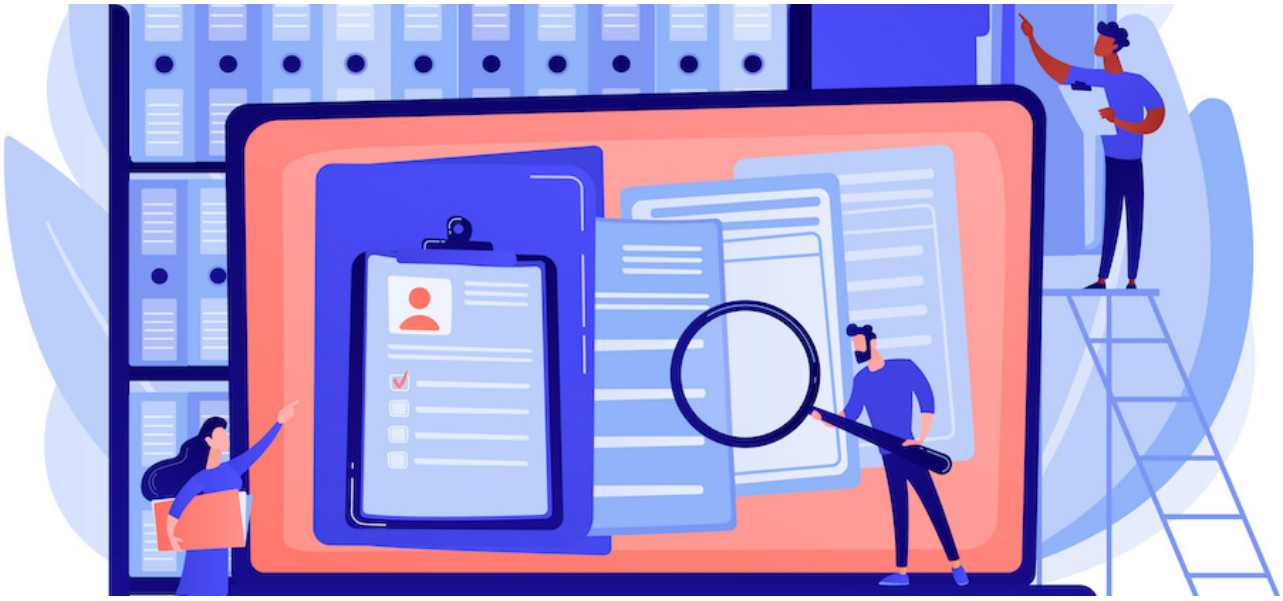
Link to article: https://discover.claromentis.com/knowledgebase/articles/943



Marketplace user directory sync - user guide

User Directory Sync User Guide

Key points

Our user directory sync module allows scheduled user attributes updates from three separate sources: Azure Active Directory, Okta Universal Directory and CSV file update from a predefined location.

This application mitigates security concerns of direct LDAP connection to your Active Directory servers and reduces complexity of SSO configuration.

- It can be registered as Azure or Okta app
- Allows User group sync
- Allows Org structure sync
- Provides a flexible user sync schedule
- Allows user provisioning and deprovisioning
- Works well with SSO

Important! The following user guide is written in a step-by-step format to help you configure your User Sync module. It is intended for setting up user directory sync from scratch and assumes that you do not have an existing user directory on your system. If you already have a directory configured on your intranet, please contact Claromentis support team for assistance with migrating your existing directory to work with the User Directory Sync application.

Currently, the User Sync module supports three user provisioning options: Okta, Azure AD and CSV.

Each option has its own section below that will cover the initial configuration and setup.

Setup

The very first step is to locate the User Directory Sync application via Applications > Admin > User Directory Sync icon

You will then be able to navigate to the "Configuration" tab in the User Sync module's admin panel and check the box next to the type of user provisioning that you wish to configure and press "Save". Once you have done so, a new tab will appear in the admin panel of the User Sync module to allow you to continue the configuration. Henceforth, we will refer to this new tab as the "Provider Tab".

The new tab that appears is intended to resemble the LDAP configuration tab in the core system's Sytem Administration panel. So, if you have used that page before, the configuration tabs in the User Sync module should seem familiar.

Option: Azure AD

In order to connect to Azure AD, you need to:

1. Register an App

2. Generate a Secret

3. Grant the appropriate rights

1.0 Register an App

1. Navigate to https://portal.azure.com and sign in.

2. Navigate to the "All Services" page and select "App Registrations" from the "Manage" menu on the left hand side of the screen.

3. At the top of the page, select the "+ New Registration" option.

4. Choose a name that will make the integration identifiable, such as "Claromentis User Sync".

5. Select the account types that you wish to provide access to. For help on which option should be selected, you can find more information by selecting "Help me choose...".

6. Leave the redirect URI blank and click "Register".

7. At this point, you can view the registered application to retrieve the following fields and populate them in the User Sync Provider Tab:

- Application (Client) ID

- Directory (Tenant) ID

2.0 Generate a Client Secret

1. Navigate to "App Registrations" in Azure and select your Claromentis app according to the display name that you've chosen.

2. Select "Certificates & Secrets" under the "Manage" rubric on the left-hand side of the screen.

3. Click "+ New client secret".

4. Select an appropriate expiry for the secret. Remember to renew the secret if you set an expiry regime.

5. Click "Add".

6. The secret should now appear under the "Client secrets" section of the Application Registration overview. Copy the "Value" code from your newly created secret and navigate to the User Sync module's administration section of your Claromentis installation. Add this to the "Client Secret" input of the Azure Provider Tab.

7. **Important:** Click “Save” button at the bottom of the config page of Claromentis User Directory Sync application.

3.0 Grant the appropriate rights

Once you have created a new App Registration for Claromentis, you will need to provide it with the appropriate rights that the User Sync module needs in order to view Users and Groups within Azure AD.

1. Navigate to your Claromentis app registration within the "App Registrations" section of Azure.

2. Select "API Permissions" under the "Manage" menu on the left-hand side of the screen.

3. Select "Add a permission". This will open a new dialogue on the right-hand side of the screen.

4. In the right-hand "Select an API" dialogue, click "Microsoft Graph".

5. Select "Application permissions" in the "What type of permissions does your application require?" dialogue.

6. In the resulting dialogue, search for `Group.Read.All`, `GroupMember.Read.All`, `Member.Read.Hidden`, `People.Read.All`, `User.Export.All`, `User.Read` and `User.Read.All` and check their respective checkboxes to indicate that these permissions should be granted.

7. Click "Add permissions".

At this point, you should have everything you need. Please see the "Testing" section here for more info on checking if the connection is working. Please additionally note that we found Azure can take up to 10 minutes to start accepting the credentials programmatically provided by Claromentis. So, if it isn't working straight away, please give it some time.

Option: Okta

In order to register with Okta, you will need to:

1. Register an Application.

2. Generate an API Token.

3. Grant the appropriate scopes to the Registered Application.

4. Manage Assignments.

1.0 Register an Application

1. Log in to your Okta Dashboard.

2. Select the "Applications" dropdown from the left-hand pane and select the "Applications" tab within it.

3. In the main page, select "Create App Integration". A popup will appear, showing the "Create a new app integration" dialogue.

4. In the "Create a new app integration" dialogue, select "API Services". This will take you to the "New API Services App Integration" dialogue.

5. In the "New API Services App Integration" dialogue, give your integration a name that will allow you to identify it easily in the future. For example, "Claromentis User Sync". Add your chosen name to the "App integration name" input and click "Save".

6. You should now see a management page for your new App Integration. Within this page you can Retrieve the "Client ID" and a Client Secret (which should have been auto-generated for you) and place them in the Okta Provider Tab of the User Sync module admin panel in Claromentis.

7. Populate your Okta Domain in the Claromentis User Sync module's Okta Provider Tab. This is simply the domain name of your Okta hosting. Your Okta Domain will look something like:

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example.oktapreview.com

example.okta.com

example.okta-emea.com

For more information about your domain, please see the Okta Documentation: https://developer.okta.com/docs/guides/find-your-domain/main/

2.0 Generate an API Token

1. Please review information about Okta API Tokens in the Okta Documentation https://help.okta.com/oie/en-us/Content/Topics/Security/API.htm

2. Log in to Okta as a service user.

3. Open the "Security" dropdown on the left-hand side of the page.

4. Select the "API" Tab at the bottom of the dropdown list.

5. Click on the "Tokens" tab within the main page.

6. Click "Create Token" and then choose a name for your token to identify it.

7. You should now see a pop-up saying that your token was created successfully. At this point, you can copy the "Token Value" and update the Okta Provider Tab in the User Sync Admin panel in your Claromentis intranet. Please do this immediately - you will not be able to review the Token Value after you close the Okta popup.

8. **Important:** Click “Save” button at the bottom of the config page of Claromentis User Directory Sync application.

Important notes:

- The user who generated this token must remain active or the token will be revoked and the User Sync will fail.

- If you disable the Okta User Sync in the Claromentis system for more than 30 days, the token will expire due to lack of use.

3.0 Grant Appropriate Scopes

The Claromentis User Sync module requires read access to your Users and Groups in order to function. This section outlines how to provide access to these scopes within Okta.

1. Within Okta, navigate to the Applications directory and open your Claromentis Application Registration.

2. Click on the "Okta API Scopes" tab, just below your Application's name.

3. Select the "Not Granted" filter beneath the "Consent" heading.

4. Find `okta.groups.read` and `okta.users.read` and click the corresponding "Grant" buttons next to each of them. You may see a popup requesting confirmation to provide access.

5. By selecting the "Granted" filter under the "Consent" heading, you should now see the two scopes (`okta.groups.read` and `okta.users.read`) shown in the resulting list.

4.0 Manage Assignments

Now that your connection to Claromentis is registered, you'll need to assign this app to Groups within Okta

1. Within Okta, Navigate to "Groups" and assign the registered Application to the appropriate groups.

2. These Groups will now appear as options in the User Sync admin panel. Select those groups whose users you wish to sync into the system.

Note: No users will sync if you do not select a group in the Provider tab of the User Sync module.

Option: CSV

The CSV sync option supports two methodologies for getting your CSV into Claromentis; "Remote CSV File" and "Intranet DMS".

User data can be provisioned from CSV files either stored in the Intranet's Document Management System (DMS) or fetched from a remote location via

https request (username and password protected).

1. Go to `https://your.domain/cus/usersync/admin/csv` and under `CSV Location` choose the csv source (remote or dms). Make sure that the document can be accessed before proceeding. Once the csv file can be accessed, save the settings and populate the other settings following the instructions on the page.

2. Some important settings to consider are:

- `User match field` - Column in the csv to be used for the `username` field in Claromentis. This column must also exist as a field in the Claromentis user metadata. The default value is set to `username`.
- `Manager field` - The Claromentis user metadata field where the username of the user's manager will be synched to.
- `Password` - If the users provided in the CSV don't have a password or if it's empty, This password value will be used for each user. If also, the default password is not set, the users can't be synced because each user should have a password.
- `Column x Field Match` - If there are columns in the csv that don't match exactly the user field or metadata in Claromentis then this feature can be used. For example, if in the csv the column containing emails is called `email` it won't match the Claromentis user field `emailad` so it needs to be matched correctly.

Testing

All the Provider Tabs have a "Test Connection" button that will show a green or a red light to indicate whether the details that you have entered allow a successful connection to your chosen user provisioning service.

Please ensure that you have set status to “Enabled” and saved all your settings before running your first user sync.

You can run a fresh sync manually from the People module's admin area under the `synchronize/Update users from user directory` tab. Here you can "Reset" the last run time of your chosen directory. This will cause a background task that runs every 1-2 minutes to trigger a new sync of your chosen directory.

You can also visit the audit logs in the Audit admin application to troubleshoot more about specific actions, syncs and users by selecting the "UserSync" category.

Directory Settings

All the Provider Tabs have a "Directory Settings" tab which allows you to configure the frequency of your User Sync and also select which groups of users should be synced from your user provisioning system.

- Select those groups whose users you wish to sync into the system.
- We recommend that you select a test group with a small number of users to test the sync before selecting the group intended for production.

Note: No users will sync if you do not select a group in the Provider tab of the User Sync module.

You will also see an auto generated "Directory Key". This is not a field that you need to worry about and will be auto populated by Claromentis when you save the Provider Tab. It is just an internal reference to your Provider configuration.

Data Mapping

All the Provider Tabs also provide a section named "Claromentis Metadata" which allow you to map fields from your user provisioning provider to Claromentis User Metadata fields.

User Groups

All the Provider Tabs also allow you to sync groups into your Claromentis intranet from your provisioning provider. You can limit the groups that should be synced by a regular expression so that, for example, only groups prefixed with "Intranet" will be synced in. Alternatively, you can sync all groups or disable the group sync altogether.

Troubleshooting

Basic requirements. Users must have a Username, First Name, Last Name and Email address in order for the Claromentis system to create them during the sync. If one user in particular is not syncing correctly, this is a good thing to check in your directory provider.

Limitation. The user sync performs well when syncing up to 1000 users from Azure and Okta directories. Performance is reduced when syncing over 2000 users.

System config. Typically, when syncing over 1000 users, you may find that the system times out before completing the sync. If this happens, please contact the Claromentis support team to configure the system timeout settings.

Existing user directory. If you already have a directory configured on your intranet, please contact Claromentis support team for assistance with migrating your existing directory to work with the User Directory Sync application. Configuring the sync prior to migration may result in duplicate users.

Audit logs. You can check the results of the sync by reviewing the logs via Admin > Audit > View Logs and then filtering for "System", "Users" categories. Here is a typical log file.

In this case you can solve the Local account issue by contacting Claromentis team to migrate the directory from existing to the new one. Or if this applies to only a few users, you can manually update them by going to Admin > People > select the user and change their directory from Local to Azure

Missing email in the Azure user's profile. In order to create an account in Intranet, the user must have a valid email address field. Therefore, once you have updated the Azure profile with the email address, the user will be synced with the intranet.

FAQ

1. We already created users locally on Intranet. When we do the first user sync, existing users will get updated and not deleted/recreated if the username field is the same, correct?
Yes, that is correct, but only when we configured all existing users with the Okta/Azure directory. Currently, all your users are considered to be local, as far as the Intranet is concerned. So, after setting up your user directory on Intranet, you should disable the scheduled sync and let us know via a change request, so that we can ensure that all users have been switched from local to Okta/Azure directory.
If you run a sync before this switchover, only new users will be added to Intranet and existing users would not be updated.

2. Will implementing this sync impact anything else within our intranet site or is it just the People section?
Yes, but you must be aware of the licence limit. If your Okta/Azure group, which contains all users to be synced with the Intranet has more users than the licensed number of users on Intranet, then the sync will stop.

3. If a user is in the People section but no longer with the firm (not in Okta/Azure) and we sync, will it get removed?
As long as the user is configured as Okta/Azure directory user in the intranet, then once it is deleted from Okta/Azure, it will get disabled in People (Intranet). Disabled users do not count towards licence. Disabled users do not appear anywhere else in the Intranet and have no permissions or access to it. You can then filter out disabled users in Admin > People and delete them permanently, if required.

4. If a user is accidentally removed, can you restore the object easily?
If you remove it from Okta/Azure, then user gets disabled in Intranet - see above. If you disable a user in Intranet, whilst it is still active in Okta/Azure, then it will come back as active in the next sync with Okta/Azure, or you can just re-enable it in Intranet. If you delete a user in Intranet, but it is still active in Okta, then the user will be recreated in Intranet after the next sync, but all references to the user's previous activities would be deleted. You may need to manually restore permissions for that user. It is possible to restore from backup, but we would restore the whole system, not just a single user.

5. We already set up Claromentis app in Okta for SSO. Do we need to create another one for User Sync?

Yes, you will need to create a separate app for user sync. The reason is because the SSO (Login Handler) uses SAML methods for it to work and User Sync requires API Services, which is a different app. Okta does not allow two methods / services to be included in a single app. This is different for Azure because it allows multiple services to be included in a single app.

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