Clover Events

On this page

SAP Cloud Platform Open Connectors supports events via polling or webhooks depending on the API provider. For more information about our Events framework, see Events Overview.

Supported Events and Resources

SAP Cloud Platform Open Connectors supports polling events for Clover. After receiving an event, SAP Cloud Platform Open Connectors standardizes the payload and sends an event to the configured callback URL of your authenticated connector instance.

You can set up polling for the `events` resource. You can also copy the `events` configuration to poll other resources. See Configure Polling Through API for more information.

> ℹ **Note:** Unless configured for a specific time zone, polling occurs in UTC.

Configure Polling Through the UI

To configure polling through the UI, follow the same steps to authenticate a connector instance, and then turn on events. Select the resources to poll, and then click **Create Instance**. For more information, see Authenticate an Connector Instance with Events (UI) or the connector-specific authentication topic.

For more information about each field described here, see Parameters.

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 CO, or use it in a formula template.

Configure Polling Through API

Use the `/instances` endpoint to authenticate with Clover and create a connector instance with polling enabled.

> ℹ **Note:** The endpoint returns a connector instance token and id upon successful

> completion. Retain the token and id for all subsequent requests involving this
> connector instance.

To authenticate a connector instance with polling:

1. Get an authorization grant code by completing the steps in Getting a redirect URL and
   Authenticating users and receiving the authorization grant code.

2. Construct a JSON body as shown below (see Parameters):

```json
{
  "element":{
    "key":"clover"
  },
  "providerData":{
    "code": ""
  },
  "configuration":{
    "oauth.api.key": "",
    "oauth.api.secret": "",
    "oauth.callback.url": "",
    "clover.sandbox": "",
    "merchantId": "",
    "event.notification.enabled": true,
    "event.notification.callback.url": "http://mycoolapp.com",
    "event.poller.refresh_interval": "",
    "event.poller.configuration":{
      "timesheets": {
        "url": "/hubs/employee/timesheets?where=out_and_override_time >
'${date:yyyy-MM-dd'T'HH:mm:ssXXX}'",
        "idField": "id"
      },
      "employees": {
        "url": "/hubs/employee/employees?where=modifiedTime>'${gmtDate:
yyyy-MM-dd'T'HH:mm:ssXXX}'",
        "idField": "id"
      },
      "payments": {
        "url": "/hubs/employee/payments?where=modifiedTime>'${gmtDate:y
yyy-MM-dd'T'HH:mm:ssXXX}'",
        "idField": "id"
      },
      "roles": {
        "url": "/hubs/employee/roles?where=modifiedTime>'${gmtDate:yyyy
-MM-dd'T'HH:mm:ssXXX}'",
        "idField": "id"
      }
    }
  },
  "tags":[
    ""
  ],
  "name":""
}
```

3. 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.

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

Example cURL with Polling

```
curl -X POST \
https://api.openconnectors.us2.ext.hana.ondemand.com/elements/api-v2/instan
ces \
-H 'authorization: User , Organization ' \
-H 'content-type: application/json' \
-d '{
"element": {
  "key": "clover"
},
"providerData":{
  "code": ""
},
"configuration": {
  "oauth.callback.url": "https;//mycoolapp.com",
  "oauth.api.key": "Rand0MAP1-key",
  "oauth.api.secret": "fak3AP1-s3Cr3t",
  "clover.sandbox": "false",
  "merchantId": "5HBxxxxxxxxxxxx",
  "event.poller.configuration":{
        "timesheets": {
          "url": "/hubs/employee/timesheets?where=out_and_override_time >'
${date:yyyy-MM-dd'T'HH:mm:ssXXX}'",
          "idField": "id"
        },
        "employees": {
          "url": "/hubs/employee/employees?where=modifiedTime>'${gmtDate:y
yyy-MM-dd'T'HH:mm:ssXXX}'",
          "idField": "id"
        },
        "payments": {
          "url": "/hubs/employee/payments?where=modifiedTime>'${gmtDate:yy
yy-MM-dd'T'HH:mm:ssXXX}'",
          "idField": "id"
        },
        "roles": {
          "url": "/hubs/employee/roles?where=modifiedTime>'${gmtDate:yyyy-
MM-dd'T'HH:mm:ssXXX}'",
          "idField": "id"
        }
      }
    }
  },
  "tags": [
    "Docs"
  ],
  "name": "API Instance with Polling"
}'
```

Parameters

API parameters not shown in SAP Cloud Platform Open Connectors are in `code formatting` .

Parameter	Description	Data Type
`key`	The connector key. clover	string
`code`	The authorization grant code returned from the API provider in an OAuth 2.0 authentication workflow. SAP Cloud Platform Open Connectors uses the code to retrieve the OAuth access and refresh tokens from the endpoint.	string
Name `name`	The name of the connector instance created during authentication.	string
OAuth API Key `oauth.api.key`	The API key or client ID obtained from registering your app with the provider. This is the **Key Name** that you noted in API Provider Setup.	string
OAuth API Secret `oauth.api.secret`	The client secret obtained from registering your app with the API provider. This is the **Secret Name** that you noted in API Provider Setup.	string
OAuth Callback URL `oauth.callback.url`	The API key or client ID obtained from registering your app with the provider. This is the **Callback URL Name** that you noted in API Provider Setup.	string
Sandbox `clover.sandbox`	For connecting to an app on a Clover Sandbox server select `True` . Otherwise keep the default `False` .	boolean
Merchant ID `merchantId`	The **Merchant ID** that you recorded in API Provider Setup.	string
Events Enabled `event.notification.enabled`	*Optional.* Identifies that events are enabled for the connector instance. Default: `false` .	boolean

Parameter	Description	Data Type
Event Notification Callback URL `event.notification.callback.url`	The URL where you want SAP Cloud Platform Open Connectors to send the events.	string
Event poller refresh interval (mins) `event.poller.refresh_interval`	A number in minutes to identify how often the poller should check for changes.	number
Configure Polling `event.poller.configuration`	*Optional.* Configuration parameters for polling.	JSON object
Resource to Poll	The polling event configuration of the resource that you will monitor.	JSON object
URL `url`	The url to query for updates to the resource.	String
ID Field `idField`	The field in the resource that is used to uniquely identify it.	String
Advanced Filtering `datesConfiguration`	Configuration parameters for dates in polling	JSON Object
Updated Date Field `updatedDateField`	The field that identifies an updated object.	String
Updated Date Format `updatedDateFormat`	The date format of the field that identifies an updated object.	String
Created Date Field `createdDateField`	The field that identifies a created object.	String
Created Date Format `createdDateFormat`	The date format of the field that identifies a created object.	String
tags	*Optional.* User-defined tags to further identify the instance.	string