



Microsoft Cybersecurity Assessment

Engagement Overview



Engagement Methodology

Threat Scenarios



Discover



Analyze



Recommend



The engagement covers two commonly seen threat scenarios:

- Human-operated Ransomware
- Data Security risks from company insiders



Using the engagement tools, discover vulnerabilities within the customer's production environment across cloud, servers and endpoints.



The vulnerabilities and risks are analyzed and prioritized to show how prepared the customer's defenses are against the included threat scenarios.

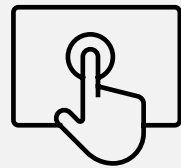


Prepare detailed recommendations from the assessment to help the customer prioritize the improvements to their cybersecurity posture.

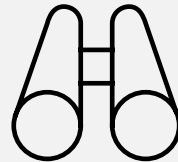
What we'll do during the engagement



Analyze the customer's environment and current cybersecurity maturity level based on v8 of the CIS Critical Security Controls.



Define scope & deploy Microsoft Defender Vulnerability Management and Insider Risk Analytics in the customer's production environment.



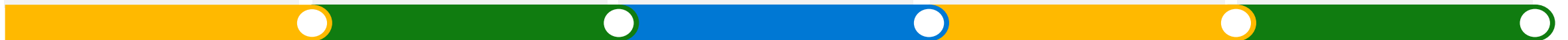
Perform a vulnerability assessment and assist with the prioritization of vulnerabilities and misconfigurations across the customer's organization.



Perform a data security assessment, discover and evaluate sensitive information and potential insider risks in the customer's organization.



Plan next steps on how to improve the customer's cyber and data security posture and how you can work together for future engagements.



Objectives and Approach



Discover vulnerabilities

Gain visibility into vulnerabilities to the customer's Microsoft 365 cloud using Microsoft Secure Score.

Discover and analyze vulnerabilities to servers and endpoints using Microsoft Defender Vulnerability Management.

Explore and Evaluate sensitive information and potential insider risk

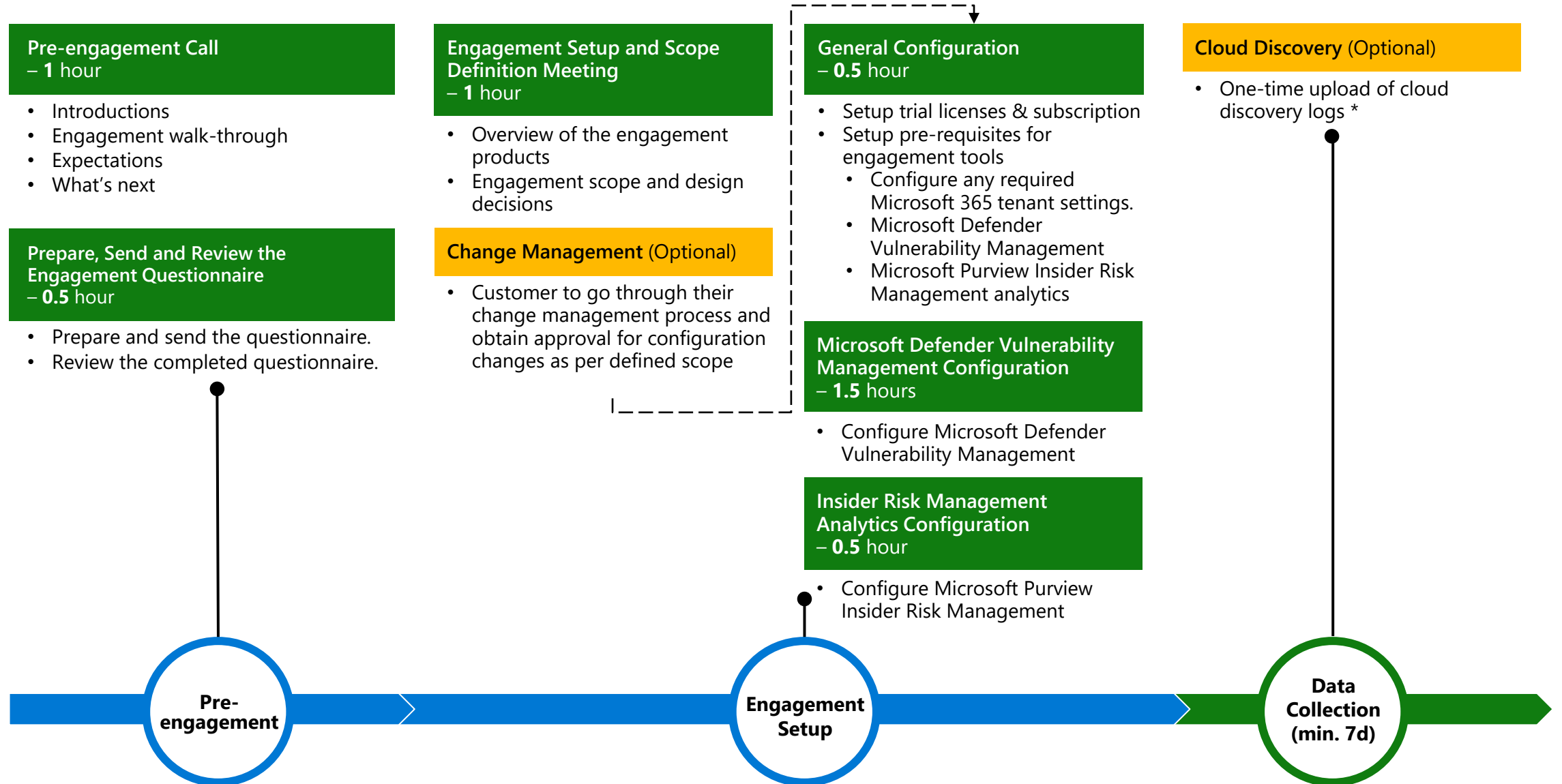
Gain visibility into sensitive information discovered by Microsoft Purview Information Protection.

Explore potentially risky data handling activities identified by Microsoft Purview Insider Risk Management Analytics.

Define next steps

As part of the engagement, work together with the customer to define a list of next steps based on their needs, objectives, and results from the Cybersecurity Assessment.

Cybersecurity Assessment phases and activities



* Unless using Microsoft Defender for Endpoint as a source of the cloud discovery data.

Cybersecurity Assessment phases and activities

Vulnerabilities Exploration – 1 hour

- Explore vulnerabilities in:
 - Microsoft Defender Vulnerability Management
 - Microsoft Secure Score

Data Security Exploration – 1 hour

- Explore data security risks from company insiders.

Cloud Discovery Exploration (Optional) – 1 hour

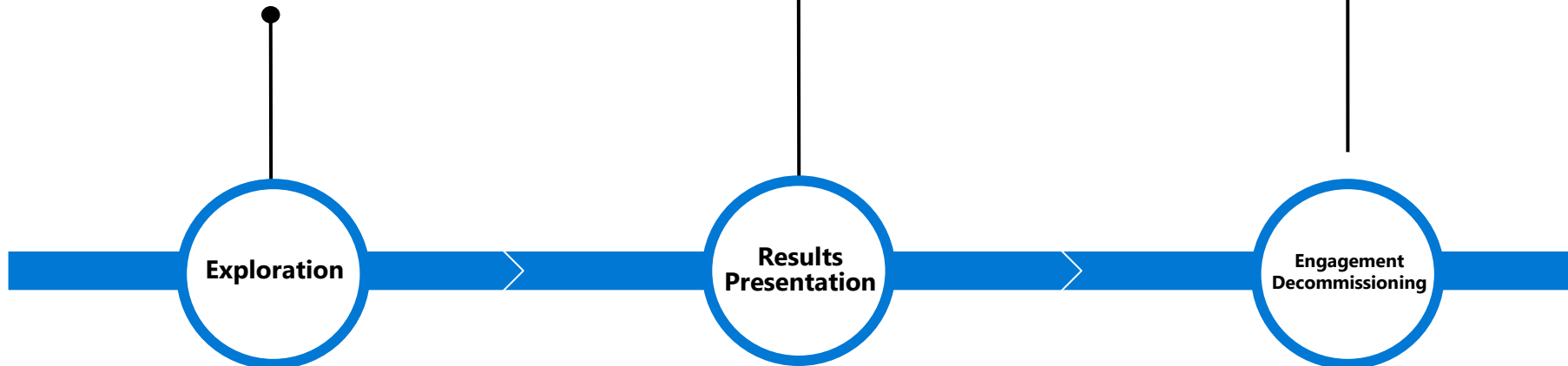
- Explore cloud application usage in Microsoft Defender for Cloud Apps.

Results Presentation – 2 hours

- Results presentation and Next Steps discussion.

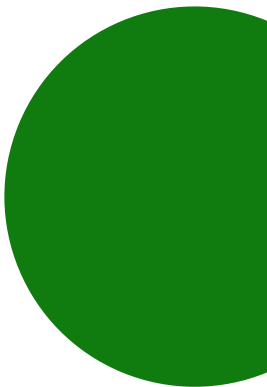
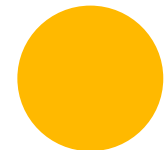
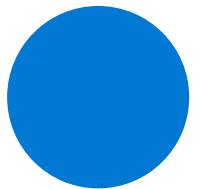
Engagement Decommissioning – 1 hour

- Remove uploaded logs
- Remove configuration changes
- Deactivate trial licenses

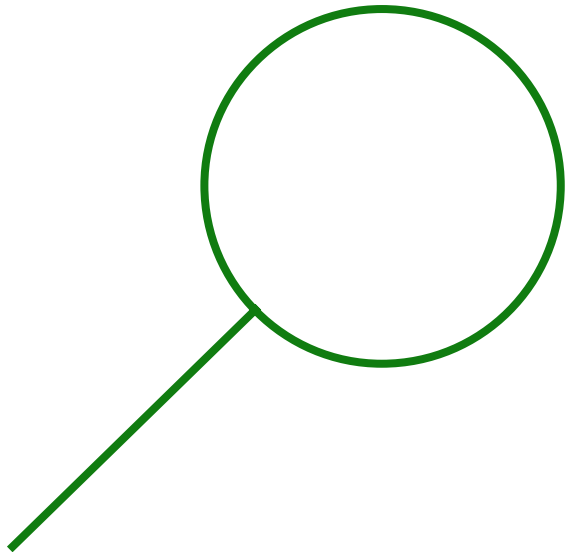


After the Cybersecurity Assessment, the customer will...

- ✓ Better understand, prioritize, and address cybersecurity vulnerabilities and how to improve their defenses against human-operated ransomware.
- ✓ Better understand, prioritize, and address data security vulnerabilities and how to minimize data security risks from company insiders.
- ✓ Have defined next steps based on the engagement findings and their needs and objectives.



Out of Scope



- » Configuration of Microsoft Security tools beyond the engagement tools:
 - Microsoft Defender for Endpoint
 - Microsoft Defender Vulnerability Management
 - Microsoft Purview Information Protection
 - Microsoft Purview Insider Risk Management Analytics.
- » Deep analysis (investigation) of threats found during the engagement
- » Incident response
- » Forensic analysis
- » Technical designs or implementations
- » Proof of Concept or Lab Deployment

Data Collection

- » Vulnerabilities and misconfigurations detected by the engagement tools.
- » Minimum of 7 days duration to allow us to gather enough data to analyze.
- » Upload of Cloud Discovery logs (towards the end)*.

* Unless using Microsoft Defender for Endpoint as a source of the cloud discovery data.



Vulnerabilities Exploration

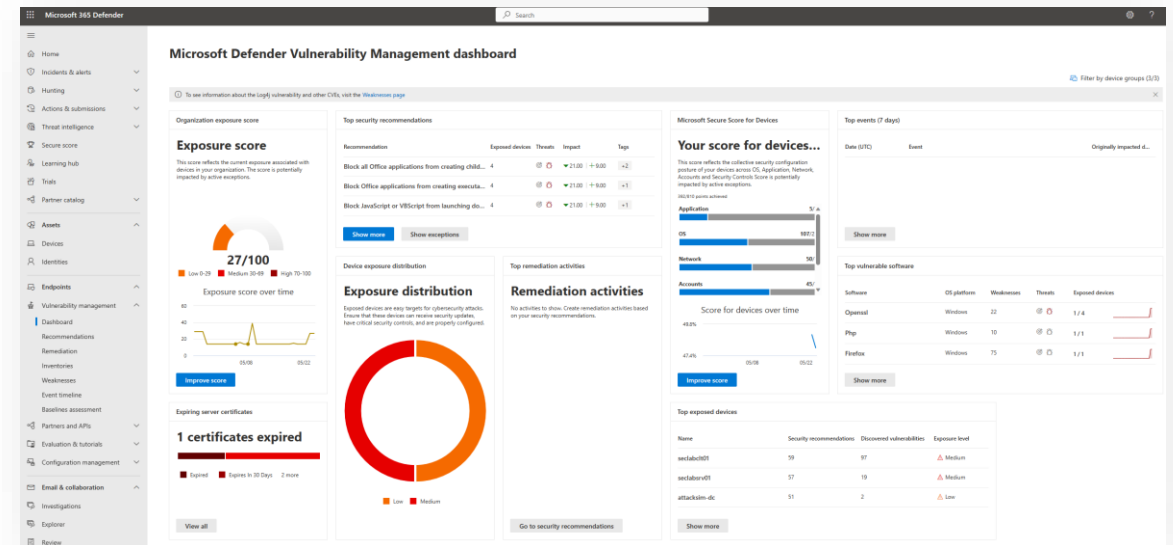
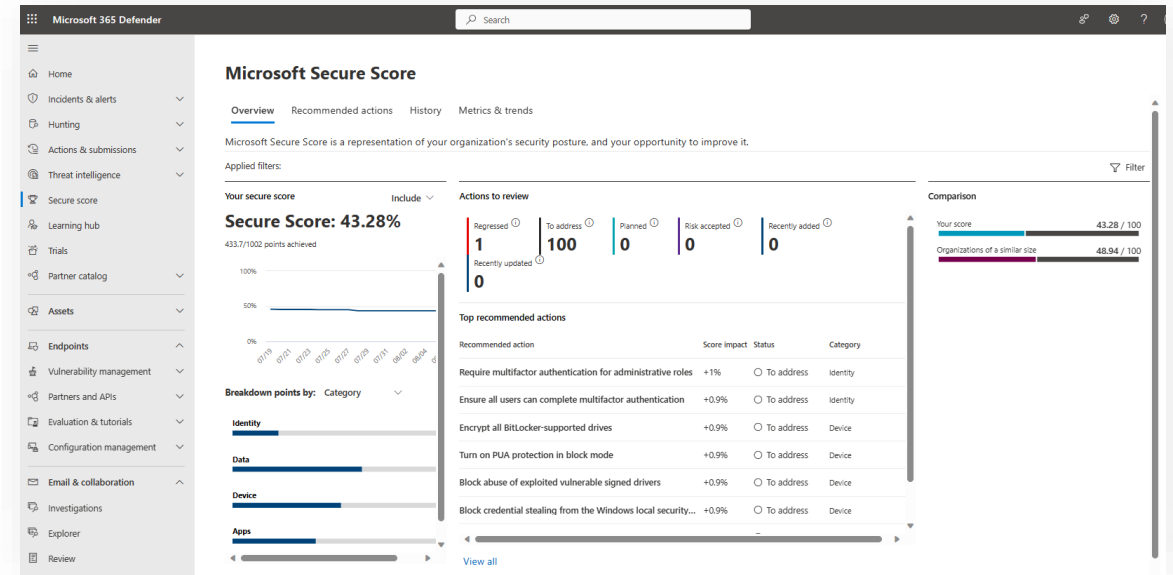


Help the customer gain visibility into vulnerabilities in their cloud and on-premises environments obtained through Microsoft Secure Score and Microsoft Defender Vulnerability Management.



Provide recommendations on:

- How to discover and prioritize vulnerabilities and misconfigurations.



Data Security Exploration

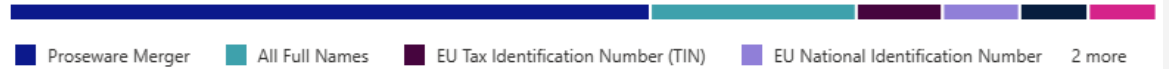
» Help the customer gain visibility into data security risks in their organization obtained through zero change management configurations.

» Provide snapshots of what sensitive information exists within the customer's Microsoft 365 environment

» Conduct an evaluation of potential insider risks in the customer's organization without configuring any insider risk policies.

Top sensitive info types

Sensitive info types used most in your content



Filter on labels, info types, or categories

Sensitive info types	Count
Proseware Merger	4659
All Full Names	1497
EU Tax Identification Number (TIN)	627
EU National Identification Number	561
Malta Tax ID Number	498
Malta Identity Card Number	496
Credit Card Number	296

All locations

Location	Files
Name	4 items
Exchange	169
OneDrive	110
SharePoint	10
Teams	

Potential data theft activities

The exfiltration activities below might be related to data theft by departing users near their resignation or termination date. After reviewing them, consider setting up the recommended policy to help address potential risks.

What we detected

The following is recent activity based on a scan of 219 users who are leaving your organization.

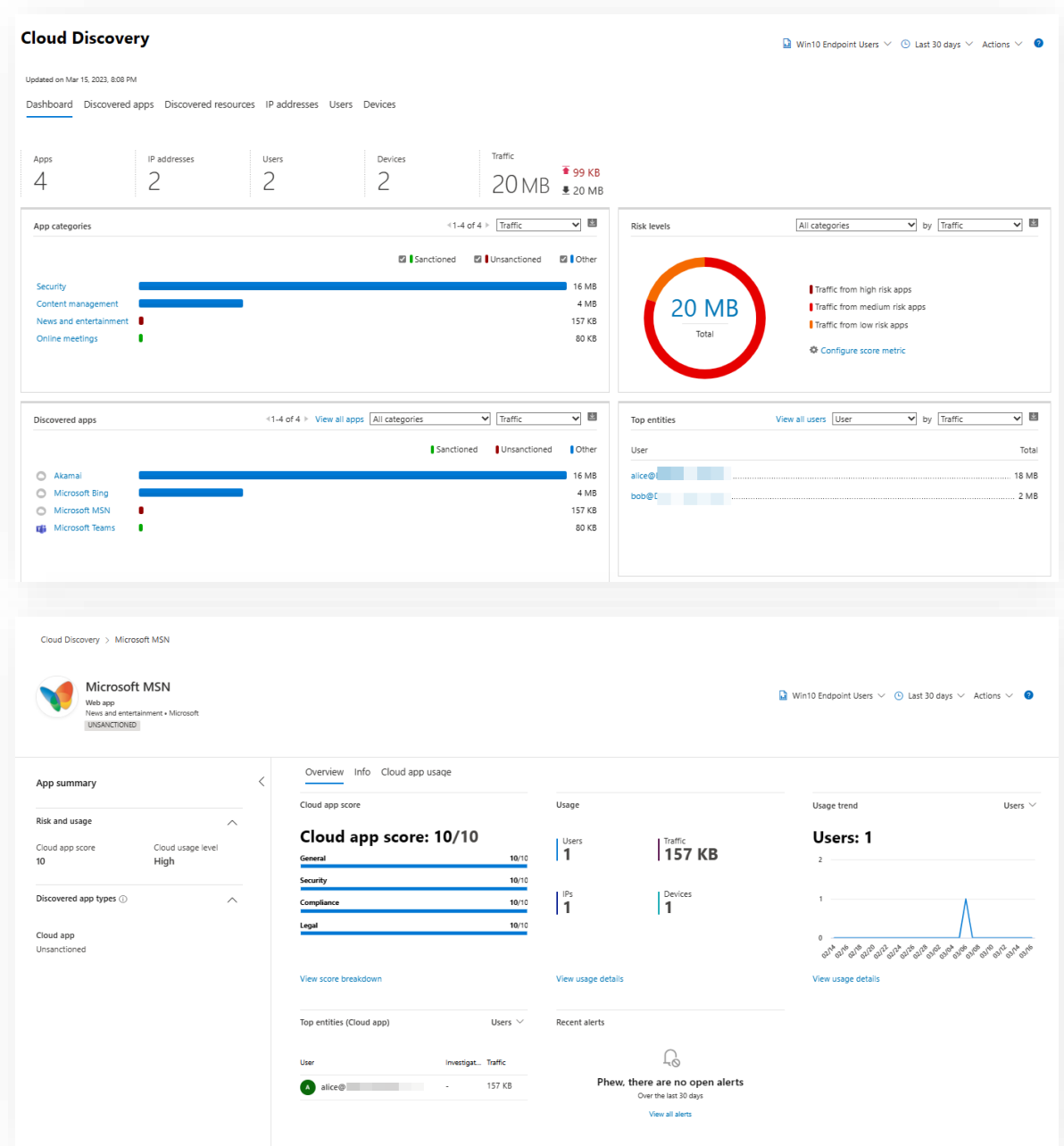
5.9% of users with a resignation date performed exfiltration activities

- 4.6% of users with a resignation date performed activities involving sensitive info
- 3.2% of users with a resignation date downloaded SharePoint files
- 2.7% of users with a resignation date shared SharePoint sites with people outside your organization
- 2.3% of users with a resignation date shared SharePoint folders with people outside your organization
- 2.3% of users with a resignation date emailed people outside your organization
- 1.8% of users with a resignation date copied content to USB
- 1.8% of users with a resignation date printed a large number of files
- 1.4% of users with a resignation date shared SharePoint files with people outside your organization
- 1.4% of users with a resignation date copied sensitive content to personal cloud
- 0.9% of users with a resignation date shared files across network

Cloud Discovery Exploration - Optional

➤ Help the customer gain visibility into Shadow IT usage, identifying apps accessed by users across their organization using Microsoft Defender for Cloud Apps.

➤ Evaluate discovered apps for more than 90 risk indicators, allowing you to sort through the discovered apps and assess the customer's security and compliance posture.



Engagement Setup and Scope Definition Meeting



Overview of the engagement products

Overview of the engagement products including specific requirements to ensure a successful deployment:

- Microsoft Defender Vulnerability Management
- Microsoft Purview Insider Risk Management

Engagement Scope

Discuss and decide on the engagement scope:

- Microsoft Defender Vulnerability Management
 - What devices (servers/clients) should be scanned for vulnerabilities?
- Microsoft Defender for Cloud Apps – Optional
 - How should we gather logs?
- Microsoft Purview Insider Risk Management

Design Decisions

Discuss and decide how the engagement products will be configured.

General configuration



The General Configuration activity includes following steps:

- Deploy the Cybersecurity Assessment Microsoft 365 trial licenses
- Turn on audit logging in Microsoft 365, if needed
- Activate Microsoft 365 Defender, if needed
- Configure pre-requisites for the Microsoft Defender Vulnerability Management Authenticated scan for Windows
- Configure Microsoft Defender for Cloud Apps - Optional

Microsoft Defender for Cloud Apps



What is Microsoft Defender for Cloud Apps?

A multi-mode Cloud Access Security Broker.

Insights into threats to identity and data

Raise alerts on user or file behavior anomalies in cloud apps leveraging their API connectors.

In scope for this engagement with Office 365 and Azure.

Out of scope for this engagement with other API connectors.

Discover the use of unsanctioned cloud application and services (aka "shadow IT")

In scope for this engagement.

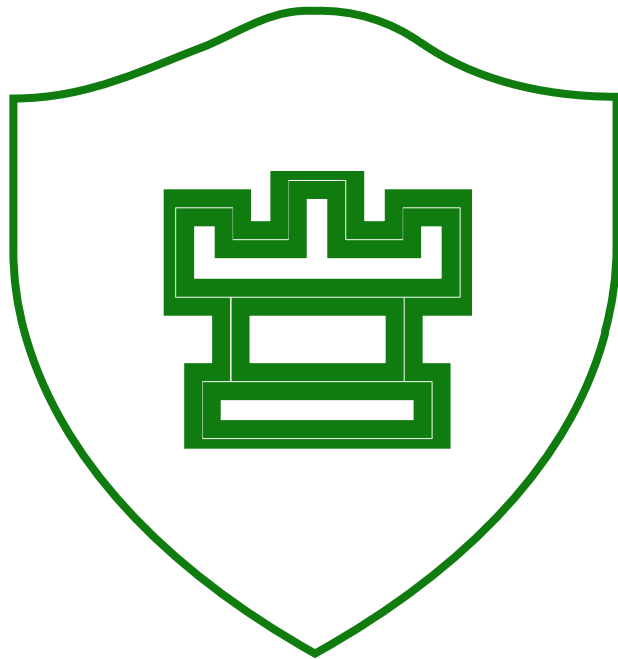
Ability to respond to detected threats, and configuration of application monitoring and control

Out of scope for this engagement.

Requirements

Available to organizations with Office 365 or Microsoft 365 enterprise, education or government subscriptions and with tenant in the commercial (public) cloud or in any type of U.S. Government Community cloud.

Microsoft Defender Vulnerability Management



What is Microsoft Defender Vulnerability Management (MDVM)?

A comprehensive risk-based vulnerability management to identify, assess, remediate, and track vulnerabilities across most critical assets, all in a single solution.

Asset discovery and monitoring

Analysis of Defender Vulnerability Management vulnerability and configuration assessment results to help understand and assess cybersecurity exposure.

In scope for this engagement.

Licensing – Trials provided as part of the engagement

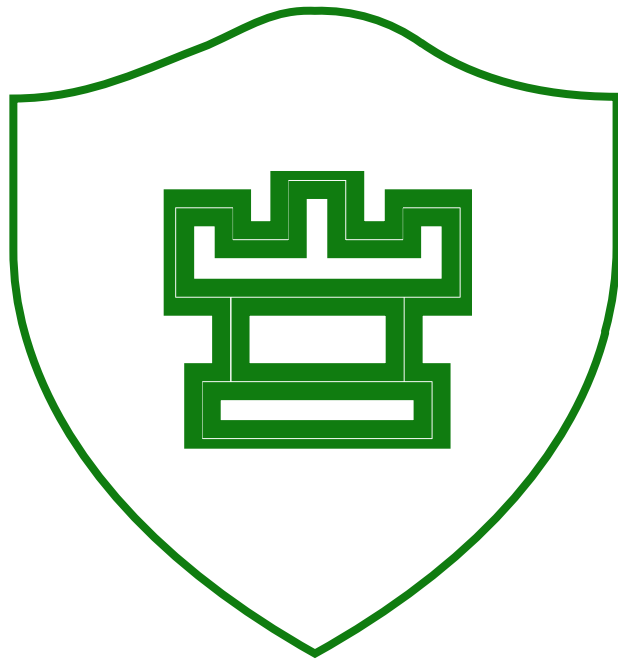
Endpoints:

- Premium MDVM capabilities included as part of the Defender Vulnerability Management Add-on.
- MDVM Standalone provides full Defender Vulnerability Management capabilities for any EDR solution.

Servers (in Microsoft Defender for Cloud):

- Premium MDVM capabilities included as part of the Defender for Servers Plan 2.

Microsoft Defender Vulnerability Management Authenticated Scan



What is the Microsoft Defender Vulnerability Management (MDVM) Authenticated Scan?

Authenticated Scan for Windows provides the ability to run scans on remote Windows devices. Once configured, the targeted devices will be scanned regularly for software vulnerabilities.

Requirements

Scanner:

- On-premises machine with Windows 10 (version 1903), Windows Server (version 1903) and later.
- Must be onboarded to MDE (MDE can be configured as part of this engagement if needed).
- Detailed machine requirements will be provided after this meeting to allow you to prepare it before we start the engagement.

Scanning Account:

- This must be a Group Managed Service Account (gMsa):
 - The account is a least privileged account with only the minimum required scanning permissions.
 - The account will be removed at the end of the engagement.

Required Device Configuration:

- Each device to be scanned needs to be configured with the permissions needed by the scanner:
 - This can be completed either manually or using group policies.
 - We recommend applying the required settings using a provided PowerShell script which creates a group policy scoped specifically to the scanned devices.

Insider Risk Analytics



What is Microsoft Purview Insider Risk Management

Microsoft Purview Insider Risk Management is a compliance solution that helps minimize internal risks by enabling you to detect, investigate, and act on malicious and inadvertent activities.

Insider Risk Analytics

Insider Risk Management analytics enables you to conduct an evaluation of potential insider risks **without configuring any insider risk policies**. This evaluation can help organizations identify potential areas of higher user risk and help determine the type and scope of insider risk management policies they might want to configure.

In scope for this engagement.

Requirements

- Microsoft Purview Audit Log enabled in the customer's organization.
- An account with membership in:
 - Insider Risk Management
 - Information Protection
 - Compliance Data Administrator

Insider Risk Analytics Configuration



What is Microsoft Purview Insider Risk Management Analytics Overview

Analytics scans offer the following:

Easy to configure: To get started with analytics scans, select **Run scan** when prompted by the analytics recommendation.

Privacy by design: Scanned results and insights are returned as aggregated and anonymized user activity. Individual usernames aren't identifiable by reviewers.

Understand potential risks through consolidated insights: Scan results can help you quickly identify potential risk areas for users and which policy would be best to help mitigate these risks

Areas Scanned

Analytics scans offer the following:

Microsoft 365 audit logs: Included in all scans, this is the primary source for identifying most of the potentially risky activities.

Exchange Online: Included in all scans, Exchange Online activity helps identify activities where data in attachments are emailed to external contacts or services.

Microsoft Entra ID: Included in all scans, Microsoft Entra ID history helps identify risky activities associated with users with deleted user accounts.

Microsoft 365 HR data connector: If configured