Connect to Dynamics CRM

Automaton uses an Application User to run checks against your Microsoft Dynamics CRM instance. In order to make the connection, you will need the following pieces of information:

- Your Dynamics Instance URL
- The Application (Client) ID of an associated Azure App Registration
- And a valid Client Secret for the Azure App Registration

At a high level, this article will walk through:

- Finding your Instance URL
- Creating an App Registration in Azure with the right permissions,
- Creating an API User role in Dynamics, if necessary,
- Creating an Application User in Dynamics with the right permissions, tied to the Azure App Registration.

Note: Automaton securely encrypts all of your connections' credentials.

Find your Instance URL

In order to communicate with your Dynamics instance, Automaton needs to know where it is! Finding your instance URL is simple.

Log in to Dynamics and navigate to your Sales Hub homepage. Copy the contents of your address bar until the first slash, e.g. https://yourdomain.crm.dynamics.com

Paste this into the Resource URL field on the Automaton Connection modal. Note: you must include the https:// from the URL.

Create an Azure App Registration
Instead of using a username and password, Automaton communicates with Microsoft Dynamics using application client credentials tied to an Azure App Registration.

To create an App Registration, log in to your Azure Portal and navigate to the App Registrations blade by searching for App Registrations in the search bar.

1. Click the New Registration button.
2. Enter a clear name like Automaton App User into the Name field,
3. Select Accounts in this organization directory only option under Supported account types (this should be the default option)
4. Ignore the optional Redirect URI field.
5. Click the Register button.

You will be directed to the overview page for your newly created App Registration.

Copy the Application (client) ID value (it should be a random string of letters and numbers) and paste it into the Client Id field in the Automaton connection modal.
1. From the App Registration overview page in Azure, click the API Permissions tab in the left-hand menu.
2. Click the Add a Permission button and select the Dynamics CRM tile in the overlay.
3. On the next page of the overlay, check the user_impersonation permission and click Add permissions at the bottom of the pane.

1. Finally, click the Certificates and Secrets tab in the left-hand menu.
2. Click the New Client Secret button
3. Enter a clear name like Automaton App User Client Secret as the Description in the resulting modal.
4. Set the Expiration to Never and click the Add button.
5. You will see your newly created Client Secret. Copy the value to your clipboard (this will never be shown to you by Azure again).

Back in the Automaton connection modal, paste the Client Secret you copied about into the Client Secret field.
Phew! You're done creating an Azure App Registration, but you're not 100% done yet. Next, you need to configure Dynamics to use this App Registration. Read on below.

Create an API User Role

The role we create in this section will be applied to the Application User we create in the next section, granting it permissions that Automaton needs to communicate with your Dynamics instance.

If you already have a user role set up in Dynamics for API users and other systems integrations, you can skip this section. Otherwise, keep reading.

1. Back in the Dynamics CRM UI, navigate to the Settings page by clicking the gear icon next to your user avatar, and clicking the Advanced Settings icon in the dropdown.
2. From the Settings page, click the downward arrow next to the Settings menu item in the main menu, then click Security under the System section of the resulting sub-menu.
3. Find and navigate to the Security Roles page.
4. Find the System Administrator role and select / check it
5. Toward the top of the page, click More Actions -> Copy Role
Set the **new role name** to **API User** and click **OK**.

### Create an Application User

In this section, you'll create an Application User in your Dynamics Instance that Automaton will use to make API calls.

This Application User will get the security role you created above (or had created in the past), and be associated with the Azure App Registration you created at the beginning of this tutorial.

1. In the Dynamics CRM UI, navigate to the **Settings** page by clicking the **gear icon** next to your user avatar, and clicking the **Advanced Settings** icon in the dropdown.
2. From the **Settings** page, click the downward arrow next to the **Settings** menu item in the main menu, then click **Security** under the **System** section of the resulting sub-menu.
3. Find and navigate to the **Users** page.
4. Change the view from the default to **Application Users** and click **New**
1. On the Application User creation page, enter a clear **Full Name** and **Primary Email Address** toward the bottom (e.g. automaton-app-user@yourdomain.com). This will auto-populate the **User Name** field above.

2. In the **Application ID** field, enter the **Application (Client) ID** that you copied and entered above. This will auto-populate the **Application ID URI** and **Azure AD Object ID** fields.

3. Click **Save** toward the top of the page.

Finally, apply the **API User** role you created earlier by...

1. Navigating to the new Application User’s overview page
2. Clicking the **Manage Roles** button toward the top of the page
3. And applying the **API User** role to the user.