

SAP Concur Approval process

Before you begin

Role required: Expense Approver/ Expense Admin

About this task

To approve/reject concur expense requests from remix labs using API integration.

Procedure

1. Obtain an **access token**:

- a) Make a **POST** request to "https://us.api.concursolutions.com/oauth2/v0/token"
- b) Body of the request should include grant_type,client_id,client_secret,user_name,password and credtype,
where grant_type,credtype = password.(you will get all these parameters from concur web services team through an email).
the final call will look like :
let inputs = "grant_type=password&client_id=" + client_id
+"&client_secret=" + client_secret + "&username=" + user_name + "&password=" + password + "&credtype=" + credtype;
let url = "https://us.api.concursolutions.com/oauth2/v0/token";
string.ofJSON(http.post(url, inputs, {"headers": {"Content-Type": "application/x-www-form-urlencoded"}}).body)
- c) You will get an access_token in the body of the response. This access_token is needed for all the further steps.

2. Get a list of all expense requests from concur:

- a) Make a **GET** request to
"https://www.concursolutions.com/api/v3.0/expense/reports?limit=100&user=ALL"
- b) you need use the access_token obtained from the above step for authorization.
- c) The headers of the request should contain {"Authorization":"Bearer + access_token","Accept":"application/json"}
- d) You must use **Accept** header because if you do not use it, you will get XML as response. So it will be difficult to parse XML in Remix.

3. Get details of a particular request:

- a) You will get an id for every expense report in the response body of the above mentioned API call.
- b) We need to pass the id obtained from the above step to the below endpoint
<https://www.concursolutions.com/api/expense/expense/report/v2.0/report/id>
- c) Make a **GET** request to
<https://www.concursolutions.com/api/expense/expense/report/v2.0/report/id>
to get all the details of a particular expense report.
- d) The header of the request should include Authorization = Bearer + access_token and Content-Type = application/json.

4. Get the workflow action URL:

- a) In the response body of the above API call, you will get a workflow action URL, which will look like [https://www.concursolutions.com/api/expense/expense/v1.1/report/gWmVv1w9YZa6\\$piuslk8OVYqsXCCEmD17K9eW7/WorkflowAction](https://www.concursolutions.com/api/expense/expense/v1.1/report/gWmVv1w9YZa6$piuslk8OVYqsXCCEmD17K9eW7/WorkflowAction)

5. Finally, make a POST request to Approve the report or send it back to the employee for review:

- a) Make a POST request to the workflow action url obtained from the above step.

The body of the response should be:

```
<WorkflowActionxmlns=\"http://www.concursolutions.com/api/expense/expense/v1.1/report/gWmVv1w9YZa6$piuslk8OVYqsXCCEmD17K9eW7/WorkflowAction\">
  <Action>Approve</Action>
  <Comment>Done via API</Comment>
</WorkflowAction>
```

where Action can be either **"Approve"** or **"Send Back to Employee"**

- b) The headers section of the request should have Authorization = Bearer + access_token and Content-Type = application/xml

- c) The final POST call will look like :

```
http.post(endpoint, body,
  {"headers": {"Authorization": token,
    "Content-Type": "application/xml",
    "Accept": "application/json"
  }})
```

References

1. Authentication:

<https://developer.concur.com/api-reference/authentication/apidoc.html>

2. Reports:

<https://developer.concur.com/api-reference/expense/expense-report/v3/reports.html>

3. Report Details:

<https://developer.concur.com/api-reference/expense/expense-report/expense-report-get.html>

4. Workflow Actions:

<https://developer.concur.com/api-reference/expense/expense-report/post-report-workflow-action.html>