

# ConnectWise CRM REST Authenticate a Connector Instance

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You can authenticate with ConnectWise to create your own instance of the ConnectWise CRM REST connector through the UI or through APIs. Once authenticated, you can use the connector instance to access the different functionality offered by the ConnectWise platform.

## Authenticate Through the UI

Use the UI to authenticate with ConnectWise and create a connector instance as described in [Authenticate a Connector Instance \(UI\)](#). In addition to the base authentication parameters, you will need the connectwise server URL, company, public key, private key and the `connectwise.clientID` as mandatory fields to provision an instance.

After successfully authenticating, we give you several options for next steps. [Make requests using the API docs](#) associated with the instance, [map the instance to a common resource](#), or [use it in a formula template](#).

## Authenticate Through API

Authenticating through API is similar to authenticating via the UI. Instead of clicking and typing through a series of buttons, text boxes, and menus, you will instead send a request to our `/instances` endpoint. The end result is the same, though: an authenticated connector instance with a `token` and `id`.

To authenticate a connector instance:

1. Construct a JSON body as shown below (see [Parameters](#)):

```
{
  "element": {
    "key": "connectwisecrmrest"
  },
  "configuration": {
    "baseUrl": "https://api-/v4_6_release/apis/3.0",
    "company": "cloudelements",
    "public.key": "xxxxxxxxxxxxxxxx",
    "private.key": "xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx",
    "connectwise.clientID": ""
  },
  "tags": [
    "Docs"
  ],
  "name": "ConnectWise_Instance"
}
```

2. Call the following, including the JSON body you constructed in the previous step:

```
POST /instances
```

**Note:** Make sure that you include the User and Organization keys in the header. For more information, see [Authorization Headers, Organization Secret, and User Secret](#).

3. Locate the `token` and `id` in the response and save them for all future requests using the connector instance.

## Example cURL

```

curl -X POST \
  https://api.openconnectors.us2.ext.hana.ondemand.com/elements/api-v2/instances \
  -H 'Authorization: User , Organization ' \
  -H 'content-type: application/json' \
  -d '{
  "element": {
    "key": "connectwisecrmrest"
  },
  "configuration": {
    "baseUrl": "https://api-",
    "company": "cloudelements",
    "public.key": "xxxxxxxxxxxxxxxxxxxx",
    "private.key": "xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx",
    "connectwise.clientID": ""
  },
  "tags": [
    "Docs"
  ],
  "name": "ConnectWise_Instance"
}'

```

## Parameters

API parameters not shown in SAP Cloud Platform Open Connectors are in

`code formatting`.

**Note:** Event related parameters are described in [Events](#).

Heading	Heading	Data Type
'key'	The connector key. <code>connectwisecrmrest</code>	string
Name <code>name</code>	The name for the connector instance created during authentication.	Body
Connectwise URL	The url of your ConnectWise site with <code>api-</code> appended. Be sure to add your url only to the siteURL section of the entire URL, so the entire value looks like: <code>https://v4_6_release/apis/3.0</code> . Where <code>_</code> is one of the following:	string

<code>baseUrl</code> <b>Heading</b>	<ul style="list-style-type: none"> <li><code>api-eu.myconnectwise.net</code></li> <li><code>api-au.myconnectwise.net</code></li> </ul>	<b>Data Type</b>
	<ul style="list-style-type: none"> <li><code>api-na.myconnectwise.net</code></li> <li><code>api-staging.connectwisedev.com</code></li> </ul>	
<b>Company</b> <code>company</code>	The company name that you use to log in.	string
<b>Public Key</b> <code>connectwise.clientID</code>	The Connectwise Client ID from ConnectWise. See <a href="#">API Provider Setup</a> .	
<b>Public Key</b> <code>public.key</code>	The Public Key from ConnectWise. See <a href="#">API Provider Setup</a> .	string
<b>Private Key</b> <code>private.key</code>	The Private Key from ConnectWise. See <a href="#">API Provider Setup</a> .	string
<b>Filter null values from the response</b> <code>filter.response.nulls</code>	<i>Optional.</i> Determines if null values in the response JSON should be filtered from the response. Yes or <code>true</code> indicates that SAP Cloud Platform Open Connectors will filter null values. Default: <code>true</code>	boolean

## Example Response for an Authenticated Connector Instance

In this example, the instance ID is `12345` and the instance token starts with "ABC/D...". The actual values returned to you will be unique: make sure you save them for future requests to this new instance.

```
{
  "id": 123456,
  "name": "",
  "createdDate": "2019-09-23T19:15:00Z",
  "token": "",
  "elementId": 1234,
  "tags": [],
  "provisionInteractions": [],
  "valid": true,
  "disabled": false,
  "maxCacheSize": 0,
  "cacheTimeToLive": 0,
  "configuration": {
    "base.url": "{baseUrl}",
    "bulk.add_metadata": null,
    "event.notification.subscription.id": null,
    "event.notification.subscription.token": ""
  }
}
```

```
"event.notification.basic.username": "",
"private.key": "*****",
"event.vendor.type": "polling",
"filter.response.nulls": "true",
"bulk.query.date_mask": "yyyy-MM-dd'T'HH:mm:ss'Z'",
"bulk.attribute.created_time": "_info.lastUpdated",
"pagination.type": "page",
"bulk.relations": null,
"bulk_upload_recover": "true",
"company": "xxxxxxxx",
"event.notification.enabled": "false",
"allow.select.fields": "false",
"default.select.fields.map": null,
"webhookId": "",
"bulk.query.field_name": "lastUpdated",
"pagination.max": "200",
"public.key": "xxxxxxxx",
"event.notification.basic.password": "*****",
"bulk.query.operator": ">=",
"connectwise.clientid": "xxxxxxxxxxxxxxxxxxxxxxxx",
"baseUrl": "",
"bulk.query.download_format": "JSON",
"event.poller.refresh_interval": "15",
"event.notification.callback.url": "false",
"authentication.time": "",
"event.poller.configuration": "{ \"contacts\": { \"url\": \"/hubs/crm/contacts?where=lastUpdated>'${gmtDate:yyyy-MM-dd'T'HH:mm:ss'Z'}'\", \"idField\": \"id\", \"datesConfiguration\": { \"updatedDateField\": \"_info.lastUpdated\", \"updatedDateFormat\": \"yyyy-MM-dd'T'HH:mm:ss'Z'\", \"updatedDateTimezone\": \"GMT\", \"createdDateField\": \"_info.lastUpdated\", \"createdDateFormat\": \"yyyy-MM-dd'T'HH:mm:ss'Z'\", \"createdDateTimezone\": \"GMT\" } }, \"incidents\": { \"url\": \"/hubs/crm/incidents?where=lastUpdated>'${gmtDate:yyyy-MM-dd'T'HH:mm:ss'Z'}'\", \"idField\": \"id\", \"datesConfiguration\": { \"updatedDateField\": \"_info.lastUpdated\", \"updatedDateFormat\": \"yyyy-MM-dd'T'HH:mm:ss'Z'\", \"updatedDateTimezone\": \"GMT\", \"createdDateField\": \"dateEntered\", \"createdDateFormat\": \"yyyy-MM-dd'T'HH:mm:ss'Z'\", \"createdDateTimezone\": \"GMT\" } }, \"organizations\": { \"url\": \"/hubs/crm/organizations?where=lastUpdated>'${gmtDate:yyyy-MM-dd'T'HH:mm:ss'Z'}'\", \"idField\": \"id\", \"datesConfiguration\": { \"updatedDateField\": \"_info.lastUpdated\", \"updatedDateFormat\": \"yyyy-MM-dd'T'HH:mm:ss'Z'\", \"updatedDateTimezone\": \"GMT\", \"createdDateField\": \"_info.lastUpdated\", \"createdDateFormat\": \"yyyy-MM-dd'T'HH:mm:ss'Z'\", \"createdDateTimezone\": \"GMT\" } }, \"configurations\": { \"url\": \"/hubs/crm/configurations?where=lastUpdated>'${gmtDate:yyyy-MM-dd'T'HH:mm:ss'Z'}'\", \"idField\": \"\", \"datesConfiguration\": { \"updatedDateField\": \"_info.lastUpdated\", \"updatedDateFormat\": \"yyyy-MM-dd'T'HH:mm:ss'Z'\", \"updatedDateTimezone\": \"GMT\", \"createdDateField\": \"_info.lastUpdated\", \"createdDateFormat\": \"yyyy-MM-dd'T'HH:mm:ss'Z'\", \"createdDateTimezone\": \"GMT\" } }, \"opportunities\": { \"url\": \"/hubs/crm/opportunities?where=lastUpdated>'${gmtDate:yyyy-MM-dd'T'HH:mm:ss'Z'}'\", \"idField\": \"id\", \"datesConfiguration\": { \"updatedDateField\": \"_info.lastUpdated\", \"updatedDateFormat\": \"yyyy-MM-dd
```

```
'T'HH:mm:ss'Z'\',"updatedAtTimezone\":"GMT\',"createdDateField\":"_info.lastUpdated\',"createdDateFormat\":"yyyy-MM-dd'T'HH:mm:ss'Z'\',"createdDateTimezone\":"GMT\"}"}",
  "pagination.page.startindex": "1"
}...,
"authenticationType": "custom",
"eventsEnabled": false,
"eventsNotificationCallbackUrl": "false",
"cachingEnabled": false,
"traceLoggingEnabled": false,
"organizationId": xxxxxx,
"accountId": xxxxxxxx,
"externalAuthentication": "none",
"userId": xxxxxxxx,
"element": {
  "id": xxxxxxxx,
  "name": "ConnectWise CRM REST",
  "key": "connectwisecrmrest",
  "description": "Add a ConnectWise Instance to connect your existing ConnectWise account to the crm Hub, allowing you to manage contacts , organizations and incidents across multiple Elements. You will need your ConnectWise account and ConnectWise information to add an instance.",
  "image": "elements/provider_connectwise.png",
  "logo": "connectwisecrm",
  "active": true,
  "deleted": false,
  "typeOauth": false,
  "trialAccount": false,
  "resources": [...],
  "objects": [...],
  "models": [...],
  "transformationsEnabled": true,
  "bulkDownloadEnabled": true,
  "bulkUploadEnabled": true,
  "cloneable": true,
  "extendable": true,
  "beta": false,
  "authentication": {...},
  "extended": false,
  "useModelsForMetadata": true,
  "hub": "crm",
  "protocolType": "http",
  "parameters": [...],
  "private": false
},
"user": {}
}
```