

An abstract graphic on the left side of the slide. It features a blue silhouette of a person climbing a rope. The rope is represented by several thick, curved lines in shades of blue and green. The person is positioned on the left, with their arms and legs extended as if climbing. The background is a light blue gradient.

# Protect Office 365 and more with EMS

Jan Ketil Skanke – Enterprise Mobility MVP   
COO and Principal Cloud Architect @CloudWay



# Jan Ketil Skanke

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Partner and Principal Cloud Architect  
CloudWay  
Twitter: @JankeSkanke





How good is your security?



Identity-based attacks  
are up 300% this year



Many different controls



Many different places  
to configure controls



Lack of knowledge of available  
controls and which are most effective



Eroding coverage of controls



Unable to benchmark  
against other organizations

Information is your  
most attractive target



96% of malware is  
automated polymorphic

Most enterprises report using  
more than 60 security solutions



# Challenges in defense/ security management





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# Assess your current situation

## <https://securescore.microsoft.com>



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A SoftwareONE Company

KPN **ICT Consulting**  
Sterk in ICT-advises

 **Microsoft**

# Secure Score



## Score-based framework

Calculates a security score based on current security settings and behaviours and compares it to a baseline asserted by Microsoft



## Insights into your security position

One place to understand your security position and what features you have enabled



## Guidance to increase your security level

Learn what security features are available to reduce risk while helping you balance productivity and security



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# Identity Secure Score

Monitor and improve your identity security score. To view your overall score, go to [M365 Secure Score](#).

Last updated 6/1/2019, 2:00:00 AM ⓘ

Your Identity Secure Score

**171** / 263

Your score is above the average for your company's industry.

Skanke Domain

171



Technology industry company average

50



Typical 0-5 person company

25



[Change industry](#)





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# Enable controls through Secure Score

Get more details and enable control or take you to where you can enable

The screenshot displays the Office 365 Secure Score dashboard. At the top, it says 'Office 365 | Secure Score'. Below this, a section titled '14 Actions in the queue' includes a 'Show All' dropdown and a 'Search' button. A dashed blue box highlights the 'Enable MFA for all global admins' action. To the right, a detailed view of this action is shown, including a description, action category, user impact, implementation cost, and action score. Below this, a 'Threats' section lists 'Account Breach' and 'Elevation of Privilege'. At the bottom, there are buttons for 'Learn more', 'Ignore', and 'Third Party'.

Office 365 | Secure Score

See action

14 Actions in the queue

Show All Search

**Enable MFA for all global admins**

You should enable MFA for all of your admin accounts because a breach of any of those accounts can lead to a breach of any of your data. We found that you had 33 admins out of 55 that did not have MFA enabled. If you enable MFA for those 33 admin accounts, your score will go up 30 points.

**Action Category** Account

**User Impact** Low

**Implementation Cost** Low

**Action Score** 20/50

**Threats**

- Account Breach
- Elevation of Privilege

Learn more Ignore Third Party

Enable MFA for all users

[Not Scored] Enable audit data recording







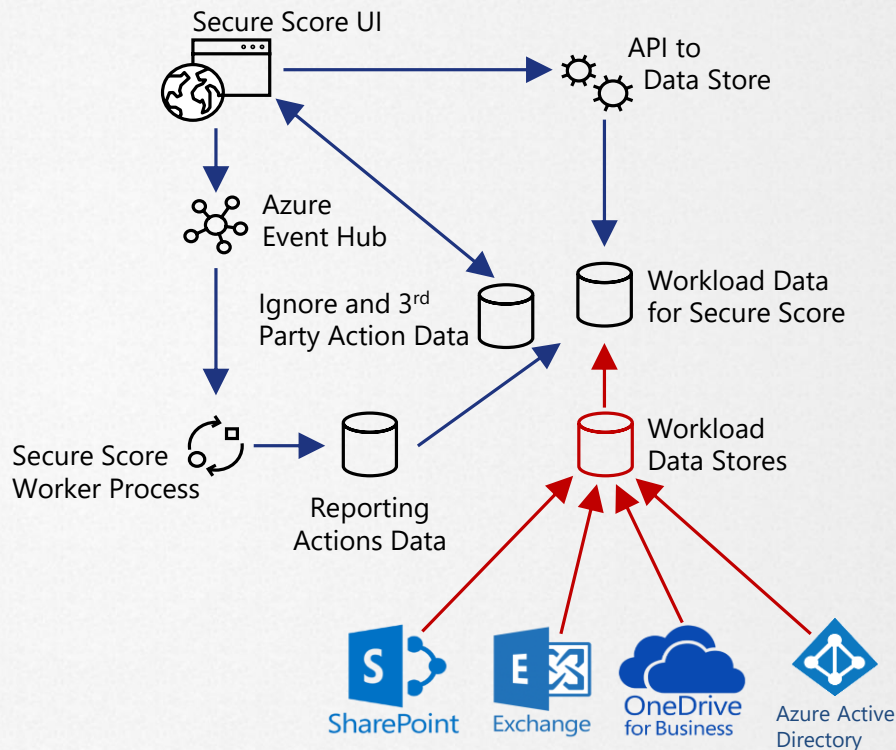
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# How scores get calculated

Nightly process collects telemetry from workloads

Ignore and 3<sup>rd</sup> party information is stored in another location

Reviewing report data is anonymized and store separately





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## Identity Based Approach





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Identity Based Approach

Device Trust







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Identity Based Approach

Device Trust

MAM vs MDM?





Identity Based Approach

Device Trust

MAM vs MDM?

Health and Compliance?



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Identity Based Approach

Device Trust

MAM vs MDM?

Health and Compliance

Data Security



# Identity Based Security

Identity driven approach

**MFA / Conditional Access**

Risk

**Can we trust their device?**

Who and What are accessing your data?





# Getting the basics rights



Strengthen your credentials

*MFA reduces compromise by 99.99%*



Reduce your attack surface

*Blocking legacy authentication reduces compromise by 66%.*



Automate threat response

*Implementing risk policies reduces compromise by 96%*



Increase your awareness with auditing and monitor security alerts

*Attackers escape detection inside a victim's network for a median of 101 days. (Source: [FireEye](#))*



Enable self-help for more predictable and complete end user security

*60% of enterprises experienced social engineering attacks in 2016. (Source: [Agari](#))*



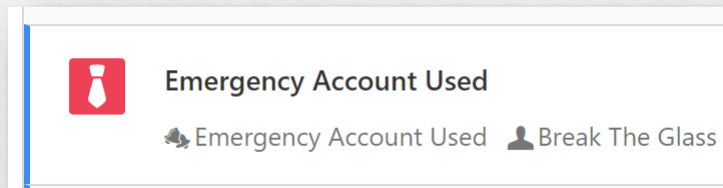


# “Less than 2% of tenant admins have MFA enabled”



# Secure Privileged Access

- Create a “Break The Glass” account
- Setup MFA on “all” Privileged roles
- Use AAD Privileged Identity MGMT
- Monitor usage – Alerting



# Secure ALL your users

Enable MFA the Right Way

Use Conditional Access

Protect ALL your apps

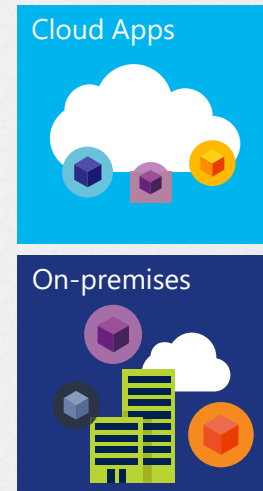
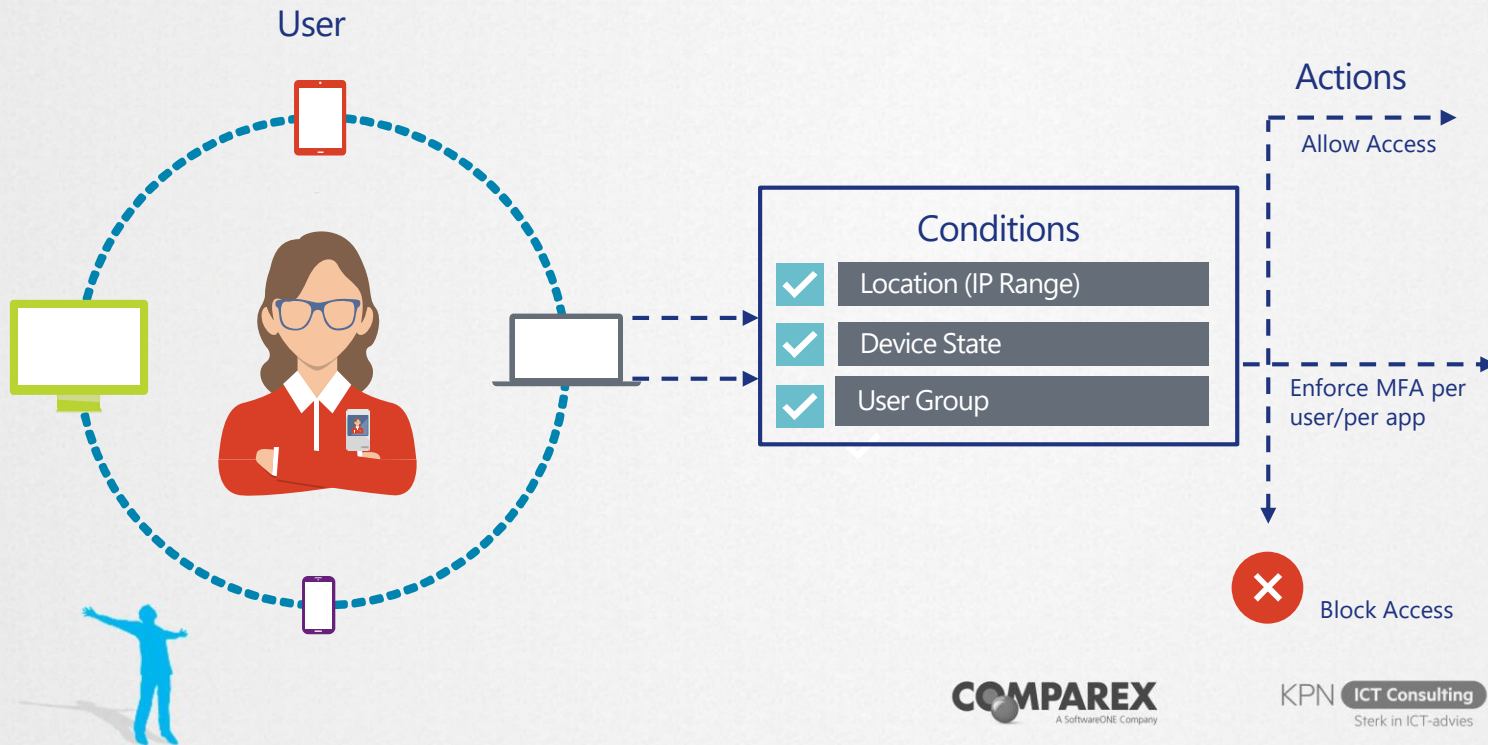
Trust on Device Level

Risk Based Policies

MDATP and AAD Identity Protection



# Conditional Access

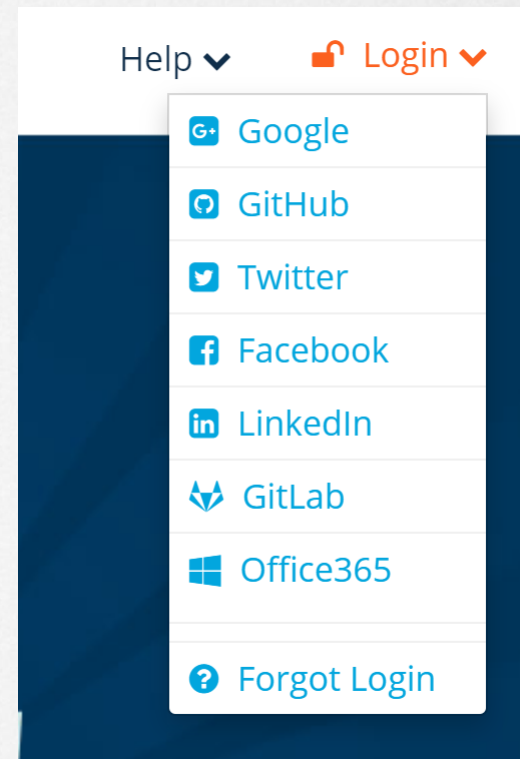






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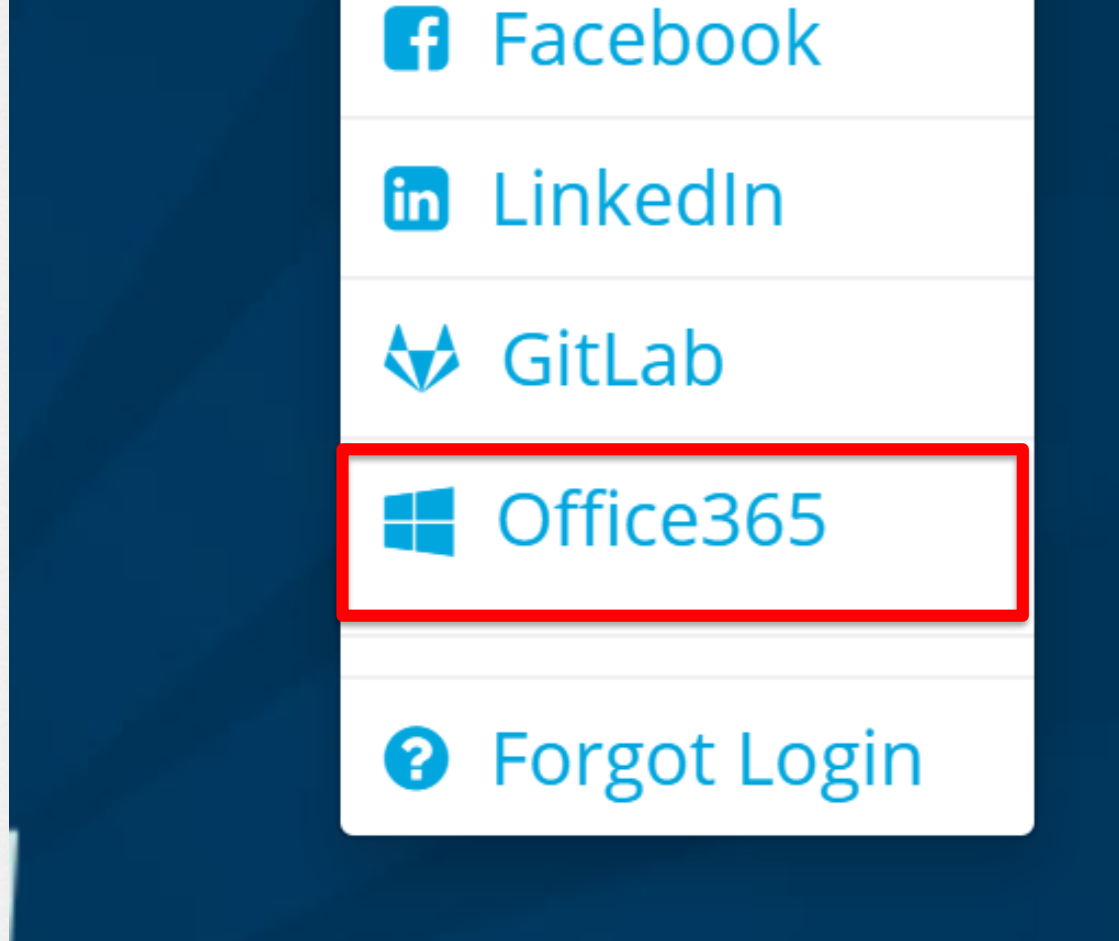
# What about those Oauth Apps?





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What about those  
Oauth Apps?





jks@skanke.net

## Tillatelser forespurt

Automate.io

[Appinfo](#)

Denne appen ønsker å:

- ✓ Maintain access to data you have given it access to
- ✓ Read and write to your mailbox settings
- ✓ Read and write to your and shared tasks
- ✓ Read and write to your and shared contacts
- ✓ Read and write to your and shared calendars
- ✓ Read and write mail you can access
- ✓ Sign you in and read your profile
- ✓ Read and write access to your mail
- ✓ Send mail as you
- ✓ Have full access to your calendars
- ✓ Have full access of your contacts
- ✓ Create, read, update and delete your tasks and projects

Ved å godta disse tillatelsene tillater du at denne appen kan bruke dataene som angitt i [vilkårene for bruk](#) og [personvernerklæringen](#). Du kan endre disse tillatelsene på <https://myapps.microsoft.com>. [Vis detaljer](#)

Avbryt

Godta



A background image showing a cityscape at sunset or sunrise, with hills in the foreground and a body of water in the distance. The sky is a mix of orange, yellow, and blue.

Automate.io

[Appinfo](#)

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SO WHO IS ACCESSING YOUR COMPANY DATA?







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# Controlling Oath Apps with MCAS

## DEMO





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# Moving to Device Trust



# Configure Conditional Access

Require MFA for all unknown Windows devices  
Require Managed App on Mobile

Zero Trust Network:  
No need to trust your local network.

Enable Baseline Policy for Admins

Block Legacy Auth with Policy





Trusted by virtue of domain  
join or **compliance**



Hybrid Azure AD joined

Trusted if device **complies**  
with MDM policy



Azure AD joined



Azure AD registered  
(with MDM)

Trusted if device/app **complies**  
with Intune policy



Azure AD registered  
(with MDM/MAM)

**Work-owned devices**

**Personal devices**





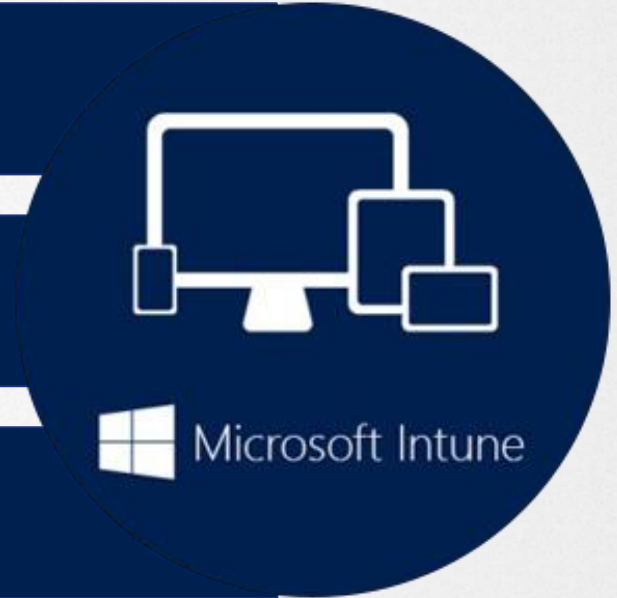
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# Utilize Microsoft Intune

Setup Configuration Policies

Setup Compliance Policies

Compliant Device

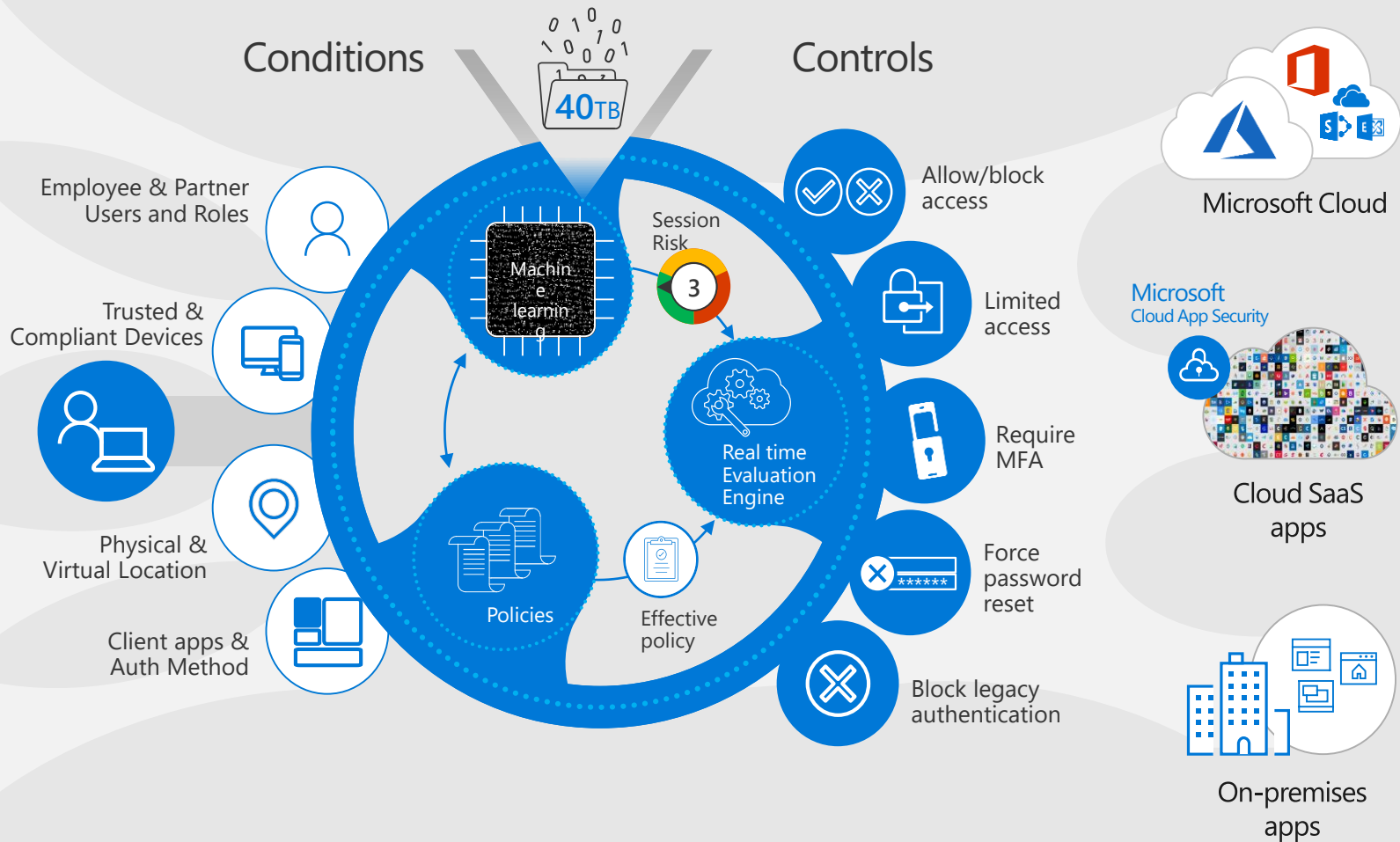


- Azure AD
- ADFS
- MSA
- Google ID

- Android
- iOS
- MacOS
- Windows
- Windows Defender ATP

- Geo-location
- Corporate Network

- Browser apps
- Client apps





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# Conditional Access

## DEMO





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# Intune App Protection for Mobile Devices

Independent of Mobile Device Management







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# Why Intune App Protection for Mobile Devices

## Independent of Mobile Device Management

## Protecting Data at App Level



# Why Intune App Protection for Mobile Devices

Independent of Mobile Device Management

Protecting Data at App Level

End User Productivity not Affected





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# Why Intune App Protection for Mobile Devices

Independent of Mobile Device Management

Protecting Data at App Level

End User Productivity not Affected

Separate Work from Private

# Why Intune App Protection for Mobile Devices

Independent of Mobile Device Management

Protecting Data at App Level

End User Productivity not Affected

Separate Work from Private





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# Without Enrollment



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# Without Enrollment

## Enables BYOD



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# Without Enrollment

Enables BYOD

Non-intrusive Management



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# Without Enrollment

Enables BYOD

Non-intrusive Management

Full Privacy



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# Without Enrollment

Enables BYOD

Non-intrusive Management

Full Privacy

Works on all iOS and Android Devices



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# Without Enrollment

Enables BYOD

Non-intrusive Management

Full Privacy

Works on all iOS and Android Devices

Corporate Data Secured





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# Without Enrollment

Enables BYOD

Non-intrusive Management

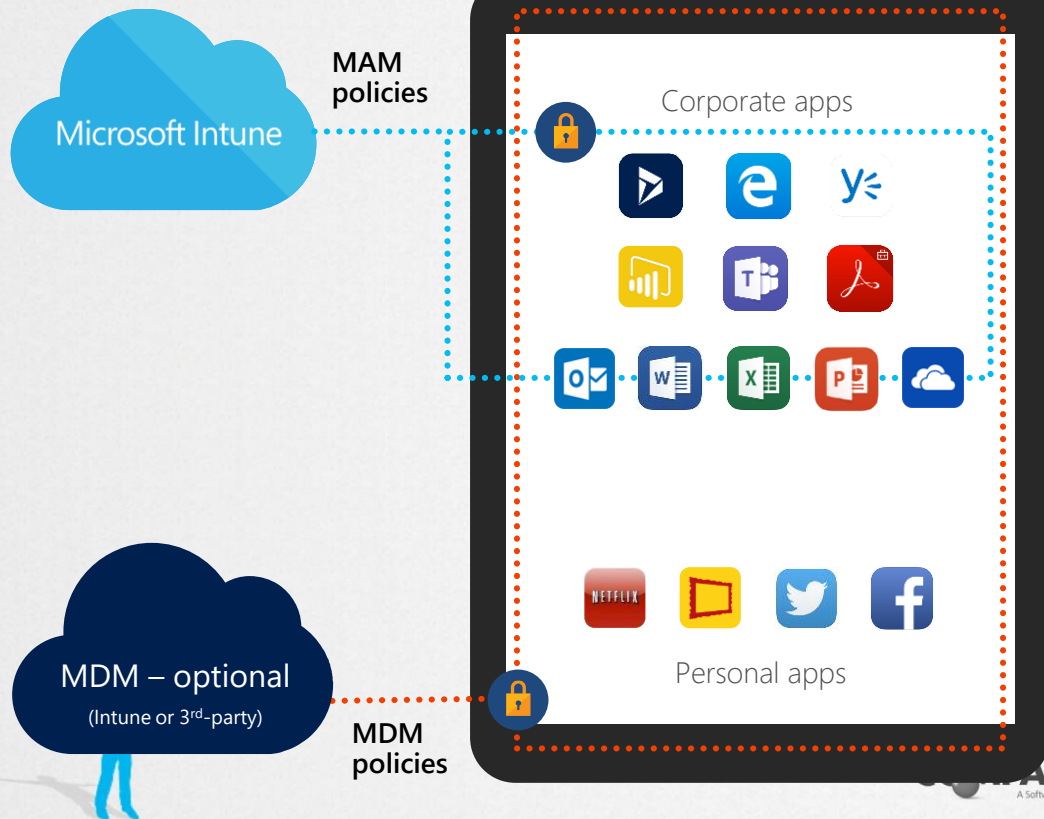
Full Privacy

Works on all iOS and Android Devices

Corporate Data Secured



# Intune App Protection Policies (APP)



## Comprehensive protection

- App encryption at rest
- App access control – PIN or credentials
- Save as/copy/paste restrictions
- App-level selective wipe

MDM mgmt. by Intune or third-party is optional

Might be a good solution for these scenarios:

- BYOD when MDM is not required
- Extending app access to vendors and partners
- Already have an existing MDM solution





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# What do we need?

1

App Protection Policies

2

The Broker App(s)

3

Conditional Access Policies





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# The Broker App(s)

Registers the device in AAD

Android: Intune Company Portal

iOS: Microsoft Authenticator



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A SoftwareONE Company

< Search



**Microsoft  
Authenticator**  
Microsoft Corporation

UPDATE



3.4 ★★★★★  
8 Ratings

No11  
Productivity

4+  
Age

## What's New

[Version History](#)

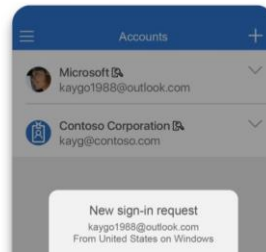
Version 6.0.4

1w ago

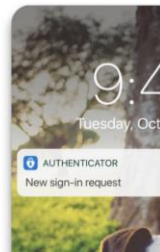
Announcing the Apple Watch companion app!  
You can now approve notifications on your Watch. To  
get started, open the Microsoft Authenticator [more](#)

## Preview

Sign in



No pass



# Conditional Access Policies

Require Managed Apps

Block Legacy Authentication

Block Exchange Active Sync



ALLOW



ENFORCE MFA



BLOCK



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# Require Managed Apps

# Block Legacy Authentication

# Block Exchange Active Sync



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## You can't get there from here

It looks like you're trying to open this resource with an app that hasn't been approved by your IT department. Ask them for a list of approved applications.

[Sign out and sign in with a different account](#)

[More details](#)

[OK](#)

You are welcome to log in :)





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# security.microsoft.com

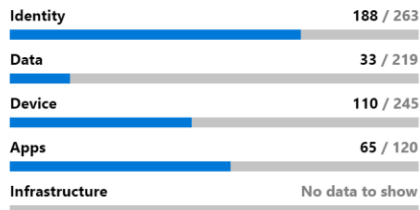
Prevent

## Microsoft Secure Score

**Total score: 396/847**

This score reflects the collective security state of your identities, data, devices, apps, and infrastructure.

Updated Yesterday at 2:00 AM



Improve your score

View history

## Identity protection

**0 users at risk**

High Risk Medium Risk Low risk

View all users

## Cloud App Security - OAuth apps

**7 privileged OAuth apps**

Apps that users gave permissions to. Discovered by Cloud App Security



App

Permission level

## Device compliance

**33% noncompliant**

Intune device compliance status



View details

## Devices with active malware

**1 affected device(s)**

Intune-managed devices with active, unresolved malware

Updated Last Sunday at 7:38 PM



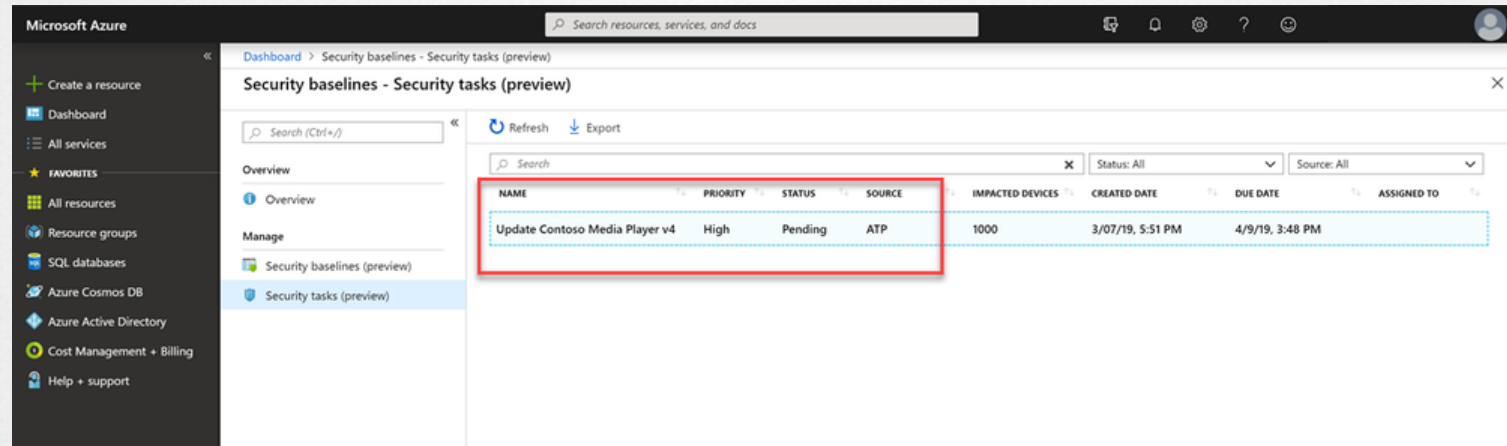
View details



soft

# Intune Security Tasks

Intune Admin get tasks assigned from SecOps  
Integrated with Microsoft Defender ATP



Microsoft Azure

Dashboard > Security baselines - Security tasks (preview)

Security baselines - Security tasks (preview)

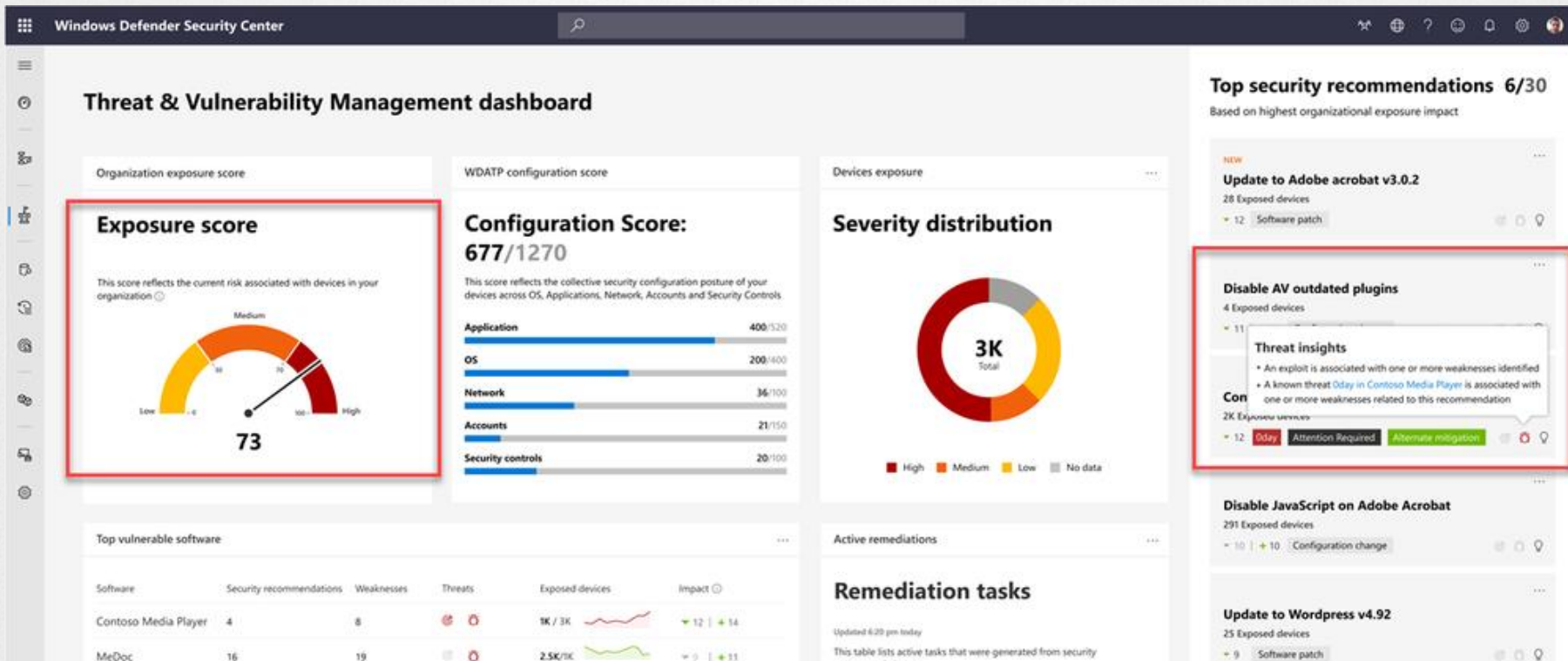
Search (Ctrl+F)

Refresh Export

Search

Status: All Source: All

NAME	PRIORITY	STATUS	SOURCE	IMPACTED DEVICES	CREATED DATE	DUE DATE	ASSIGNED TO
Update Contoso Media Player v4	High	Pending	ATP	1000	3/07/19, 5:51 PM	4/9/19, 3:48 PM	



## Security Recommendations

Distribution by recommendation type

300 recommendations

Updated 6:20 pm today

■ Configuration change ■ Software patch

Weaknesses

Last 30 days

7000 vulnerabilities

Critical	High	Medium	Low
200	3000	3000	800

3000 Misconfigurations

Critical	High	Medium	Low
300	2000	1000	700

Exceptions

10/300 recommendations under exception

## Update to Contoso Media Player v4

Description

Controls whether outdated plugins can run.

Potential risk

Running the updated plugin version can reduce the possibility of running a plugin that has an exploited security hole.

Recommendation insights

- 0 (100%) of the devices in your organization are configured as recommended
- This configuration is recommended by the following benchmarks: MS, CIS, STIG

Configuration ID

SCID-27

Exposed devices

1000

Impact

12 Exp | 12 Score

CCE

CCE-34401.1

Category

Application

Search in tasks

✓ Security recommendations	Weaknesses	Related component	Threats	Exposed devices	Status
Update to Contoso Media player v4 <b>NEW</b>	8	Contoso Media Player	🔴 🔴 🔴	1K / 3K	Active
Update to Java SDK 10.72	1	Java	🟡 🔴 🔴	2.5K / 4K	Active
Disable JavaScript on Adobe Acrobat	11	Adobe Acrobat	🟡 🔴 🔴	0K / 1K	Active
Assign group permissions	2	OS (File share)	🟡 🔴 🔴	76K / 80K	Active
Disable "everyone" access	14	OS (File share)	🟡 🔴 🔴	6K / 7K	Active
Disable VBA on Microsoft PowerPoint	22	Power Point	🟡 🔴 🔴	1K / 3K	Exception
Revoke compromised certificates	11	Application (Certificates)	🟡 🔴 🔴	1K / 2K	Exception
Fix antivirus reporting	3	Security stack (Antivirus)	🟡 🔴 🔴	100 / 200	Exception
Turn on PUA protection	3	Security stack (Antivirus)	🟡 🔴 🔴	1K / 3K	Exception

Request remediation

Create exception





## Security Recommendations

Distribution by recommendation type

300 recommendations

Updated 6:20 pm today



■ Configuration change ■ Software patch

Weaknesses

Last 30 days

7000 vulnerabilities



3000 Misconfigurations



Exceptions

10/300 recommendations under exception

Search in tasks



✓	Security recommendations	Weaknesses	Related component	Threats	Exposed devices	Status
✓	Update to Contoso Media Player v4 <small>NEW</small>	8	Contoso Media Player		1K / 3K	Active
	Update to Java SDK 10.72	1	Java		2.5K / 4K	Active
	Disable JavaScript on Adobe Acrobat	11	Adobe Acrobat		0K / 1K	Active
	Assign group permissions	2	OS (File share)		76K / 80K	Active
	Disable "everyone" access	14	OS (File share)		6K / 7K	Active
	Disable VBA on Microsoft PowerPoint	22	Power Point		1K / 3K	Exception
	Revoke compromised certificates	11	Application (Certificates)		1K / 2K	Exception
	Fix antivirus reporting	3	Security stack (Antivirus)		100 / 200	Exception
	Turn on PUA protection	3	Security stack (Antivirus)		1K / 3K	Exception



## Update to Contoso Media Player v4

Description

Need to add text here - explain what to do and what will happen  
Open a new task (in Intune and under remediations tasks list)

ITSM services

☒ Open a ticket in Intune

Exposed devices

1000

Due date

4/9/2019



Add notes (optional)

Please fix ASAP

☐ Export all remediation request data to CSV

Submit request

Create exception

Microsoft Azure

Search resources, services, and docs

Dashboard > Security baselines - Security tasks (preview)

### Security baselines - Security tasks (preview)

Search (Ctrl+//)

Refresh Export

Overview

- Overview

Manage

- Security baselines (preview)
- Security tasks (preview)

NAME	PRIORITY	STATUS	SOURCE	IMPACTED DEVICES	CREATED DATE	DUE DATE	ASSIGNED TO
Update Contoso Media Player v4	High	Pending	ATP	1000	3/07/19, 5:51 PM	4/9/19, 3:48 PM	



Microsoft Azure

Search resources, services, and docs

Dashboard > Security baselines > Security tasks (new) > Ticket Test

### Update Contoso Media Player v4

✓ Accept    ✗ Reject

**UPDATE CONTOSO MEDIA PLAYER V4**

Details	Update Contoso Media Player v4
Status	Pending
Managed App	Not Managed App
Impacted Devices	<a href="#">1000 devices</a>
Remediation	<p>Update the app version using the following steps:</p> <ol style="list-style-type: none"><li>1. Download the Contoso Media Player v4</li><li>2. Update Contoso Media Player version in Intune using the downloaded app.</li><li>3. Then, do either of the following:<ol style="list-style-type: none"><li>1. Assign uninstall app policy based on a group: Create a group of impacted devices. Add devices to newly created group. Assign app uninstall policy to the new group.</li><li>2. Alternatively, assign uninstall app policy to "All Devices" group.</li></ol></li></ol>

[Learn More](#)



Windows Defender Security Center

## Remediation

Remediation activities Exceptions

100 remediation activities in progress

Value Search in tasks

Export Customize columns Filter

✓ Remediation Tasks	Related software	Type	Status	Due on	Remaining time
Update to Contoso Media Player v4 <b>NEW</b>	Contoso Media Player	Software patch	Completed 1K/1K	03/25/2018 13:30	30 days ...
Vulnerability in Java	Java	Software patch	In progress 4/8	03/25/2018 11:20	12 days ...
Disable Javascript in Adobe acrobat Google V8	Adobe Acrobat	Configuration change	In progress 4/8	03/25/2018 11:21	Past due (2 days) ...
engine QtWebEngineCore IBM websphere MQ	IBM	Software patch	In progress 4/8	03/25/2018 11:21	1 day ...
7.0 RCE Microsoft Office 2013 RCE Microsoft	Office	Software patch	In progress 12/50	03/25/2018 13:30	... ...
File memory corruption WinRAR free patch	Edoe	Software patch	In progress 10/200	03/25/2018 11:20	... ...





## Threat &amp; Vulnerability Management dashboard

Organization exposure score

## Exposure score

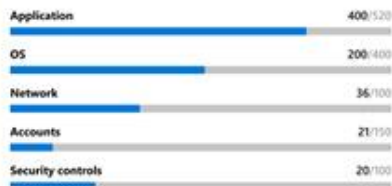
This score reflects the current risk associated with devices in your organization.



WDATP configuration score

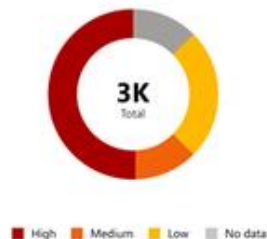
Configuration Score:  
677/1270

This score reflects the collective security configuration posture of your devices across OS, Applications, Network, Accounts and Security Controls.



Devices exposure

## Severity distribution



Top vulnerable software

Software	Security recommendations	Weaknesses	Threats	Exposed devices	Impact
Contoso Media Player	4	8		1K / 3K	12   +14
MeDoc	16	19		2.5K / 3K	9   +11
Eclipse	9	11		0K / 2K	8   +9 Score

Show more

## Top security recommendations 6/30

Based on highest organizational exposure impact

NEW

## Update to Git v2.21.0

10K Exposed devices

+ 14 Software patch

## Update to Adobe acrobat v3.0.2

28 Exposed devices

+ 12 Software patch

## Disable AV outdated plugins

4 Exposed devices

+ 11 | +11 Configuration change

## Disable JavaScript on Adobe Acrobat

291 Exposed devices

+ 10 | +10 Configuration change

## Update to Wordpress v4.9.2

25 Exposed devices

+ 9 Software patch

## Disable VBA on Microsoft

65 Exposed devices

Active remediations

## Remediation tasks

Updated 6:20 pm today

This table lists active tasks that were generated from security recommendations.

Vulnerability in Java SE (AWT) 41/200

Google V8 engine QtWebEngineCore

1K/20K



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# DEMO






# Log Analytics

Export logs to Log Analytics

Store logs in Storage Account

Stream to Event Hub (forward to SIEM)

**Diagnostics settings**

 Save  Discard  Delete

**\* Name**

☐ Archive to a storage account

☐ Stream to an event hub

☐ Send to Log Analytics

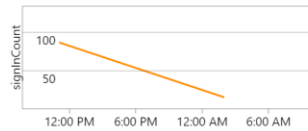


# Logs logs logs

## SIGN-INS BY APP

## Sign-ins overtime

TOTAL SIGN-INS  
**146**

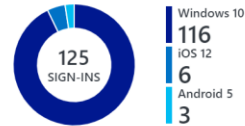


APPLICATION NAME	# OF SIGN-INS
Microsoft App Access Panel	80
Office365 Shell WCSS-Client	13
Office 365 Exchange Online	13
Microsoft Teams	7
Windows Sign In	6
Microsoft Forms	5
Microsoft Demos	5
Graph explorer	3
Microsoft Office	3
Microsoft Dynamics CRM	2

[See all](#)

## SIGN-INS BY DEVICE

## Device Sign-ins

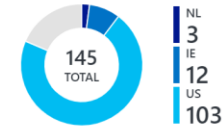


OS	BROWSER	SIGN-INS
Windows 10	Chrome	90
Windows 10	IE	14
Windows 10	Edge	7
iOS 12	Edge	6
Windows 10	Firefox	5
Android 5	Chrome	3

[See all](#)

## APP SIGN-IN BY LOCATION

## APP SIGN-IN BY LOCATION



LOCATION	APPDISPLAYNAME	COUNT
US	Microsoft App...	80
NO	Office 365 Exc...	8
US	Office365 She...	7
GB	Office365 She...	6
IE	Microsoft De...	5
NO	Microsoft For...	5
IE	Microsoft Tea...	4
US	Office 365 Exc...	4
US	Windows Sign...	4
NL	Graph explorer	3

[See all](#)





MICROSOFT 365

# DEMO





# Yellenge

## Thank You

Remember to evaluate my session

