

IdP Setup: Microsoft Entra ID (Azure)

What

Before we can use AzureAD for authentication from FileWave, we must create a new application in the Azure Portal and give FileWave access to it. The whole purpose of this configuration is to give FileWave permissions to talk to your Microsoft Entra ID environment.

When/Why

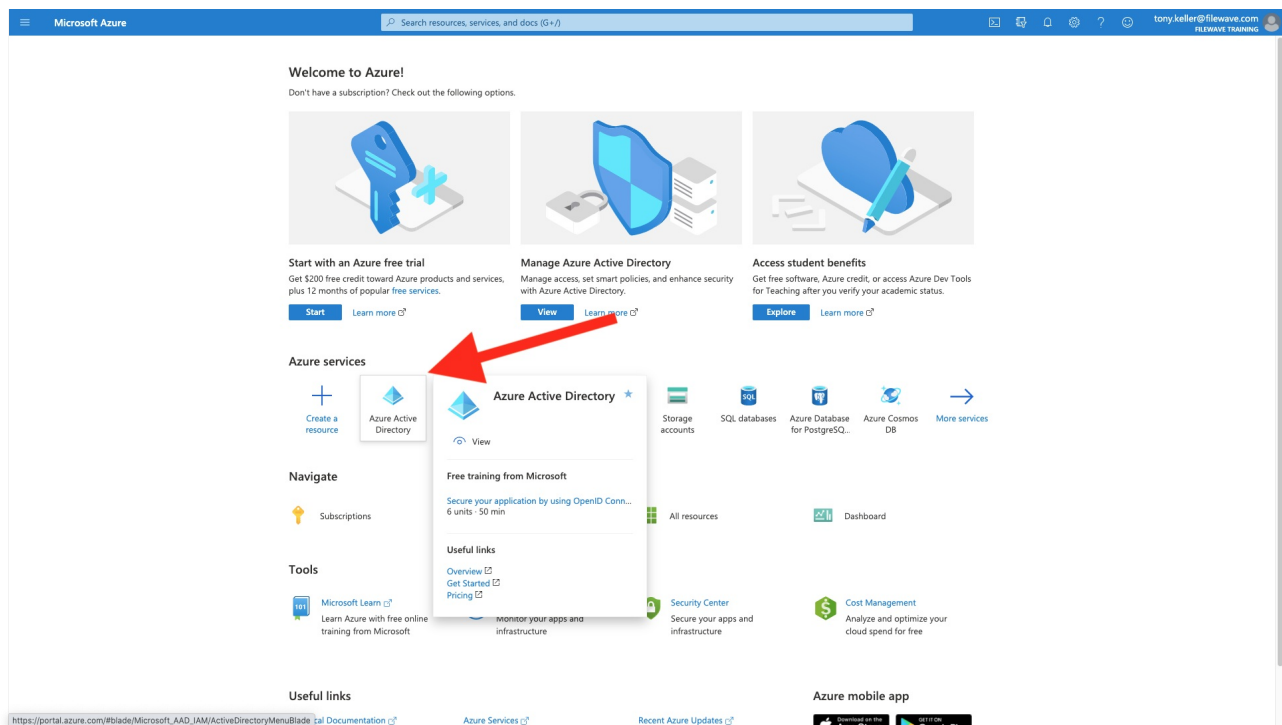
This configuration is required if you want to use AzureAD for authentication during device enrollment or during login to the FileWave Web and Native administrator consoles.

How

The configuration for access is all driven through an Microsoft Entra ID application, so we need to start with:

Part 1: Login to Microsoft Entra ID Portal

First, we'll login to Microsoft Entra ID at portal.azure.com with an administrator's account and click on Microsoft Entra ID as shown:



And make note of the domain info shown below:

The screenshot shows the Microsoft Azure portal interface for the 'FileWave Training' tenant. The left sidebar contains navigation links for Overview, Manage (Users, Groups, External Identities, Roles and administrators, Administrative units, Enterprise applications, Devices, App registrations, Identity Governance, Application proxy, Licenses, Azure AD Connect, Custom domain names, Mobility (MDM and MAM), Password reset, Company branding, User settings, Properties, Security), and Monitoring (Sign-ins, Audit logs, Provisioning logs (Preview)). The main content area shows the 'Overview' page with a search bar, tenant information, Azure AD Connect status, and a sign-in chart. A red arrow points to the primary domain 'fwtraining.onmicrosoft.com' in the Tenant information section.

It is a good idea to take all of these elements and label/paste them into a document you store securely. Although we'll use them to configure FileWave, you can't access many of them from FileWave once they are stored.

Part 2: Create an App

Now we have to create an app for FileWave to talk to, and assign some right to it. First go to the app registrations menu, then click "new registration":

The screenshot shows the Microsoft Azure portal interface for the 'FileWave Training' tenant, specifically the 'App registrations' page. The left sidebar contains navigation links for Overview, Manage (Users, Groups, External Identities, Roles and administrators, Administrative units, Enterprise applications, Devices, App registrations, Identity Governance, Application proxy, Licenses, Azure AD Connect, Custom domain names, Mobility (MDM and MAM), Password reset, Company branding, User settings, Properties, Security), and Monitoring (Sign-ins, Audit logs, Provisioning logs (Preview)). The main content area shows the 'App registrations' page with a search bar, a table of applications, and a 'New registration' button. A red arrow points to the 'New registration' button.

Display name	Application (client) ID	Created on	Certificates & secrets
FileWave Integration	065ccb0e-86cd-4887-a54c-b8b08a086a2c	2/14/2020	-
PW Beta	34a993c3-fb0c-4900-83f1-bc2d98d0a6bb	12/28/2020	-
PW Beta	61a5f712-3c20-4b88-878d-ce9214a99166	1/13/2021	Current

Specify a name for your app that is meaningful to you, and Register the app (we'll set the login URIs later).

Microsoft Azure

Search resources, services, and docs (Cmd+I)

Home > FileWave Training > FW Beta 2

Register an application

Name
The user-facing display name for this application (this can be changed later).

FW Beta 2

Supported account types
Who can use this application or access this API?

☒ Accounts in this organizational directory only (FileWave Training only - Single tenant)
☐ Accounts in any organizational directory (Any Azure AD directory - Multitenant)
☐ Accounts in any organizational directory (Any Azure AD directory - Multitenant) and personal Microsoft accounts (e.g. Skype, Xbox)
☐ Personal Microsoft accounts only

[Help me choose...](#)

Redirect URI (optional)
We'll return the authentication response to this URI after successfully authenticating the user. Providing this now is optional and it can be changed later, but a value is required for most authentication scenarios.

Web e.g. https://myapp.com/auth

By proceeding, you agree to the [Microsoft Platform Policies](#)

Register

Created on	Certificates & secrets
2/14/2020	-
12/28/2020	-
1/13/2021	Current

Part 3: Add a Platform and URI Addresses

Within the app configuration, we'll choose Authentication, then Add a Platform, of type Web:

Microsoft Azure

Search resources, services, and docs (Cmd+I)

Home > FileWave Training > FW Beta 2

FW Beta 2 | Authentication

Search (Cmd+I) Save Discard Got feedback?

Overview
Quickstart
Integration assistant

Manage
Branding
Authentication
Certificates & secrets
Token configuration
API permissions
Expose an API
App roles | Preview
Owners
Roles and administrators | Preview
Manifest

Support + Troubleshooting
Troubleshooting
New support request

Platform configurations
Depending on the platform or device this application is targeting, additional configuration may be required such as redirect URIs, specific authentication settings, or fields specific to the platform.

[Add a platform](#)

Supported account types
Who can use this application or access this API?

☒ Accounts in this organizational directory only (FileWave Training only - Single tenant)
☐ Accounts in any organizational directory (Any Azure AD directory - Multitenant)

[Help me decide...](#)

Advanced settings
Allow public client flows

Enable the following mobile and desktop flows:

☐ Yes ☒ No

- App collects plaintext password (Resource Owner Password Credential Flow) [Learn more](#)
- No keyboard (Device Code Flow) [Learn more](#)
- SSO for domain-joined Windows (Windows Integrated Auth Flow) [Learn more](#)

Configure platforms

Web applications

Web
Build, host, and deploy a web server application. .NET, Java, Python

Single-page application
Configure browser client applications and progressive web applications. Javascript.

Mobile and desktop applications

iOS / macOS
Objective-C, Swift, Xamarin

Android
Java, Kotlin, Xamarin

Mobile and desktop applications
Windows, UWP, Console, IoT & Limited-entry Devices, Classic iOS + Android

And for the web configuration, we'll need to copy some address from your FileWave server. You'll get them from the WebAdmin, Settings, New AzureAD IDP, and then Get URLs as shown

FileWave Admin

Model Number: 108

Search for Devices

TonyK

Settings

Go to Dashboard

Devices

Android ChromeOS iOS macOS tvOS Windows Other/Unknown All

Groups	Name	Groups	Asset Tag	Comment	User	Model	IP Addr
Root	3183a5776d58cee0	SG Mixed, SG Mixed 1 (test), ...					
All iOS (non-inv)	ARKONE	All Windows (inv), FileWave Cl...			Administrator	16	99.203...
All macOS (inv)	DESKTOP-T3SL865	All Windows (inv), FileWave Cl...			joe	0	184.19...
All Windows (inv)	Rewave's Mac	All macOS (inv), FileWave Cle...			filewave	11	184.19...
BAM Devices	FOUNDRY1	All Windows (inv), FileWave Cl...	FW-ASSET		keller90	83	172.58...
Chromebooks	FW-DMP891ZTHG5...	All iOS (non-inv), TK Client De...					172.58...
FileWave Client Version	lpad Main	All iOS (non-inv), Have Asset T...	FW-657394				172.58...
FileWave Client Version 42	PesCee-McPC	All Windows (inv), FileWave Cl...					172.58...
Have Asset Tags	Surface-McPC	All Windows (inv), FileWave Cl...	Mine		tk_fir	105	172.58...
SG Mixed	Tony Keller MBPro	All macOS (inv), FileWave Cle...	FW-123456		keller90	108	172.58...
SG Mixed 1 (test)							
Test Android							
TK Client Devices							

14.2.0-27a6c524a

Then choose an Microsoft Entra ID IDP Provider

Settings

Identity Provider

Back to FileWave Admin

+ New Identity Provider

Select Identity Provider you want to setup

Setup Okta

Setup Microsoft Azure AD

You can add a name now (or later), but you'll get the URLs from the "Get URLs" button:

Settings

Identity Provider

Back to FileWave Admin

+ New Identity Provider

Identity Provider

Create new

IDP Type

Azure AD

Name

FW Beta Example

Authentication for:

☐ Enrollment

Use this provider to enroll registered Devices

☐ Admin

Use this provider to import registered Admins

Login Redirect URLs

Copy URLs to your IDP settings in order to get responses from IDP.

[Get URLs](#)

Client ID

Paste Client ID

Required

Client Secret

Required

Domain

Your domain name

Cancel

Create

Settings

Identity Provider

Back to FileWave Admin

+ New Identity Provider

Identity Provider

Create new

IDP Type

Azure AD

Name

FW Beta Example

Authentication for:

☐ Enrollment

Use this provider to enroll registered Devices

☐ Admin

Use this provider to import registered Admins

Login Redirect URLs

Copy URLs to your IDP settings in order to get responses from IDP.

[Get URLs](#)

Client ID

Paste Client ID

Required

Client Secret

Required

Domain

Your domain name

Cancel

Create

Login redirect URLs

Copy the URLs below to your IDP provider settings

https://fw.beta.filewave.com:4...

Copy

https://fw.beta.filewave.com:4...

Copy

https://fw.beta.filewave.com:4...

Copy

Close

So now we'll enter one of the redirects, and click configure:

The screenshot shows the 'FW Beta 2 | Authentication' configuration page in the Microsoft Azure portal. The left sidebar contains navigation links for Overview, Quickstart, Integration assistant, Manage, Branding, Authentication, Certificates & secrets, Token configuration, API permissions, Expose an API, App roles | Preview, Owners, Roles and administrators | Preview, and Manifest. The main content area is divided into sections: Platform configurations, Supported account types, Advanced settings, and Redirect URIs. The 'Redirect URIs' section is highlighted with a red arrow, showing a list of URIs including 'https://fw.beta.filewave.com:443/api/auth/login_via_idp_redirect'. The 'Front-channel logout URL' and 'Implicit grant and hybrid flows' sections are also visible.

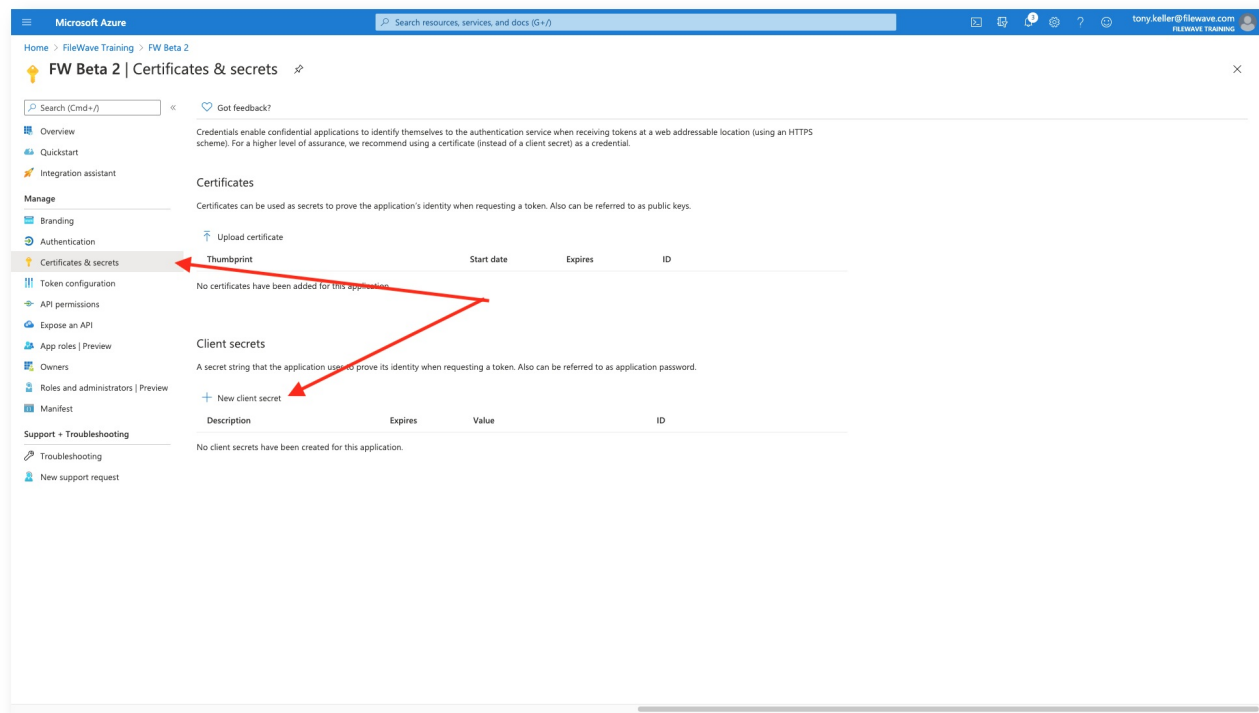
And then add the other two from here:

The screenshot shows the 'FW Beta 2 | Authentication' configuration page in the Microsoft Azure portal. The left sidebar contains navigation links for Overview, Quickstart, Integration assistant, Manage, Branding, Authentication, Certificates & secrets, Token configuration, API permissions, Expose an API, App roles | Preview, Owners, Roles and administrators | Preview, and Manifest. The main content area is divided into sections: Platform configurations, Supported account types, Advanced settings, and Redirect URIs. The 'Web' section is expanded, showing the 'Redirect URIs' list with three entries: 'https://fw.beta.filewave.com:443/api/auth/login_via_idp_redirect', 'https://fw.beta.filewave.com:443/api/auth/login_via_idp_redirect_for_native', and 'https://fw.beta.filewave.com:443/api/auth/login_via_idp_redirect_for_device'. Red arrows point to the 'Add URI' button and the third URI entry.

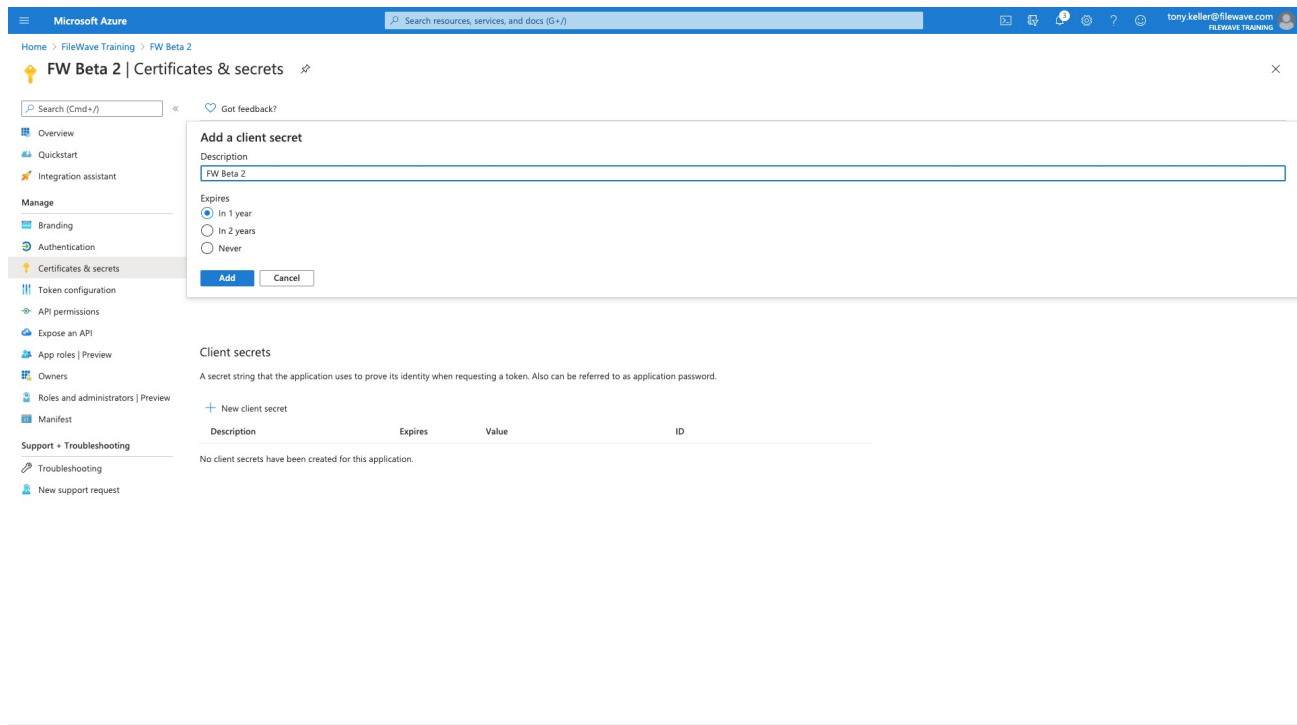
Make sure to hit Save at the top after you have entered all three.

Part 4: Cert & Secrets

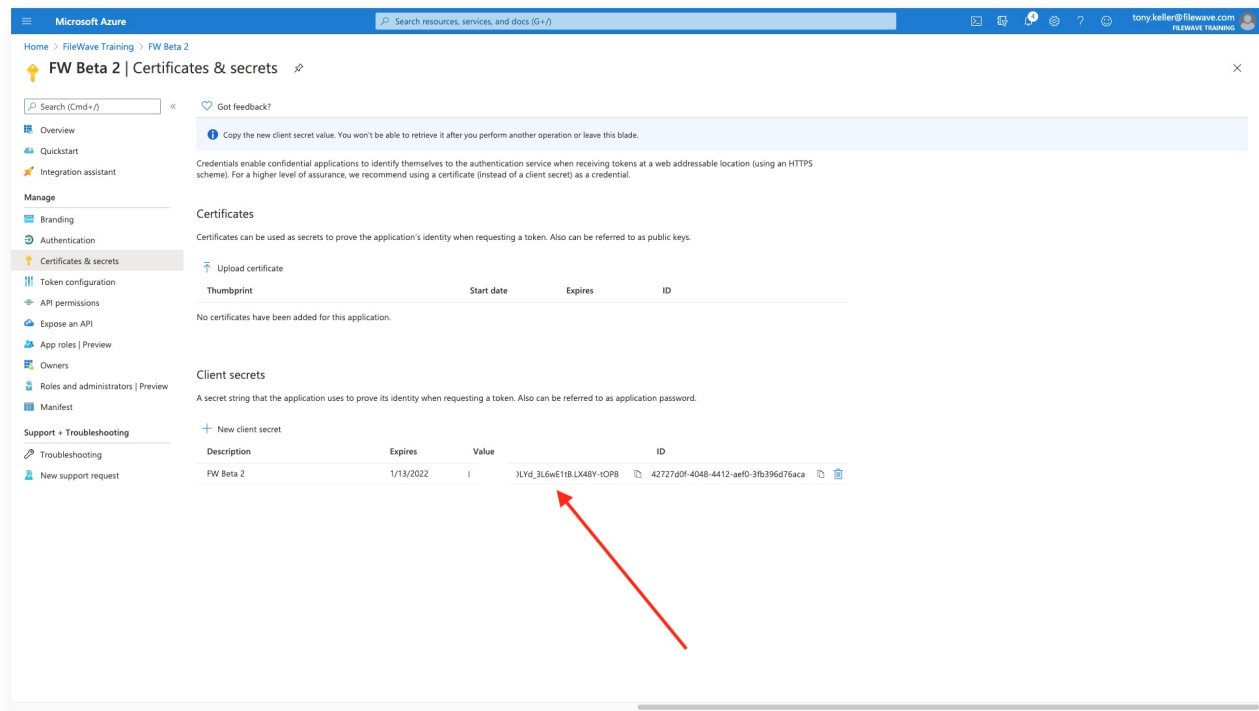
Now we are going to go to Certificates & Secrets to provide a way for FileWave to authentication to our new application. Click on New client secret



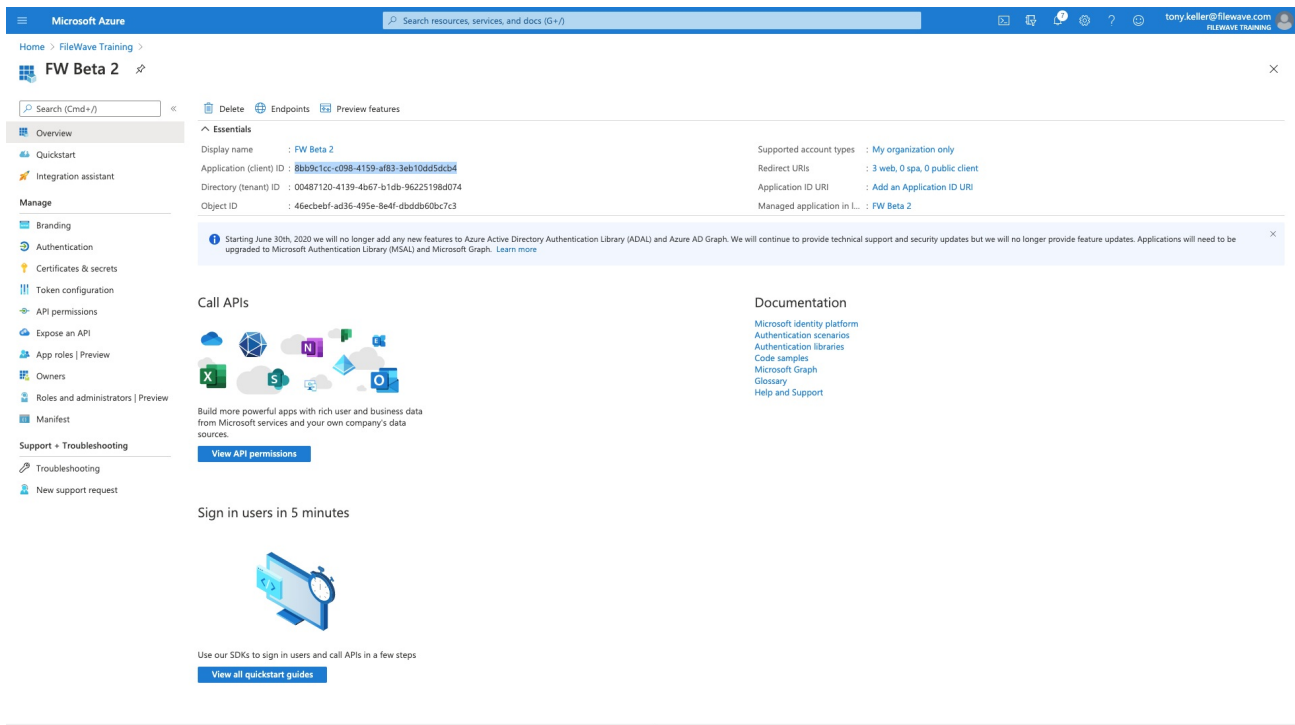
Then we give it a descriptive name:



And then we'll want to get a copy of the Client Secret, and this is the ONLY time you can copy it.



Lastly, we get the The Client ID, you get from the overview page:



Each of the relevant values then gets copied into the FileWave config below:

Settings

Identity Provider

Identity Provider

Create new

IDP Type

Azure AD

Name

FW Beta Example

Authentication for:

☒ Enrollment

Use this provider to enroll registered Devices

☒ Admin

Use this provider to import registered Admins

Login Redirect URLs

Copy URLs to your IDP settings in order to get responses from IDP.

Get URLs

Client ID

42727d0f-4048-4412-ae03-b3b396d76aca

Client Secret

Domain

fwtraining.onmicrosoft.com

Cancel

Create

You'll check the checkbox for "Admin" if you want to be able to use AzureAD for login to the FileWave admin with AzureAD, and "Enrollment" if you want to use it for Apple device enrollment authentication. Note that multiple IDPs can be used for admin login, but only one for device enrollment.

Part 5: App Permissions

Now we have to give our app permissions to read the directory so that it can pull group information into FileWave for browsing and rights assignment.

So, we'll go to the App Permissions section and start Adding Permissions

Microsoft Azure

Search resources, services, and docs (G+)

Home > FileWave Training > FW Beta 2

FW Beta 2 | API permissions

Overview

Quickstart

Integration assistant

Manage

Branding

Authentication

Certificates & secrets

Token configuration

API permissions

Expose an API

App roles | Preview

Owners

Roles and administrators | Preview

Manifest

Support + Troubleshooting

Troubleshooting

New support request

Configured permissions

Applications are authorized to call APIs when they are granted permissions by users/admins as part of the consent process. The list of configured permissions should include all the permissions the application needs. [Learn more about permissions and consent](#)

Add a permission

Grant admin consent for FileWave Training

API / Permissions name	Type	Description	Admin consent req...	Status
Microsoft Graph (1)				...
User.read	Delegated	Sign in and read user profile	-	...

To view and manage permissions and user consent, try [Enterprise applications](#).

Our permissions are going to be for Microsoft Graph

Microsoft Azure | Search resources, services, and docs (G+)

Home > FileWave Training > FW Beta 2

FW Beta 2 | API permissions

Search (Cmd+/) Refresh Got feedback?

Overview Quickstart Integration assistant

Manage

- Branding
- Authentication
- Certificates & secrets
- Token configuration
- API permissions**
- Expose an API
- App roles | Preview
- Owners
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Support + Troubleshooting

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+ Add a permission ✓ Grant admin consent for FileWave Training

API / Permissions name	Type	Description	Admin consent req...
▼ Microsoft Graph (1)			
User Read	Delegated	Sign in and read user profile	-


To view and manage permissions and user consent, try [Enterprise applications](#).


Request API permissions


Select an API


Microsoft APIs APIs my organization uses My APIs


Commonly used Microsoft APIs


**Microsoft Graph**
Take advantage of the tremendous amount of data in Office 365, Enterprise Mobility + Security, and Windows 10. Access Azure AD, Excel, Intune, Outlook/Exchange, OneDrive, OneNote, SharePoint, Planner, and more through a single endpoint.


**Azure Rights Management Services**
Allow validated users to read and write protected content


**Azure Service Management**
Programmatic access to much of the functionality available through the Azure portal

**Dynamics 365 Business Central**
Programmatic access to data and functionality in Dynamics 365 Business Central


**Intune**
Programmatic access to Intune data


**Office 365 Management APIs**
Retrieve information about user, admin, system, and policy actions and events from Office 365 and Azure AD activity logs


**SharePoint**
Interact remotely with SharePoint data


**Skype for Business**
Integrate real-time presence, secure messaging, calling, and conference capabilities


More Microsoft APIs


**Azure Batch**
Schedule large-scale parallel and HPC applications in the cloud

**Azure Data Catalog**
Programmatic access to Data Catalog resources to register, annotate and search data assets

**Azure Data Explorer**
Perform ad-hoc queries on terabytes of data to build near real-time and complex analytics solutions

**Azure Data Explorer (with Multifactor Authentication)**
Perform ad-hoc queries on terabytes of data to build near real-time and complex analytics solutions

**Azure Data Lake**
Access to storage and compute for big data analytic scenarios

**Azure DevOps**
Integrate with Azure DevOps and Azure DevOps server

We'll start with an application permission:

Microsoft Azure | Search resources, services, and docs (G+)

Home > FileWave Training > FW Beta 2

FW Beta 2 | API permissions

Search (Cmd+/) Refresh Got feedback?

Overview Quickstart Integration assistant

Manage

- Branding
- Authentication
- Certificates & secrets
- Token configuration
- API permissions**
- Expose an API
- App roles | Preview
- Owners
- Roles and administrators | Preview
- Manifest

Support + Troubleshooting

- Troubleshooting
- New support request

Configured permissions

Applications are authorized to call APIs when they are granted permissions by users/admins as part of the consent process. The list of all the permissions the application needs. [Learn more about permissions and consent](#)


+ Add a permission ✓ Grant admin consent for FileWave Training

API / Permissions name	Type	Description	Admin consent req...
▼ Microsoft Graph (1)			
User Read	Delegated	Sign in and read user profile	-

To view and manage permissions and user consent, try [Enterprise applications](#).

Request API permissions

< All APIs

**Microsoft Graph**
<https://graph.microsoft.com/> Docs

What type of permissions does your application require?

Delegated permissions
Your application needs to access the API as the signed-in user.

Application permissions
Your application runs as a background service or daemon without a signed-in user.

Add permissions Discard

For Group Read All AND User Read All (not shown, but you can pick two at once):

Microsoft Azure | Search resources, services, and docs (G+)

Home > FileWave Training > FW Beta 2

FW Beta 2 | API permissions

Search (Cmd+/) Refresh Got feedback?

Overview Quickstart Integration assistant

Manage

- Branding
- Authentication
- Certificates & secrets
- Token configuration
- API permissions**
- Expose an API
- App roles | Preview
- Owners
- Roles and administrators | Preview
- Manifest

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+ Add a permission ✓ Grant admin consent for FileWave Training

API / Permissions name	Type	Description	Admin consent req...
▼ Microsoft Graph (1)			
User.Read	Delegated	Sign in and read user profile	-

To view and manage permissions and user consent, try [Enterprise applications](#).

Request API permissions

< All APIs

- EdUAssignments
- EdURoster
- EntitlementManagement
- ExternalItem
- Files
- Group (1)
- Group.Create ○ Create groups Yes
- Group.Read.All ○ Read all groups Yes
- Group.ReadWrite.All ○ Read and write all groups Yes
- GroupMember
- IdentityProvider
- IdentityRiskEvent
- IdentityRiskyUser
- IdentityUserFlow
- InformationProtectionPolicy
- MailboxSettings
- Mail

Add permissions Discard

Then we'll add more permissions, but "delegated permissions" for open id and profile as shown:

Microsoft Azure | Search resources, services, and docs (G+)

Home > FileWave Training > FW Beta 2

FW Beta 2 | API permissions

Search (Cmd+/) Refresh Got feedback?

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Manage

- Branding
- Authentication
- Certificates & secrets
- Token configuration
- API permissions**
- Expose an API
- App roles | Preview
- Owners
- Roles and administrators | Preview
- Manifest

Support + Troubleshooting

- Troubleshooting
- New support request

Configured permissions

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+ Add a permission ✓ Grant admin consent for FileWave Training

API / Permissions name	Type	Description	Admin consent req...
▼ Microsoft Graph (3)			
Group.Read.All	Application	Read all groups	Yes
User.Read	Delegated	Sign in and read user profile	-
User.Read.All	Application	Read all users' full profiles	Yes

To view and manage permissions and user consent, try [Enterprise applications](#).

Request API permissions

< All APIs

Microsoft Graph <https://graph.microsoft.com/> Docs

What type of permissions does your application require?

Delegated permissions
Your application needs to access the API as the signed-in user.

Application permissions
Your application runs as a background service or daemon without a signed-in user.

Select permissions expand all

Start typing a reply url to filter these results

Permission	Admin consent required
▼ Openid permissions (2)	
email ○ View users' email address	-
offline_access ○ Maintain access to data you have given it access to	-
openid ○ Sign users in	-
profile ○ View users' basic profile	-
AccessReview	
AdministrativeUnit	
AgreementAcceptance	
Agreement	
Analytics	
APICConnectors	

Add permissions Discard

Our permissions then should look like this when we have them all

Microsoft Azure

Home > FileWave Training > FW Beta 2

FW Beta 2 | API permissions

Search (Cmd+/) Refresh Got feedback?

You are editing permission(s) to your application, users will have to consent even if they've already done so previously.

Configured permissions

Applications are authorized to call APIs when they are granted permissions by users/admins as part of the consent process. The list of configured permissions should include all the permissions the application needs. [Learn more about permissions and consent](#)

+ Add a permission ☒ Grant admin consent for FileWave Training

API / Permissions name	Type	Description	Admin consent req...	Status
Microsoft Graph (5)				
Group.Read.All	Application	Read all groups	Yes	Not granted for FileWav...
openid	Delegated	Sign users in	-	
profile	Delegated	View users' basic profile	-	
User.Read	Delegated	Sign in and read user profile	-	
User.Read.All	Application	Read all users' full profiles	Yes	Not granted for FileWav...

To view and manage permissions and user consent, try [Enterprise applications](#).

And then we just need to click Grant Consent to finish with the permissions

Microsoft Azure

Home > FileWave Training > FW Beta 2

FW Beta 2 | API permissions

Search (Cmd+/) Refresh Got feedback?

You are editing permission(s) to your application, users will have to consent even if they've already done so previously.

Configured permissions

Applications are authorized to call APIs when they are granted permissions by users/admins as part of the consent process. The list of configured permissions should include all the permissions the application needs. [Learn more about permissions and consent](#)

+ Add a permission ☒ Grant admin consent for FileWave Training

API / Permissions name	Type	Description	Admin consent req...	Status
Microsoft Graph (5)				
Group.Read.All	Application	Read all groups	Yes	Not granted for FileWav...
openid	Delegated	Sign users in	-	
profile	Delegated	View users' basic profile	-	
User.Read	Delegated	Sign in and read user profile	-	
User.Read.All	Application	Read all users' full profiles	Yes	Not granted for FileWav...

To view and manage permissions and user consent, try [Enterprise applications](#).

When they show as green, we are all done!

Microsoft Azure

Home > FileWave Training > FW Beta

FW Beta | API permissions

Search (Cmd+J) Refresh Got feedback?

Overview

Quickstart

Integration assistant

Manage

Branding

Authentication

Certificates & secrets

Token configuration

API permissions

Expose an API

App roles | Preview

Owners

Roles and administrators | Preview

Manifest

Support + Troubleshooting

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+ Add a permission ✓ Grant admin consent for FileWave Training

API / Permissions name	Type	Description	Admin consent req...	Status
Group.Read.All	Application	Read all groups	Yes	Granted for FileWave Tr... ✓
openid	Delegated	Sign users in	-	Granted for FileWave Tr... ✓
profile	Delegated	View users' basic profile	-	Granted for FileWave Tr... ✓
User.Read	Delegated	Sign in and read user profile	-	Granted for FileWave Tr... ✓
User.Read.All	Application	Read all users' full profiles	Yes	Granted for FileWave Tr... ✓

To view and manage permissions and user consent, try [Enterprise applications](#).

Part 6: App Registration Renewal

At some point the Certificate of the App will expire and a new certificate should be generated.

From the App Registration view, expired certificates may be observed

Overview

Preview features

Diagnose and solve problems

Manage

Users

Groups

External Identities

Roles and administrators

Administrative units

Delegated admin partners

Enterprise applications

Devices

App registrations

+ New registration Endpoints Troubleshooting Refresh Download Preview features Got feedback?

Starting June 30th, 2020 we will no longer add any new features to Azure Active Directory Authentication Library (ADAL) and Azure AD Graph. We will continue to provide technical support and security updates but we will no longer provide feature updates. Applications will need to be upgraded to Microsoft Authentication Library (MSAL) and Microsoft Graph. [Learn more](#)

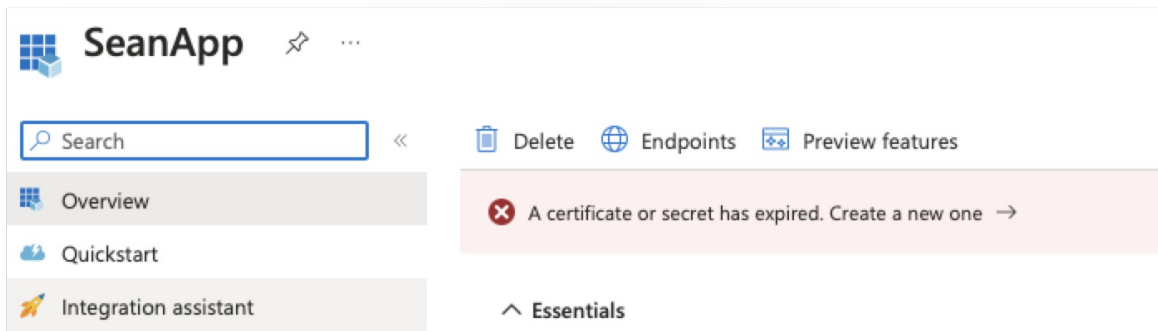
All applications Owned applications Deleted applications

Start typing a display name or application (client) ID to filter these r... Add filters

2 applications found

Display name	Application (client) ID	Created on	Certificates & secrets
SeanApp		2/8/2022	Expired
SeanXcredApp		11/29/2022	-

For renewal, click on the Display Name of the App, followed by 'Create a new one ->'



Then generate a 'New client secret' similar to part 4 of this KB.

- Add a description
- Copy the Secret ID

This time though, Edit the current IdP in FileWave Anywhere:

- Open Settings in the FileWave Admin
- Choose Edit from the selected IdP
- Paste in the new Client Secret and 'Save'

✓ The old, expired certificate may be deleted from within the Azure portal.

Related Content

- [Adding IdP Groups for FileWave Authentication](#)
- [Configuring DEP Profiles for IDP Authentication](#)
- [Admin Login in Using an IdP Provider](#)

🔄Revision #10

★Created 21 June 2023 20:18:10 by Josh Levitsky

✍Updated 15 October 2024 18:24:53 by Josh Levitsky