Record APIs - Getting Started

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ReadiNow allows you to integrate your tenant data with other systems. You can query and update data from outside the platform by exposing your data through Record APIs.

In this article:

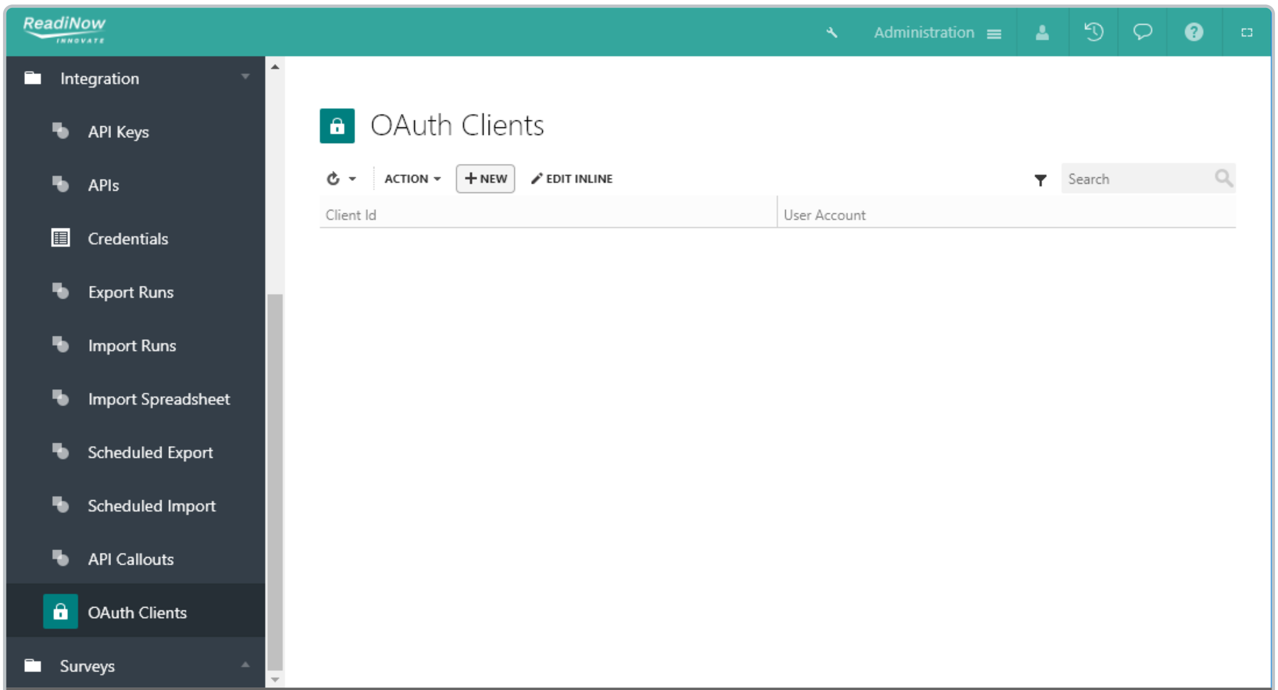
Authentication

The platform's APIs use OAuth 2.0 authentication with the Client Credentials Grant Flow, which generates a token from a client identifier and a shared secret.

Client and Secret Configuration

To obtain an access token for the platform's APIs, it is necessary to create a Client Identifier and a Shared Secret. Each Client Id is linked to a user account, and access tokens issued against this client Id will cause API operations to be performed in the context of this user account. It is security best practice that a new account is created for each integration, as well as a new OAuth Client definition; in this way it is easy to identify the origin of requests and disable one integration without affecting others.

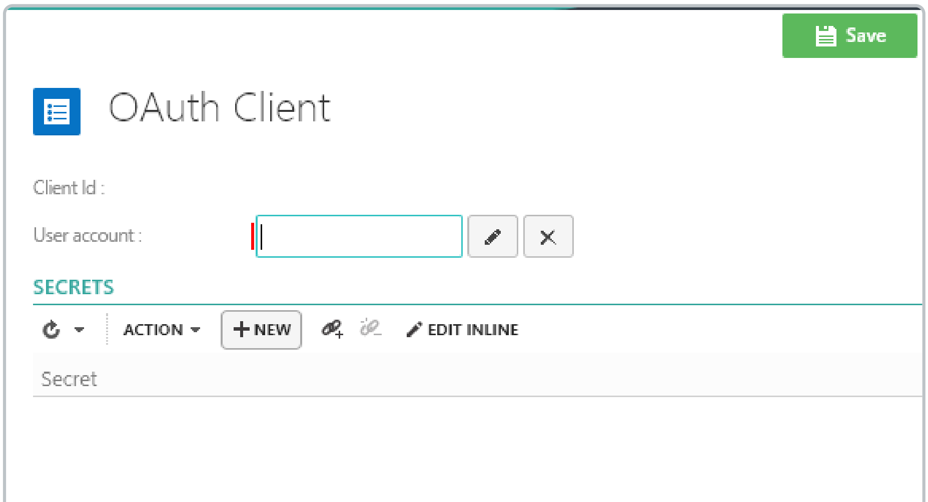
This configuration is done in **Administration** > **Integration** > **OAuth Clients**.



New OAuth Clients configuration in Integration

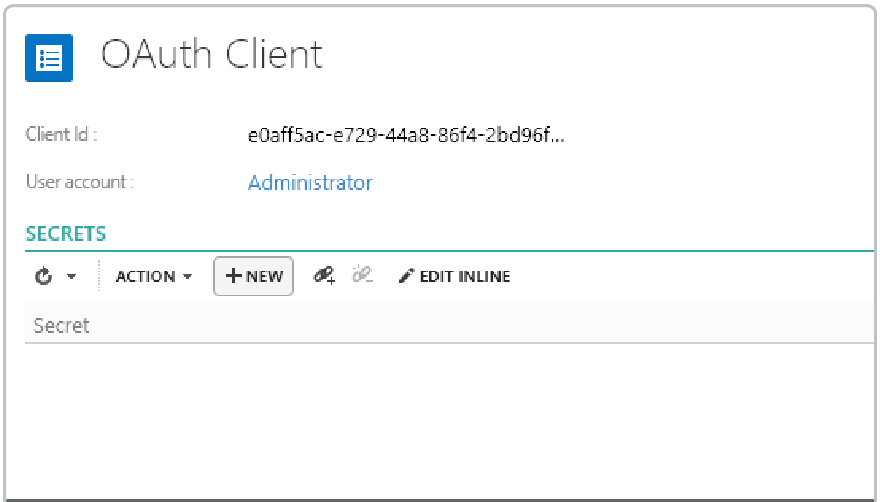
Step 1: Creating a new client

Select +NEW and the following dialogue appears, where the associated user account must be selected.



Select the associated *User account* and save

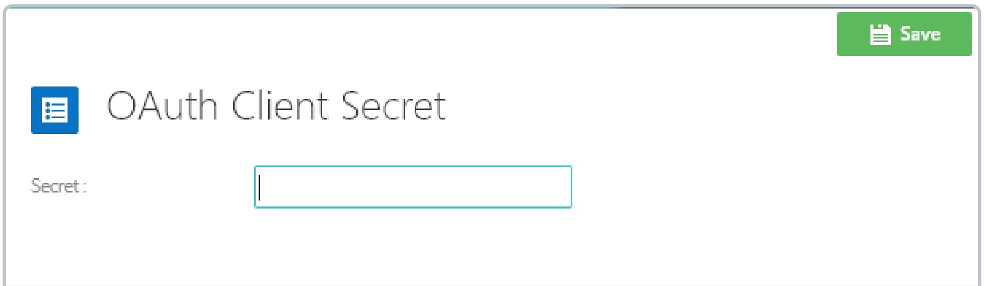
Once the user account is selected, select **Save** and the *Client Id* will be automatically generated and populated on the form.



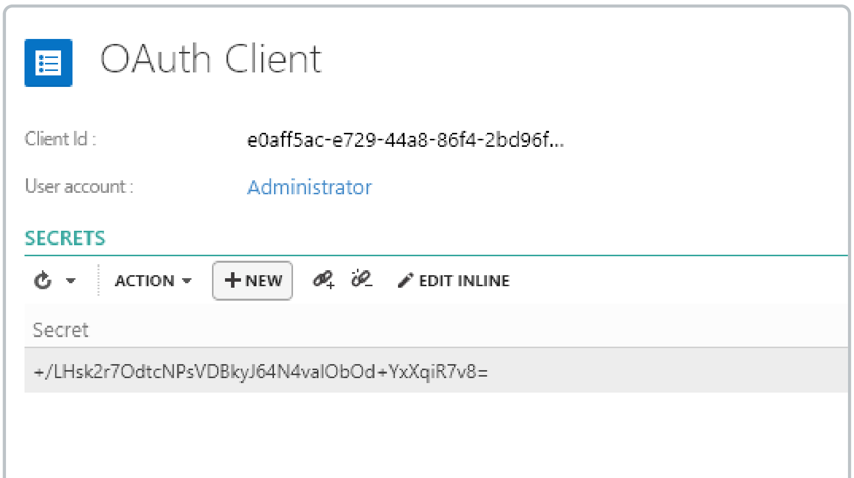
The automatically-generated *Client Id*

Step 2: Creating a new secret

After the *Client Id* has been created, select **+NEW** under **SECRETS**; in the dialogue that appears simply select **Save** and a secret will be automatically generated. Secrets do not expire.



Creating a new secret



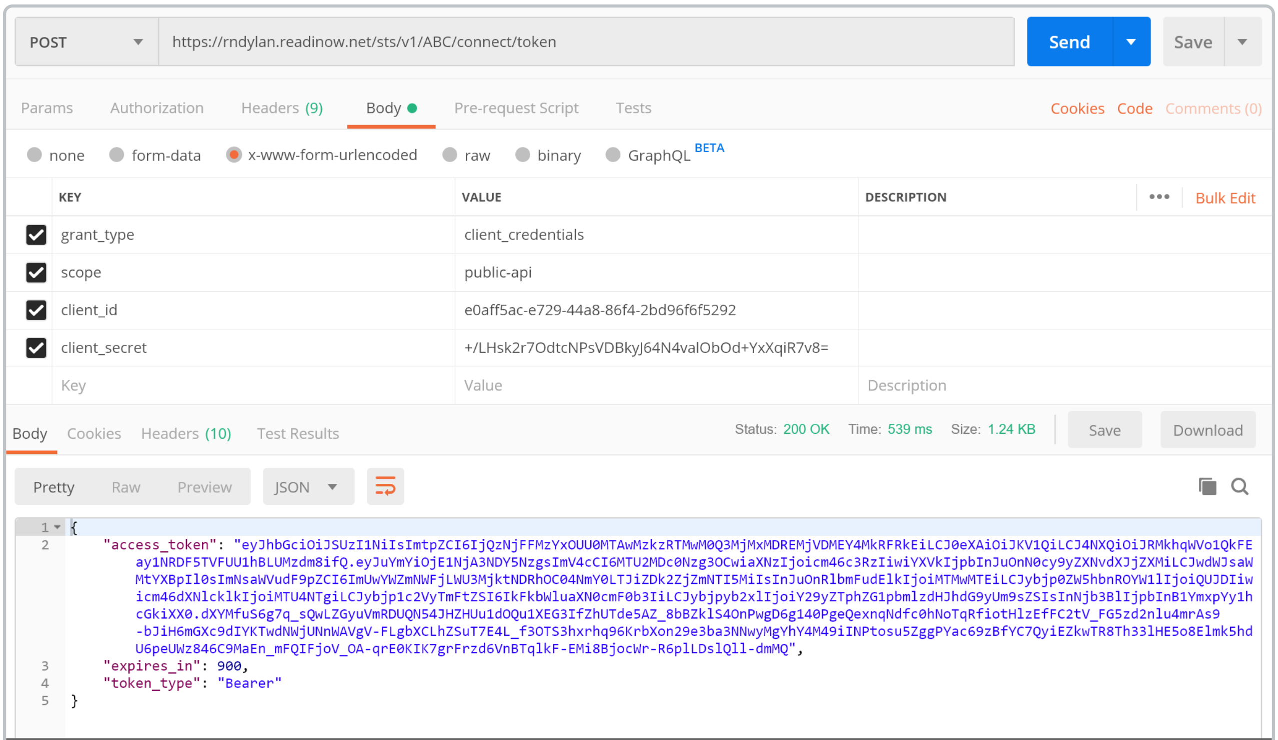
An automatically-generated secret

Requesting an Access Token

The Client Id and Client Secret can be used to generate a token; this step will usually be done in the calling software, but for clarity a tool such as Postman can be used, as shown below.

A POST method call to the token service will respond with the access token and validity period if successful, and an error message if unsuccessful.

The *client_id*, *client_secret*, *scope* and *grant_type* must be sent in the body of the POST using the "x-www-form-urlencoded" content-type. The URL for the token service is https://{domain}.readinow.com/sts/v1/{tenant}/connect/token , replacing "domain" and "tenant" as appropriate.



An example token response

Paste the Client Id and secret values from the previous steps, then request a token and copy the generated token.

Record Types

See the article on Record Types for information about how *Objects* and their *Fields / Relationships* are represented in Record APIs, as well as the difference between Preview and Published APIs.

Enabling Record APIs

Once you have created an OAuth Client, you can go to **Administration** > **Integration > Record APIs**, and you will be shown a list of *Record Types* (*Objects*) for which record APIs can be enabled.

To enable preview APIs for a record type, click the **Enabled** radio button for that record type.

You can also use the **Application** drop-down to filter the displayed record types by the *Application* (*Solution*) that defines them. Once you have selected an *Application*, you can also choose to enable Record APIs for all *Record Types* assigned to that Application by clicking the **Enable Application** button.

Once you have enabled record APIs, you can click on the name of the *Record Type* to view its details.

From this page, you can enable, disable, modify, and publish the APIs for this *Record Type*. You can also view documentation for your *Record Type*'s available APIs.

Note - if your *Object* is not attached to a *Solution*, then it will not appear as a *Record Type* on the Record APIs page.

You can select the application that an *Object* is attached to via its properties window in the form builder:

Publishing Record APIs

When you are satisfied that your API is stable (i.e. is not likely to change) then you can publish it. It will then become available for use at a well-known URL which will not change unless you re-publish the API. Any changes made to the *Preview* API (i.e. the API form) after the API has been *Published* will not be reflected in the *Published* API until you publish it again.

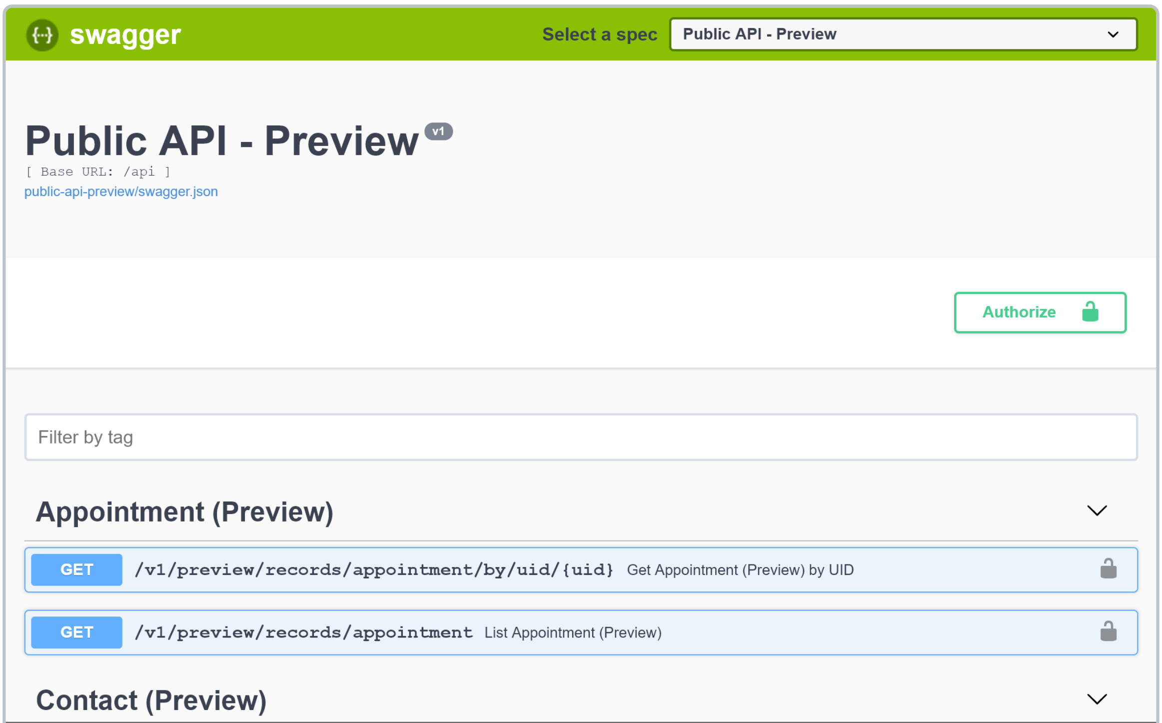
Each time APIs are published for a *Record Type*, its *Revision Number* is incremented (so its path changes from "records/my-record-type/r1" to "records/my-record-type/r2", etc).

Sandbox (Swagger) Interface

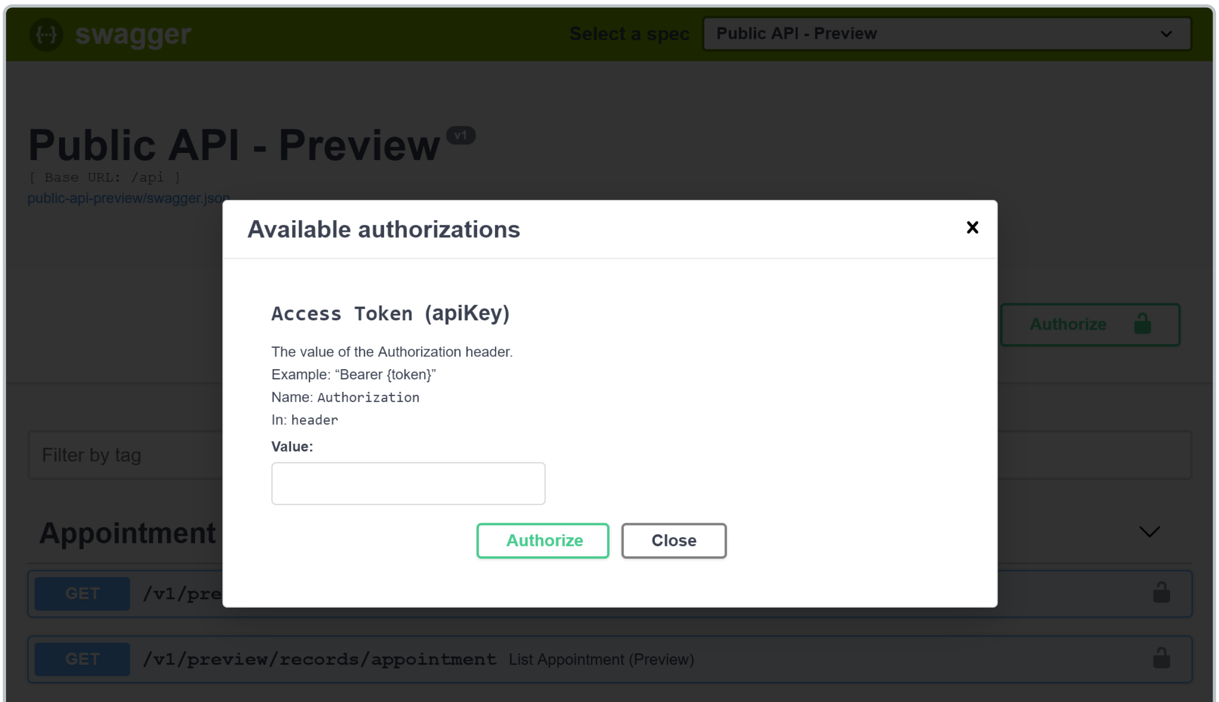
A sandbox (Swagger UI) is available for the platform's public APIs. This UI provides documentation for each API and its operations, as well as a facility for invoking those operations.

Open a web browser and navigate to https://{domain}.readinow.com/api/swagger/{tenant}/index.html replacing "domain" and "tenant" with the appropriate values.

From the **Select a spec** drop-down, you can choose to view the documentation for either your Preview or your Published APIs.

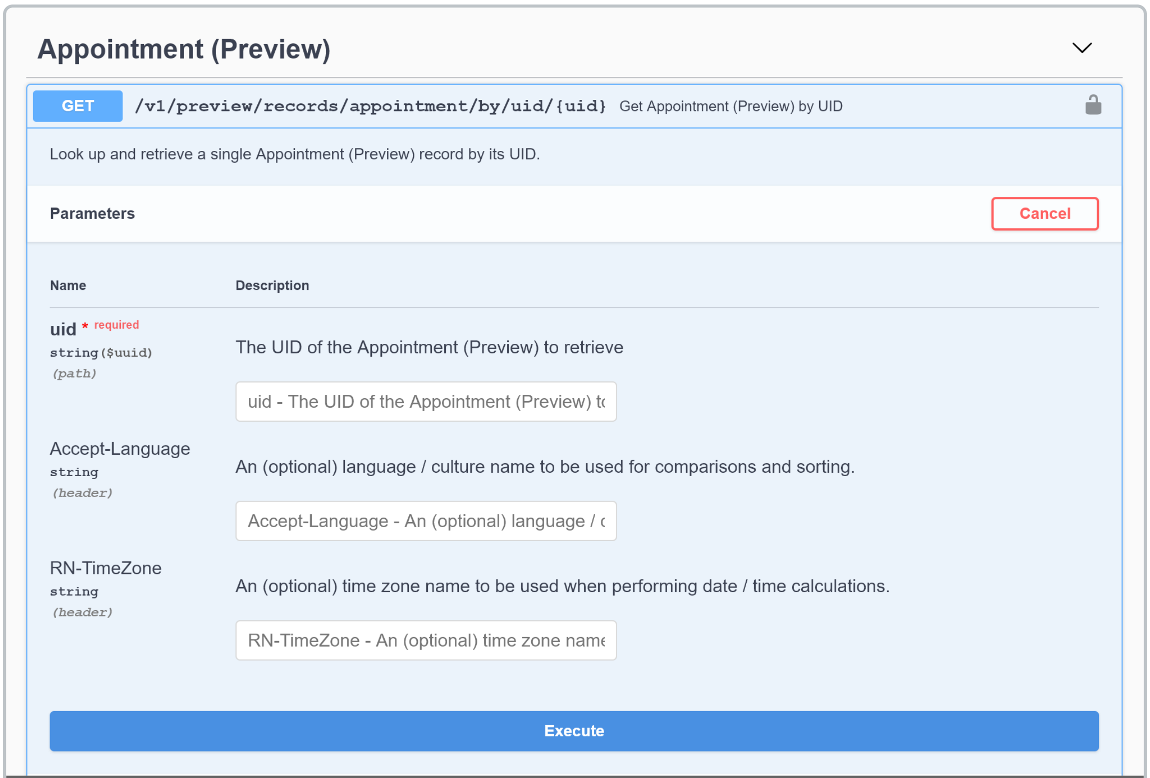


Swagger interface



Click the *Authorize* button to enter the token (remember to first add "Bearer ")

With a valid token it is possible to execute any of the API methods directly in the Swagger interface; where parameters are required these can be entered in the Swagger interface.



Example of executing a method using the *Try it out* button