pax8ProServices

Add Baseline Protections to Microsoft 365 Business Premium

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With remote and hybrid work prevalent across industries, the way we protect our data and users has evolved. In this guide, we'll review some basic measures you can take to maximize your customer's **Microsoft 365 Business Premium** investment. We'll cover four topics in this guide:

- · Manage the risks associated with BYOD mobile devices.
- · Implement Defender for Office 365 to protect against phishing, malicious attachments, and related threats.
- · Secure user identities with multifactor authentication, using Conditional Access in Entra ID P1.
- · Create a baseline Windows workstation configuration using Windows in Cloud Configuration.

In addition, we've provided guidance on alignment to the <u>CIS Critical Security Controls</u>. These measures should help with the technical alignment pieces for certain controls (listed throughout).

Disclaimer: We believe these technical measures generally align with certain controls and safeguards in CIS v8 but do not warrant full alignment. Partner is responsible for all surrounding operational maturity requirements such as policy and procedure and enforcement of the standards developed, including any customizations to meet specific customer requirements. There is no such thing as 100% protection. Adequate detect, respond, and recover processes are essential to cybersecurity. Pax8 does not warrant against cyber incidents.

Licensing Requirements

To implement these features, the target tenant will need to be licensed with Microsoft 365 Business Premium, Microsoft 365 E3, or Microsoft 365 E5. While a combination of licenses can be applied to meet these requirements, we do not recommend this approach as it adds complexity to license management and often costs more than the bundled licenses. Every user that will benefit from these features must have the appropriate licensing. Certain functionality will not work without appropriate licensing and may leave the tenant improperly secured or cause user interruptions.

Note: When implementing these features for the first time, we highly recommend that you leverage a test group with a fictitious, licensed user and a test Windows machine. This allows you to validate that the policies are working as intended and experience them before rolling them out to users in production.



How to Defend against BYOD Threats

CIS Safeguards Covered: 9.1 relating to mobile devices.

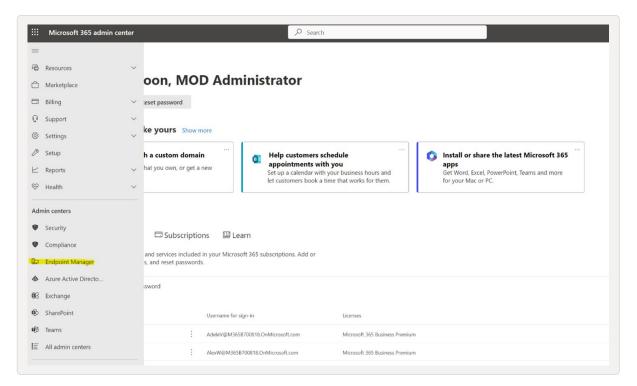
Mobile application management (MAM) in Intune for iOS and Android applies protection policies to core Microsoft applications such as Teams, OneDrive, Outlook, and SharePoint. This management style is ideal for user-owned devices as it only manages the corporate data on those applications. MAM policies strike a great balance between the need to protect corporate data, and the users' privacy. We do not recommend implementing full mobile device management on user-owned devices.

What are app protection policies?

As defined by Microsoft: "App protection policies are rules that ensure an organization's data remains safe or contained in a managed app. A policy can be a rule that is enforced when the user attempts to access or move 'corporate' data or a set of actions that are prohibited or monitored when the user is inside the app. A managed app is an app that has app protection policies applied to it and can be managed by Intune."

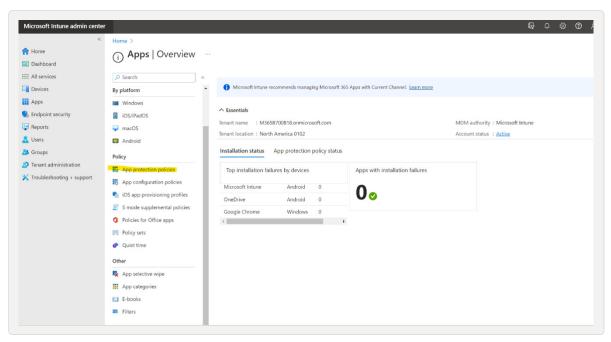
How to configure iOS App protection policies

1. Navigate to Endpoint Manager within the Microsoft 365 admin portal.

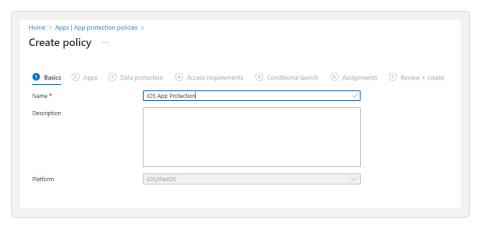




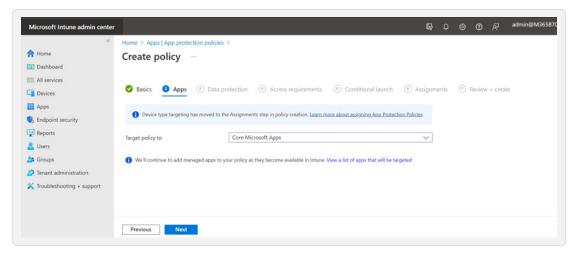
2. Once inside the Endpoint Manager portal, navigate to Apps, then select "App protection policies".



3. You are now able to build both iOS and Android policies. Start by building iOS:

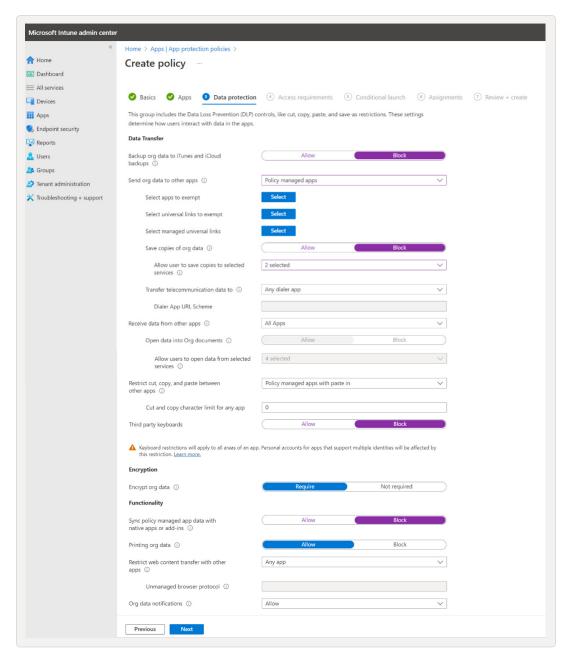


4. Choose "Core Microsoft Apps" for the App selection:



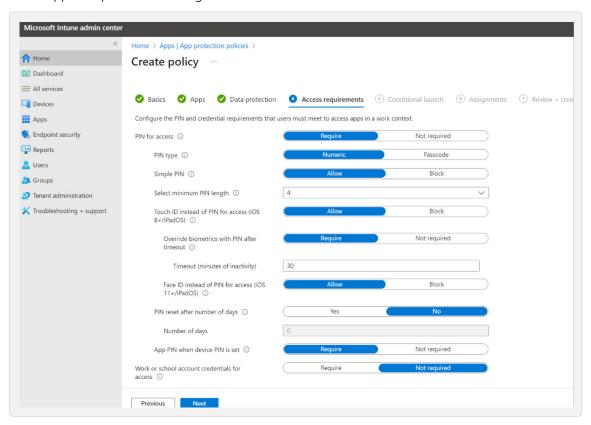


- 5. Determine your data protection configuration. We recommend these selections:
 - Block backups to iCloud (prevents users from backing up company data to personal storage).
 - Only send org data to Policy Managed Apps (keeps company data within the company-approved ecosystem, may limit saving/sharing of data to certain third party apps).
 - Only allow saving copies of org data in OneDrive and SharePoint (prevents saving of files such as email attachments to a personal storage account).
 - Restrict cut, copy, and paste to Policy Managed Apps with Paste in (default).
 - · Block third party keyboards.
 - · Require encryption of org data (this does require an iOS device level pin).
 - · Block sync policy managed app data with native apps or add-ins.



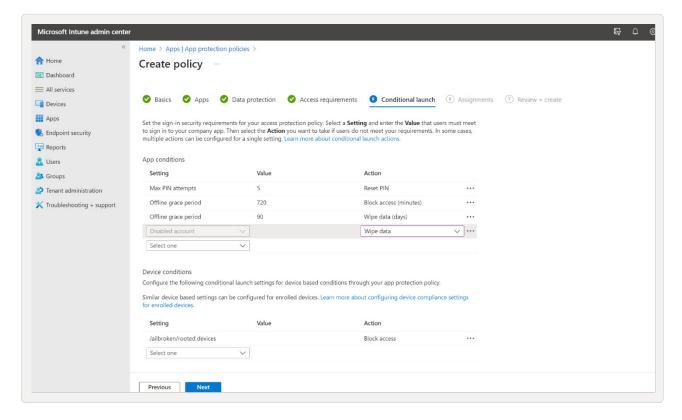


6. Set an app-level pin. Use the settings listed below:



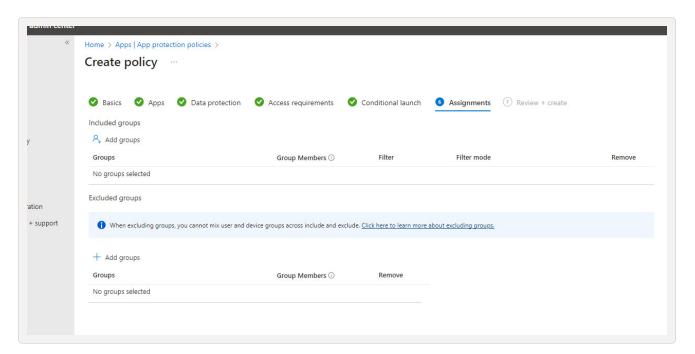
7. Set conditional launch rules:

• Create a new Disabled Account setting with an action of Wipe Data.





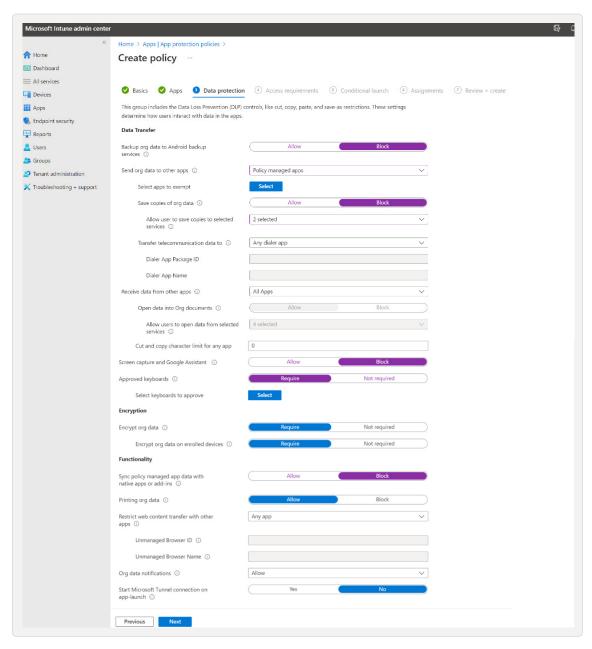
8. Assign the policy. Make sure you deploy this to a security group that contains Azure AD identities:





How to configure iOS App protection policies

- 1. Complete steps 1-3 above, as they are the same as with iOS.
- 2. For Data Protection, see below:
 - Block backup org data to Android backup services.
 - · Only send data to policy managed apps.
 - Block saving copies of org data except in SharePoint and OneDrive.
 - Block screen capture and Google Assistant.
 - Allow for Approved Keyboards (more common with Android users).
 - · Require encryption.
 - Block sync policy managed app data with native apps or add-ins.



3. Complete steps 6-8 as in the iOS policy creation.

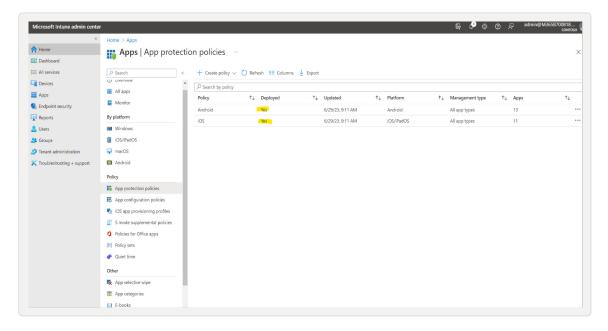


Conditional access

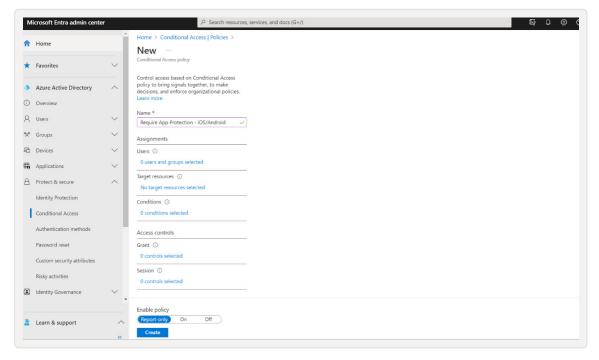
Conditional access forces mobile device access from only protected apps (Microsoft apps such as Outlook, Teams, Office, etc.)

Note: Once you turn on this Conditional Access policy, users will no longer be able to use built-in mail and collaboration apps such as iOS mail or Samsung Mail. We recommend guiding users through the transition to first-party apps (like Outlook mobile) before enforcing this policy.

1. Before creating your conditional access policy, confirm that your app protection policies are built and properly deployed. Ensure that enough time has passed since these have been built

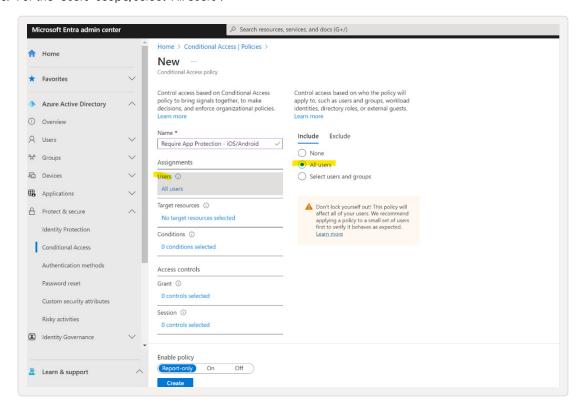


2. Now navigate to "Azure AD/Entra" and build your conditional access policy:

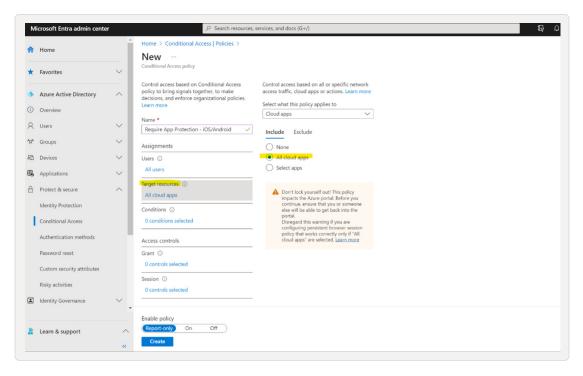




3. For the "Users" scope, select "All Users":

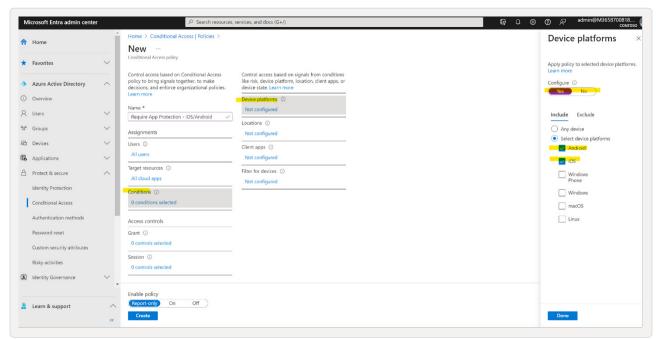


4. For "Target resources," choose "All cloud apps":

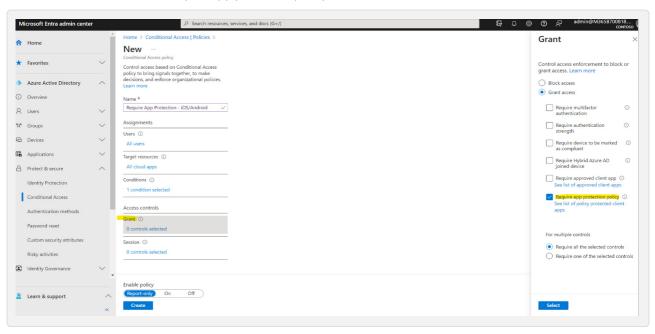




5. For "Conditions," choose "iOS and Android" for "Device platforms":



6. For the "Grant" action, select "Require app protection policy":



7. Set the policy to "Report-only".



Secure Collaboration with Defender for Office 365

CIS Safeguards Covered: 9.7

This document will guide you through the standard configuration of the following:

- Defender for Office 365: Safe Links
- Defender for Office 365: Safe Attachments
- Defender for Office 365: Anti-Phishing

Implementation of these safeguards satisfies CIS Control 9.7 and is associated with the Protect function outlined in the framework. Success with this control protects users from detected malicious content.

Note: Implementing these policies will have an impact on user experience, specifically as it relates to email attachments. We recommend reviewing the <u>documentation</u> on Safe Attachments prior to implementing this policy.

Defender for Office 365: Safe Links

- 1. Navigate to:
- 2. Select "Threat policies."
- 3. Select "Safe links."
- 4. Choose "Create to create a new safe links policy."
- 5. Step: name your policy.
 - Name the policy "Global Safe Links Policy" (or another easily identifiable name).
 - · Select Next.
- 6. Step: users and domains.
 - Under the "Domains" field, enter all tenant domains that should be protected by this policy.
 Note: Ensure that the tenant.onmicrosoft.com domain is also added to this list to avoid circumvention of this protection.
 - Select "Next."
- 7. Step: URL and click-protection settings.
 - Uncheck "Do not rewrite URLs, do checks via Safe Links API only."
 Note: Default settings are acceptable in most engagements, except for this option. This option should be disabled to ensure URLs are scanned when clicked from any email client.
 - If URL rewrites should be excluded from specific domains, they can be specified by clicking the link in the "Do not rewrite the following URLs in email" section.
 - Uncheck "Let users click through to the original URL."
 Note: Leaving this option enabled will allow users to bypass a known (or suspected) threat.
 - · Select "Next."
- 8. Step: Notification.
 - Use the default notification text in most engagements. If a predetermined notification text has been provided, enter it in the "Use custom notification" text field.
 - · Select "Next."
- 9. Step: Review.
 - Review all settings of the new safe links policy and choose "Submit" to begin immediate enforcement.



Defender for Office 365: Safe Attachments

- 1. Navigate to policies & rules.
- 2. Select "Threat policies."
- 3. Select "Safe attachments."
- 4. Choose "Create" to create a new safe attachments policy.
- 5. Step: Name your policy.
 - · Name the policy "Global Safe Attachments Policy" (or another easily identifiable name).
 - · Select "Next."
- 6. Step: Users and domains.
 - Under the Domains field, enter all tenant domains that should be protected by this policy.
 Note: Ensure that the tenant.onmicrosoft.com domain is also added to this list to avoid circumvention of this protection.
 - · Select "Next."
- 7. Step: Settings.
 - Choose "Dynamic Delivery to immediately deliver messages without attachments."

 Note: Once the attachment is scanned by Defender, the files will be reattached to the original message automatically. A text file will be provided to the user as an attachment while the scanning is in progress to explain this behavior.
 - · Leave all other default settings intact and choose "Next."
- 8. Step: Review.
 - · Review all settings of the new safe attachments policy and choose "Submit" to begin immediate enforcement.



Defender for Office 365: Anti-phishing

- Navigate to <u>security policies and rules</u>.
- 2. Select "Threat policies."
- 3. Select "Anti-phishing."
- 4. Choose "Create to create a new anti-phishing policy."
- 5. Step: name your policy.
 - Name the policy "Global Anti-phishing Policy" (or another easily identifiable name).
 - · Select "Next."
- 6. Step: users, group, and domains.
 - Under the "Domains" field, enter all tenant domains that should be protected by this policy.

 Note: Ensure that the tenant.onmicrosoft.com domain is also added to this list to avoid circumvention of this protection.
 - · Select "Next."
- 7. Step: phishing threshold and protection.
 - Phishing email threshold:
 - » 1-Standard.
 - · Impersonation:
 - » Select "Enable domains to protect."
 - » Select "Include domains I own."
 - » Select "Enable mailbox intelligence."
 - » Select "Enable intelligence for impersonation protection."
 - Spoof:
 - » Select "Enable spoof intelligence."
 - · Select "Next."
- 8. Step: actions.
 - · Message actions:
 - » If a message is detected as domain impersonation: quarantine the message.
 - » Apply quarantine policy: AdminOnlyAccessPolicy.
 - » If Mailbox Intelligence detects an impersonated user: quarantine the message.
 - » Apply quarantine policy: AdminOnlyAccessPolicy.
 - » If the message is detected as spoof-by-spoof intelligence: quarantine the message.
 - » Apply quarantine policy: AdminOnlyAccessPolicy.
 - Safety tips and indicators:
 - » Enable all options.
 - Select Next.
- 9. Step: review.
 - Review all settings of the new anti-phishing policy and choose "Submit" to begin immediate enforcement.



Secure User Identities with Entra ID Conditional Access

CIS Safeguards Covered: 6.3, 6.5

Note: These policies will impact the login experience for users by requiring secure multifactor authentication. This policy will require that users leverage push notifications with the Microsoft Authenticator app or use FIDO2 security keys (such as a YubiKey). This policy will **prevent the use of SMS or other insecure MFA methods**.

Enable FIDO2 Authentication

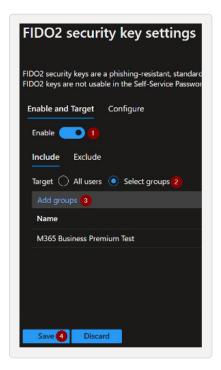
FIDO2 is a highly secure and phishing resistant yet simple form of authentication. It involves the use of a hardware key to authenticate. The user authenticates by having possession of their hardware key (type 2) and presenting a security key PIN (type 1) or biometric (type 3) depending on the key's model. The PIN or biometric is specific to the key itself and cannot be used elsewhere. FIDO2 is also the underlying mechanism used in Passkeys, which will ultimately allow for the replacement of the security key with a mobile device.

During authentication, Microsoft will present a "challenge" (one time use value) that is then cryptographically signed using a private key that is only available on the hardware key. Microsoft will then use the public key half of the keypair to validate the cryptographic signature and authenticate the user. Under this model, no secret (password) ever crosses the network. Just a signed challenge that is only usable for that single authentication instance. FIDO keys do not require their own internet connection, they interact over USB, NFC, or Bluetooth Low Energy (BLE).

FIDO2 is widely regarded as the most phishing resistant authentication method that is easy to implement. Because secrets are not shared, there is no opportunity to intercept a password. Additionally, the hardware key and server mutually authenticate each other. Your security key will only sign a challenge for the appropriate domain for which it was enrolled, preventing adversary-in-the-middle attack. Pax8 and Microsoft recommend YubiKey security keys.

- Ensure all phishing resistant authentication methods are enabled.
- Navigate to Microsoft Entra Portal.
- Select "Protect & secure."
- · Select "Authentication methods."
- Select "FIDO2 security key."
- · Select "Enable."
- Target your test group by selecting "Select groups" and "Add groups," and choose your test group.
- · Select "Save."

Tip: You can safely enable FIDO2 for all users instead of scoping it to a group. Enabling this method simply allows users to enroll and use it, it does not force them to do so.





Enable Microsoft Authenticator Sign On

Authenticator sign-on allows a user to verify their identity using the Microsoft Authenticator mobile app, without a password. The authentication factors for this method are possession of the device being used (type 2) and the ability to unlock the device with biometrics (type 3) or a PIN (type 1). In addition, the user must enter a number shown on the login page, reducing the likelihood of MFA fatigue attacks.

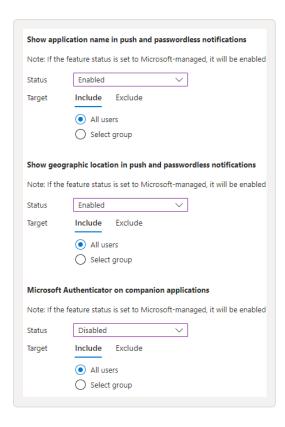
- · Ensure all phishing resistant authentication methods are enabled.
- · Navigate to Microsoft Entra Portal.
- Select "Protect & secure."
- · Select "Authentication methods."
- · Select "Microsoft Authenticator"
- Flip the "Enable" switch Enable
- · Under "Include" change the option to "Select" groups and add your test group



Go to the "Configure" tab
 Enable and Target



- Choose whether to enable Microsoft Authenticator OTP.
 Authenticator OTP involves using the ephemeral code displayed within the app and is the only way to authenticate when the device is offline.
- Require number matching for push notifications is no longer an optional setting due to MFA fatigue attacks coming online.
 Learn more.
- Show application name in push and passwordless notifications
 provides additional context to the user around what they are
 logging into. We recommend setting the status to "Enabled" to
 give the user additional context. This information is also useful for
 investigative purposes.
- Show geographic location in push and passwordless
 notifications will show the user from where the authentication
 request is coming from, based on the request's IP address. We
 recommend you turn it on, but be aware that if a user is using a
 remote desktop (such as AVD), the location of that endpoint will
 be shown and may be different than their physical location.
- Microsoft Authenticator on companion applications enables
 the use of companion apps for wearable devices. Most of these
 companion apps are being deprecated, so we recommend
 disabling these settings until they are rebuilt and can be tested.



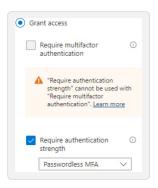
Tip: You can safely enable Authenticator for all users instead of scoping it to a group. Enabling this method simply allows users to enroll and use it, it does not force them to do so.

Note: Microsoft Authenticator sign-on and MFA is known to be vulnerable to adversary-in-the-middle proxy-based attacks (in which the user's session token is stolen in flight after authentication). Users should be educated to double check the domain name to which they are authenticating and should be wary if the location presented by Authenticator does not match their current location. Users should also be trained to never share the challenge number with anyone.



Require Secure MFA with Conditional Access

- Create an initial test group in Azure AD titled "Identity Security Test."
- Navigate to Microsoft Entra Portal.
- · Navigate to Conditional Access.
- · Select "New policy."
- Name: "Require Secure MFA."
- Users: Select your test group.
 - · Target resources: All cloud apps.
 - · Conditions: Not configured.
 - Grant: Grant access Select "Require authentication strength" and select "Passwordless MFA."





• Set Policy to "On." – Only set the policy to on if you have properly scoped it to your test group.

Note: Enabling this policy for everyone takes effect immediately and will prevent copiers, applications, and other third-party items from accessing the tenant unless they do so with Graph API and enterprise applications. Care should be taken when rolling this policy into production, and service accounts may need to be excluded. Consider Entra Workload ID to more securely implement these services.

Optional: Geo-fencing to country/countries of choice

Many attacks start with an automated test. Geo-fencing will not stop a motivated threat actor, who can quickly change countries for pennies. However, it helps stop automated attacks running in other countries. Geographic policies use IP address databases to understand where a particular request is coming from. We've seen this be highly effective. However, from time to time, an IP address may be matched to the wrong country. Always keep your geo-fencing policy as a standalone policy, and give it a telltale name so it shows clearly in audit logs.

If you have users that travel internationally, consider allowing countries they travel to often and implementing a "travel notification" process so that users can alert you of impending travel. This will allow you to either temporarily exclude the user from the policy or allow the country(ies) to which they are traveling.



In these steps, we'll be creating a "Travelers" group so that you can add users to this group when they are traveling and remove them upon their return.

- Navigate to Microsoft Entra Portal.
- Navigate to Groups > All groups and create a new security group called "Travelers." Leave it empty for now, this group will be used to add traveling users to temporarily exclude them from this policy.
- Navigate to Conditional Access.
- Select "Named locations."
 - · Select "+ Countries location."
 - · Name: "Blocked Countries."
 - · Select "Determine location by IP address."
 - · Check "Include unknown countries/regions."
 - Select the check box to the left of the "Name" column to select all countries.
 - Search for United States and deselect the United States and other countries where business is conducted.
 - · Click "Create."

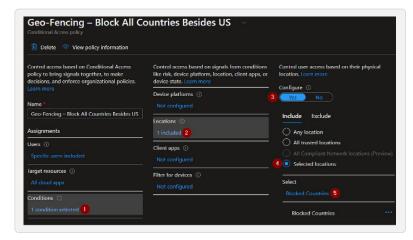




- · Navigate back to Conditional Access by selecting "Policies."
- · Select "New policy."
 - Name: "Geo-Fencing Allow trusted countries only "
 - Users: Select your test group.
 - In the Exclude tab, add your Travelers group.



- · Target resources: All cloud apps.
- · Conditions:
 - » Locations Select "Yes" to configure.
 - » Under "Include," select "Selected locations."
 - » Select the named location created in the steps above titled "Blocked Countries."



- Grant: Select "Block access" and click "Select" at the bottom to save the selection.
- Set policy to "On." Only turn the policy on if you have scoped it to your test group.

Tip: If your customer has frequent cases of international travel, Entra ID P2 with Privileged Access Management (PAM) can be used to allow users to self-service add themselves to the Travelers group, subject to policy set in PAM. Setting this up is outside of the scope of this guide, but Pax8 Professional Services can assist.



Baseline Windows Management: Windows in Cloud Configuration

CIS Safeguards Covered: 3.6, 4.1, 4.5, 4.11, 10.3, 10.5 relating to Windows Workstations

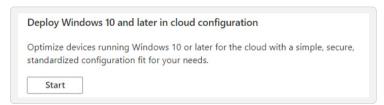
Windows in Cloud Configuration is a baseline set of policies, recommended by Microsoft, that create a more hardened Windows environment out of the box. It covers the "basics" of endpoint management such as disk encryption, patching, and Office app deployment.

Windows in Cloud Configuration can be modified or extended post deployment to deploy additional apps or tweak settings as needed.

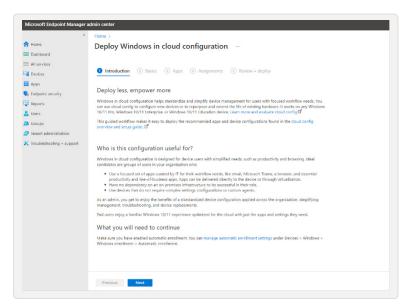
Note: By default, Windows in Cloud Configuration will create a patching policy with which Intune will assume control of patching Windows. If you wish to manage patches with your RMM tool, complete this guide and then remove or unassign the patching policies that are created under Devices > Windows devices in the Intune admin center.

Step 1: Navigate to Windows in Cloud Configuration

- 1. Navigate to endpoint.microsoft.com and sign in with an Intune (or higher level) Administrator account.
- 2. On the Home screen, select "See All" next to Guided Scenarios.
 - · You may be presented with an introduction screen next, where you will click "Got It" to show the next steps.
- 3. Select "Deploy Windows 10 and Later in Cloud Configuration" as seen below:



4. Once you click "Start," you will see a page that outlines prerequisites and other information around the overall configuration:

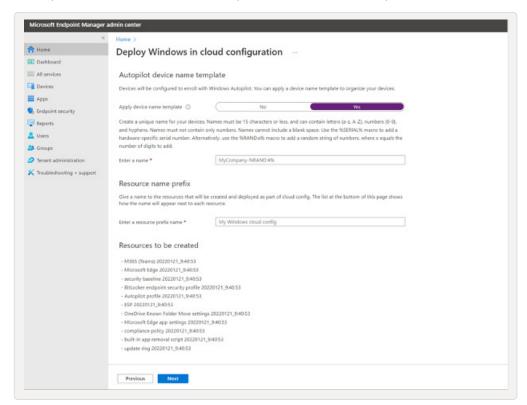


*If you are unsure about the Windows in Cloud Configuration, refer to the included documents: Windows 11 Cloud Configuration for Endpoint Management - Microsoft 365
Windows in cloud configuration (microsoft.com)

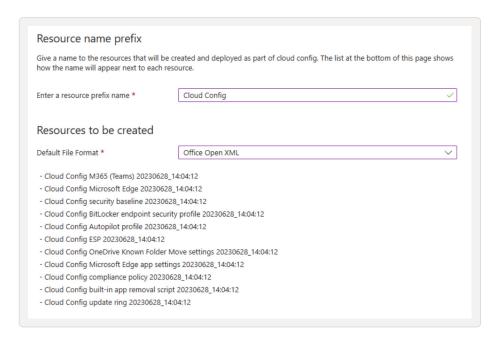


Step 2: Windows in Cloud Configuration Basics and Device Name Template

1. Once you have read the introduction page, you can click "Next" at the bottom. This will now bring you to the Basics page, where you can create a device name template and a resource name prefix:



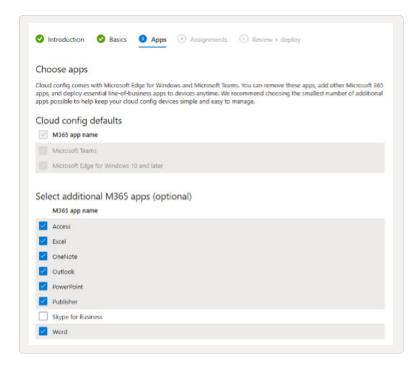
- 2. The device name template applies to devices that will enroll using Autopilot. If you are not using Autopilot, we will leave this set to "No" unless otherwise stated by the partner.
- 3. The resource name template allows you to add a prefix to the resources that will be created. Title it as "Cloud Config" and select "Office Open XML" as a document type:





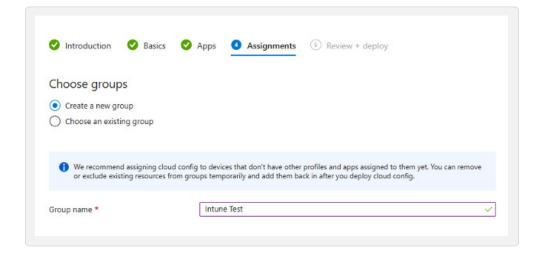
Step 3: Deploy Additional M365 Apps

Deploy Apps as listed below unless otherwise designated by the partner:



Step 4: Create a new Security Group or Assign to an Existing One

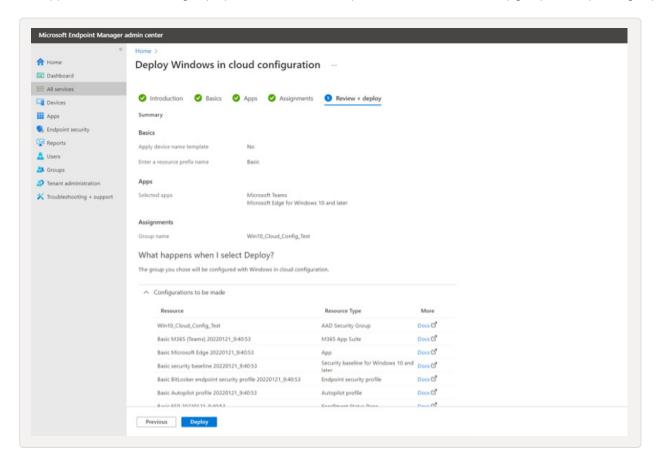
Here, we will create a new group titled "Intune Test" with no users added for the initial deployment and testing. Alternatively, we can select a group if a partner has opted to go with a current group for testing:





Step 5: Review the Cloud Configuration

Once you have decided on your security group, you can proceed to the next page. This will be a review of any resources and applications that are being deployed. Double check that you chose the correct security group before pressing deploy.

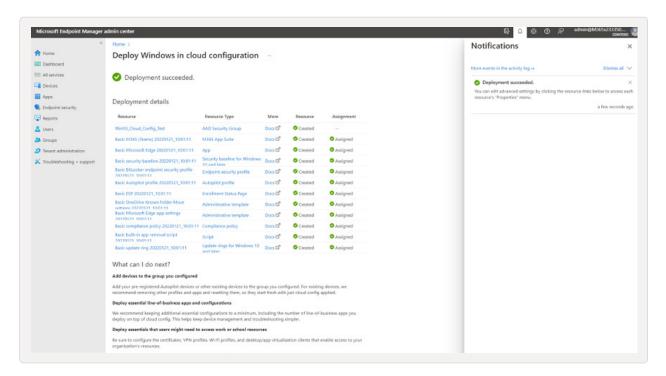


*If you are unsure about what is included in some of the resources, click on "Configurations to be made," and it will open a portion that includes docs for each resource included in the configuration.



Step 6: Deploying the Cloud Configuration

Now that you have clicked deploy after the review page, it will first create your resources one by one and then assign them to the security group. Once complete, you will get a notification telling you that the deployment has finished:



You have now successfully deployed Windows in Cloud Configuration for your endpoints!

