends on the type of license that is assigned to specific users. The license type defines which user or admin activity generates an audit record and for how long this record is stored (and thus is searchable) in the audit log.

- When a user has a Office 365 E5, Microsoft 365 E5 or Microsoft 365 E5 Compliance or Microsoft 365 E5 eDiscovery and Audit add-on license, audit records for the following services are retained for 1 year by default:
    - Microsoft Entra ID
    - Exchange
    - SharePoint (and thus OneDrive)
- Organizations with the licenses mentioned above can create audit log retention policies to retain audit records for activities in other services for longer retention periods than the default of 180 days for these other services.
- Users that are assigned any other license than the ones mentioned in the first bullet, audit records are retained for 180 days.

Using Audit Log Search

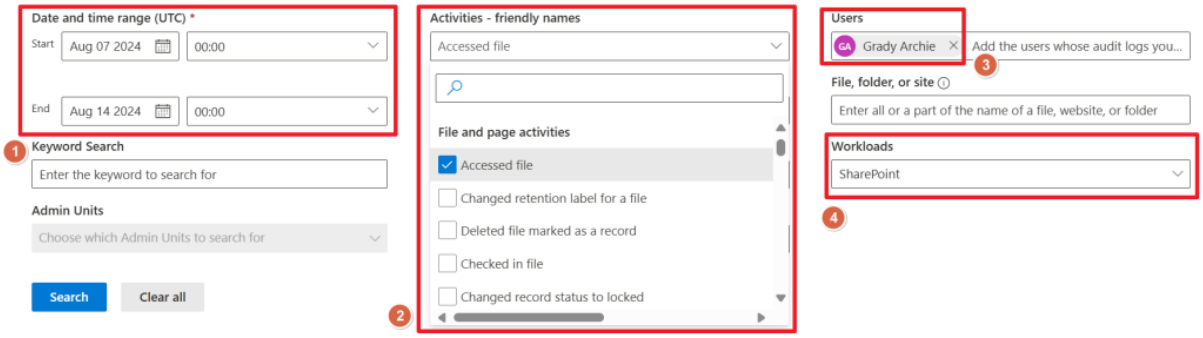
Let's dive into the portal and take a look at how Audit Log Search works.



When you navigate to the Microsoft Purview Console and select the Audit Solution on the left hand side (1), you'll enter the main Audit Console which consists of 2 parts:

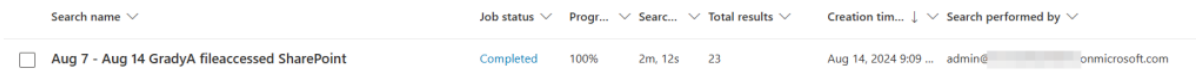
- The filter section to narrow down your search of all items in the Audit Log (2). The more filters you configure for your search, the more narrowed down your search result will be.
- The previous search jobs section that shows previous search jobs and their status.

Let's go and run through an example to get an idea of how this works.

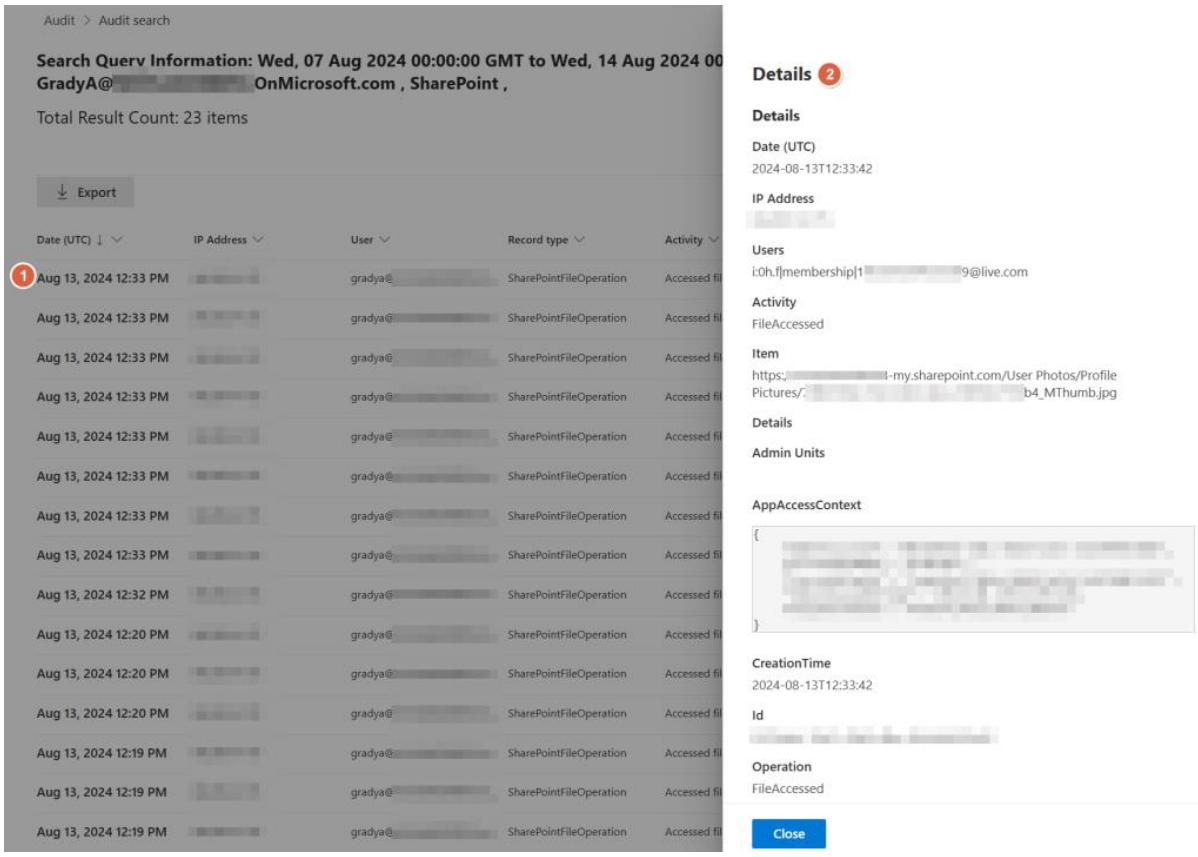


For our audit search, let's configure the search filter so that we're searching for all accessed files in SharePoint by Grady Archie in the last week:

- Date and Time range set to last week (1).
- Activity is 'accessed file' (notice the nice drop down list on 'activities – friendly names') (2).
- User is Grady Archie (3).
- Workload is 'SharePoint' (also selectable by a drop down list).



When pressing Search a new line appears in the 'previous search jobs' section. Now we wait until the 'Job Status' changes to 'completed' and click it so we can see the results. Notice that the search name is automatically filled in for us (since we lacked to do so).



The results pane presents us with all audit log entries that match our search filter (1). When selecting one of the entries, the details pane (2) shows us more information. Ranging from CreationTime to UserID to the fact if the device that accessed the file is a managed device or not.

If you want to take a look at all the available properties take a look at this Microsoft Learn Article (https://learn.microsoft.com/en-us/purview/audit-log-detailed-properties). If you would like to see some scenarios where the Audit Log could help you troubleshoot common support issues, take a look at this Learn Article (https://learn.microsoft.com/en-us/purview/audit-troubleshooting-scenarios).

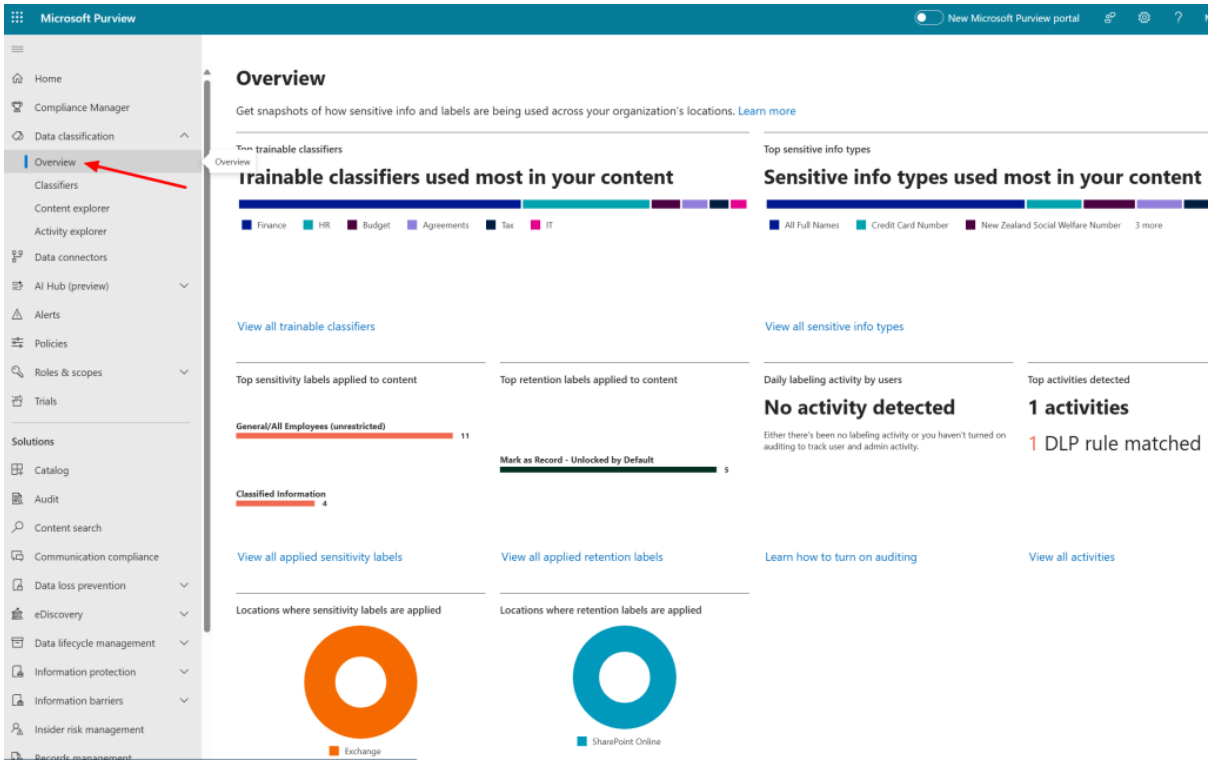
Hope you learned something in this chapter!

Utilizing the Content and Activity Explorer

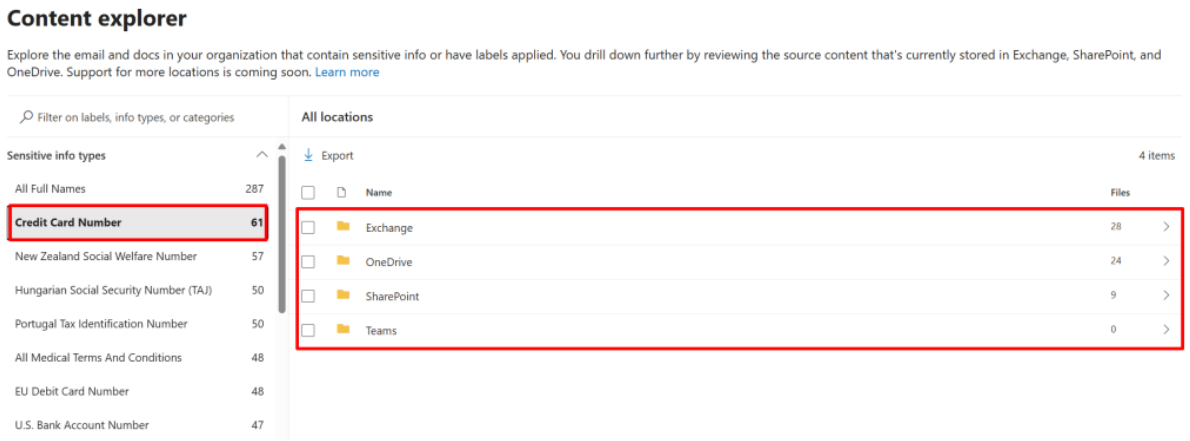
In this chapter I want to take you along the likes of the Content Explorer and Activity Explorer. According to the Purview documentation, we can leverage the Content Explorer to explore email and documents in your environment that contains sensitive information or items that have labels applied. Activity Explorer can be used to take a look at all the actions that took place with sensitive info or items that have labels applied.

Let's dive right in and start with the possibilities of Content Explorer

Content Explorer



Let's start taking a look at Data classification, overview. Here you can see a glance at the sensitive information and labels used in your environment. A lot of this data is actually coming from the Content Explorer.



Now, when clicking through to Content Explorer on the left hand side, we see a current snapshot of all items in your environment that have:

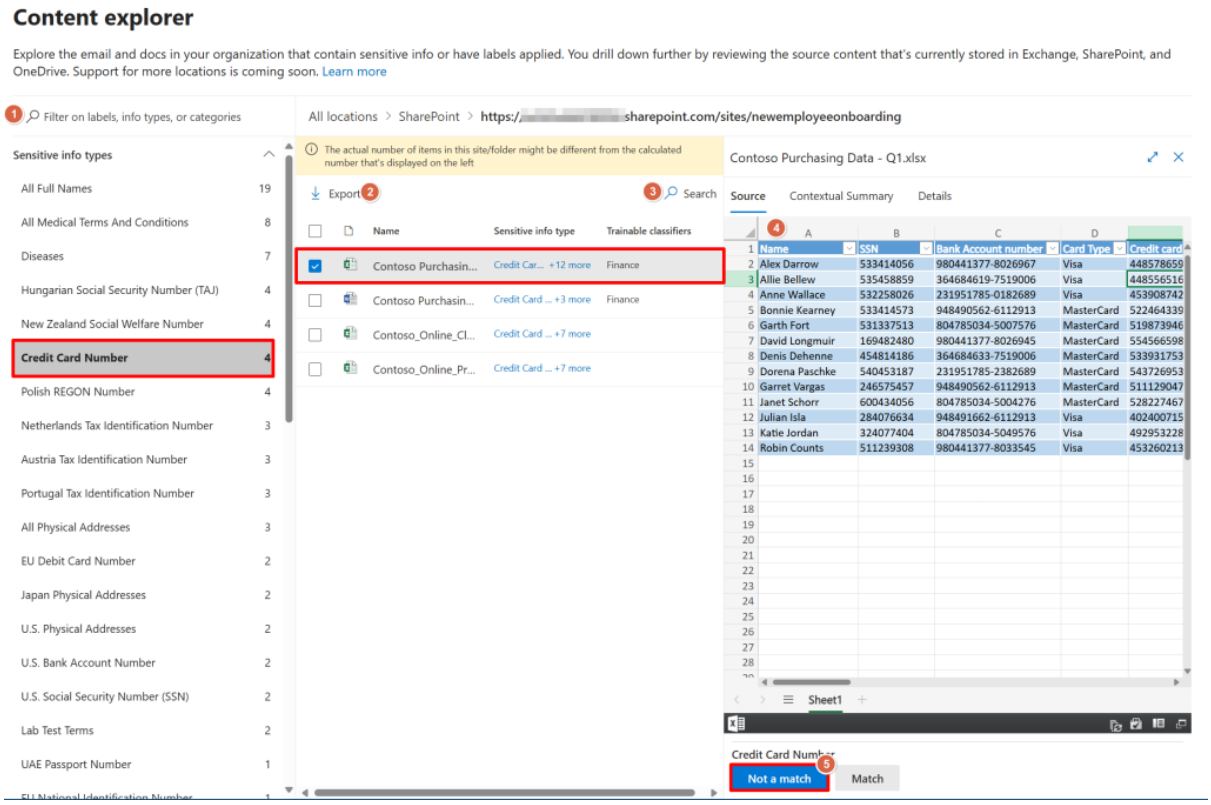
- a sensitivity label
- a retention label
- have been classified as a sensitive information type you defined or are available by default.

Let's talk about permissions next, which are managed on different levels.

First, to get access to the Content Explorer, you'll have to have the Global administrator, Compliance administrator, Security administrator or Compliance data administrator role.

Second, because the Content Explorer shows files (and it's content) that contain sensitive information, you'll have to have more permissions to see the file title or contents:

- Content Explorer List viewer (and specifically it's data classification list viewer role) gives you permission to see the item and it's location.
- Content Explorer Content viewer (and specifically it's data classification content viewer role) gives you permission to view the contents of each item in the list.



When diving in Content Explorer, let's check out what's in store here. I've clicked the 'Credit Card Number' SIT, where content explorer shows me that there are actually 4 items in my environment that match the SIT. When drilling down further into the SharePoint site in this case, it shows me the actual files and even contents of these files, because I have the appropriate permission. The possibilities in this view are as follows (numbers below match numbers on the screenshot above):

1. **Filter** on label name, SIT or categories. For instance, if you don't want to scroll all the way through the list, you can just type in 'credit' and it shows you only the Credit Card Number info type.
2. **Export**. Provides you with a CSV file with all the content that is currently on screen.
3. **Search**. Search for items in the current view. In the screenshot above, it allows me to search for items with the Credit Card Number SIT in the SharePoint site 'newemployeeonboarding'.
4. **Detailed view**. Shows the contents of your items (if you have the correct permission).
5. **Provide Feedback** on a matched SIT or trainable classifier. This feedback can be used to further optimize your SIT's / classifiers.

In conclusion, a nifty explorer to find out all about the sensitive content in your environment, and where it resides.

Activity Explorer

Now let's turn our attention to the Activity Explorer. In short, the activity explorer gives you an historical view of activities on your labeled content. This information is actually sourced from the Microsoft 365 unified audit logs and made available in the activity explorer UI. This data is available for 30 days and can be filtered using over 30 different pre-configured filters.

Just as with the content explorer, let's talk permissions first.

Microsoft Purview Roles	Microsoft Purview Role Groups	Microsoft 365 Roles	Microsoft 365 Role Groups
Information Protection Admin	Information Protection	Global Admins	Compliance Administrator
Information Protection Analyst	Information Protection Admins	Compliance Admins	Security Administrator
Information Protection Investigator	Information Protection Investigators	Security Admins	Security Reader
Information Protection Reader	Information Protection Analysts	Compliance Data Admins	
	Information Protection Readers		

Image source: Microsoft

To get access to the activity explorer, you need one of the roles above or be part of one of the role groups described here.

Let's take a look at what's going on here. I've filtered my view so it provides me with a certain time range. In that time range a Data Loss Prevention rule was matched in my environment. Options we have here are (numbers below match with numbers on the screenshot above):

1. Built-in filters that you can choose from are for example Endpoint DLP activities, Egress activities or activities for a certain target domain for example. This actually doesn't stop there. With the filters button in the same row, you can define your own filters using a vast numbers of properties to choose from.
2. When you change your filter, the properties that you can choose from on screen change. This way you can filter on properties that belong to a pre-defined filter.
3. A graph is shown of when an activity happened and how many items in your current view took place in that timespan.
4. The ability to export the current list of activities to a CSV file.
5. The current activities in your view.

In conclusion, the activity explorer provides you with a nice activity overview of activities in your environment which allows you to see if the controls that you have in place in your environment are effective or whether you need to finetune your configuration!

Configuring Alert Policies for High Risk Activities

In some cases you may want to be informed immediately when certain actions are being performed in your Microsoft 365 environment by your users. Examples are documents being shared with external parties that should not have access to the documents, or maybe you have a certain user that you want keep tabs on. Of course there a many ways to achieve this in Microsoft Purview, and the configuration of alert policies for these high risk activities is one of them.

A word on RBAC Permissions

To start off with the necessities, the required RBAC permissions to view alerts can be found on this Microsoft Learn page (https://learn.microsoft.com/en-us/purview/alert-policies#rbac-permissions-required-to-view-alerts). However this isn't one simple permission that grants a user or administrator the permissions to view all alerts. As alerts are categorized, the user or admin tasked with viewing alerts has to have permissions to view alerts in the specific category.

Alert Policies Overview

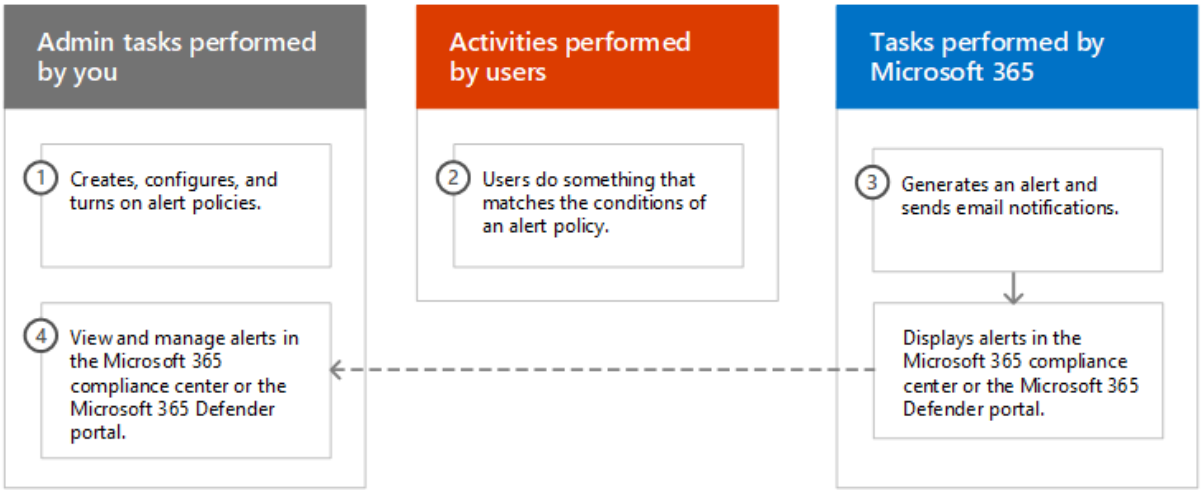


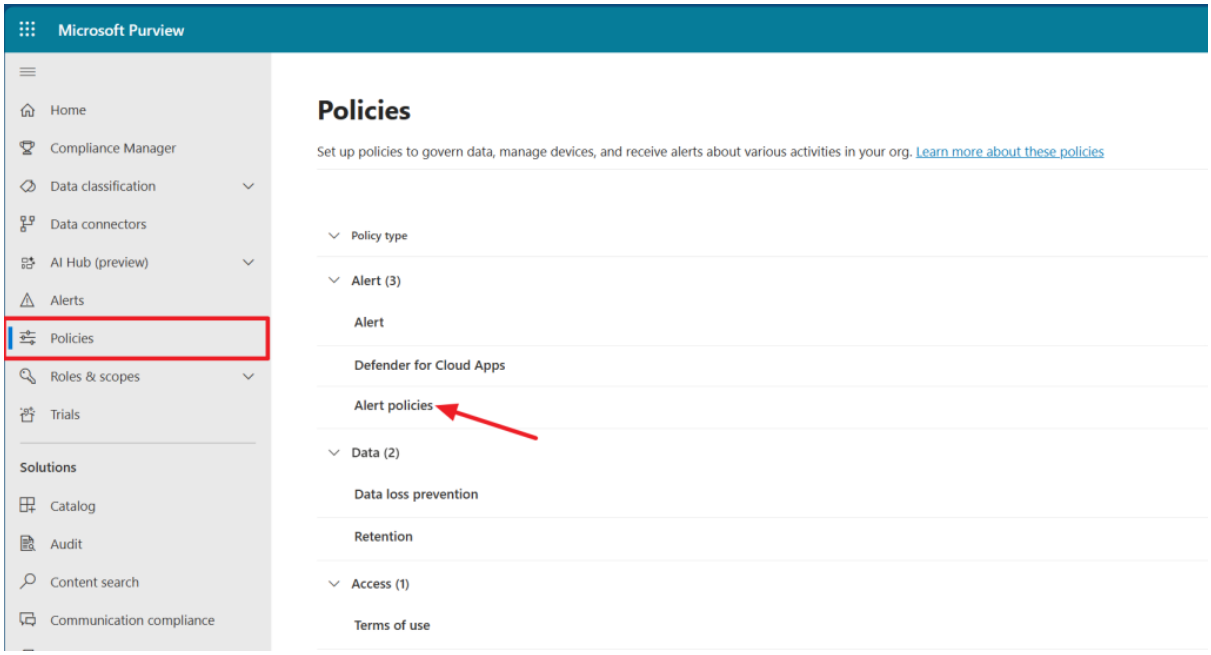
Image credit: Microsoft

As you can see in the image above, alert policies work as follows:

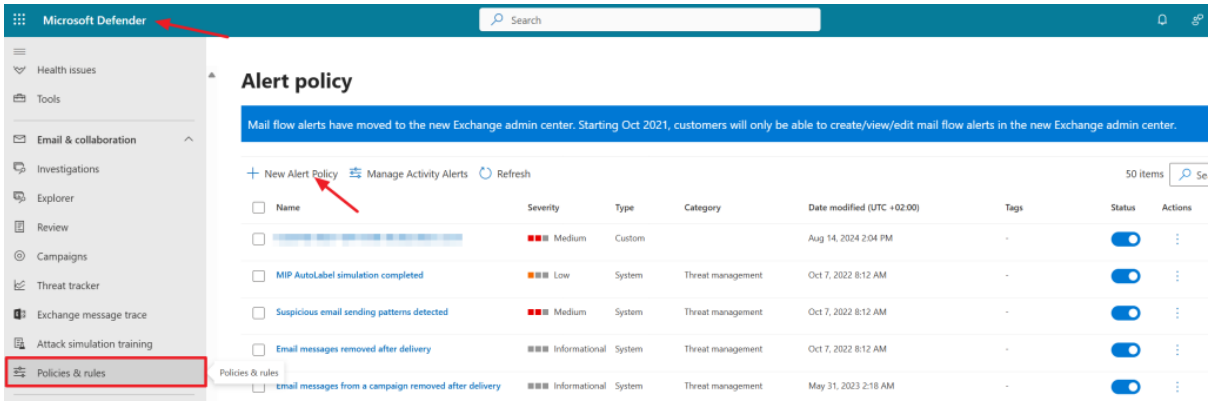
1. An administrator creates, configures and turns on alert policies.
2. A user performs an action that matches the conditions of an alert policy.
3. Microsoft 365 generates an alert, sends email notifications and displays alerts in the Microsoft 365 compliance center and the Microsoft 365 Defender portal.
4. An administrator views and manages alerts in the Microsoft 365 compliance center or Defender Portal.

Configuring Alert Policies

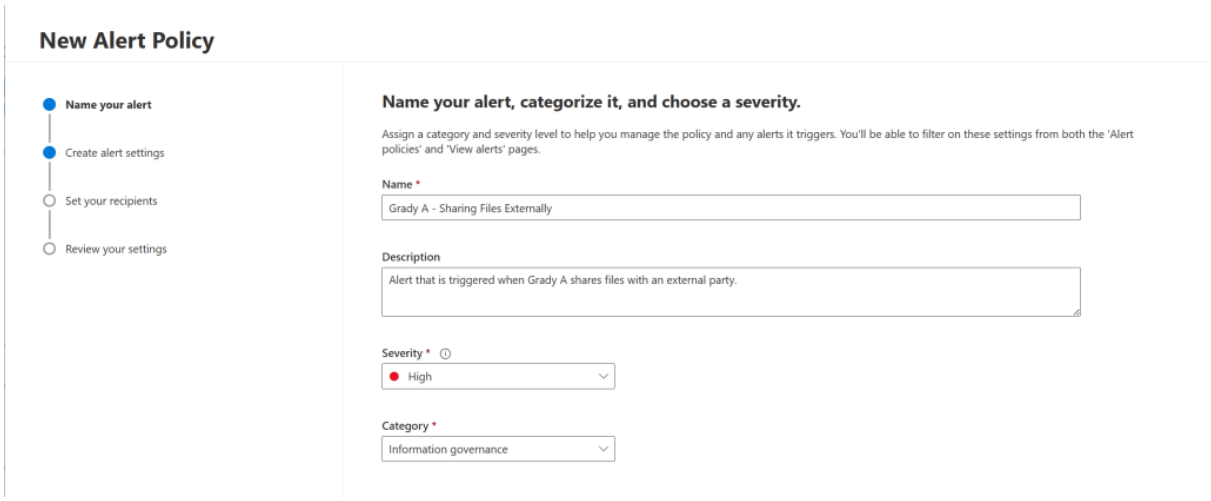
Let's take a look at how we can configure a policy and how it works when a policy is triggered by the user.



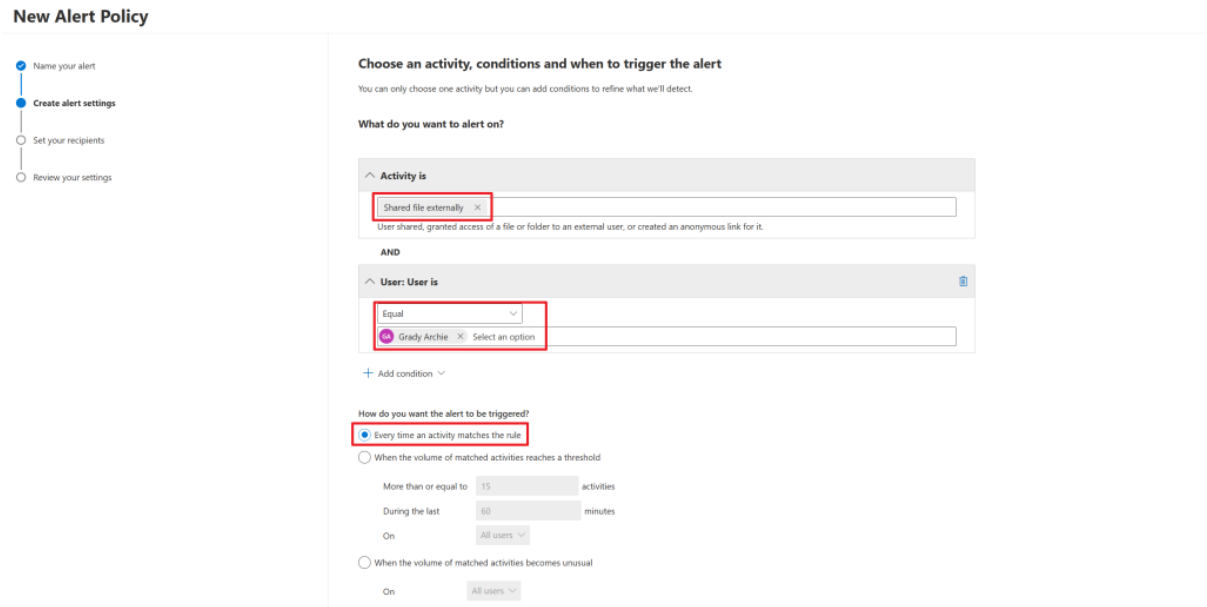
Navigate to the Microsoft Purview Compliance Center and click on Policies, Alert Policies.



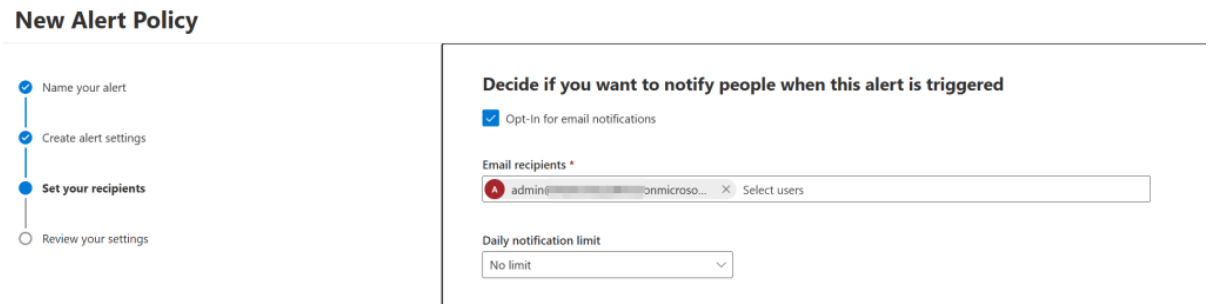
As you can see we are immediately redirected to the alert policies in the Microsoft Defender console (which can be found manually by navigating to 'Email and Collaboration', 'Policies and Rules', 'Alert Policy'). Notice that there are a lot of policies already present out of the box. Let's click on 'New Alert Policy' to start configuring a new alert policy to get a peak inside the inner workings of alert policies.



In the first screen of the wizard we can name and describe the policy accordingly and assign it a severity and category. Note that you may want to bundle certain alerts under a certain severity. Do also note that configuring a category requires a user to have a specific RBAC role belonging to the category before he or she can view and manage the alert in this category.



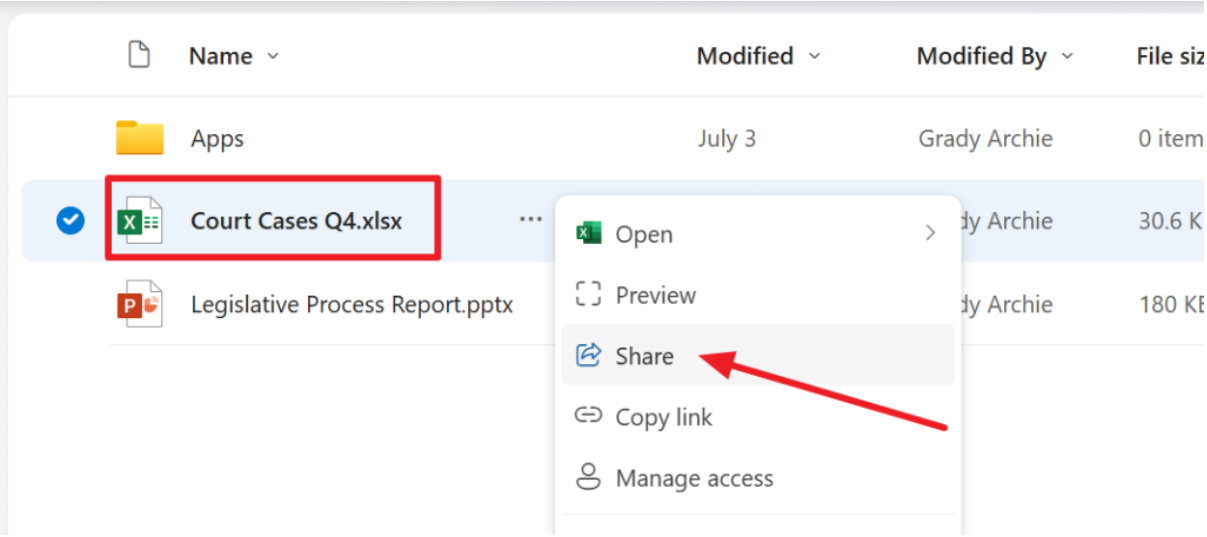
Next we have arrived at the activity and conditions page, where we can configure both activities and conditions that trigger the alert policy. This page consists of a massive library of activities that you can generate an alert on, which can be combined with other conditions that are specific to the activity you selected. In this example I configure the activity to be 'Shared file externally' AND user equals 'Grady Archie'. I also want the alert to trigger every time Grady shares a file with an external party. You may also choose to only fire the alert when a certain threshold is reached, or 'when the volume of matched activities becomes unusual'.



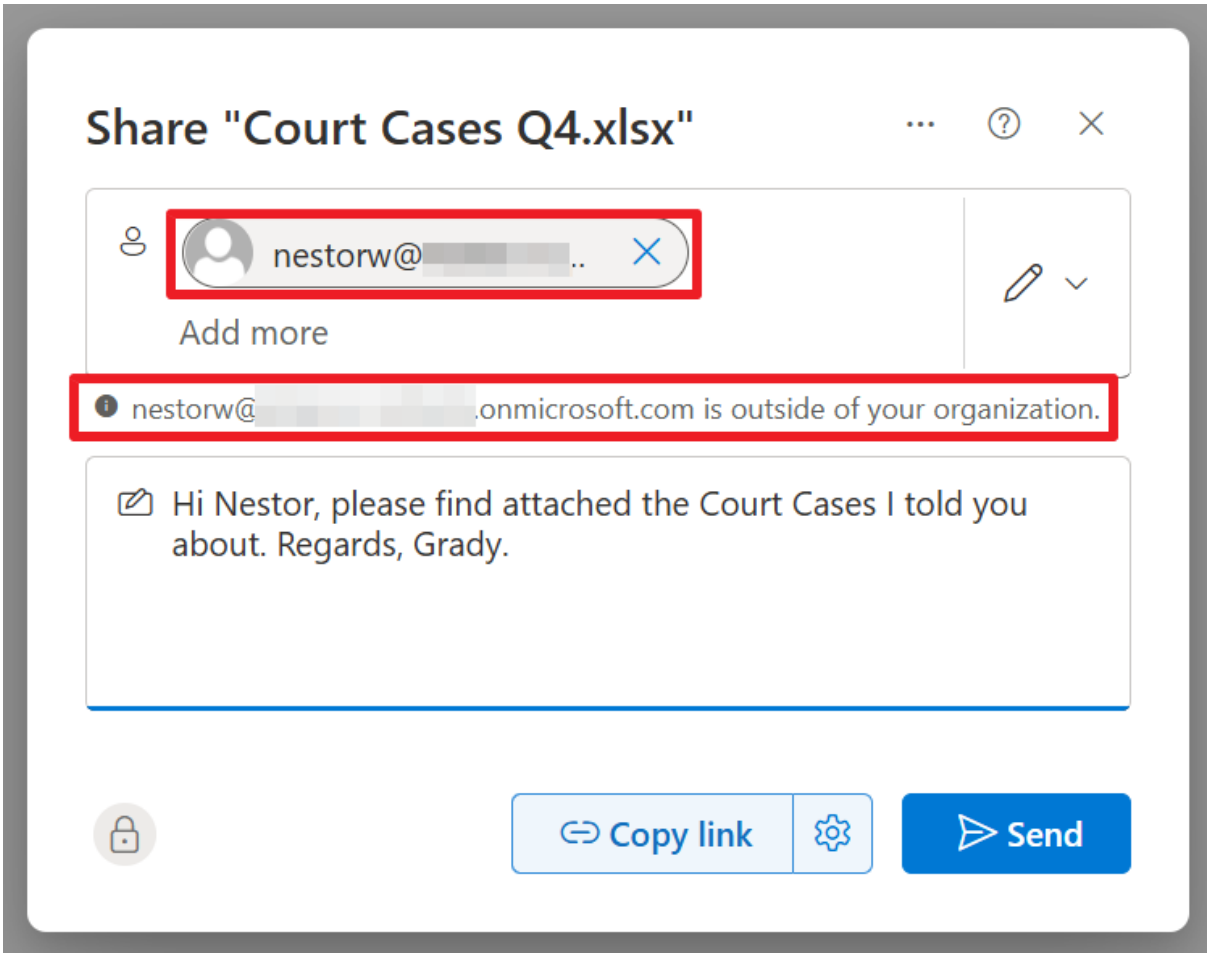
On the next page you can decide if you want to notify people when the alert is triggered. I can imagine that for alerts with a higher sensitivity level, emails will be sent. For alerts with lower sensitivity levels, an alert in the dashboard will suffice. I find the 'Opt-In for Email Notifications' text a bit misleading here, as the option only lets you specify email recipients here together with a daily notification limit. So when turning it off, the option to configure email recipients disappears. It doesn't give users the option to opt-in for email notifications later from the portal for example. I choose to send my admin an email when this alert is triggered.

In the last screen, doublecheck your settings and turn on the policy. At this point, it can take up to 24 hours for the alert policy to take effect as the policies have to be synced to the alert detection engine.

Triggering the alert policy



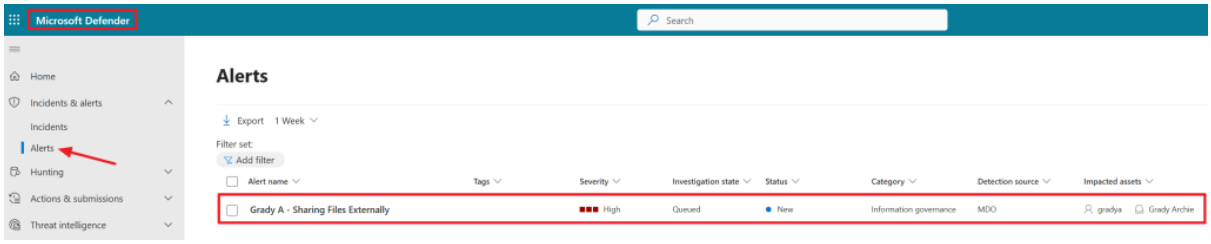
Now let's log in as Grady Archie and share a file with someone from an external company.



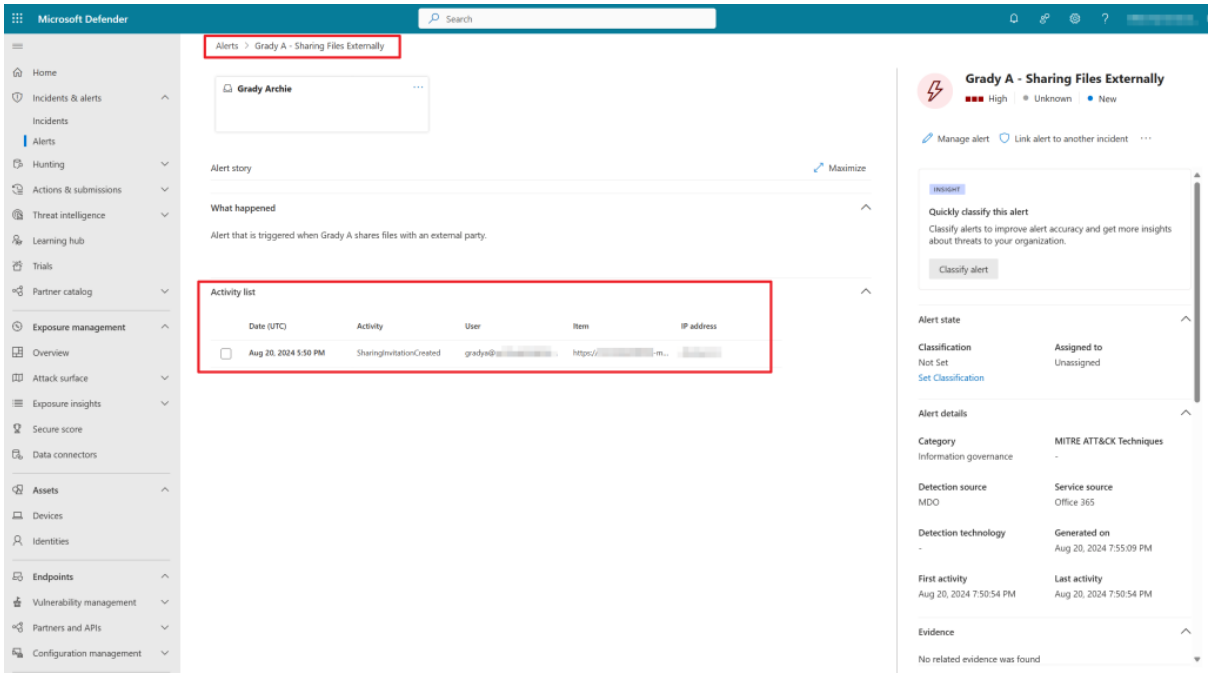
In this case, I share the file with my good friend "Nestor" whom I've told about this list of Court Cases I've been involved in.

Examining the results

Note that Nestor receives the email with no problem, as we don't block anything by setting an alert policy. However, the following does happen:



After a while, an alert shows up in the Alerts panel in the Microsoft Defender Console.



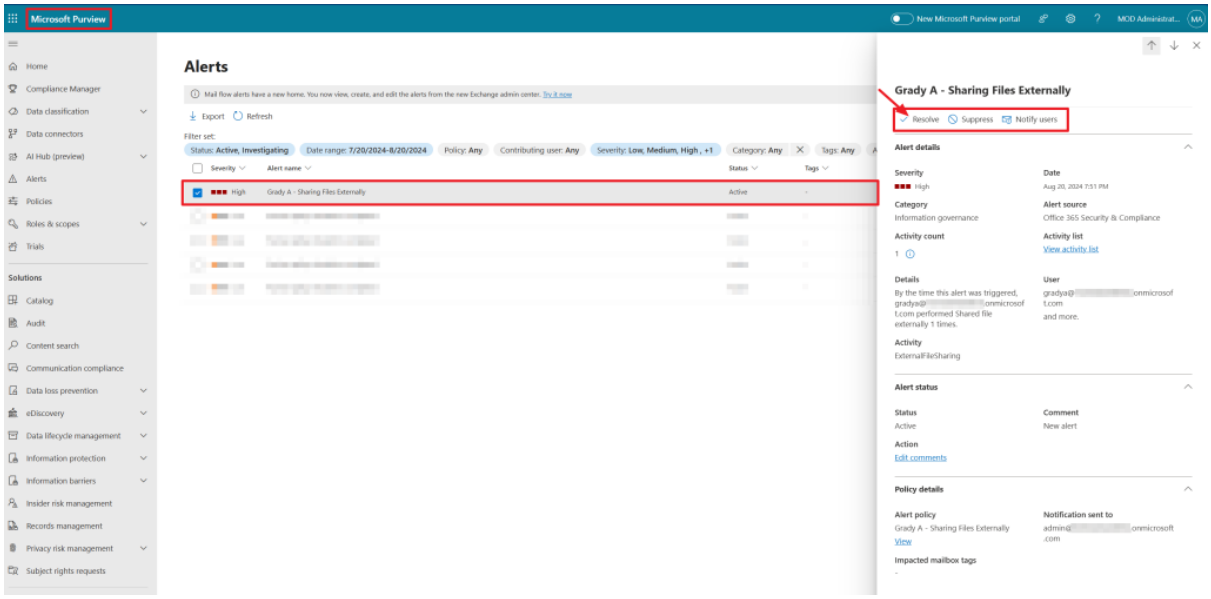
When opening the alert, it shows us all kind of information:

- The activity that triggered the alert.
- Category of the alert.
- Detection Source.
- Date and time of the activity.
- The user that triggered the alert.
- Activity being performed by the user.
- The item on which the activity is being performed.
- IP address where the action took place from.

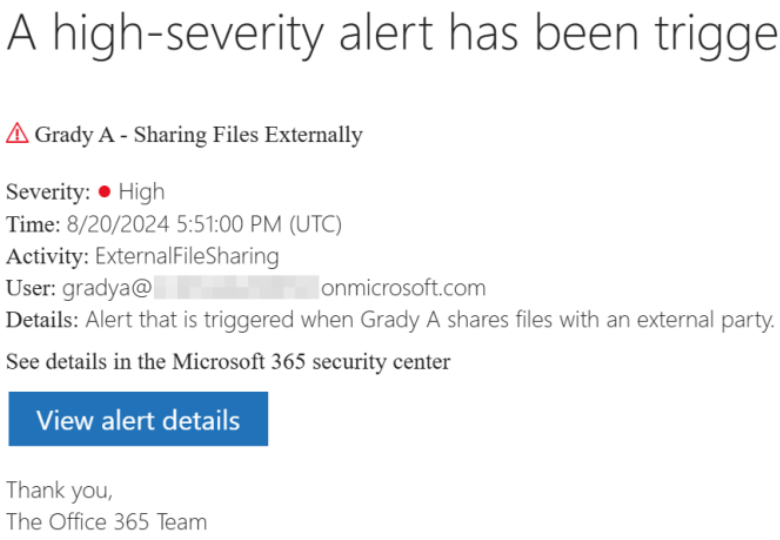
We can perform additional actions on the alert:

- Set the classification of the alert.
- Assign the alert to someone for further investigation.

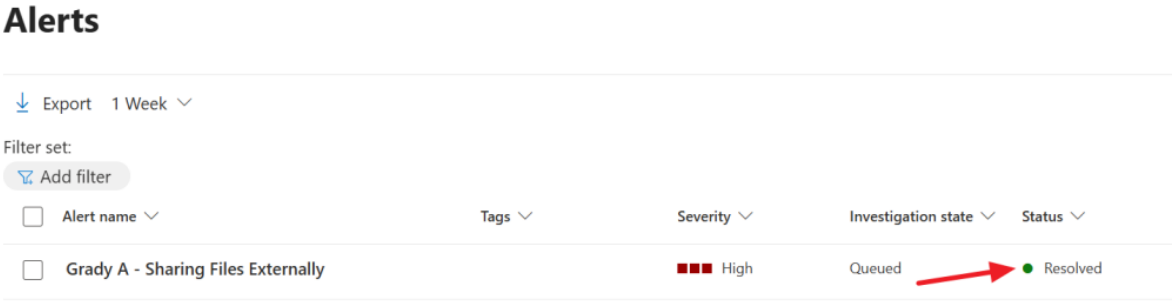
- Link the alert to another incident to find a correlation.



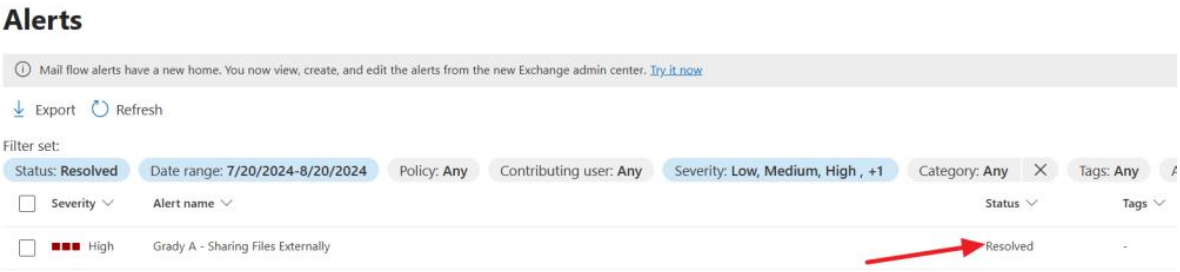
When taking a look at the Alerts section in the Purview portal, notice that the alert is also registered here. Here also various details about the event that triggered the alert are available, albeit with less details then in the Microsoft Defender Console.



As expected, an email was also sent to my administrator providing details of the alert and the possibility to view alert details.



Let's resolve the incident by pressing 'resolve' in the Purview console. After specifying a comment why the issue was resolved the alert will not be present in the default view anymore, but can be seen when changing the filter to include resolved alerts.



When moving back to the Microsoft Defender console, note that the alert was resolved here as well!

Summary

- Alert Policies can be used to notify you when a certain action is taken in your Microsoft 365 environment.
- Ideally you configure alert policies for high risk activities that you want to monitor.
- Alerts can be seen in the Purview and Defender console where the latter gives you more detail.
- Alerts can be emailed to recipients when configured, ideally you'll only do this for high risk activities.

That's it! Hope you learned something new in this chapter!

Information Barriers

Information Barriers in Microsoft 365 can be used to block (or allow) communication between groups of users and will apply to Teams, SharePoint and OneDrive. An example for a use case is a R&D department which may not communicate with the marketing department. The example used in this chapter is a multi-national company where users in the Netherlands are not allowed to communicate with users in Belgium because of high regulatory laws and requirements.

In this chapter, I will introduce you to Information Barriers in Microsoft Purview by walking you through setting up the backend and show you the impact it has on your users. Let's go!

Setting the scene

For this demonstration, we are going to use the following employees in our fictional company:

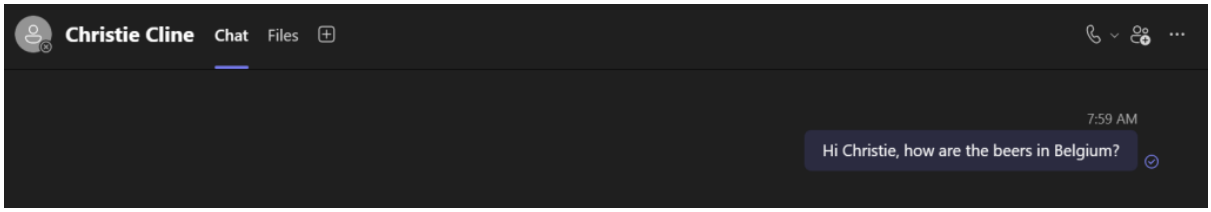
1. Allan Deyoung and Adele Vance, working in the Netherlands Office.
2. Christie Cline and Megan Bowen, working in the Belgium Office.

When you want to implement Information Barriers in your environment, make sure to take your time planning the solution. First become familiair with all the possibilities, next make a design and finish by implementing it. Configuring Information Barriers may seem simple, but a lot of actions take time to take effect in your environment and behavior can be a bit flaky when you don't wait for 24 hours after implementing your solution.

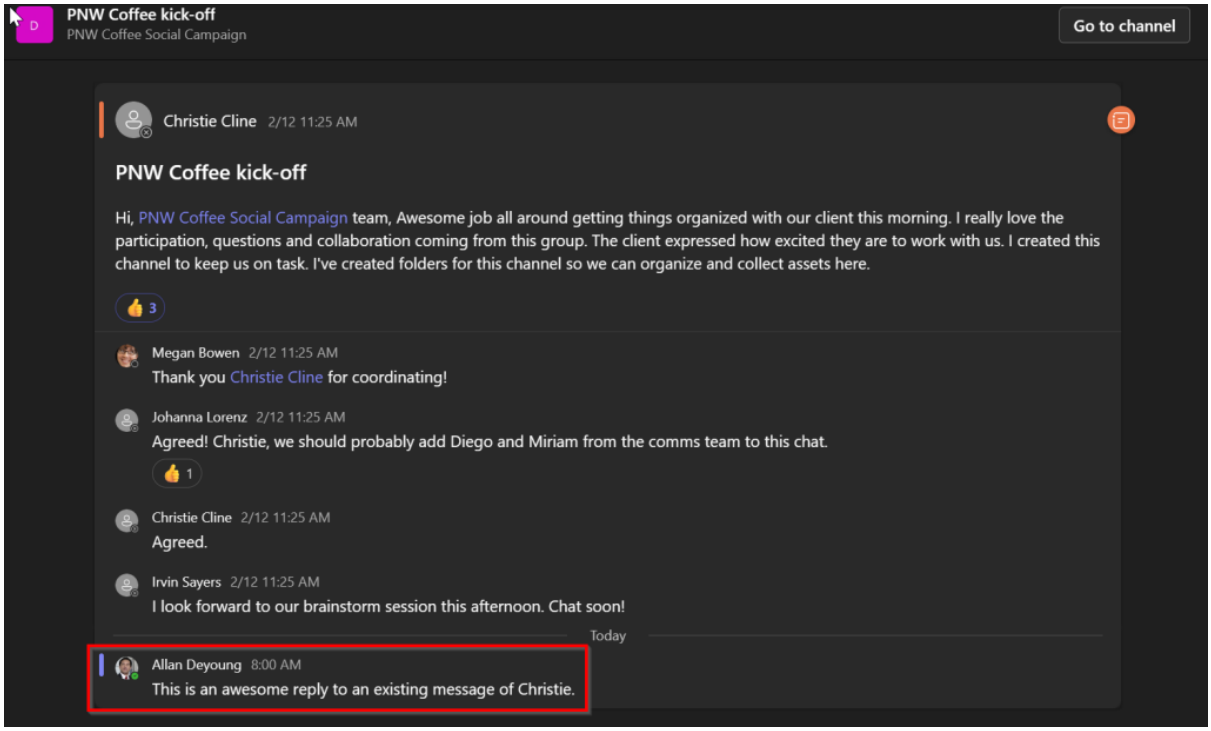
Information Barriers versioning

Information Barriers are available for quite some time now. However, it is only recently that Microsoft introduced some new features into Information Barriers and named this version "Information Barriers v2". v2 was launched on March 6th 2023. So, If your tenant is created after this date, you have the option to use the v2 features. If your tenant is created before this date, you will have to wait for the option to migrate to v2, which is currently scheduled for July 2024. All information in this chapter is based on v1.

Pre-Information Barriers behavior



1 on 1 chat between Allan Deyoung and Christie Cline



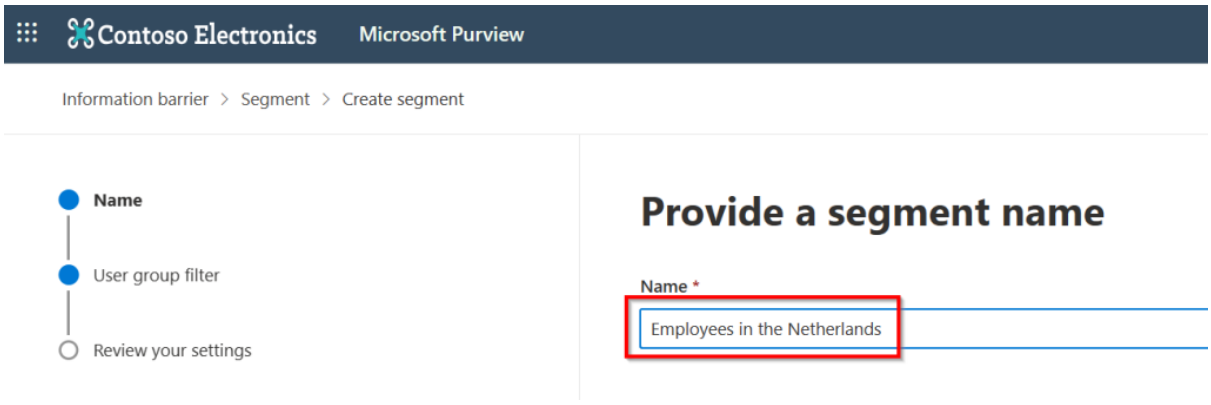
Reply by Allan Deyoung on a Teams-post by Christie Cline

When there are no information barriers in place, users may communicate freely with other users in your Microsoft 365 tenant. In the example above, you can see that user Allan Deyoung can communicate with Christie Cline using Teams chat and reply to a post made by Christie in the "PNW Coffee kick-off" Team.

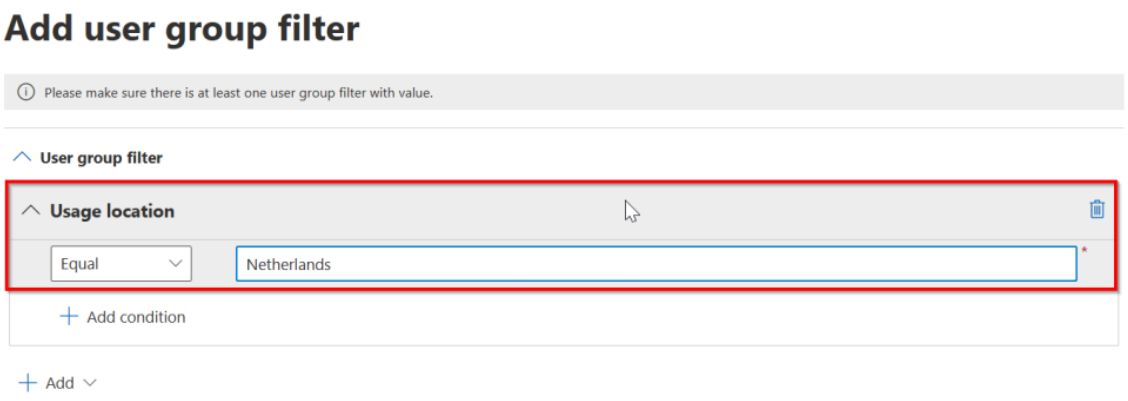
Setting up Information Barrier Basics – Segments

First, we are going to create segments. Segments are used to create a group of users based on a common property. In this example, I will use the property "Usage Location". Other properties that can be used are for example Department, Street etc.

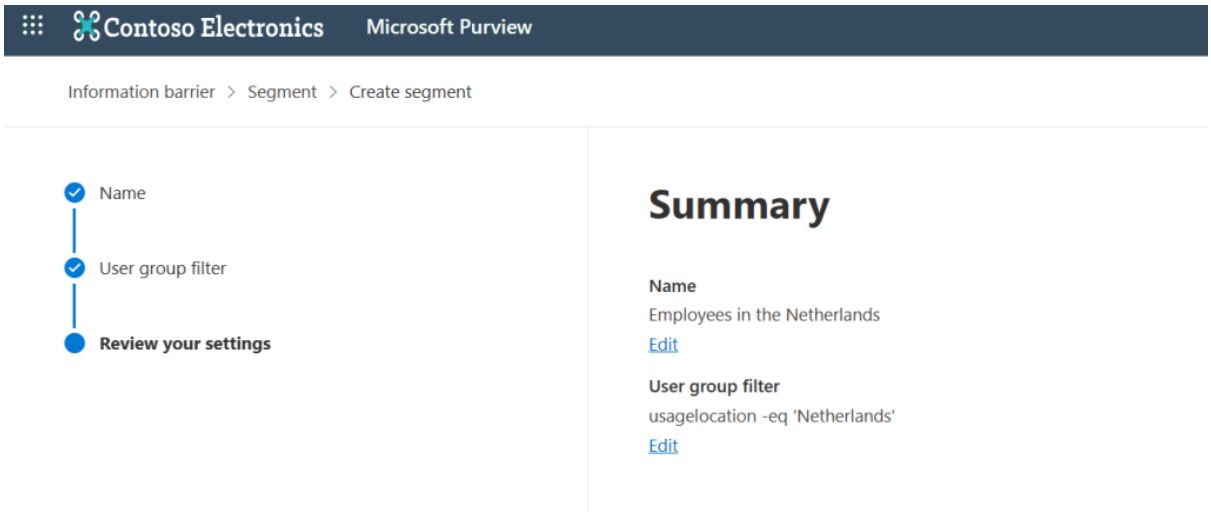
In the Microsoft Purview portal, navigate to Information Barriers, Segments and click "New Segment".



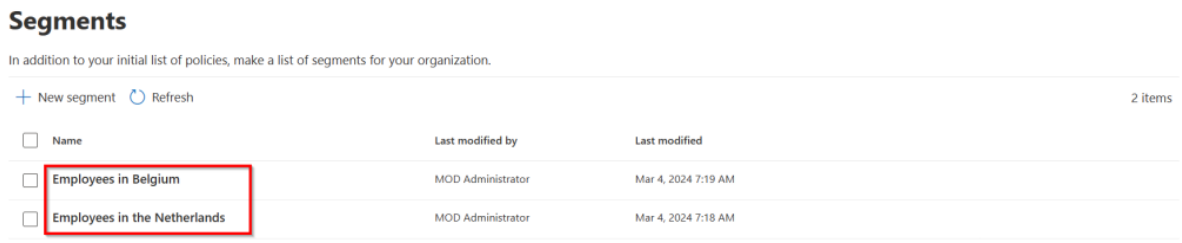
First provide a segment name, for which I'll use "Employees in the Netherlands"



Next, create the group filter. Here I'll use "Usage location" Equals "Netherlands". This will form a group of all users in my tenant which have property usage location set to Netherlands.



Review the summary and finish the wizard.

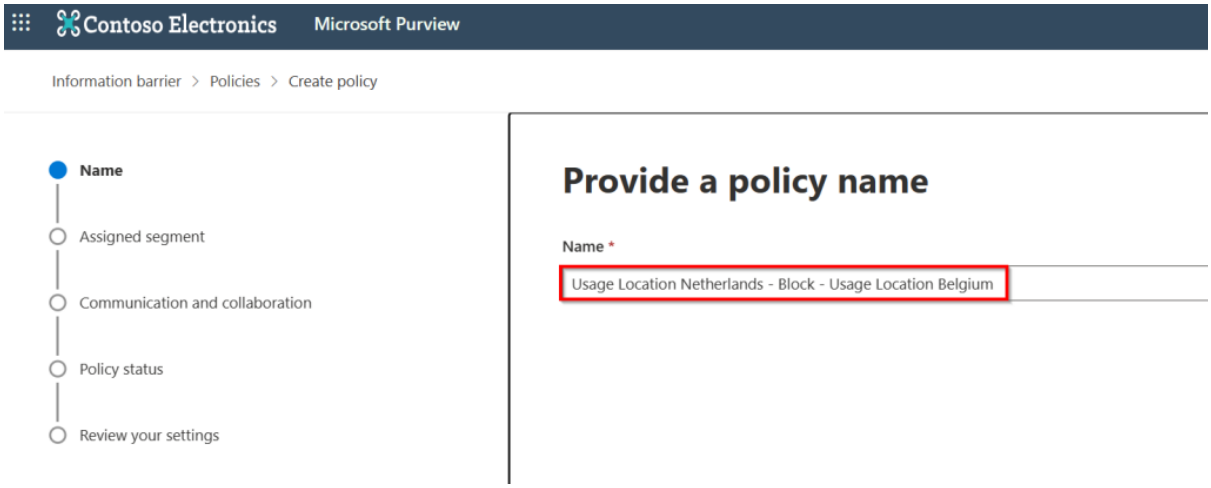


Create another segment using the same steps as before, however here I've changed the usage location to "Belgium". Now I have 2 segments configured.

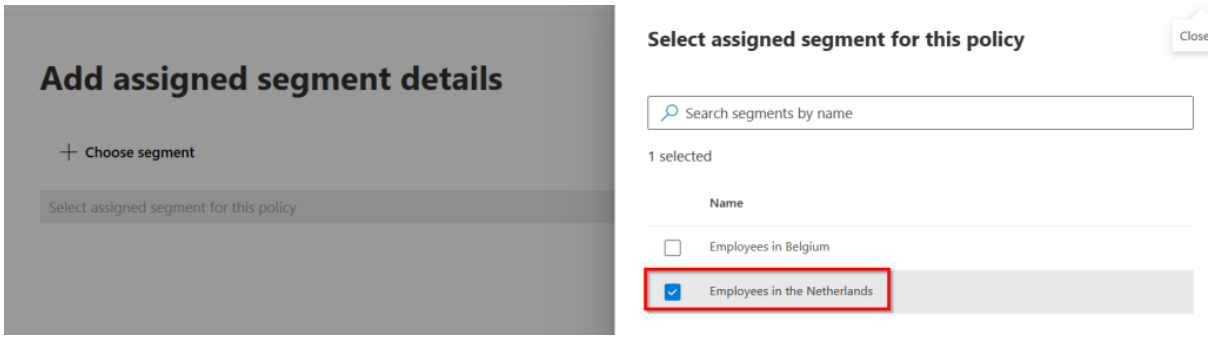
Note that information barrier segments have to be designed and configured in a way that all users are a member of only 1 segment. This limitation is removed in Information Barriers v2, but if you're still using v1 and you're adding users to multiple segments, applying your policies will fail.

Setting up Information Barrier Basics – Policies

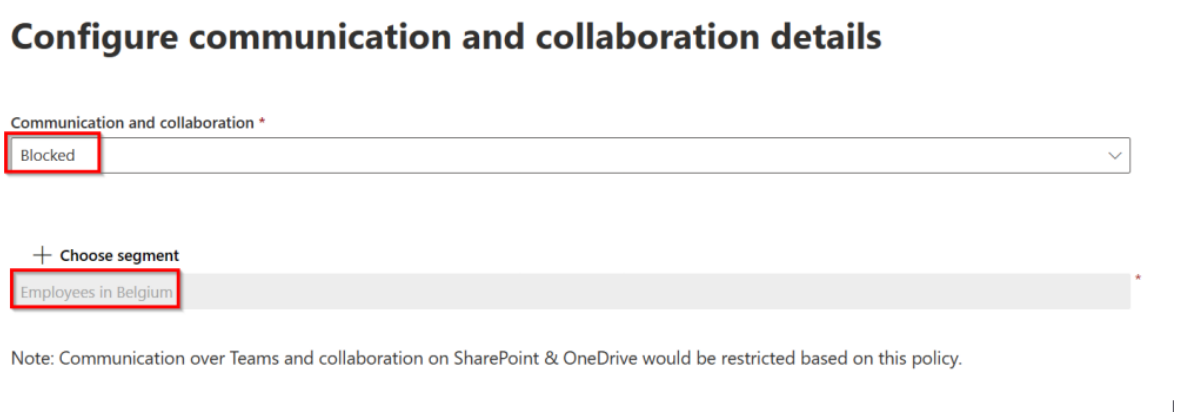
Next, let's configure policies. Policies are the glue between segments as you can choose to block or allow communication between segments with them. Under the information barriers section, click "Policies" and select "Create Policy".



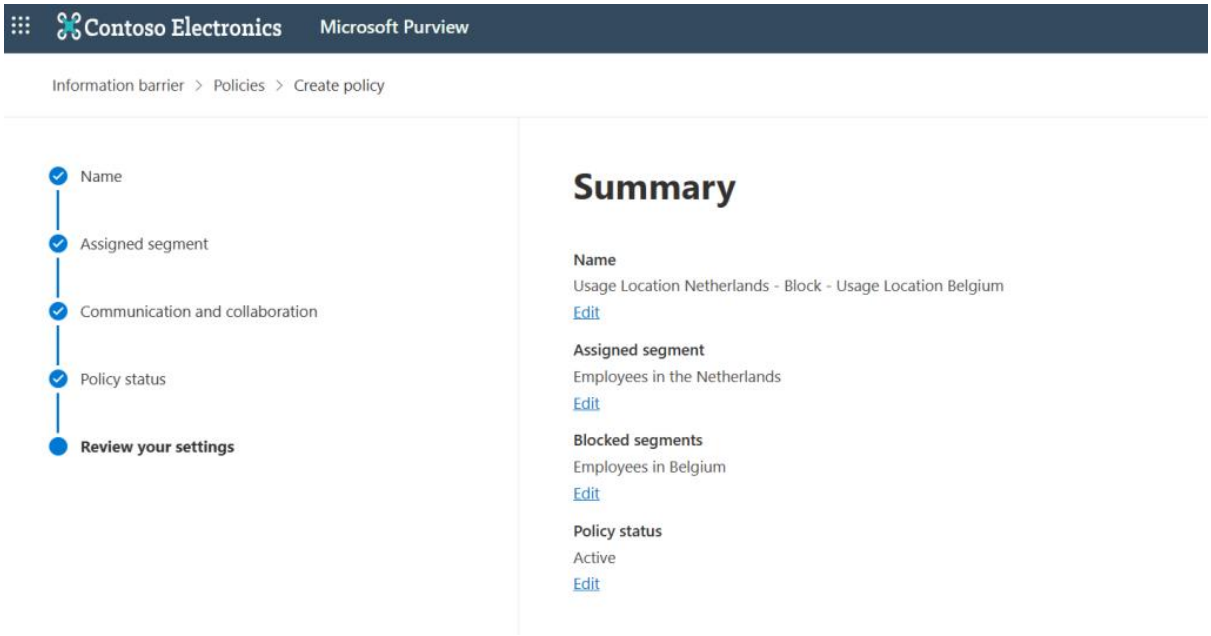
First, create a name for the policy. I chose to show the names of the segments that I'm going to use and the action (block).



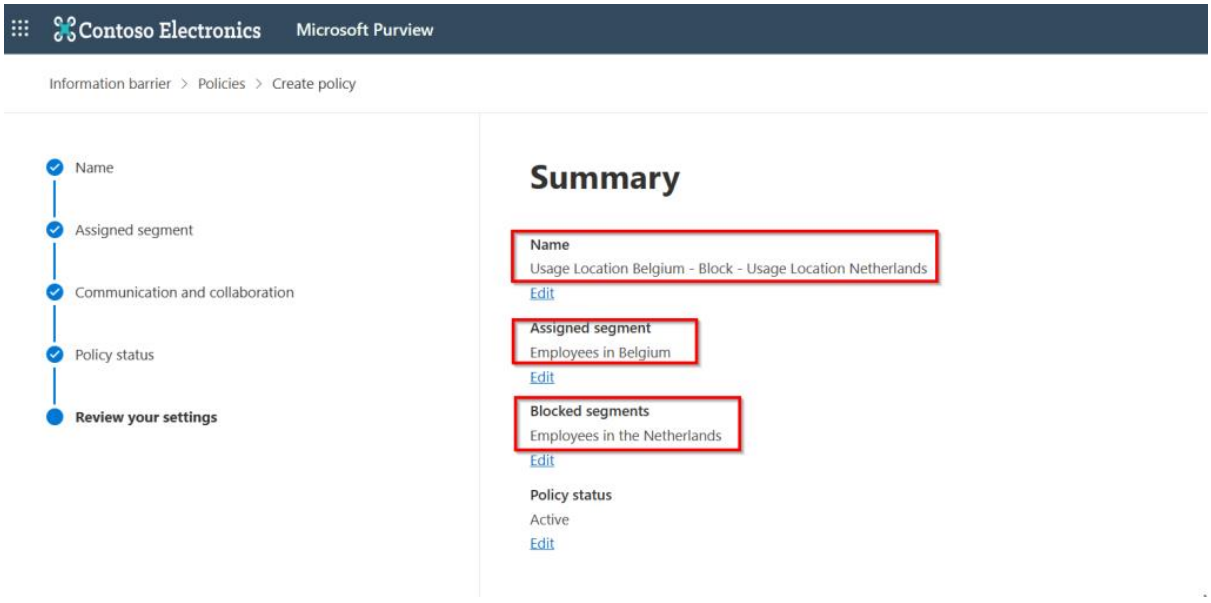
Next, assign the first segment, which is "Employees in the Netherlands" in this case.



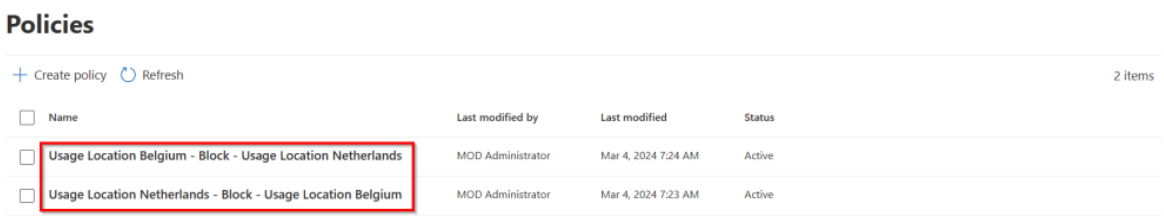
On the next page, select the action "Blocked" and choose the second segment which is "Employees in Belgium" in my case. Set the policy status to Active in the next step.



Review the summary and finish the wizard. Now the first policy is created. Now here comes the first catch. To be able to apply this policy, you should make the same policy in reverse. What I mean by this is that you also have to create a policy where users with usage location Belgium should block users with usage location Netherlands. This has to be done because 1-way communication blocks are not supported.



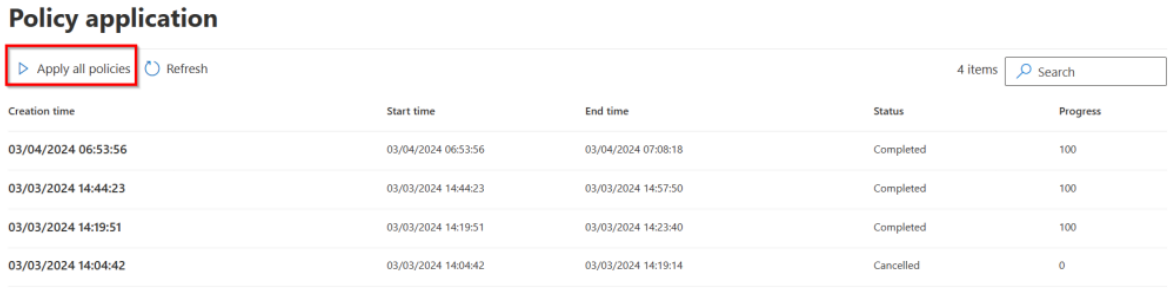
Here you see the second policy I've created.



And there we are, policy creation finished! ✔

Setting Up Information Barrier Basics – Applying Policies

Now for the last step, we have to apply the policies we made.

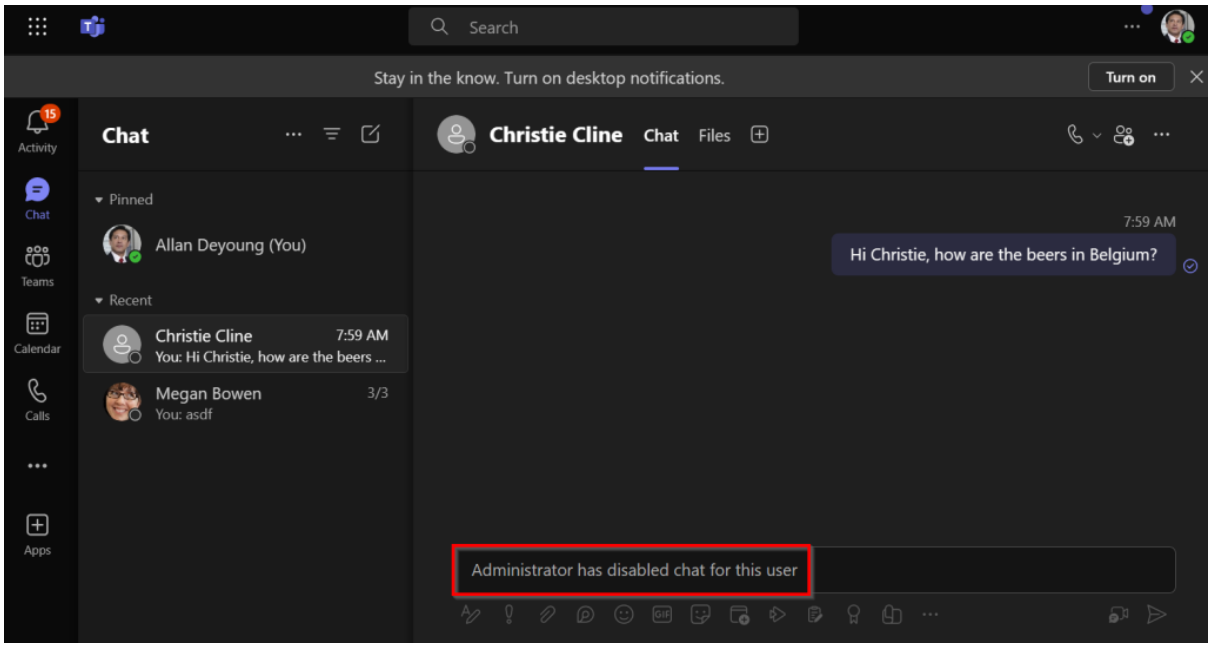


Navigate to “Policy application” under the Information Barriers section and press “Apply all policies”. The status will cycle through the phases NotStarted, ApplyInProgress, PendingCompletion and Completed. I would advise you to take your time and wait at least 24 hours after applying your policies to make sure they are distributed through your entire environment as otherwise your experience will not be consistent through the entire environment.

A quick note on editing and changing segments and policies. To put it simple, this cannot be done. When you want to remove a policy, keep in mind that you have to edit it first and set “Active” to off. If you want to remove a segment, first edit it’s filter so that it doesn’t include any users. If this doesn’t work, apply the policies again or wait a while longer.

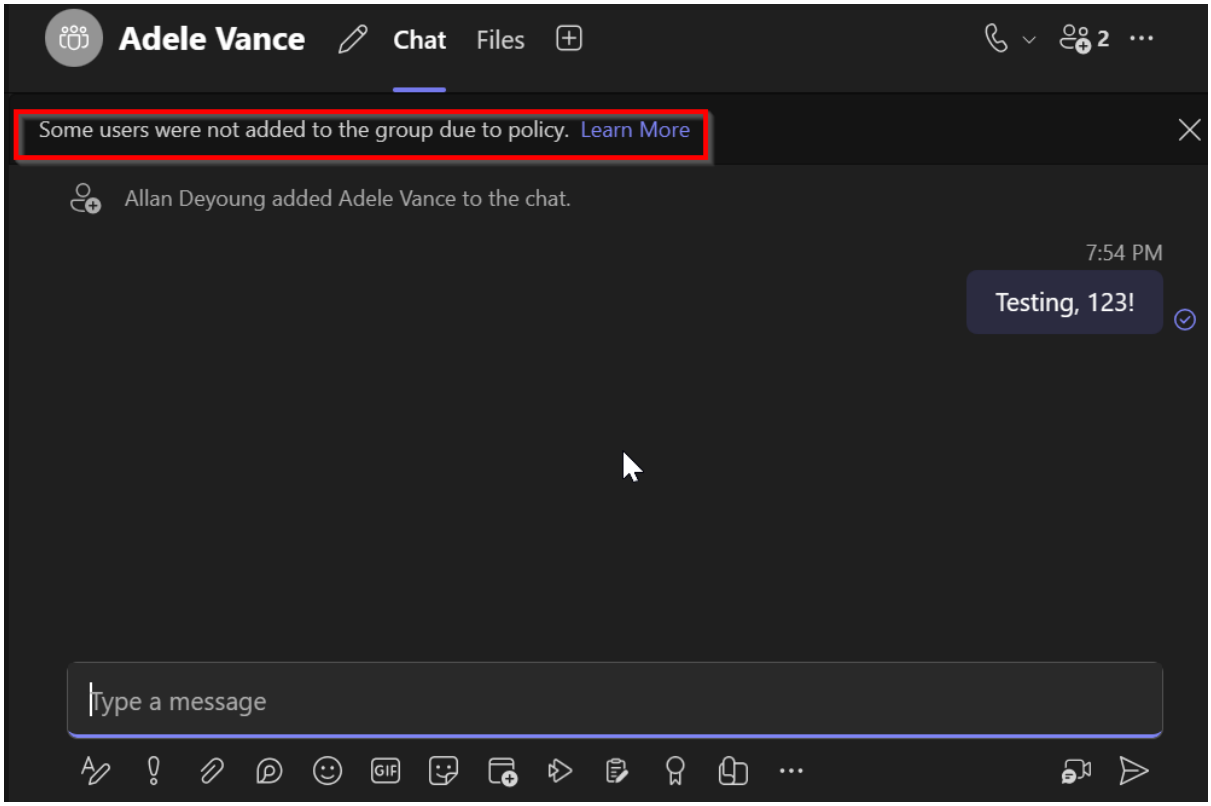
The user Experience – Teams

When taking a look at the user experience for teams I’ve created some examples. Let’s see what happens when Allen from the previous example wants to continue his 1 on 1 chat with Christie.



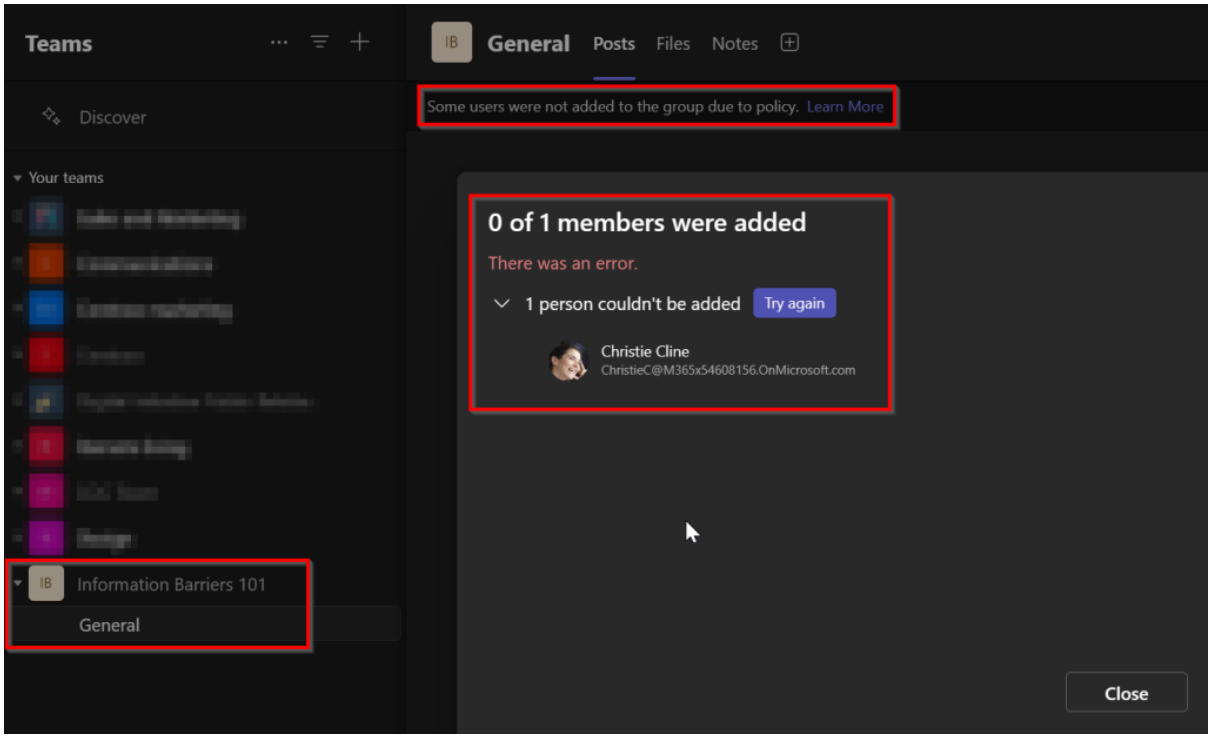
We receive a message that an “Administrator has disabled chat for this user”. This is ofcourse because both users are on different segments and we’ve blocked communication between these segments. Of course this works both ways, Christie is also not able to communicate with Allan anymore and Teams is displaying the same message in her Teams client.

Let’s take a look at group chats. In this example Allan Deyoung creates a group chat with Adele Vance and Christie Cline.



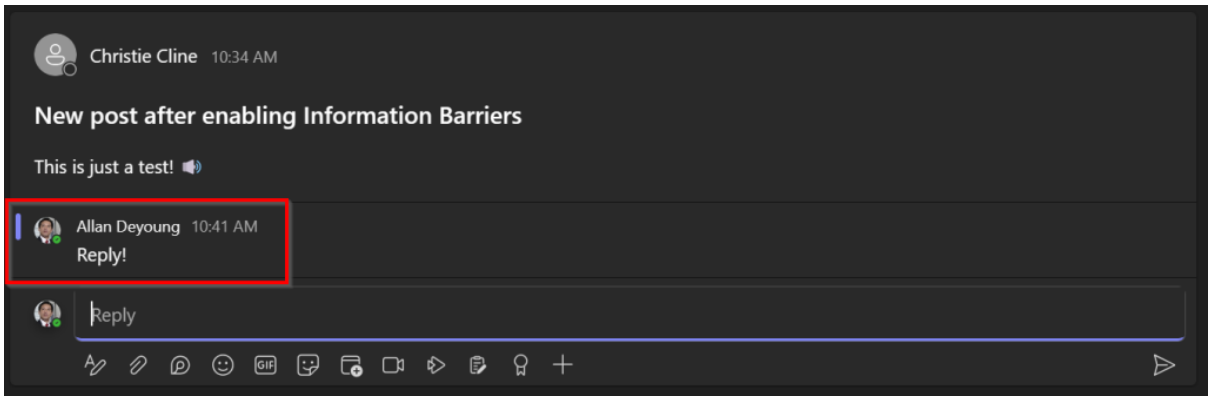
Allan is immediately notified that some users were not added to the group due to policy. In this case this would be Christie, since she’s in another segment to where communication is blocked.

Now onto Teams. Specifically the creation of a team. In this example Allen Deyoung create a public team and adds Christie to team.



Can you guess the outcome? Correct, Christie could not be added!

However, the behavior is different when the team is already created.



Even when Christie creates a new post in an existing team, Allan can still post a comment!

These are just some examples of what Information Barriers can do for you in Teams. Take a look at this Microsoft Learn (https://learn.microsoft.com/en-us/purview/information-barriers-teams) article for more!

Setting up Information Barriers – Sharepoint Configuration

Microsoft Teams setup was reasonably quick and easy. SharePoint however needs some more work to get Information Barriers working.

For SharePoint (and also OneDrive) first install the SharePoint Online Management Shell by starting PowerShell 5 (included with Windows 11, unfortunately PowerShell 7 is not supported by the module at time of writing) and enter the following command:

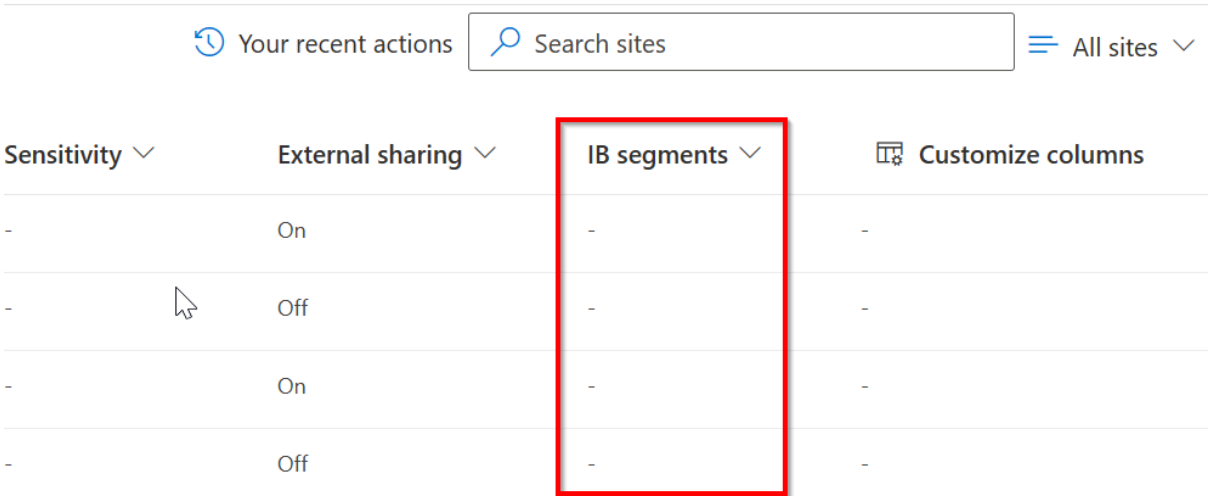
Install-Module -Name Microsoft.Online.SharePoint.PowerShell

When this is done load the module and connect to your SharePoint environment using the following cmdlets:

Import-Module Microsoft.Online.SharePoint.PowerShell
Connect-SPOService -Url https://YourSharePointURL-admin.sharepoint.com

Next, run the following cmdlet to lift the suspension from Information Barriers in SharePoint which enables it:

Set-SPOTenant -InformationBarriersSuspension $false



Now, Navigate to the SharePoint Online Admin Portal and click Active Sites. You should see a column named “IB Segments” as in the screenshot above. Information Barrier Segments are now enabled for your SharePoint sites.

Before configuring the site, you should know that a SharePoint site can be configured in 1 of 4 Information Barrier Modes:

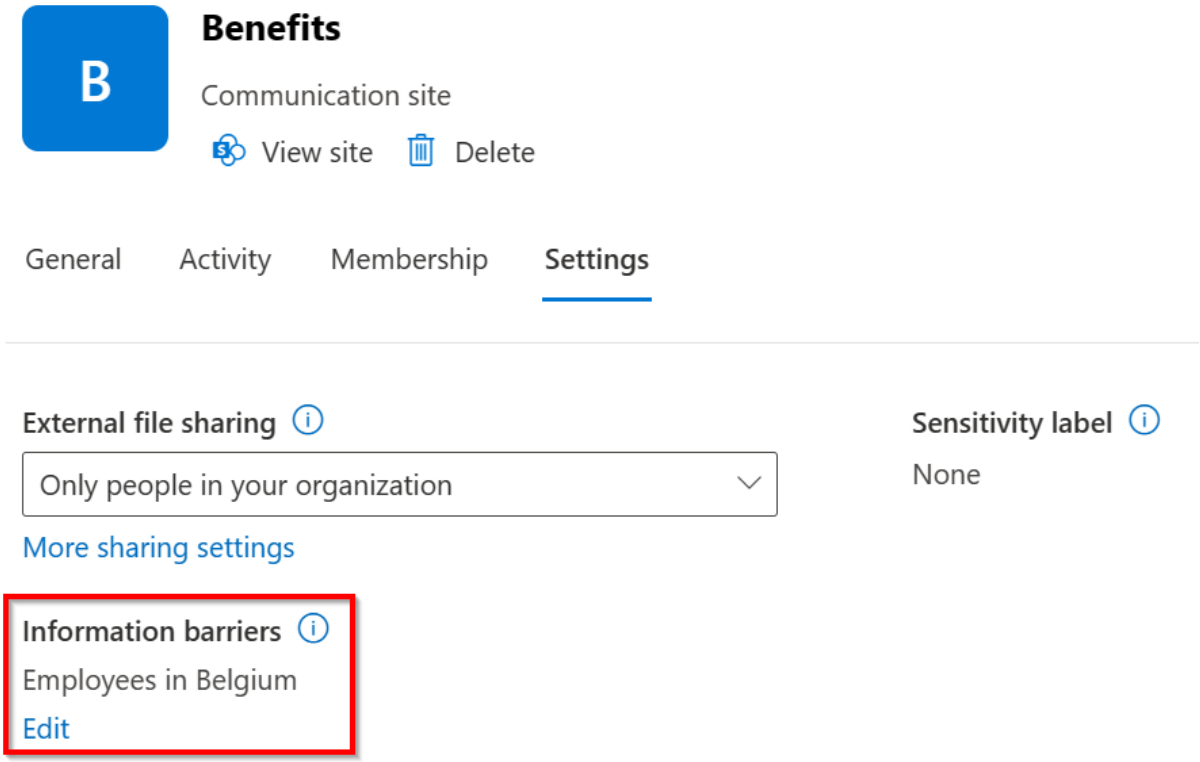
Mode	Description	Examples
Open	When a SharePoint site doesn't have segments, the site's IB mode is automatically set as *Open*. See this section for details on managing segments with the *Open* mode configuration.	A Team site created for picnic event for your organization.
Owner Moderated	When a SharePoint site is created for collaboration between incompatible segments moderated by the site owner, the site's IB mode should be set as *Owner Moderated*. See this section for details on managing *Owner Moderated* site.	A site is created for collaboration between VP of Sales and Research in the presence of VP of HR (site owner).
Implicit	When a site is provisioned by Microsoft Teams, the site's IB mode is set as *Implicit* by default. A SharePoint Administrator or Global Administrator can't manage segments with the *Implicit* mode configuration.	A Team is created for all Sales segment users to collaborate with each other.
Explicit	When segment is added to a SharePoint site either via end-user site creation experience or by a SharePoint Administrator adding segment to a site, the site's IB mode is set as *Explicit*. See this section for details on managing segments with the *Explicit* mode configuration.	A research site is created for Research segment users.

Source: Microsoft

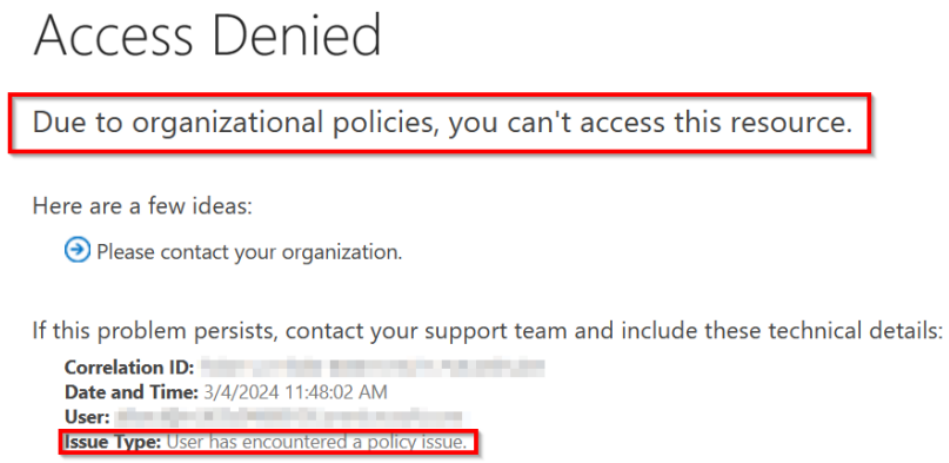
In this example, our site is configured with the IB Mode “Explicit”. You can always check the current mode of your site using the following cmdlet:

Get-SPOSite -Identity YourSiteURL | Select InformationBarriersMode

Now on to the configuration of our SharePoint site:



Navigate to one of your sites and click on the "Settings" tab. Add one of your created segments to your SharePoint site in the section shown above. By adding the site to a Information Barriers segment it can now be used by your Information Barrier policies. Let's take a look at an example what this means for a user.



In the configuration above, I've added the SharePoint site "Benefits" to the "Employees in Belgium" segment. Now I can still add Allan to the site members, but since he hits the information barrier, he can't access the site as can be seen in the screenshot above, since he's not in the Belgium usage location.

Again, this is just 1 example. Take a look at this Microsoft Learn article (https://learn.microsoft.com/en-us/purview/information-barriers-sharepoint) to show all usecases.

Setting up Information Barriers – OneDrive Configuration

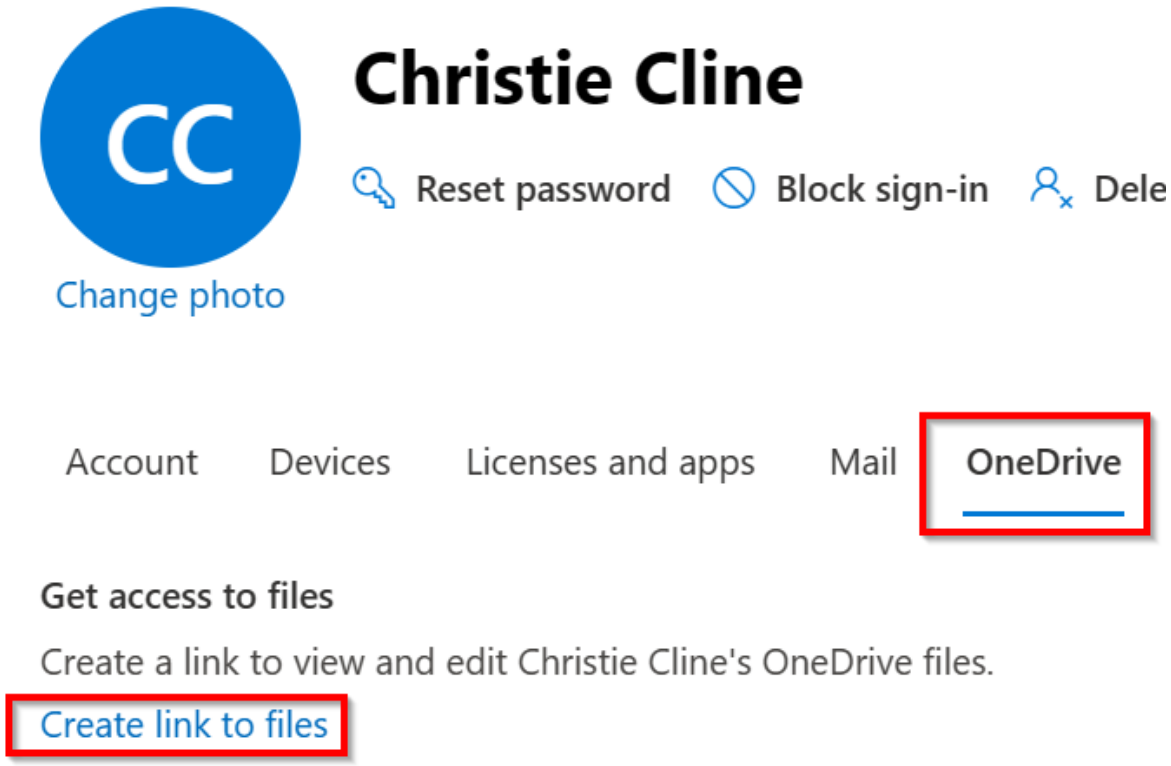
When we enabled Information Barriers for our SharePoint environment, we also enabled it for our OneDrive environment. So that's a nice advantage. As with SharePoint, OneDrive can also be configured with different Information Barrier Modes:

Mode	Description
Open	When a non-segmented user provisions their OneDrive, the site's IB mode is set as Open, by default. There are no segments associated with the site.
Owner Moderated	When a OneDrive is used for collaboration with incompatible users in the presence of the site owner/moderator, the OneDrive's IB mode can be set as Owner Moderated. See this section for details on Owner Moderated site.
Explicit	When a segmented user provisions their OneDrive within 24 hours of enablement, the site's IB mode is set as *Explicit* by default. The user's segment and other segments that are compatible with the user's segment and with each other get associated with the user's OneDrive.
Mixed	When a segmented user's OneDrive is allowed to be shared with unsegmented users, the site's IB mode can be set as *Mixed*. This is an opt-in mode that the SharePoint admin can set on OneDrive of a segmented user.

Source: Microsoft

The difference with OneDrive is however, that when a user is added to an Information Barrier segment, this segment is stamped on it's OneDrive and the Information Barrier mode of the users OneDrive is set to "Explicit", both within 24 hours of setting the segment.

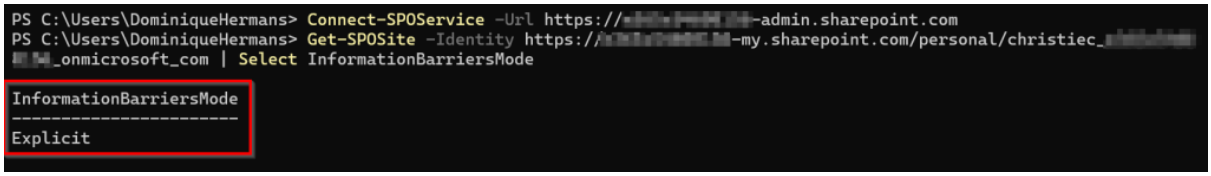
The mode can be seen using the "Microsoft.Online.SharePoint.PowerShell" module that's used for the SharePoint configuration above. You can return to the same PowerShell window to execute the cmdlets. However, first you have to find the URL of the users OneDrive.



This can be found by navigating to the Microsoft 365 Admin Portal, Users, Active Users. Then select your user and click on the Onedrive tab. Then click “create link to files” and copy the link that is shown.

To see the mode, run the following cmdlet in the PowerShell window:

Get-SPOSite -Identity https://TenantName-my.sharepoint.com/personal/christiec_TenantName_onmicrosoft_com | Select InformationBarriersMode



As can be seen in the screenshot above, the mode is indeed set to “Explicit”. Explicit means the following according to Microsoft Learn (https://learn.microsoft.com/en-us/purview/information-barriers-onedrive#explicit):

Explicit

When a OneDrive has information barriers segments and the mode is set to *Explicit*:

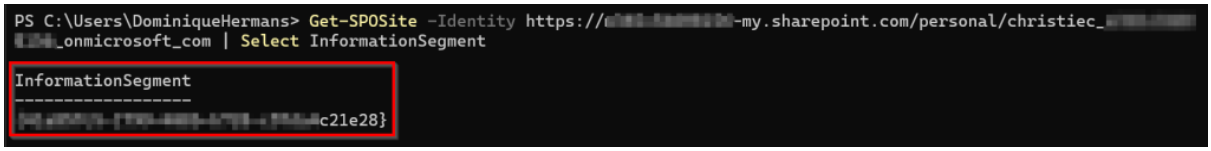
- The option to share with *Anyone with the link* is disabled.
- The option to share with *Company-wide link* is disabled.
- Files and folders can be shared only with users whose segment matches that of the OneDrive.

To change the mode, use:

Set-SPOSite -Identity https://TenantName-my.sharepoint.com/personal/christiec_TenantName_onmicrosoft_com -InformationBarriersMode OwnerModerated

or to show which segment was assigned, use:

Get-SPOSite -Identity https://TenantName-my.sharepoint.com/personal/christiec_TenantName _onmicrosoft_com | Select InformationSegment



As shown in the screenshot above, the result returned is not the name of a segment, but a GUID. This GUID should be matched with the GUID that's a result of the "Get-OrganizationSegment" cmdlet.

But this is in another module. And to be precise the "Exchange Online PowerShell module". Weird name? Yes. But it get's the job done. And this module is supported by Powershell 7.0.3 and later. Install with command

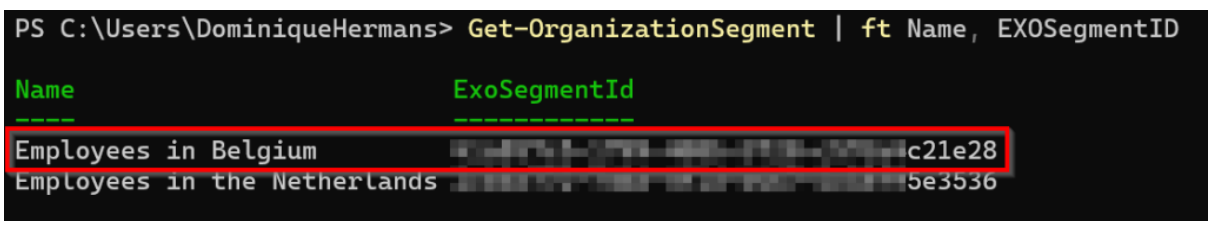
Install-Module -Name ExchangeOnlineManagement

Take a look at it's Microsoft Learn page (https://learn.microsoft.com/en-us/powershell/exchange/exchange-online-powershell-v2?view=exchange-ps#install-and-maintain-the-exchange-online-powershell-module) for all the prerequisites.

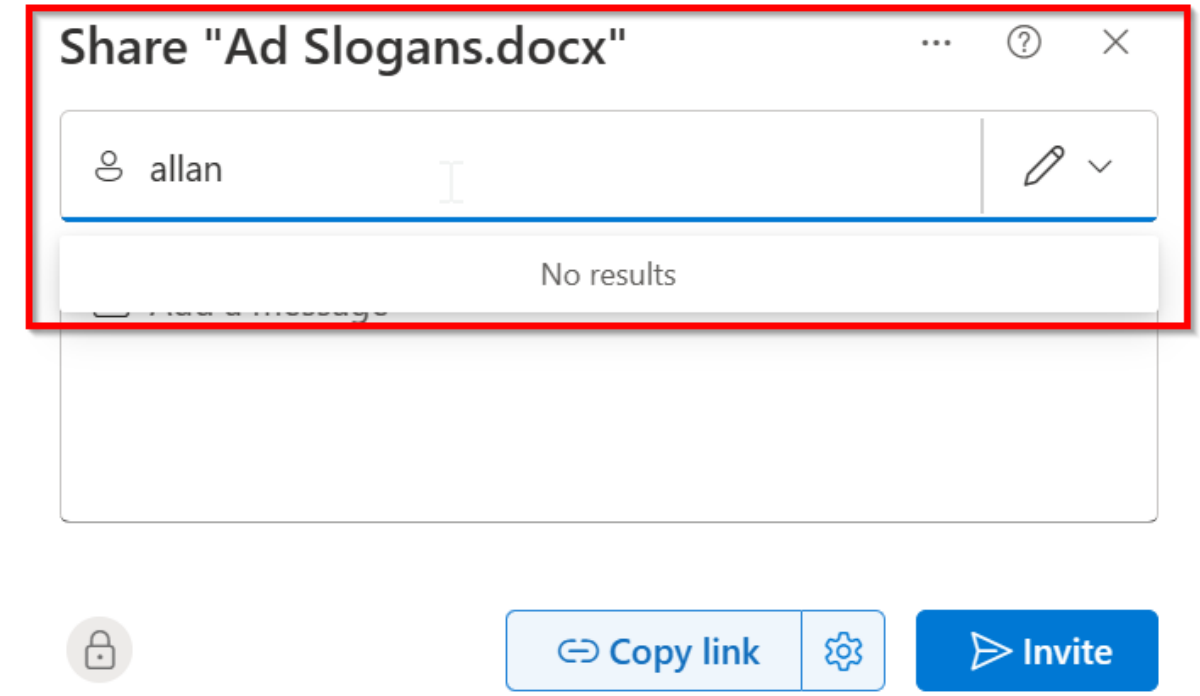
Run the following commands to match the GUID above with a meaningful name:

Import-Module ExchangeOnlineManagement
Connect-IPPSSession -UserPrincipalName admin@TenantName.onmicrosoft.com
Get-OrganizationSegment | ft Name, EXOSegmentID

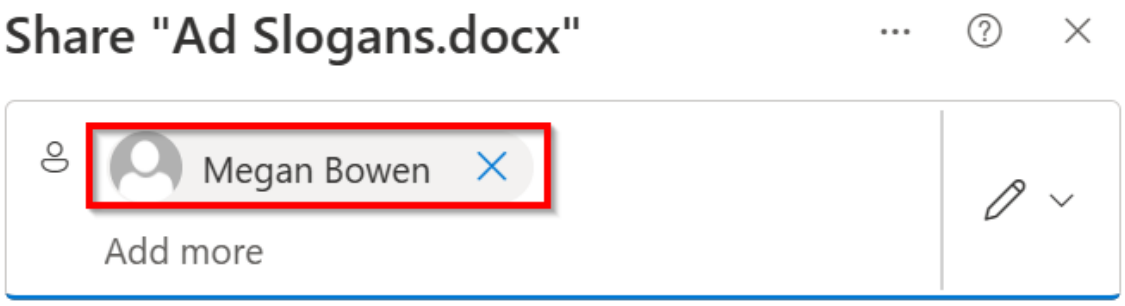
The result is as follows:



And this checks out, since it's Christie's OneDrive and Christie is an employee from Belgium! To wrap this up, let's take a look at the user experience.



When Christie wants to share a file in her OneDrive with Allan (which is in another segment) this isn't possible. Allen doesn't even show up in the list of available users!



However, when sharing the same document with Megan Bowen, who is also a user from Belgium, this is possible and Megan can be found in the recipients list.

As with the Teams and SharePoint examples, this OneDrive scenario was just 1 example. Take a look at Microsoft Learn (https://learn.microsoft.com/en-us/purview/information-barriers-onedrive) to see other possibilities!

Compliance Manager

Microsoft Purview has a pretty sweet feature called “Compliance Manager”. It can be used to assess your Microsoft 365 (and other non-Microsoft) environments based on various regulations like “ISO 27001” or you can create your own custom assessment that’s not based on a regulation. (Do note that at the time of writing this chapter, the creation of custom assessments is disabled due to an update of the process by Microsoft.)

Basics first, as always

Before we dive into the world of assessments and regulations, let’s start with the basic components of compliance manager:

- A ***control*** can be a technical setting in your Microsoft 365 environment or a procedure that has to be followed. Examples are “turn on MFA” or “create a document with rules that employees have to accept before they can access their new workspace”.
- An ***assessment*** is a group of controls.
- Assessments can be based on a ***regulation***, which groups all the controls that are in the scope of a regulation in 1 assessment. When you comply to this assessment, it can be stated that you are compliant to the regulation it is based on.

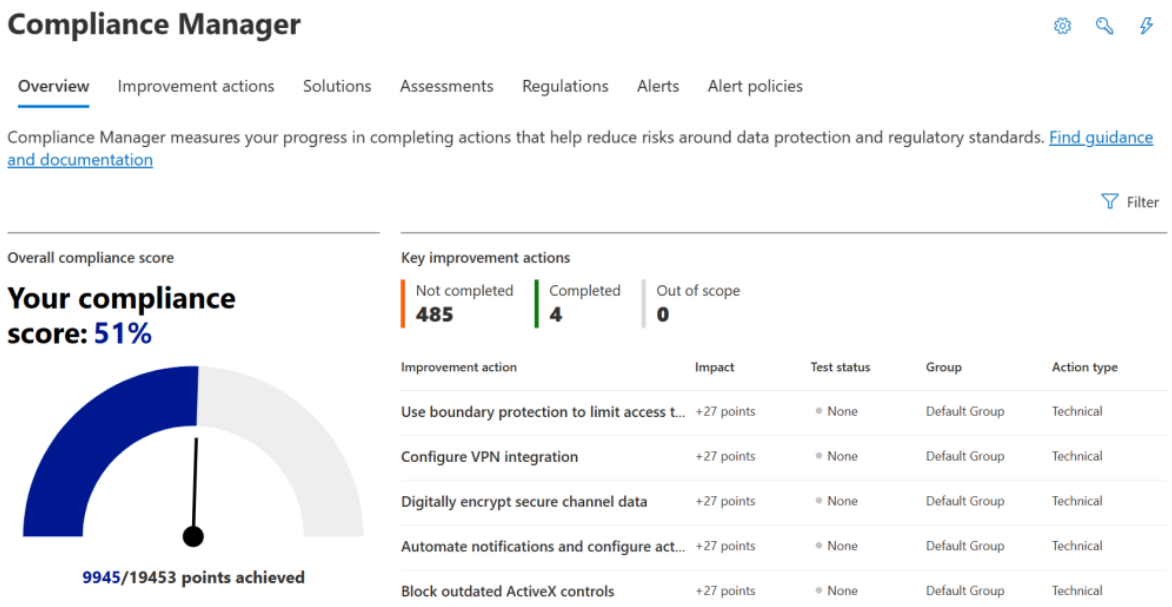
These 3 components form the basics of your compliance solution. Other components include:

- A ***solution*** is a service within the Microsoft 365 or Azure ecosystem that can be checked based on a controls. For example “Exchange Online”.
- Assessments can be ***group***ed together. A group of assessments can share the same improvement actions.
- An ***improvement action*** can be a change you make to improve your system, like “turn on MFA”.

Compliance Manager, here we come!

Now that’s out of the way let’s get our hands dirty and dive into Compliance Manager!

When you navigate to the Microsoft 365 Compliance center and make your way to the compliance manager, you are immediately greeted with the following page:

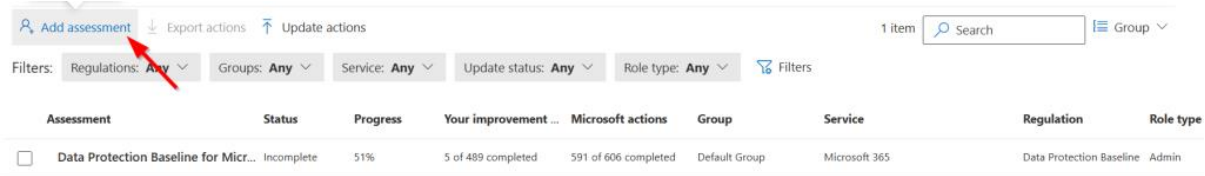


It shows a cool gauge that tells you your current compliance score. But wait. Compliance score? Based on what assessment? We didn't even create an assessment! That's right, but when we move forward to the "Assessments" tab, we can see that it is set up with a predefined assessment:

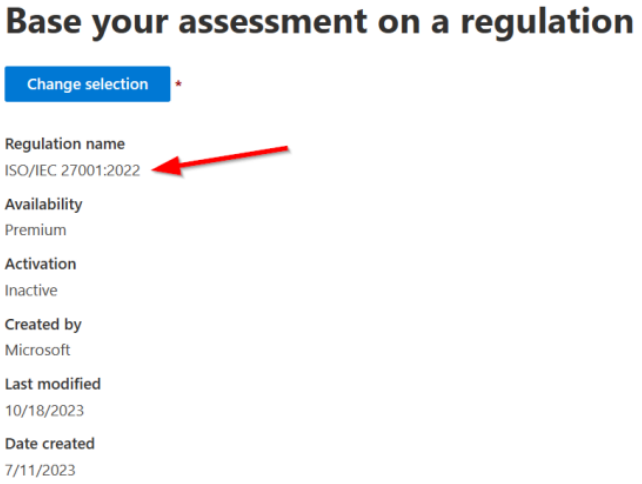
It also shows that it is based on the "Data Protection Baseline" regulation and that's currently scanning our environment (progress at 51% in the screenshot above) to check all the controls in the assessment. This assessment checks your environment on a set of controls for key regulations and standards for data protection and general data governance. You should check out this Microsoft Learn article (https://learn.microsoft.com/en-us/purview/compliance-manager-assessments#data-protection-baseline-default-assessment) if you would like to know more about the Data Protection Baseline assessment.

How to create an assessment based on a regulation

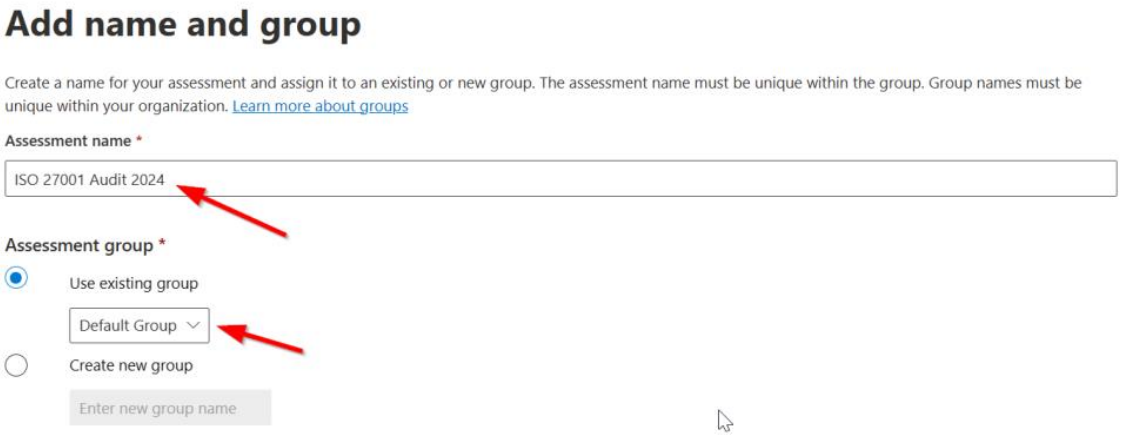
If you want, start by glancing at the "Regulations" tab on the top of the page, it will show you a dazzling number (376 at the time of writing) of regulations that you can base your assessment on. Now let's move forward by creating an assessment of our own.



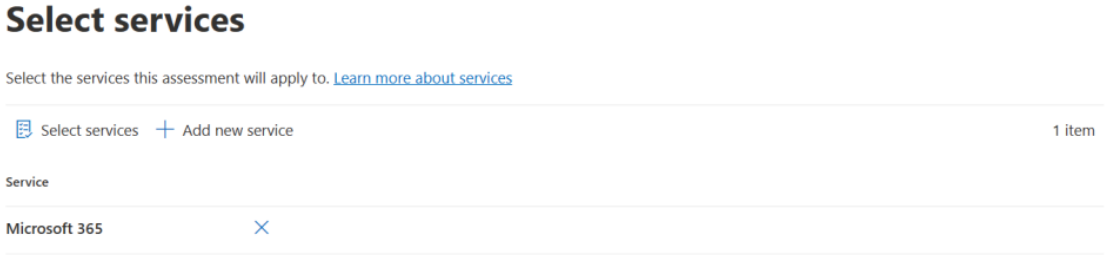
1. Click the "Assessments" tab and click the "Add Assessment" button next. You will be presented by a nice wizard. Click "Select Regulation" to select a regulation to base your assessment on.



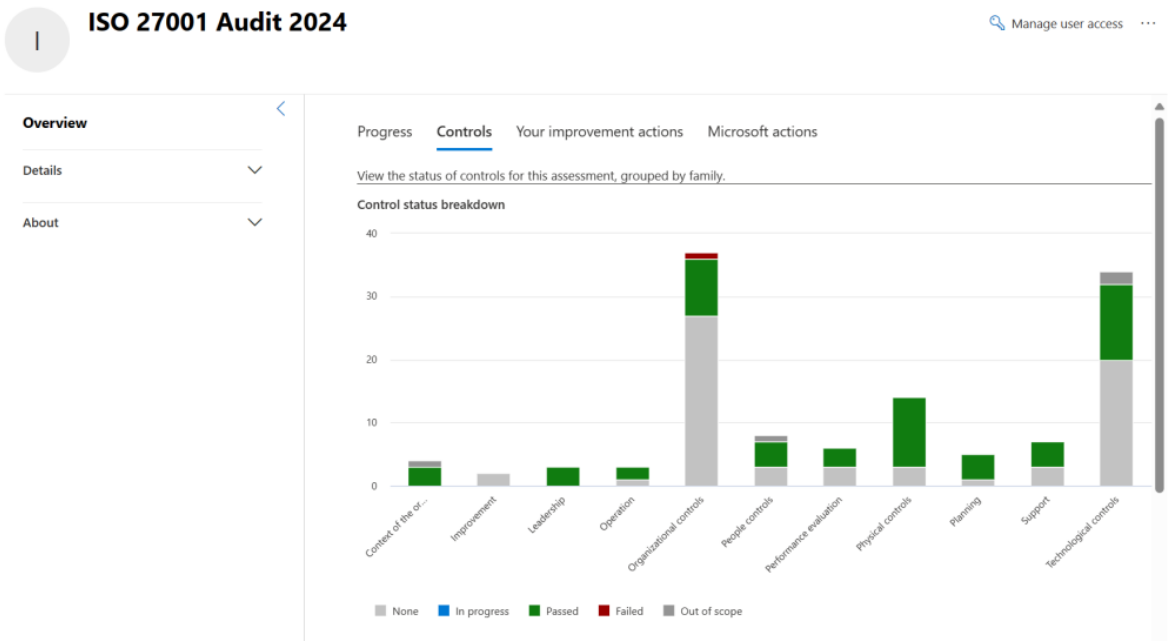
2. I chose the “ISO 27001 version 2022” regulation since that’s a well known regulation in the Netherlands. Click next.



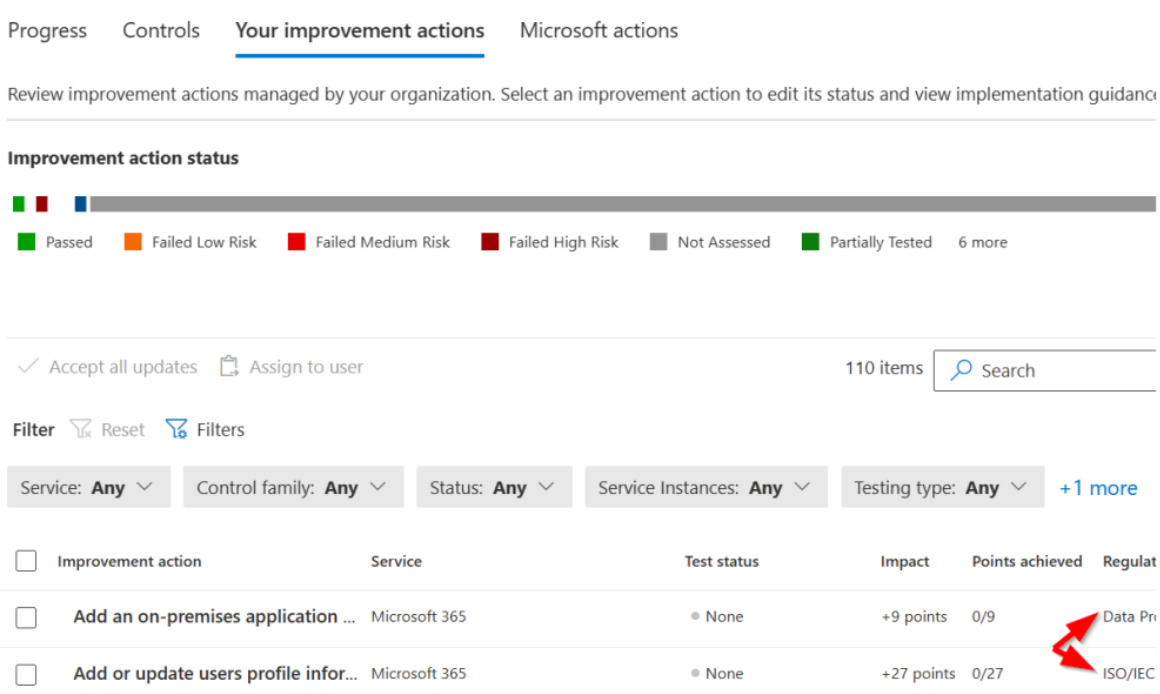
3. Give your assessment a name. Remember that assessments can be grouped together? Here the wizard provides you with this possibility. I choose to go with the default group for this demonstration. Click next.



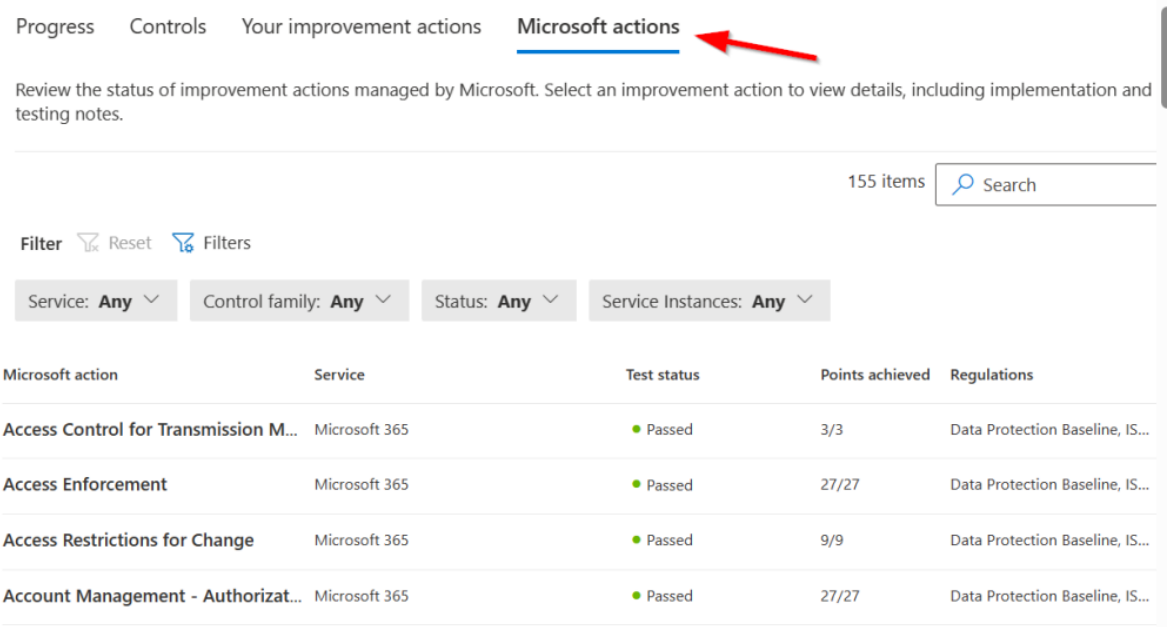
4. By default, you can use your assessment to assess your Microsoft 365 environment. However, it is possible to extend this to Zoom or Salesforce if you want. Click next and review your selections. Click “Create Assessment” when you’re done.



When your assessment is saved it starts checking your environment based on the controls I mentioned earlier. When you take a look at the "Controls" tab, you can see exactly what controls are being checked and what controls don't match (or fail if you will) with the properties of the regulation you selected.



Remember that grouped assessments can share the same improvement actions? Also remember that I choose to put my ISO 27001 in the default group? Well, as you can see in the screenshot above, the Data Protection Baseline is also in this group and so the improvement actions are also shared in one view. So when you click the "Your Improvement Actions" tab, it'll show you the controls you have to change to comply with the regulation you selected.



Since your Microsoft 365 environment is hosted by Microsoft there are also a lot of controls that are ticked off by Microsoft. These can be seen on the tab “Microsoft Actions”.

That’s about it there is to tell about the basics of Compliance Manager. Some last tips to help you on your way to compliance managing:

- Your Microsoft 365 license determines how many regulation licenses you get “for free”. If you want to use additional regulation licenses you can buy them separately. You can check the current usage status at the assessments tab, regulation licenses used, view details.
- I would advise you to grant stakeholders permission to this part of the compliance portal by navigating to compliance manager, compliance manager settings in the upper right hand corner, user access.