Implementing and building advanced Microsoft Entra Conditional Access scenarios - 2024 Edition

Kenneth van Surksum

Modern Workplace Consultant

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securitymeetup.nl

Microsoft Defender for Cloud Apps (MDA)


SaaS apps
Microsoft 365 Defender
Edge for Business protection
PREVIEW FEATURE
Turn on Edge for Business browser protection to provide end users with a faster, more secure experience.
Turn on Edge for Business browser protection
Notify users in non-Edge browsers to use Microsoft Edge for Business for better performance and security
Use default message | Preview
Customize message | Preview
Save
We secure your data as described in our privacy statement and online service terms .

Authentication Context

What is an Authentication Context?

*Defined label used outside of Conditional Access, which **triggers** a Conditional Access policy*

Where can Authentication Context be used?

- Protected Actions
- Privileged Identity Management
- Sensitivity Labels
- Microsoft Defender for Cloud Apps

Possible Scenario's

- Only allow protected actions to be performed from Hybrid joined/Compliant devices
- Require step-up authentication when performing protected action
- Only allow PIM activation from a Privileged Access Workstation (PAW)
- Trigger step-up authentication when elevating to a privileged role using PIM
- Require phishing resistant MFA when accessing highly sensitive SharePoint site
- Trigger TOC agreement when accessing files classified with sensitive label
- Much more…..

Demonstration: Microsoft Defender for Cloud Apps & Authentication Context

About “Kenneth van Surksum”

Focus

Modern Workplace Consultant, Microsoft Certified Trainer, Co-founder and organizer at Workplace Ninja User Group Netherlands

Microsoft MVP Most Valuable Professional

Experts Live Netherlands

Secure At Work

From

The Netherlands

My Blog

https://www.vansurksum.com

Certifications

Microsoft 365 Certified Enterprise Administrator

Microsoft Certified Azure Solutions Architect

Hobbies

Cooking on my Kamado Joe & Sports

Contact

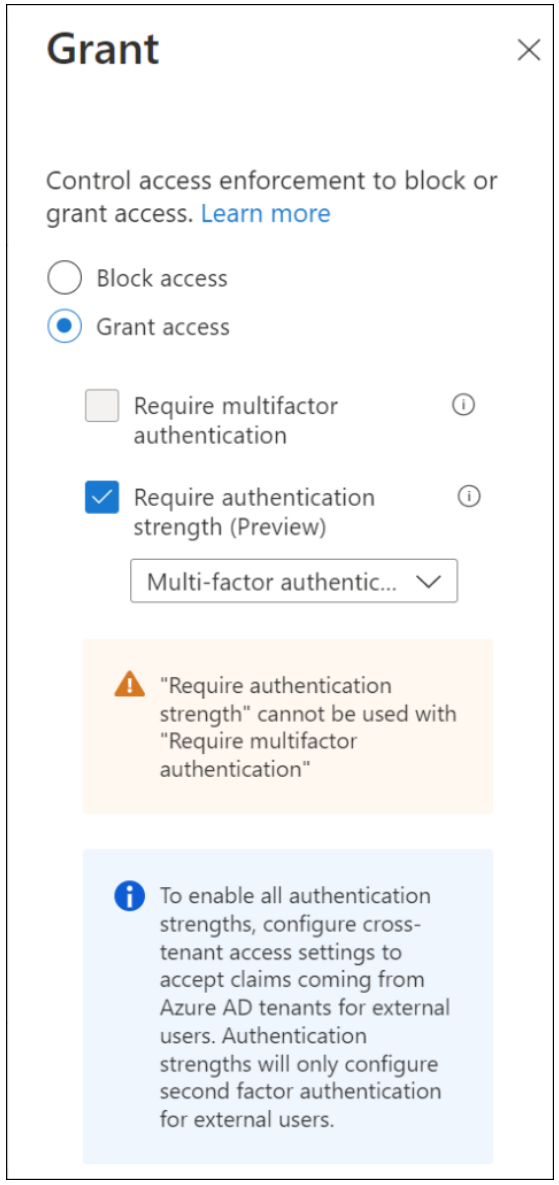
kenneth@vansurksum.com

https://twitter.com/kennethvs

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


Authentication Strength

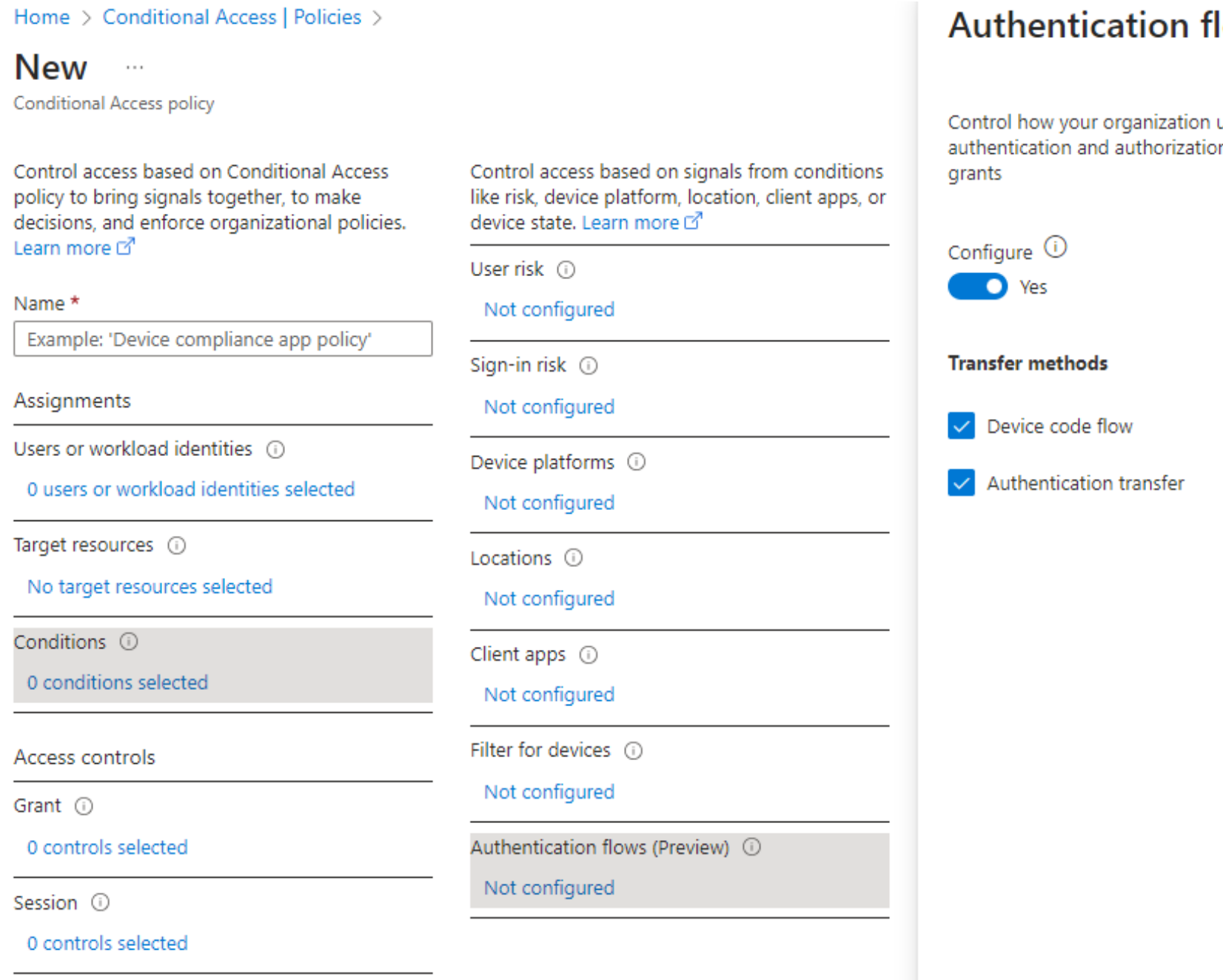
Authentication Strength



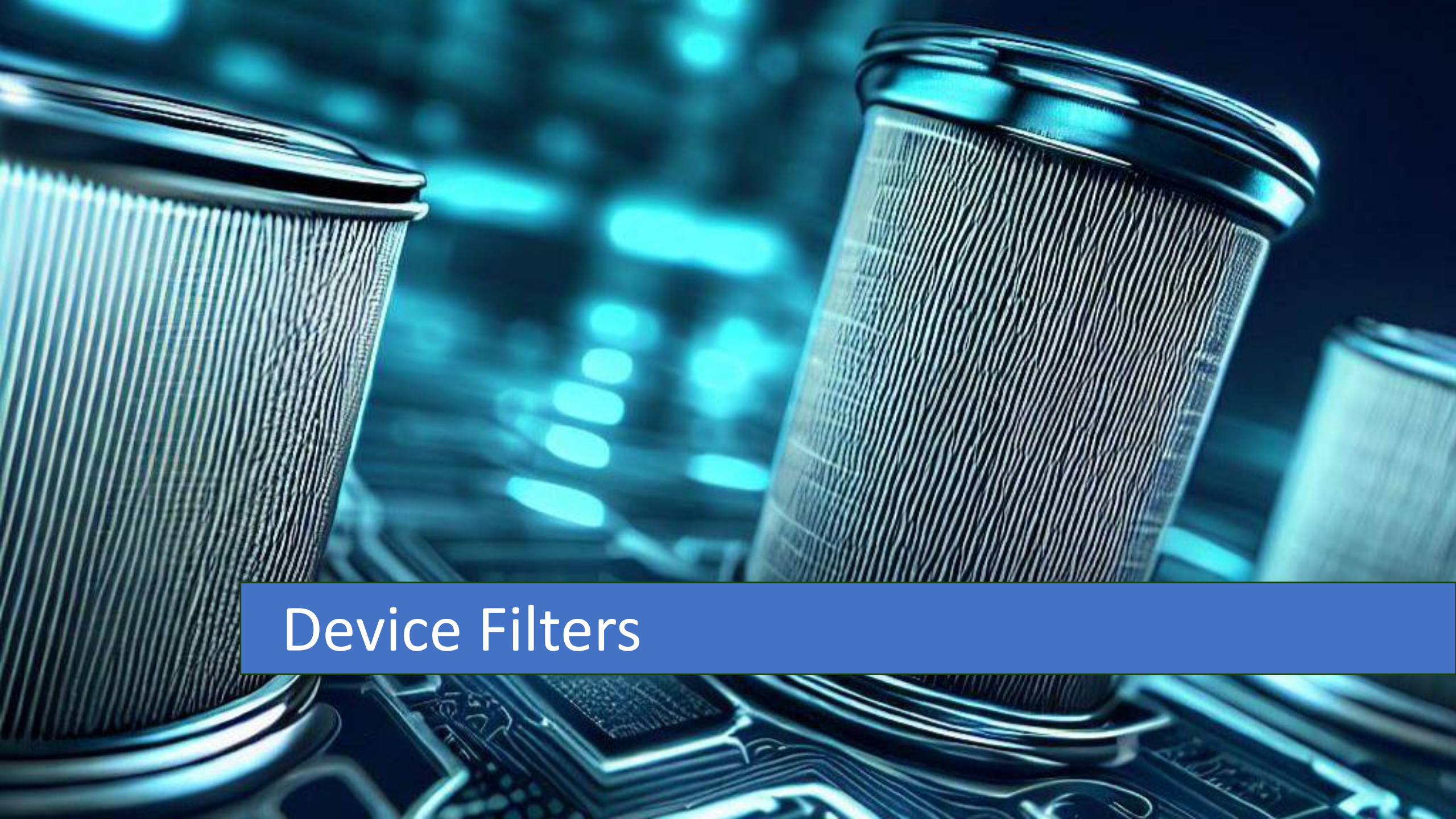
Bad: Password	**Good:** Password and...	**Better:** Password and...	**Best:** Passwordless
123456	SMS	Authenticator (Push Notifications)	Authenticator (Phone Sign-in)
qwerty			Window Hello
password	Voice	Software Tokens OTP	FIDO2 security key
iloveyou			
Password1		Hardware Tokens OTP (Preview)	**Certificates**

Demonstration: Authentication Strength in Action

- Authentication Context
- Authentication Strength
- Authentication flow




FILTERS.
FILTERS EVERYWHERE.
makeameme.org



Device Filters

Device Filters

Device state (deprecated)

Control user access when the device the user is signing-in from is not "Hybrid Azure AD joined" or "marked as compliant". This has been deprecated. Use 'Filter for devices' instead. Learn more

Configure

Yes | No

Include | Exclude

Select the device state condition used to exclude devices from policy.

- [x] Device Hybrid Azure AD joined
- [x] Device marked as compliant

Filter for devices

Configure a filter to apply policy to specific devices. Learn more

Configure

Yes | No

Devices matching the rule:

- ( ) Include filtered devices in policy
- (•) Exclude filtered devices from policy

You can use the rule builder or rule syntax text box to create or edit the filter rule.

And/Or	Property	Operator	Value
	isCompliant	Equals	True
Or	trustType	Equals	Hybrid Microsoft Entra joined

+ Add expression

Rule syntax

```
device.isCompliant -eq True -or device.trustType -eq "ServerAD"
```

deviceId, displayName, manufacurer, mdmAppId, model, operatingSystem, operatingSystemVersion, physicalIds, profileType, systemLabels, trustType and extensionAttributes

Beware!

For a device that is **unregistered** with Azure AD, all device properties are considered as null values

- Make properties available

Condition “Device Platform” depends on User Agent String

- Can easily be mimicked

- Give access to Azure Management for privileged users only, coming from privileged or secure admin workstations
- Block access from devices running non supported Windows versions (like Windows 7, 8.1)
- Do not require MFA for specific account (traditional AD service accounts) when used on specific devices, like Teams phones or Surface Hub devices

Filters for Apps & Workload Identities

Custom Security Attributes

Role	Description
Attribute Assignment Administrator	Assign custom security attribute keys and values to supported Azure AD objects.
Attribute Assignment Reader	Read custom security attribute keys and values for supported Azure AD objects.
Attribute Definition Administrator	Define and manage the definition of custom security attributes.
Attribute Definition Reader	Read the definition of custom security attributes.

Security and identity

Security comes as standard with all Microsoft products and technologies. No matter the size of your organisation, use these practical resources to get secure today and protect against threats in the future. Protect your data and block attacks with built-in security.

Workload Identities Premium

This per-workload identity licensed offer enables customers to detect and respond to compromised workload identities and helps simplify lifecycle management.

From €2.80 licenses/month

Details ☐ Compare

Workload Identities Premium (Month to Month)

YOU OWN THIS

This per-workload identity licensed offer enables customers to detect and respond to compromised workload identities and helps simplify lifecycle management.

From €3.40 licenses/month

Details ☐ Compare

- Create a specific Conditional Access policy for all Apps which are tagged with a tag UsedByDepartment and value Finance
- Create a specific Conditional Access policy only allowing “tagged” workload identities to be used from trusted locations
- Block sign-in when Workload Identity risk is High
- Create a specific Conditional Access policy, which blocks medium and high “Service Principal risk” for “tagged” workload identities

Sensitivity Labels

Content can be shared with:

SharePoint OneDrive

Most permissive

Anyone
Users can share files and folders using links that don't require sign-in.

New and existing guests
Guests must sign in or provide a verification code.

Existing guests
Only guests already in your organization's directory.

Least permissive

Only people in your organization
No external sharing allowed.

Unmanaged devices

The setting you select here will apply to all users in your organization.

Learn more about controlling access from unmanaged devices.

To customize conditional access policies, save your selection and go to the Azure AD admin center.

- (•) Allow full access from desktop apps, mobile apps, and the web
- ( ) Allow limited, web-only access
- ( ) Block access

If you don't want to limit or block access organization-wide, you can do so for specific sites.

Learn how to control access to specific sites by using Microsoft PowerShell

Define external sharing and conditional access settings

Control who can share SharePoint content with people outside your organization and de
unmanaged devices.

☑ **Control external sharing from labeled SharePoint sites**

When this label is applied to a SharePoint site, these settings will replace existing external sharing

Content can be shared with

- ( ) Anyone ⓘ
  Users can share files and folders using links that don't require sign-in.
- (•) New and existing guests ⓘ
  Guests must sign in or provide a verification code.
- ( ) Existing guests ⓘ
  Only guests in your organization's directory.
- ( ) Only people in your organization
  No external sharing allowed.

☑ **Use Azure AD Conditional Access to protect labeled SharePoint sites**

You can either control the level of access users have from unmanaged devices or select an existin

- (•) Determine whether users can access SharePoint sites from unmanaged devices (which are
  Intune).

  ⓘ For this setting to work, you must also configure the SharePoint feature that blocks or limits acce

  - ( ) Allow full access from desktop apps, mobile apps, and the web
  - (•) Allow limited, web-only access ⓘ
  - ( ) Block access ⓘ
- ( ) Choose an existing authentication context (preview). Each context has an Azure AD Cond
  more about authentication context

  High Authentication Context - Requires compliant device, TOU, or MFA

Demonstration: Granular SharePoint access on Unmanaged devices using Sensitivity Labels

Latest release: The December 2022 update of the Conditional Access demystified whitepaper.

- Major release (from 95 to 140 pages)
- Includes updated workflow cheat sheet
- Much more information added

Download the paper from my blog at:

https://www.vansurksum.com/2022/12/15/december-2022-update-of-the-conditional-access-demystified-whitepaper-and-workflow-cheat-sheet/

Conditional Access Policy baseline 2024-09 - https://github.com/kennethvs/cabaseline202409