

Dropbox Authenticate a Connector Instance

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

Authenticate Through the UI

Use the UI to authenticate with Dropbox and create a connector instance. Because you authenticate with Dropbox via OAuth 2.0, all you need to do is add a name for the instance. After you create the instance, you'll log in to Dropbox to authorize SAP Cloud Platform Open Connectors access to your account. For more information about authenticating a connector instance, see [Authenticate a Connector Instance \(UI\)](#).

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 a multi-step process that involves:



1
Redirect URL

>

2

Authenticate Users



3

Authenticate Instance

- [Getting a redirect URL](#). This URL sends users to the vendor to log in to their account.
- [Authenticating users and receiving the authorization grant code](#). After the user logs in, the vendor makes a callback to the specified url with an authorization grant code.
- [Authenticating the connector instance](#). Using the authorization code from the vendor, authenticate with the vendor to create a connector instance at SAP Cloud Platform Open Connectors.

Getting a Redirect URL

1

Redirect URL



2

Authenticate Users



3

Authenticate Instance

Use the following API call to request a redirect URL where the user can authenticate with the vendor. Replace `{keyOrId}` with the connector key, `dropbox` .

```
GET /elements/{keyOrId}/oauth/url?apiKey=&apiSecret=&callbackUrl=&siteAddress=
```

Query Parameters

Query Parameter	Description
apiKey	The key obtained from registering your app with the provider. This is the App key that you recorded in API Provider Setup .
apiSecret	The client secret obtained from registering your app with the provider. This is the App secret that you recorded in API Provider Setup .
callbackUrl	The URL that will receive the code from the vendor to be used to create a connector instance. This is the Redirect URI that you recorded in API Provider Setup .

Example cURL

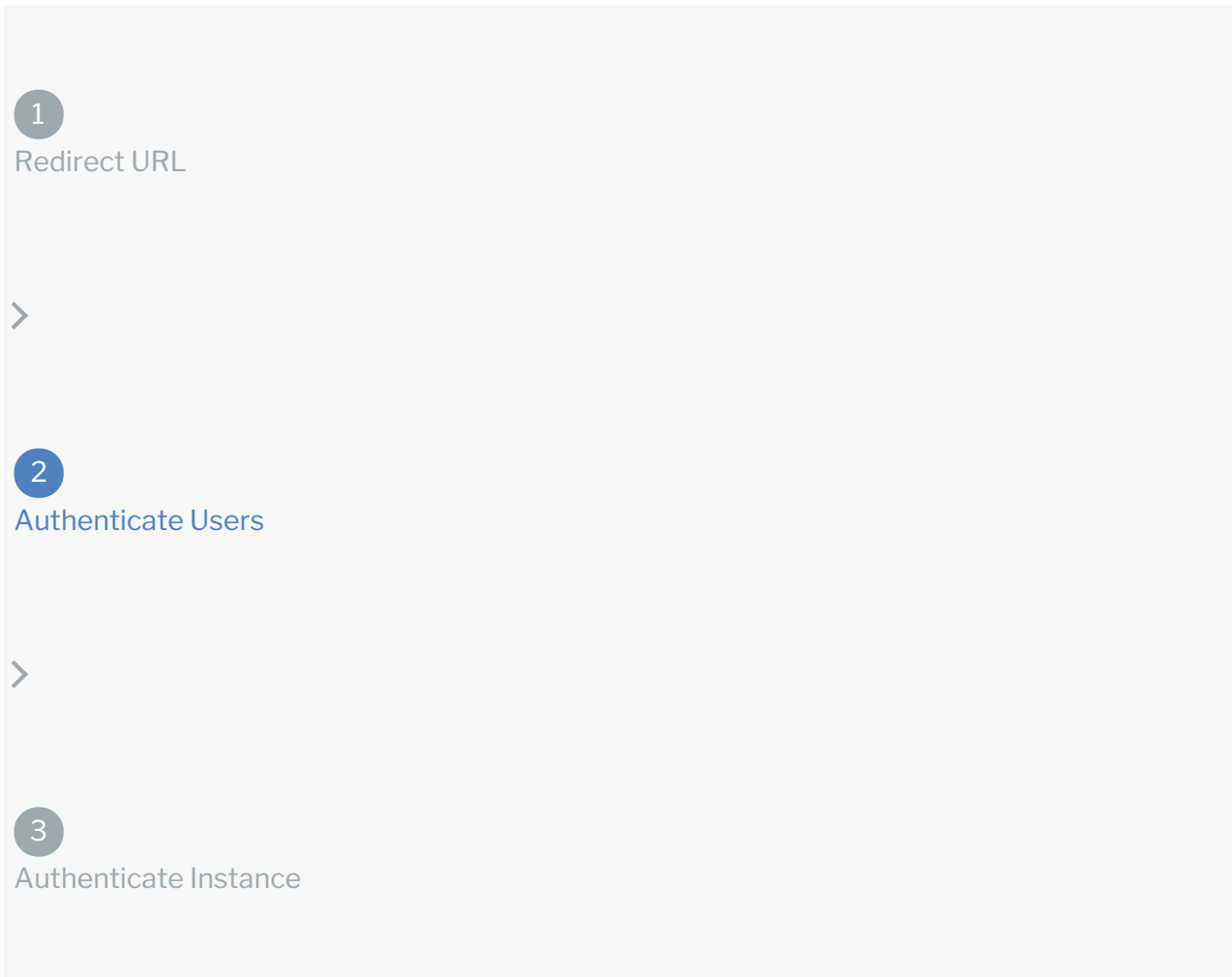
```
curl -X GET
-H 'Content-Type: application/json'
'https://api.openconnectors.us2.ext.hana.ondemand.com/elements/api-v2/elements/dropbox/oauth/url?apiKey=fake_api_key&apiSecret=fake_api_secret&callbackUrl=https://www.mycoolapp.com/auth&state=dropbox'
```

Example Response

Use the `oauthUrl` in the response to allow users to authenticate with the vendor.

```
{
  "element": "dropbox",
  "oauthUrl": "https://www.dropboxbusiness.com/api/oauth2/authorize?response_type=code&client_id=insert_dropbox_client_id0&redirect_uri=https://www.mycoolapp.com/auth&state=dropboxbusiness"
}
```

Authenticating users and receiving the authorization grant code



Provide the response from the previous step to the users. After they authenticate, Dropbox provides the following information in the response:

- code
- state

Response Parameter	Description
code	The Authorization Grant Code required by SAP Cloud Platform Open Connectors to retrieve the OAuth access and refresh tokens from the endpoint.
state	A customizable identifier, typically the connector key (<code>dropbox</code>).

Note: If the user denies authentication and/or authorization, there will be a query string parameter called `error` instead of the `code` parameter. In this case, your application can handle the error gracefully.

Authenticating the Connector Instance

- 1
Redirect URL
- >
- 2
Authenticate Users
- >
- 3
Authenticate Instance

Use the `/instances` endpoint to authenticate with Dropbox and create a connector instance. If you are configuring events, see [Dropbox Events](#).

i Note: The endpoint returns a connector id and token upon successful completion. Retain the token and id for all subsequent requests involving this connector instance.

To create a connector instance:

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

```
{
  "element": {
    "key": "dropbox"
  },
  "providerData": {
    "code": ""
  },
  "configuration": {
    "oauth.api.key": "",
    "oauth.api.secret": "",
    "oauth.callback.url": "https://www.mycoolapp.com/auth"
  },
  "tags": [
    ""
  ],
  "name": ""
}
```

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. Note the **Token** and **ID** 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": "dropbox"
    },
    "providerData": {
      "code": "8aa74ff8ae16ba3ca19d12cbdea83aff16bddcd7"
    },
    "configuration": {
      "oauth.api.key": "xxxxxxxxxxxxxxxxxxxxxxxx",
      "oauth.api.secret": "xxxxxxxxxxxxxxxxxxxxxxxx",
      "oauth.callback.url": "https://mycoolapp.com/auth"
    },
    "tags": [
      "Test"
    ],
    "name": "API Instance"
  }'

```

Parameters

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

`code formatting`.

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

Parameter	Description	Data Type
'key'	The connector key. dropbox	string
Name <code>name</code>	The name for the connector instance created during authentication.	Body
<code>oauth.callback.url</code>	The Callback URL for the connected app you created for Dropbox. This is the Redirect URI that you recorded in API Provider Setup .	
<code>oauth.api.key</code>	The key obtained from registering your app with the provider. This is the App key that you recorded in API Provider Setup .	string

Parameter	Description	Data Type
<code>oauth.api.secret</code>	The client secret obtained from registering your app with the provider. This is the App secret that you recorded in API Provider Setup .	string
<code>tags</code>	<i>Optional.</i> User-defined tags to further identify the instance.	string

Example Response for an Authenticated Connector Instance

```
{
  "id": 58992,
  "name": "API Instance",
  "createdDate": "2017-08-03T14:41:52Z",
  "token": "5MOxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx",
  "element": {
    "id": 14,
    "name": "Dropbox",
    "key": "dropbox",
    "description": "Add a Dropbox Instance to connect your existing Dropbox account to the Documents Hub, allowing you to manage files and folders. You will need your Dropbox account information to add an instance.",
    "image": "elements/provider_dropbox.png",
    "active": true,
    "deleted": false,
    "typeOAuth": true,
    "trialAccount": false,
    "configDescription": "If you do not have a Dropbox account, you can create one at Dropbox Signup",
    "signupURL": "http://www.dropbox.com",
    "transformationsEnabled": false,
    "bulkDownloadEnabled": false,
    "bulkUploadEnabled": false,
    "cloneable": false,
    "extendable": false,
    "beta": false,
    "authentication": {
      "type": "oauth2"
    },
    "extended": false,
    "hub": "documents",
    "protocolType": "http",
    "parameters": [ ],
    "private": false
  },
  "provisionInteractions": [ ],
  "valid": true,
  "disabled": false,
  "maxCacheSize": 0,
}
```



```
"cacheTimeToLive": 0,  
"configuration": { },  
"eventsEnabled": false,  
"traceLoggingEnabled": false,  
"cachingEnabled": false,  
"externalAuthentication": "none",  
"user": {  
  "id": 12345  
}  
}
```
