Provisioning Puzzel ID users and groups with Entra ID

With the introduction of Puzzel ID, automated synchronization of users and groups with directory systems such as Entra ID is now possible. This synchronization is facilitated by the System for Cross-domain Identity Management (SCIM) protocol, a standard that effectively manages the entire lifecycle of user identities within organizations.

This documentation specifically addresses the configuration of synchronizing Puzzel with Entra ID, although other directory systems supporting the SCIM standard are also supported. For further information about available options, please contact Puzzel support or your customer representative.

This guide will explain how to configure the synchronization of users and groups between Entra ID and Puzzel, and how to automate access to Puzzel products using the Puzzel ID rule engine. The rule engine has been introduced to address the limited flexibility of Entra ID concerning product access control, enabling more precise management of which users should have access to specific Puzzel products.

Configuring synchronization of users / groups with Entra ID

Microsoft has tested and approved Puzzel's SCIM implementation, allowing synchronization and provisioning to be configured through an Entra ID gallery application. The following steps describe how to locate and configure this application for user and group provisioning.

Prerequisites for this section

- A Microsoft Entra tenant

- A Entra ID user with one of the following roles relating to the Puzzel Entra Gallery application: Application Administrator, Cloud Application Administrator, or Application Owner.

- A Puzzel ID user account with Admin or Partner role. It is highly recommended that this is a Puzzel ID account created with a system user, not a personal user. Note however that the system user needs to be able to receive the verification email.

Adding the Puzzel application from the Microsoft Entra application gallery

Add Puzzel from the Microsoft Entra application gallery to start managing provisioning to Puzzel.

- From the Entra ID main page, navigate to "Enterprise Applications"

- Click "New Application"

- On the next page "Browse Microsoft Entra Gallery, search for "Puzzel"

- You should see a result similar to the screenshot below:

Browse Microsoft Entra Gallery ...

+ Create your own application | 🖳 Got feedback?

The Microsoft Entra App Gallery is a catalog of thousands of apps that make it easy to deploy and configure single sign-on (SSO) and automated user provisioning. other organizations to discover and use, you can file a request using the process described in this article.

| 🔍 puzzel × | Single Sign-on : **All** | User Account Management : **All** | Categories : **All** |

🡲 Federated SSO   🔁 Provisioning

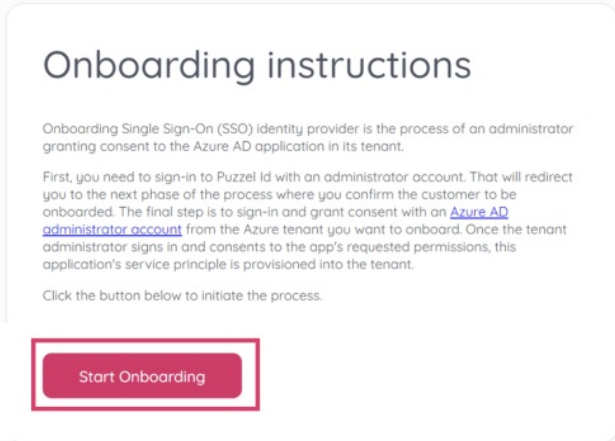**Showing 1 of 1 results**
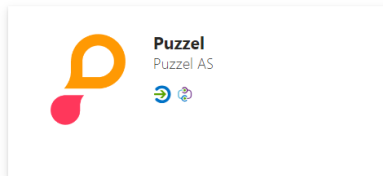
Puzzel
Puzzel AS
🡲 🔁

Click on the search result to install the application. If you have previously setup Puzzel for SSO, you can use the same application. However it's recommended that you create a separate app when testing out the integration initially. If you haven't installed it before, click "Sign up for Puzzel" to continue.

> **Note**
>
> For the next step you need a Puzzel ID user with admin role to be able to complete the onboarding process.

When clicking "Sign up for Puzzel", you are taken to the screen shown below. Click "Start Onboarding" to start the process.
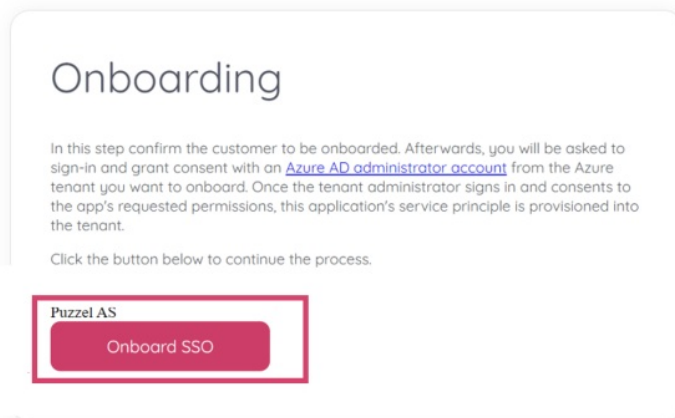
Onboard Single Sign-On (SSO) identity

Onboarding instructions

Onboarding Single Sign-On (SSO) identity provider is the process of an administrator granting consent to the Azure AD application in its tenant.

First, you need to sign-in to Puzzel Id with an administrator account. That will redirect you to the next phase of the process where you confirm the customer to be onboarded. The final step is to sign-in and grant consent with an Azure AD administrator account from the Azure tenant you want to onboard. Once the tenant administrator signs in and consents to the app's requested permissions, this application's service principle is provisioned into the tenant.

Click the button below to initiate the process.

Start Onboarding

If you are not already signed in with a Puzzel ID account you will be taken to the Puzzel ID login screen to sign-in. As mentioned above, you will need a Puzzel ID user with the "admin" role to proceed.
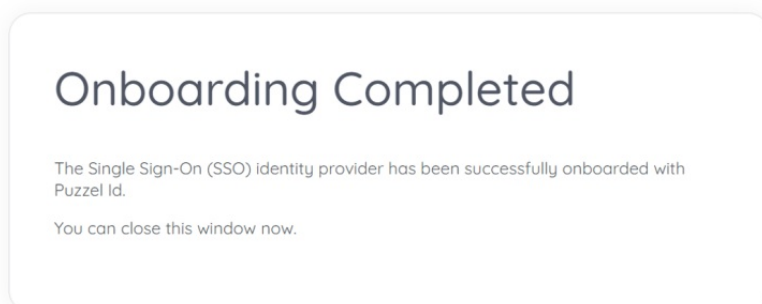
Next, verify that the customer name (shown right above the "Onboard SSO" button) is correct, click this button to continue the process.

Onboard Single Sign-On (SSO) identity

Onboarding

In this step confirm the customer to be onboarded. Afterwards, you will be asked to sign-in and grant consent with an Azure AD administrator account from the Azure tenant you want to onboard. Once the tenant administrator signs in and consents to the app's requested permissions, this application's service principle is provisioned into the tenant.

Click the button below to continue the process.

Puzzel AS

Onboard SSO

Once accepted, the applications' service principle is now provisioned into the tenant and you should see the "onboarding completed" page:

Onboard Single Sign-On (SSO) identity

Onboarding Completed

The Single Sign-On (SSO) identity provider has been successfully onboarded with Puzzel Id.

You can close this window now.

The application should now be installed and we can continue to set up the automated user provisioning.

Define who will be in scope for provisioning

The Microsoft Entra provisioning service allows you to scope who will be provisioned based on assignment to the application and or based on attributes of the user.

If you choose to scope who will be provisioned to your app based on assignment, you can use the following steps to assign users to the application. If you choose to scope who will be provisioned based solely on attributes of the user, you can use a scoping filter as described here.

- Start small. Test with a small set of users before rolling out to everyone. When scope for provisioning is set to assigned users, you can control this by assigning one or two users to the app. When scope is set to all users, you can

specify an attribute based scoping filter.

- If you need more roles, you can update the application manifest to add new roles.

Activate automatic user provisioning to Puzzel

This section guides you through the steps to configure the Microsoft Entra provisioning service to create, update, and disable users in Puzzel ID based on user assignments in Microsoft Entra ID.
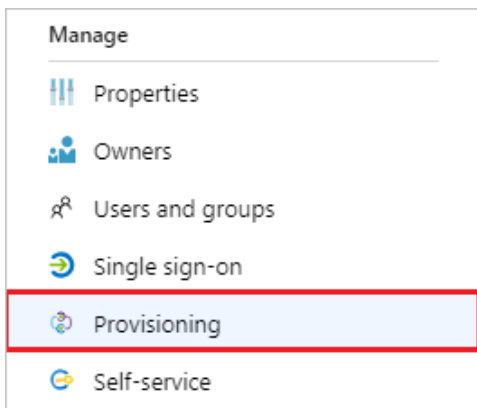
1. Sign in to the Microsoft Entra admin center as at least a Cloud Application Administrator.

2. Browse to **Identity** > **Applications** > **Enterprise applications**
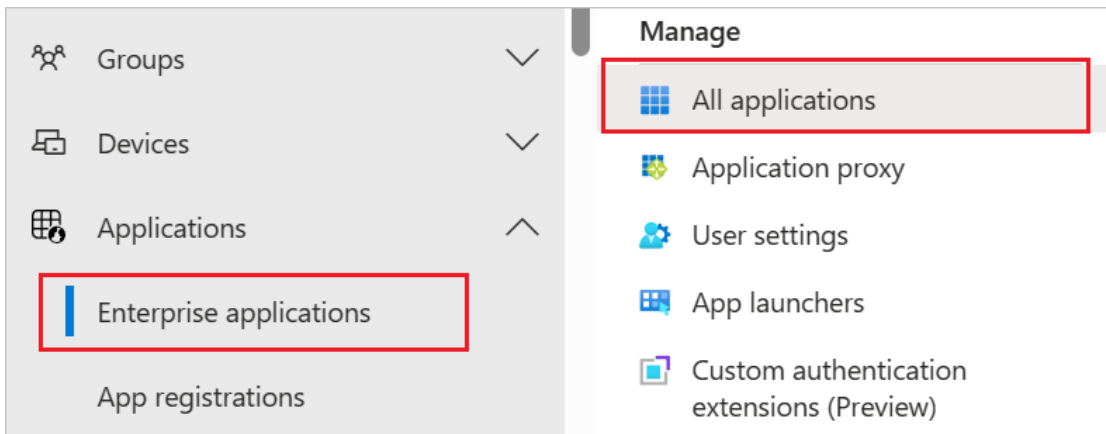
3. In the applications list, select **Puzzel**.
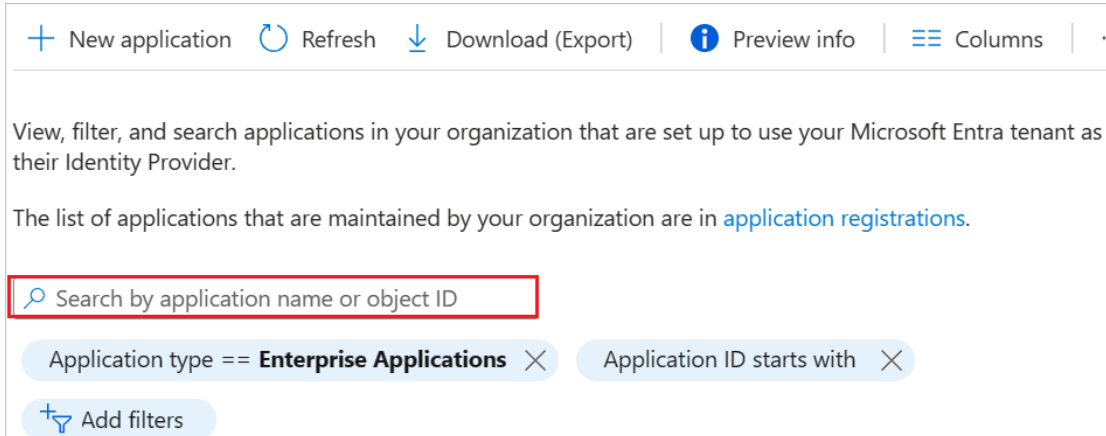
4. Select the **Provisioning** tab.

5. Set the **Provisioning Mode** to **Automatic**.
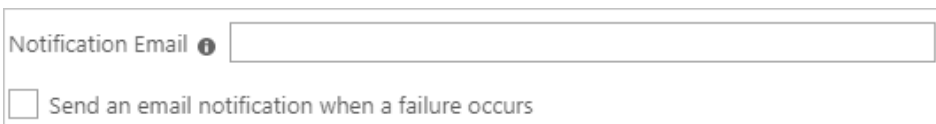
6. In the **Admin Credentials** section, enter the **Tenant Url.** This URL will be on the format

https://app.puzzel.com/id/provisioning/**<customerId>**/scim

If you are unsure what customerId to use here, please reach out to Puzzel Support or other technical contact in Puzzel.

7. Click on Authorize. In the popup window, make sure that you sign-in with a user that has either admin or partner role assigned:
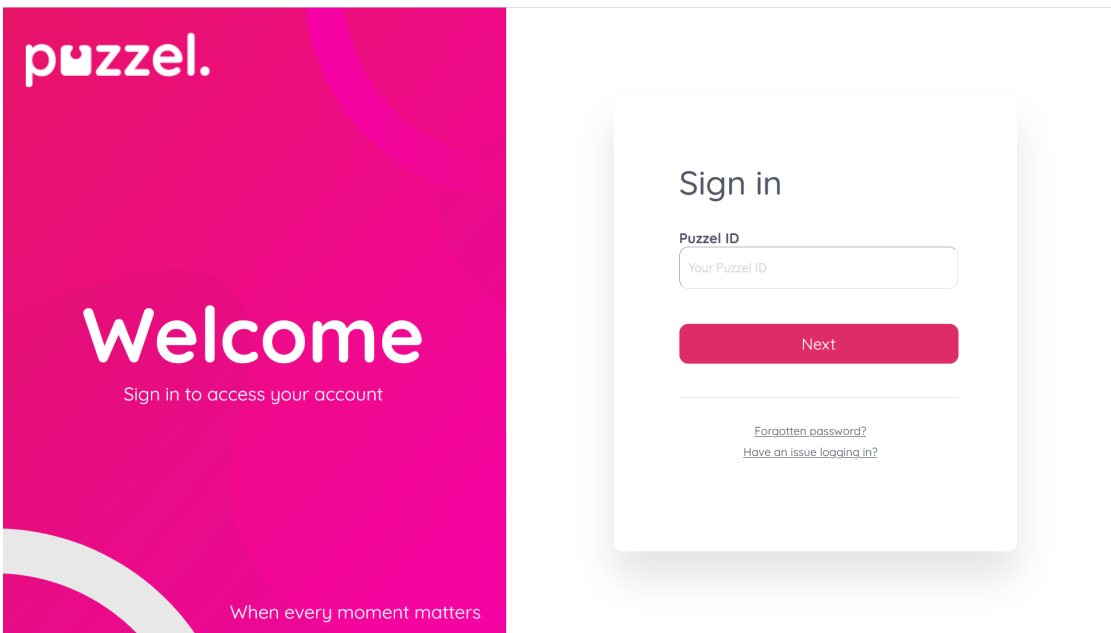
8. Click **Test Connection** to ensure Microsoft Entra ID can connect to Puzzel. If the connection fails, ensure that the customerid as part of the URL above is correct and that your Puzzel account has "Admin" or "Partner" role and try again.

9. In the **Notification Email** field, enter the email address of a person who should receive the provisioning error notifications and select the **Send an email notification when a failure occurs** check box.

10. Select **Save**.

Configure mappings between Entra ID and Puzzel

1. Under the **Mappings** section, select **Synchronize Microsoft Entra users to Puzzel**.

2. Review the user attributes that are synchronized from Microsoft Entra ID to Puzzel in the **Attribute-Mapping** section. The attributes selected as **Matching** properties are used to match the user accounts in Puzzel for update operations. If you choose to change the matching target attribute, you need to ensure that the Puzzel API supports filtering users based on that attribute. Select the **Save** button to commit any changes.

Attribute Mapping ···   ×

🖫 Save   ✕ Discard

Name
Provision Azure Active Directory Users

Enabled
[Yes | No]

Source Object
User

Source Object Scope
All records

Target Object
urn:ietf:params:scim:schemas:extension:enterprise:2.0:User

Target Object Actions
☑ Create
☑ Update
☑ Delete

Attribute Mappings
Attribute mappings define how attributes are synchronized between Microsoft Entra ID and Puzzel

Puzzel Attribute	Microsoft Entra ID Attribute	Matching precedence	Edit	Remove
userName	userPrincipalName	1	Edit	Delete
active	Not([IsSoftDeleted])		Edit	Delete
displayName	displayName		Edit	Delete
title	jobTitle		Edit	Delete
emails[type eq "work"].value	mail		Edit	Delete
preferredLanguage	preferredLanguage		Edit	Delete
name.givenName	givenName		Edit	Delete
name.familyName	surname		Edit	Delete
name.formatted	Join(" ", [givenName], [surname])		Edit	Delete
phoneNumbers[type eq "work"].value	telephoneNumber		Edit	Delete
phoneNumbers[type eq "mobile"].value	mobile		Edit	Delete
phoneNumbers[type eq "fax"].value	facsimileTelephoneNumber		Edit	Delete
externalId	objectId		Edit	Delete
roles	AppRoleAssignmentsComplex([appRoleAssignments])		Edit	Delete
urn:ietf:params:scim:schemas:extension:enterprise:2.0:User:department	department		Edit	Delete
urn:ietf:params:scim:schemas:extension:enterprise:2.0:User:division	employeeOrgData.division		Edit	Delete
urn:ietf:params:scim:schemas:extension:enterprise:2.0:User:employeeNumber	employeeId		Edit	Delete
urn:ietf:params:scim:schemas:extension:enterprise:2.0:User:organization	companyName		Edit	Delete
urn:ietf:params:scim:schemas:extension:enterprise:2.0:User:costCenter	employeeOrgData.costCenter		Edit	Delete
urn:ietf:params:scim:schemas:extension:enterprise:2.0:User:manager	manager		Edit	Delete

Add New Mapping
☐ Show advanced options

Note

Note that there is a "retry sync" option available in Puzzel ID under Organisation Settings → User Management (the setting **Enable auto provisioning users** must be active for these to appear). This requires a mapping to the Puzzel ID field "nickname" from some unused field in Entra ID to work.

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3. Under the **Mappings** section, select **Synchronize Microsoft Entra groups to Puzzel**.

4. Review the group attributes that are synchronized from Microsoft Entra ID to Puzzel in the **Attribute-Mapping** section. The attributes selected as **Matching** properties are used to match the groups in Puzzel for update operations. Select the **Save** button to commit any changes.

Attribute Mapping   ···   ✕

🖫 Save   ✕ Discard

Name

Provision Azure Active Directory Groups

Enabled

Yes   No

Source Object

Group

Source Object Scope

All records

Target Object

urn:ietf:params:scim:schemas:core:2.0:Group

Target Object Actions

☑ Create

☑ Update

☑ Delete

Attribute Mappings

Attribute mappings define how attributes are synchronized between Microsoft Entra ID and Puzzel

Puzzel Attribute	Microsoft Entra ID Attribute	Matching precedence	Edit	Remove
displayName	displayName	1	Edit	Delete
externalId	objectId		Edit	Delete
members	members		Edit	Delete

Add New Mapping

☐ Show advanced options

Testing the provisioning service 🔗

Before enabling the provisioning service it is recommended to do a few tests with select users or groups. This can be done using the "Provision on demand" feature.

1. Still in the "Provisioning" section of the Puzzel ID application, navigate to "Provision on demand":

Puzzel ID | Provision on demand   ···

ⓘ Learn More | 💬 Got feedback?

Provision on-demand for a subset of users or groups before rolling it out broadly to your organization. When provisioning a group you can select 5 members at a time.

ⓘ No user or group will be provisioned on-demand that would not have been provisioned through the regular provisioning cycles.

Select a user or group   🔍 Search for user or group by name, userPrincipalName or mail

Overview

Provision on demand

Manage

Provisioning

Users and groups

Expression builder

Monitor

Provisioning logs

Audit logs

Insights

Troubleshoot

New support request

2. In the field "Select a user or group" enter the name or email address for the user or group you wish to test the synchronization feature with.

3. Click "Provision" - You should now see a page showing if the provisioning operation was successful or not. If any error occured, there are error messages indicating the root cause.
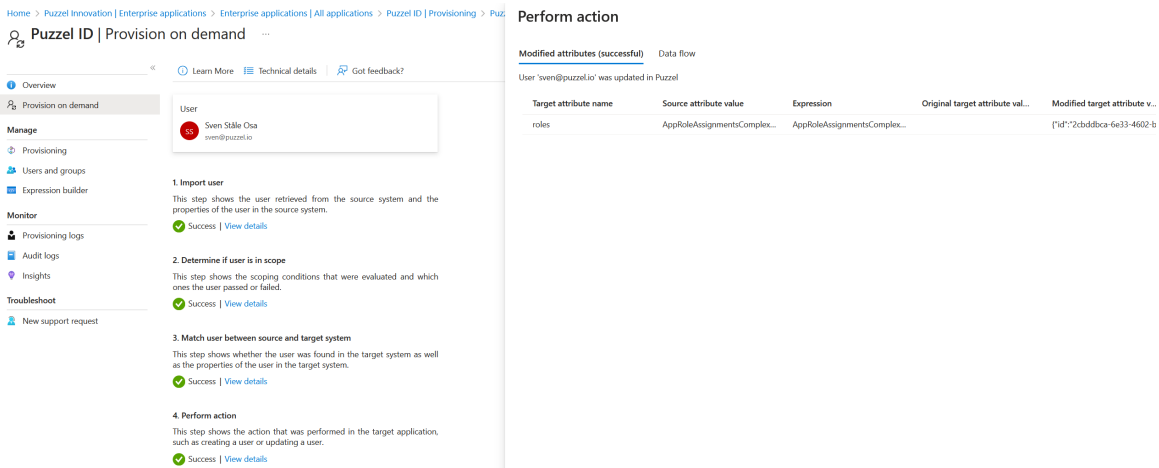
Enabling the provisioning service

When the testing using the "Provision on demand" has been completed, the provisioning services can be enabled to start the recurring syncrhonization of users / groups between Entra ID and Puzzel.

1. To enable the Microsoft Entra provisioning service for Puzzel, change the **Provisioning Status** to **On** in the **Settings** section.

2. Define the users that you would like to provision to Puzzel by choosing the desired values in **Scope** in the **Settings** section.
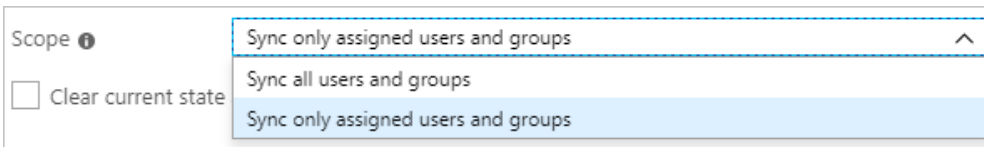
3. When you are ready to provision, click **Save**

Assigning users and groups to the Puzzel ID application

Typically you don't want all the users / groups in your Entra ID directory to have access to Puzzel. To control which users / groups get access, navigate to the "Users and groups" section of the Puzzel ID.

Puzzel ID | Users and
Enterprise Application

- **Overview**
- **Deployment Plan**
- **Diagnose and solve problems**
- ∨ **Manage**
  - **Properties**
  - **Owners**
  - **Roles and administrators**
  - **Users and groups**
  - **Single sign-on**
  - **Provisioning**
  - **Self-service**
  - **Custom security attributes**
- > **Security**

From here you can search for specific users and groups that will be applicable for the user / group provisioning.

A role must be asssigned to a selected user or group. In most cases it is recommended to just use the role "User" in this step. The rule engine will offer options to do more advanced provisioning of roles at a later stage in the process.

The available roles are:

Role	Description
User	Regular user, such as PCC, PCM, WFM, SI agent or admin
Admin	Customer administrator - has access to Organisation Settings and can authenticate applications such as Entra ID SSO or provisioning.
Partner	Partner user, only used for Puzzel partners to give access similar to admin, but includes possibility any registered partner customers

Select a role
Only a single role can be selected   ✕

▽ Enter role name to filter items...

Admin

Partner

User

Visitor

Troubleshooting

There are two tools that are very useful with regards to troubleshooting the synchronization between Entra ID and Puzzel:

- Provisioning logs in Entra ID

- Provisioning Event logs in Puzzel ID | Organisation Settings