



SAP SuccessFactors 

PUBLIC

Document Version: 1H 2022 – 2022-06-20

SAP SuccessFactors HXM Suite OData API: Reference Guide (V4)

1 About the OData API Reference Guide (V4)

The Open Data Protocol (OData) is a standardized protocol for consuming REST APIs. SAP SuccessFactors HXM Suite provides a variety of OData APIs for customers to build their extensions and integrations. In this guide, you'll find a list of OData V4 services we currently offer.

New and Improved Features in OData V4

i Note

The following features are supported in the standard OData V4 protocol. For individual OData V4 offerings in SAP SuccessFactors, the capabilities vary depending on the implementation of each module. Refer to the API references for more information.

Delta Support

Delta support allows clients to query services and receive just the set of deltas –changes—from a previous state. Designed for scalability, this hypermedia-driven model gives the service ultimate control over how changes are identified while providing a simple, well-defined model to the client.

Entity Data Model Enhancements

OData defines a consumer-oriented Entity Data Model that helps general-purpose clients understand how to interact with an OData service. OData V4 enhances the entity model, adding support for containment, singletons, enums, and type definitions. Date/Time data types have been reworked to include separate Date, TimeOfDay, Duration, and DateTimeOffset data types. Complex types now support inheritance and navigation properties. Relationships, a key part of the entity model, are simplified.

Improved Queryability

In today's device-centric world, bringing back the right subset of data is key to reducing round-trips, payload, and footprint. OData V4 includes syntax for applying filters, sorts, and selects against expanded properties, allowing clients to push processing to the service and more precisely specify the interesting set of data to be retrieved. Full text search functionality, recursive queries, and the use of user-defined functions in predicates all help clients control the data returned from the service.

Related Information

This guide provides information specific to the latest version (V4) of OData APIs in SAP SuccessFactors HXM Suite. To fully understand how OData works in general or how OData V2 works in SAP SuccessFactors, refer to the following documentation:

Resource	Description
SAP SuccessFactors HXM Suite OData API: Developer Guide (V4)	A developer guide to the SAP SuccessFactors HXM Suite OData V4 framework, including authentication, common operations, access limits, and more.
SAP SuccessFactors HXM Suite OData API: Developer Guide	A developer guide to the OData V2 framework, including permissions, authentication, common OData operations, MDF OData APIs, and more.
odata.org	The official OData website where you can find more detailed specifications about the OData standard.
SAP API Business Hub	SAP SuccessFactors publishes customer-facing OData APIs on the SAP API Business Hub. You can find all technical details of our public APIs and run tests in the sandbox system.

1.1 List of SAP SuccessFactors API Servers

Learn about the API servers of your company instance and how to construct the endpoint URLs.

Endpoint URL Patterns

! Restriction

We don't support IP addresses in URLs as part of our reference architecture. Use domain names instead. If you think you have a special case that requires IP addresses instead of domain names, contact Product Support.

Protocol	URL Pattern	Endpoint Example
OData v2	/odata/v2/	https://api17.sapsf.com/odata/v2/
OData v4	/odatav4/	https://api17.sapsf.com/odatav4/
SFAPI	/sfapi/v1/soap	https://api17.sapsf.com/sfapi/v1/soap
WSDL	/sfapi/v1/soap?wsdl	https://api17.sapsf.com/sfapi/v1/soap?wsdl

API Servers

Here's a list of API servers for SAP SuccessFactors data centers. Use search and filter to find the API server for your company. A data center can have synonyms from its legacy and next generation data center names, indicated by a numeric value. For example, DC17 and DC60 are synonyms of the Toronto data center. The corresponding URLs also point to the same data center. You can use either URL to access APIs.

To view the timezone information of an API server, go to your company login page or open your account on the header bar after login, and choose [Show version information](#).

i Note

SAP SuccessFactors revised its data center numbering as part of its Next Generation Cloud Delivery Platform. While it is leading practice to update a domain name or URL to the latest domain name, the domain names that you migrated **from** continue to work. For example, if the **Next Generation Cloud Delivery Platform** migrated you from a URL with DC17 in the domain name to a URL with DC60 in the domain name, the DC17 URL, <https://api17.sapsf.com>, continues to point to the same Toronto data center.

Legacy Numeric Name	Next Generation Numeric Name (Planned)	Environment	Location	API Server
DC2	DC56	Production	Amsterdam, The Netherlands	https://api2.successfactors.eu/
DC2	DC56	SalesDemo	Amsterdam, The Netherlands	https://apisalesdemo2.successfactors.eu/
DC2	DC56	Preview	Amsterdam, The Netherlands	https://api2preview.sapsf.eu/
DC4	DC48	Production	Chandler, Arizona, US	https://api4.successfactors.com/
DC4	DC48	SalesDemo	Chandler, Arizona, US	https://apisalesdemo4.successfactors.com/
DC4	DC48	Preview	Chandler, Arizona, US	https://api4preview.sapsf.com/
DC8	DC48	Production	Ashburn, Virginia, US	https://api8.successfactors.com/
DC8	DC48	SalesDemo	Ashburn, Virginia, US	https://apisalesdemo8.successfactors.com/
DC8	DC48	Preview	Ashburn, Virginia, US	https://api8preview.sapsf.com/
DC10	DC66	Production	Sydney, Australia	https://api10.successfactors.com/
DC10	DC66	Preview	Sydney, Australia	https://api10preview.sapsf.com/
DC12	DC26	Production	Rot, Germany	https://api012.successfactors.eu/

Legacy Numeric Name	Next Generation Numeric Name (Planned)	Environment	Location	API Server
DC12	DC26	Preview	Rot, Germany	https://api12preview.sapsf.eu/
DC15	DC64	Production	Shanghai, China	https://api15.sapsf.cn/
DC17	DC60	Preview	Toronto, Canada	https://api17preview.sapsf.com/
DC17	DC60	Production	Toronto, Canada	https://api17.sapsf.com/
DC18	DC28	Preview	Moscow, Russia	https://api18preview.sapsf.com/
DC18	DC28	Production	Moscow, Russia	https://api18.sapsf.com/
DC19	DC62	Preview	Sao Paulo, Brazil	https://api19preview.sapsf.com/
DC19	DC62	Production	Sao Paulo, Brazil	https://api19.sapsf.com/
DC22	DC22	Preview	Dubai, UAE	https://api22preview.sapsf.com/
DC22	DC22	Production	Dubai, UAE	https://api22.sapsf.com/
DC23	DC23	Preview	Riyadh, Saudi Arabia	https://api23preview.sapsf.com/
DC23	DC23	Production	Riyadh, Saudi Arabia	https://api23.sapsf.com/
DC41	DC41	Preview	US East (Microsoft Azure)	https://api41preview.sapsf.com
DC41	DC41	Production	US East (Microsoft Azure)	https://api41.sapsf.com
DC44	DC52	Preview	Singapore	https://api44preview.sapsf.com/
DC44	DC52	Production	Singapore	https://api44.sapsf.com/
DC47	DC47	Preview	Canada Central (Microsoft Azure)	https://api47preview.sapsf.com/
DC47	DC47	Production	Canada Central (Microsoft Azure)	https://api47.sapsf.com/
-	DC50	Preview	Aisa Northeast, Tokyo (Google Cloud Platform)	https://api50.sapsf.com
-	DC50	Production	Aisa Northeast, Tokyo (Google Cloud Platform)	https://api50preview.sapsf.com
DC55	DC55	Preview	Europe West 3	https://api55preview.sapsf.eu/
DC55	DC55	Production	Europe West 3	https://api55.sapsf.eu/

1.2 Summary of Differences Between OData V2 and V4

Learn about the differences between OData v2 and v4 protocols in SAP SuccessFactors.

Differences Between OData v2 and v4

Capability	OData v2	OData v4	More Information
Metadata	Supports XML format only	Supports both XML and JSON formats <ul style="list-style-type: none"> XML: /odatav4/Sample.svc/v1/\$metadata XML: /odatav4/Sample.svc/v1/\$metadata?\$format=JSON 	OData V4 Metadata
Metadata Scope	Supports single, full, and comma-delimited metadata queries, examples: <ul style="list-style-type: none"> Single: /odata/v2/User/\$metadata Full: /odata/v2/User/\$metadata Comma-delimited: /odata/v2/User, Picklist/\$metadata 	Supports metadata query on service level only.	
Data Type	Supports the following data types: <ul style="list-style-type: none"> DateTime Time Float 	Supports the following data types: <ul style="list-style-type: none"> Date TimeOfDay Single Enum 	
Merge Operation	OData v2 uses HTTP method POST and HTTP header X-HTTP-METHOD: MERGE to merge records.	In OData v4, you can use the PATCH HTTP method to merge records.	
Upsert	Supports SAP-proprietary function import /odata/v2/upsert with HTTP method POST	Not supported	

Capability	OData v2	OData v4	More Information
Function import and action import	<p>Uses HTTP method <code>GET</code> for read operations.</p> <p>Uses HTTP method <code>POST</code> for write operations.</p> <p>No action imports.</p>	<p>Uses HTTP method <code>GET</code> for function imports (read operations).</p> <p>Uses HTTP method <code>POST</code> for function imports (write operations).</p> <p>OData v4 also supports resource-bound functions and actions.</p>	
Entity reference	Supports entity referencing operations with <code>\$link</code>	<code>\$ref</code> isn't supported yet.	
Server-side pagination	Supports cursor-based and snapshot-based pagination	Not supported	
Query resources	System query options are supported only at root entity level, for example, <code>\$filter</code> , <code>\$select</code> , and <code>\$orderby</code> .	<p>Supports system query options on aggregated entities:</p> <pre>/odata/v4/ User('admin')/ reports? \$filter=username eq 'abc'</pre> <p>In this example, the filter condition applies to all users whose manager is user 'admin'.</p>	
System query option <code>\$select</code>	<ul style="list-style-type: none"> Applies to root entities only, for example: <pre>/odata/v2/User? \$filter=username eq 'abc'</pre> Nested filters can be used in a one-to-many relationship: <pre>/odata/v2/User? \$filter=reports/ username eq 'abc'</pre> Supports custom binary operators 	<p>Can be used to query both root and expanded entities:</p> <pre>/odatav4/User? \$select=username& \$expand=reports(\$select=username)</pre>	

Capability	OData v2	OData v4	More Information
System query option \$filter	<ul style="list-style-type: none"> Applies to root entities only. Nested filters can be applied to navigation properties with a one-to-many relationship: <code>/odata/v2/User?\$filter=reports/username eq 'abc'</code> Supports customized operators such as <code>like</code> and <code>in</code> <code>datetimeoffset</code> must be specified in expression before a <code>DateTimeOffset</code> field type: <code>\$filter=lastModified gt datetimeoffset'2020-05-20T00:00:00Z'</code> Supports method expression <code>replace</code> (v2 only): <code>\$filter=replace(username, 'abc', 'def') eq 'hdef'</code> 	<ul style="list-style-type: none"> Can be used to query both root and expanded entities: <code>/odatav4</code> Nested filters can be applied to entities of one-to-many relationship by lambda expressions such as <code>any</code> and <code>all</code>: <code>\$filter=user=reports/any(m:m/username eq 'abc')</code> Customized operators aren't supported. <code>DateTimeOffset</code> field type can be filtered without <code>datetimeoffset</code>: <code>\$filter=lastModified gt '2020-05-20T00:00:00Z'</code> Supports method expression <code>contains</code> (v4 only): <code>\$filter=contains(username, 'abc')</code> 	
System query option \$expand	<p>Supports deep expand:</p> <pre>/odata/v2/User? \$expand=reports,reports/reports</pre>	<p>Supports deep expand and query options in expanded entities:</p> <pre>/odatav4/User? \$expand=reports(\$expand=reports) /odatav4/User? \$expand=reports(\$filter=username eq 'abc'; \$select=username)</pre>	
Default response format	ATOM	JSON	

Capability	OData v2	OData v4	More Information
Instance annotations in response	Not supported	Annotations are supported as an extended feature in OData v4. Annotations start with \$:	<pre> { "@context": "\$metadata#Customers", "@com.example.customer.setkind": "VIPs", "value": [{ "@com.example.display.highlight": true, "ID": "ALFKI", "CompanyName@com.example.display.style": { "title": true, "order": 1 }, "CompanyName": "Alfreds Futterkiste", "Orders@com.example.display.style#simple": { "order": 2 }] } </pre>

Capability	OData v2	OData v4	More Information
Error response	<p>OData v2 error response example:</p> <pre> { "error": { "code": "BadRequest", "message": { "lang": "en", "value": "Unsupported functionality" } } } </pre>	<p>OData v4 error response example:</p> <pre> { "error": { "code": "BadArgument", "message": "Please check your inputs", "details": [{ "code": "NameRequired", "message": "Name must not be empty", "target": "name" }, { "code": "PasswordNotMeetPo licy", "message": "Password must have one upper case". "target": "password" }] } } </pre>	
Framework-level access limits	No	Yes. See Service Limits .	

2 Change History

Learn about changes to the documentation for SAP SuccessFactors HXM Suite OData API: Reference Guide (v4) in recent releases.

1H 2022

Type of Change	Description	More Info
June 17, 2022		
Changed	We updated the information for the Time Tracking service <code>ClockInClockOutIntegration.svc</code> to include details about translations.	ClockInClockOutIntegration.svc [page 27]
May 20, 2022		
New	We added a new service for Time Tracking called <code>ClockInClockOutIntegration.svc</code> and related use cases.	ClockInClockOutIntegration.svc [page 27]

2H 2021

Type of Change	Description	More Info
Oct 8, 2021		
Added	We added a topic to summarize the major differences of capabilities between OData v2 and OData v4.	Summary of Differences Between OData V2 and V4 [page 6]
New	We added a new service for Onboarding called <code>AdditionalServices.svc</code> and a use case for the <code>updateUserNamePostHiring</code> API	AdditionalServices.svc [page 24] Updating the Username of a New Hire [page 24]
Added	We added a topic to summarize the major differences of capabilities between OData v2 and OData v4.	Summary of Differences Between OData V2 and V4 [page 6]
Added	We added information about the planned data center names available after the Next Generation Cloud Delivery Platform migration.	List of SAP SuccessFactors API Servers [page 3]

1H 2021

Type of Change	Description	More Info
<hr/>		
May 21, 2021		
<hr/>		
Added	We added version information to the API URI.	Learning.svc [page 13] Creating Learning Activities [page 14]
<hr/>		
April 16		
<hr/>		
New	This is the first version of this guide.	
<hr/>		

3 Career Development Planning

A list of services offered in the Career Development Planning module.

3.1 Learning.svc

The `Learning` service allows you to create and update learning activities in bulk. It's only supported when you've enabled integration with a third-party learning management system.

i Note

To use this service, make sure that you've enabled *Learning Management System (Third party LMS integrations)* in Provisioning. However, it's not supported for new customers as of April 2012.

→ Remember

As a customer, you don't have access to Provisioning. To complete tasks in Provisioning, contact your implementation partner or Account Executive. For any non-implementation tasks, contact Product Support.

Overview

URI: `https://<api-server>/odatav4/talent/cdp/Learning.svc/v1/`

Authentication: Bearer <Token>

Error Codes

Error Code	Description
0	The responseCode 0 means that the requested operation has failed.

3.1.1 Creating Learning Activities

This example shows how to create two learning activities for a specific user and associate them with development goals.

Request

Operation	Insert
HTTP Method	POST
URI	https://<api-server>/odatav4/talent/cdp/Learning.svc/v1/createLearningActivities
Payload	<pre>{ "learningActivities": [{ "username": "cgrant", "learningActivityGUID": "123", "learningActivityCode": "321", "learningActivityName": "Information Security", "score": "100" }, { "username": "cgrant", "learningActivityGUID": "127", "learningActivityCode": "326", "learningActivityName": "Data Privacy", "score": "100" }] }</pre>

Response

```
{
  "@odata.context": "https://<api-server>/odatav4/talent/cdp/Learning.svc/
v1/$metadata#learning.svc.Learn
ingActivityResponse",
  "@odata.metadataEtag": "\"5ef16e08-5b52-47c6-826a-ab0753813dc7\"",
  "errorMessage": "",
  "responseCode": 1
}
```

4 Calibration (Feature)

A list of services offered in the Calibration feature.

4.1 CalSession.svc

The service `CalSession` allows you to get and update information of sessions and of a single subject or multiple subjects.

Overview

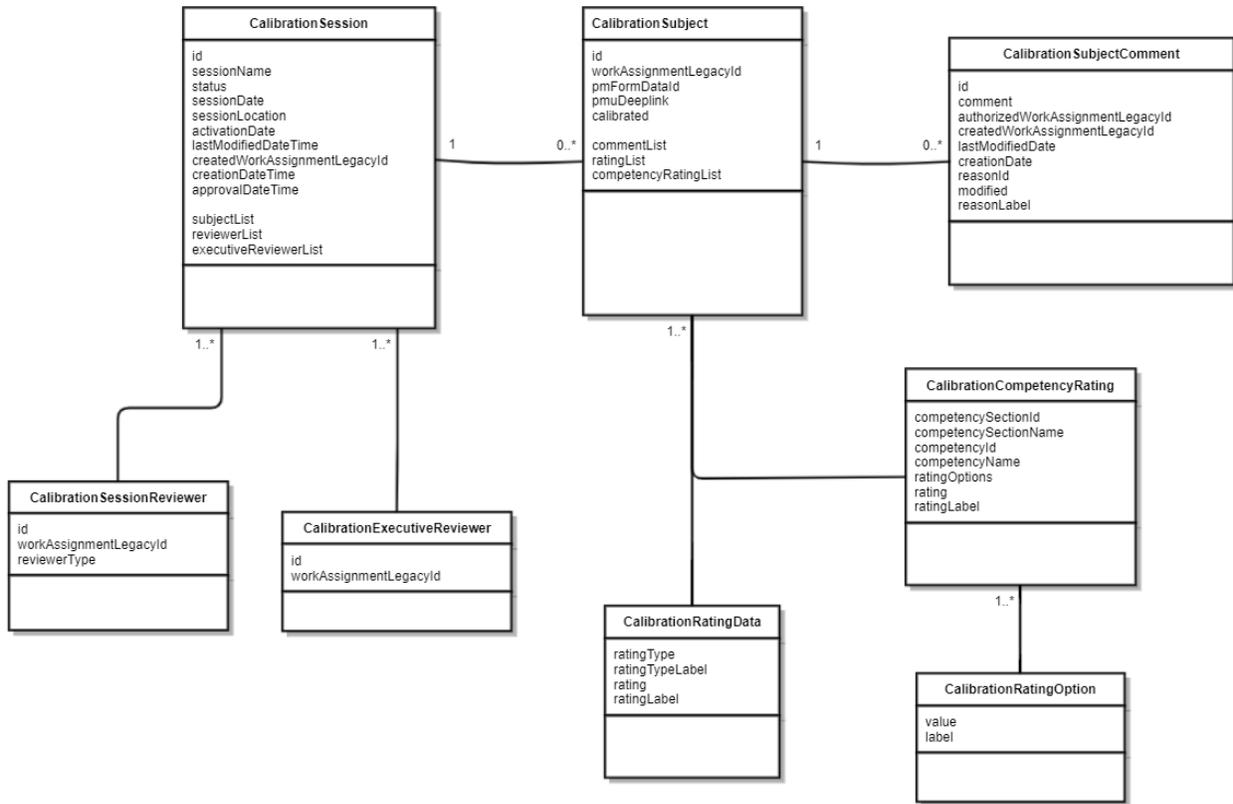
URI: `http://<api-server>/odatav4/talent/calibration/CalSession.svc/v1/`

Authentication: Bearer <Token>

Error Codes

Error Code	Description
403	The responseCode 403 means that users didn't query the data of subjects by accessing the session they belong to.

Entity Relationship Diagram



4.1.1 Querying All Available Sessions

This example shows how to query all the sessions that a user can access.

Request

Operation	Query
HTTP Method	GET
URI	https://<api-server>/odatav4/talent/calibration/CalSession.svc/v1/CalibrationSession
Payload	N/A

Response

```
{
  "@odata.context": "https://<api-server>/odatav4/talent/calibration/CalSession.svc/v1/$metadata#CalibrationSession",
}
```

```

"@odata.metadataEtag": "\"5f7d183d-11d4-43b4-85f8-9f93276aef20\"",
"value": [
  {
    "activationDate": "2012-02-01",
    "approvalDateTime": null,
    "createdByWorkAssignmentLegacyId": "lokamoto1",
    "id": 361,
    "lastModifiedDateTime": "2020-01-07T03:31:41Z",
    "sessionDate": "2012-02-29",
    "sessionLocation": "Shanghai",
    "sessionName": "EnvDataSessionEmployeeProfile",
    "status": 1
  },
  {
    "activationDate": null,
    "approvalDateTime": "2020-01-14T00:58:32Z",
    "createdByWorkAssignmentLegacyId": "admin",
    "id": 2598,
    "lastModifiedDateTime": "2020-01-14T00:58:32Z",
    "sessionDate": null,
    "sessionLocation": "sh",
    "sessionName": "Test ER 1",
    "status": 1
  }
]
}

```

4.1.2 Querying a Subject's Information Using Session ID

This example shows how to query a subject's ratings, competency ratings, and comments by using session ID.

Request

Operation	Query
HTTP Method	GET
URI	<pre> https://<api-server>/odatav4/talent/ calibration/CalSession.svc/v1/ CalibrationSession(2621)? \$expand=subjectList(\$expand=ratingList,com petencyRatingList,commentList) </pre>
Payload	N/A

Response

```

{
  "@odata.context": "https://<api-server>/odatav4/talent/calibration/
CalSession.svc/
v1/$metadata#CalibrationSession(subjectList(commentList(), competencyRatingList(), rat
ingList()))/$entity",
  "@odata.metadataEtag": "\"5f7d183d-11d4-43b4-85f8-9f93276aef20\"",
  "activationDate": null,
  "approvalDateTime": null,
  "createdByWorkAssignmentLegacyId": "lokamoto1",
  "id": 2621,
  "lastModifiedDateTime": "2021-03-10T03:50:38Z",

```

```

"sessionDate": null,
"sessionLocation": "SF",
"sessionName": "Session with calc PM",
"status": 1,
"subjectList": [
  {
    "calibrated": true,
    "id": 11507,
    "pmFormDataId": 991,
    "pmuDeeplink": "/acme?
bplte_company=Echo&fbacme_n=my_forms&inbox_os=list&inbox_fbfl_flist_act=open_form&in
box_fbfl_flist_fmid=1093&inbox_fbfl_flist_csid=2621&inbox_tm=1616643964449&inbox_tk=
-15988237201679769397954880168053049755775751972&pp_pm_owner=caluser",
    "workAssignmentLegacyId": "aaronchen12",
    "commentList": [],
    "competencyRatingList": [
      {
        "competencyId": 25,
        "competencyName": "Professional ethics",
        "competencySectionId": 1,
        "competencySectionName": null,
        "rating": 3.0,
        "ratingLabel": "Comp3"
      },
      {
        "competencyId": 26,
        "competencyName": "Customer focus",
        "competencySectionId": 1,
        "competencySectionName": null,
        "rating": 4.0,
        "ratingLabel": "Comp4"
      },
      {
        "competencyId": 27,
        "competencyName": "Siemens values",
        "competencySectionId": 1,
        "competencySectionName": null,
        "rating": 2.0,
        "ratingLabel": "Comp2"
      },
      {
        "competencyId": 41,
        "competencyName": "Communication skills",
        "competencySectionId": 1,
        "competencySectionName": null,
        "rating": 5.0,
        "ratingLabel": "Comp5"
      }
    ],
    "ratingList": [
      {
        "rating": null,
        "ratingLabel": "",
        "ratingType": 1,
        "ratingTypeLabel": "Manual Competency Rating"
      },
      {
        "rating": 4.0,
        "ratingLabel": "Partially Exceeded",
        "ratingType": 2,
        "ratingTypeLabel": "Overall Rating"
      }
    ]
  },
  {
    "calibrated": false,
    "id": 11510,
    "pmFormDataId": 995,

```

```

    "pmuDeeplink": "/acme?
bplte_company=Echo&fbacme_n=my_forms&inbox_os=list&inbox_fbfl_flist_act=open_form&in
box_fbfl_flist_fmid=1091&inbox_fbfl_flist_csid=2621&inbox_tm=1616643964449&inbox_tk=
-507859345285655787392038001572558945417418342768&pp_pm_owner=caluser",
    "workAssignmentLegacyId": "jlo1",
    "commentList": [],
    "competencyRatingList": [
      {
        "competencyId": 41,
        "competencyName": "Communication skills",
        "competencySectionId": 1,
        "competencySectionName": null,
        "rating": 2.0,
        "ratingLabel": "Comp2"
      },
      {
        "competencyId": 27,
        "competencyName": "Siemens values",
        "competencySectionId": 1,
        "competencySectionName": null,
        "rating": 3.0,
        "ratingLabel": "Comp3"
      },
      {
        "competencyId": 26,
        "competencyName": "Customer focus",
        "competencySectionId": 1,
        "competencySectionName": null,
        "rating": 5.0,
        "ratingLabel": "Comp5"
      },
      {
        "competencyId": 25,
        "competencyName": "Professional ethics",
        "competencySectionId": 1,
        "competencySectionName": null,
        "rating": 4.0,
        "ratingLabel": "Comp4"
      }
    ],
    "ratingList": [
      {
        "rating": 2.0,
        "ratingLabel": "Needs Improvement",
        "ratingType": 1,
        "ratingTypeLabel": "Manual Competency Rating"
      },
      {
        "rating": 2.0,
        "ratingLabel": "Partially Achieved",
        "ratingType": 2,
        "ratingTypeLabel": "Overall Rating"
      }
    ]
  }
}

```

4.1.3 Querying a Subject's Ratings

This example shows how to query a subject's competency ratings and ratings.

Request

Operation	Query
HTTP Method	GET
URI	https://<api-server>/odatav4/talent/ calibration/CalSession.svc/v1/ CalibrationSession(2621)/ subjectList(11506)? \$expand=competencyRatingList(\$expand=ratin gOptions),ratingList
Payload	N/A

Response

```

{
  "@odata.context": "https://<api-server>/odatav4/talent/calibration/  

  CalSession.svc/v1/$metadata#CalibrationSession(2621)/  

  subjectList(competencyRatingList(ratingOptions()),ratingList())/ $entity",
  "@odata.metadataEtag": "\"5f7d183d-11d4-43b4-85f8-9f93276aef20\"",
  "calibrated": true,
  "id": 11506,
  "pmFormDataId": 993,
  "pmuDeepLink": "/acme?  

  bplte_company=Echo&fbacme_n=my_forms&inbox_os=list&inbox_fbfl_flist_act=open_form&in  

  box_fbfl_flist_fmid=1094&inbox_fbfl_flist_csid=2621&inbox_tm=1616644014015&inbox_tk=  

  134690500506414363964370016507676888983179820128&pp_pm_owner=caluser",
  "workAssignmentLegacyId": "aaronchen14",
  "competencyRatingList": [
    {
      "competencyId": 25,
      "competencyName": "Professional ethics",
      "competencySectionId": 1,
      "competencySectionName": "Competency",
      "rating": null,
      "ratingLabel": null,
      "ratingOptions": [
        {
          "label": "Comp1",
          "value": 1.0
        },
        {
          "label": "Comp2",
          "value": 2.0
        },
        {
          "label": "Comp3",
          "value": 3.0
        },
        {
          "label": "Comp4",
          "value": 4.0
        },
        {
          "label": "Comp5",
          "value": 5.0
        }
      ]
    },
    {
      "competencyId": 26,
      "competencyName": "Customer focus",
    }
  ]
}

```

```

    "competencySectionId": 1,
    "competencySectionName": "Competency",
    "rating": 3.0,
    "ratingLabel": "Comp3",
    "ratingOptions": [
      {
        "label": "Comp1",
        "value": 1.0
      },
      {
        "label": "Comp2",
        "value": 2.0
      },
      {
        "label": "Comp3",
        "value": 3.0
      },
      {
        "label": "Comp4",
        "value": 4.0
      },
      {
        "label": "Comp5",
        "value": 5.0
      }
    ]
  },
  {
    "competencyId": 27,
    "competencyName": "Siemens values",
    "competencySectionId": 1,
    "competencySectionName": "Competency",
    "rating": 5.0,
    "ratingLabel": "Comp5",
    "ratingOptions": [
      {
        "label": "Comp1",
        "value": 1.0
      },
      {
        "label": "Comp2",
        "value": 2.0
      },
      {
        "label": "Comp3",
        "value": 3.0
      },
      {
        "label": "Comp4",
        "value": 4.0
      },
      {
        "label": "Comp5",
        "value": 5.0
      }
    ]
  },
  {
    "competencyId": 41,
    "competencyName": "Communication skills",
    "competencySectionId": 1,
    "competencySectionName": "Competency",
    "rating": 4.0,
    "ratingLabel": "Comp4",
    "ratingOptions": [
      {
        "label": "Comp1",
        "value": 1.0
      }
    ]
  }

```

```

    },
    {
      "label": "Comp2",
      "value": 2.0
    },
    {
      "label": "Comp3",
      "value": 3.0
    },
    {
      "label": "Comp4",
      "value": 4.0
    },
    {
      "label": "Comp5",
      "value": 5.0
    }
  ]
},
"ratingList": [
  {
    "rating": null,
    "ratingLabel": "",
    "ratingType": 1,
    "ratingTypeLabel": "Manual Competency Rating"
  },
  {
    "rating": null,
    "ratingLabel": "",
    "ratingType": 2,
    "ratingTypeLabel": "Overall Rating"
  }
]
}

```

4.1.4 Updating a Subject's Competency Ratings

This example shows how to update a subject's competency ratings.

Request

Operation	Update
HTTP Method	PATCH
URI	<a href="https://<api-server>/odatav4/talent/calibration/CalSession.svc/v1/CalibrationSession(2621)/subjectList(11506)">https://<api-server>/odatav4/talent/calibration/CalSession.svc/v1/CalibrationSession(2621)/subjectList(11506)

Payload

```
{
  "calibrated": true,
  "ratingList": [
    {
      "ratingType": 2,
      "rating": null
    }
  ],
  "competencyRatingList": [
    {
      "competencyId": 25,
      "competencySectionId": 1,
      "rating": -1
    }
  ]
}
```

Response

```
status: 204
```

5 Onboarding

A list of services offered in the Onboarding module.

5.1 AdditionalServices.svc

The service `AdditionalServices` allows you to update the internal username of the new hires after the hiring process is completed from the Active Directory.

Overview

URI: `http://<api-server>/odatav4/onboarding/AdditionalServices.svc/v1/`

Authentication Bearer <Token>

5.1.1 Updating the Username of a New Hire

This example shows how to update the new hire's internal username from the Active Directory. This means that after conversion job is completed the username from Active Directory is picked up.

Context

The `updateUserNamePostHiring` API allows you to update the internal username of new hires with the username that is generated from Active Directory. You can invoke this API any number of times during its lifespan. The API's lifespan is between the time after the hiring process of the new hire and before the new hire is converted as an employee.

i Note

This API supports the SuccessFactors Employee Central solution and the other external HRIS integratates systems.

Permissions

You have the [Manage Onboarding 2.0 or Offboarding 2.0](#) > [Update New Hire Data for External HRIS](#) permission.

Request

Operation	Update
HTTP Method	POST
URI	<code>https://<api-server>/odatav4/onboarding/AdditionalServices.svc/v1/updateUserNamePostHiring</code>
Payload	<pre>{ "userId" : "103280", "userName" : "frankboehm@sap.com" }</pre>

Response

```
{
  "@odata.context": "https://<api-server>/odatav4/onboarding/AdditionalServices.svc/$metadata#Edm.String",
  "@odata.metadataEtag": "\"bec992aa-2ec8-4ba1-8cc7-cb322fb62412\"",
  "value": "Success"
}
```

Error Codes

Error Code	Description
COE0000	The responseCode COE0000 means that the requested operation was not completed because Onboarding is not enabled.
COE0001	The responseCode COE0001 means that you don't have permission to invoke this API. Contact your administrator to enable the required permission.
COE0002	The responseCode COE0002 means that the requested operation was not completed because the values provided for the <code>userId</code> is invalid. Check the values in Admin Center > OData API Data Dictionary and include it in the request.
COE0005	The responseCode COE0005 means that the requested operation was not completed because the <code>userId</code> for the given <code>userName</code> could not be found. Ensure that the <code>userName</code> is associated to a valid <code>userId</code> .

Error Code	Description
COE0006	The responseCode COE0006 means that the requested operation was not completed because the userName value provided for userId already exists in the system. Provide an unique value.
COE0007	The responseCode COE0007 means that the requested operation was not completed because the user doesn't have a valid Onboarding process.
COE0008	The responseCode COE0008 means that the requested operation was not completed because the user isn't yet hired.
COE0009	The responseCode COE0009 means that the requested operation was not completed because the user isn't a new hire any more.

6 Time Tracking

A list of services offered in the Time Tracking module.

6.1 ClockInClockOutIntegration.svc

The service `ClockInClockOutIntegration` allows you to read the Clock In Clock Out related entities.

Overview

URI: `https://<api-server>/odatav4/timemanagement/timeeventprocessing/ClockInClockOutIntegration.svc`

Authentication: Bearer <Token>

i Note

The user should have the role of a business user when creating the OAuth token. For more information, see the *Related Information* section.

Related Information

[Creating API Key to Create OAuth Token](#)

[Creating API Key to Create OAuth TokenParameter details for the ClockInClockOutIntegration service](#)

6.1.1 Querying a Clock In Clock Out Group Using a Code

This example shows how to read a Clock In Clock Out Group with the code `TETG-1`, and expand the assigned Time Event Types.

Request

Operation

Query

HTTP Method	GET
URI	https://<api-server>/odatav4/ timemanagement/timeeventprocessing/ ClockInClockOutIntegration.svc/v1/ ClockInClockOutGroups('TETG-1')? \$expand=timeEventTypeNav
Payload	N/A

Response

Note

You will get the results for the Clock In Clock Out groups, only if you have the [View Clock In Clock Out Groups](#) permission.

```
{
  "@odata.context": "https://<api-server>/odatav4/timemanagement/
$metadata#ClockInClockOutGroups(timeEventTypeNav())",
  "@odata.metadataEtag": "\"fdbac9ff-5818-44fd-9828-8a1a86c7ee48\"",
  "value": [
    {
      "code": "TETG-1",
      "createdAt": "2022-01-25T13:22:10.105Z",
      "createdBy": "admin",
      "lastChangedAt": "2022-01-25T13:22:10.105Z",
      "lastChangedBy": "admin",
      "name": "Clock In Clock Out Group 1",
      "timeEventTypeNav": [
        {
          "active": true,
          "code": "CI",
          "description": "Clock In",
          "event": "START",
          "name": "Clock In"
        },
        {
          "active": true,
          "code": "CO",
          "description": "Clock Out",
          "event": "STOP",
          "name": "Clock Out"
        },
        {
          "active": true,
          "code": "BR",
          "description": "Break",
          "event": "START",
          "name": "Break"
        }
      ]
    }
  ]
}
```

Viewing Translations for a Clock In Clock Out Group and Time Event Types

This example shows how to read and view translations for a Clock In Clock Out Group with the code CICOG-1, and expand the assigned Time Event Types along with their translations.

Request

Operation	Query
HTTP Method	GET
URI	<code>https://<api-server>/odatav4/ timemanagement/timeeventprocessing/ ClockInClockOutIntegration.svc/v1/ ClockInClockOutGroups('CICOG-1')? \$expand=translations,timeEventTypeNav(\$expand=translations)</code>
Payload	N/A

Response

i Note

You will get the results for the Clock In Clock Out groups, only if you have the [View Clock In Clock Out Groups](#) permission.

```
{
  "@odata.context": " https://<api-server>/odatav4/timemanagement/  
timeeventprocessing/ClockInClockOutIntegration.svc/  
v1/$metadata#ClockInClockOutGroups(timeEventTypeNav(translations()),translations()) "
,
  "@odata.metadataEtag": "\"1d45c94d-56c9-4d50-9f87-96b523f6c3c5\"",
  "value": [
    {
      "code": "CICOG-1",
      "createdAt": "2022-05-17T16:49:02.817Z",
      "createdBy": "admin",
      "lastChangedAt": "2022-05-17T16:49:02.817Z",
      "lastChangedBy": "admin",
      "name": "English US Text",
      "timeEventTypeNav": [
        {
          "active": true,
          "code": "CI",
          "description": "Clock In",
          "event": "START",
          "name": "English US Text",
          "translations": [
            {
              "localeId": "defaultValue",
              "name": "Default Text",
              "timeEventTypeCode": "CI"
            },
            {
              "localeId": "en_US",
              "name": "Clock In",
              "timeEventTypeCode": "CI"
            },
            {
              "localeId": "de_DE",
              "name": "Den Arbeitsbeginn restriieren",
              "timeEventTypeCode": "CI"
            }
          ]
        }
      ]
    }
  ],
}
```

```

    "active": true,
    "code": "CO",
    "description": "Clock Out",
    "event": "STOP",
    "name": "English US Text",
    "translations": [
      {
        "localeId": "defaultValue",
        "name": "Default Text",
        "timeEventTypeCode": "CO"
      },
      {
        "localeId": "en_US",
        "name": "Clock Out",
        "timeEventTypeCode": "CO"
      },
      {
        "localeId": "de_DE",
        "name": "Ausstempeln",
        "timeEventTypeCode": "CO"
      }
    ]
  },
  "translations": [
    {
      "clockInClockOutGroupCode": "CICOG-1",
      "localeId": "de_DE",
      "name": "CICO Gruppe 1"
    },
    {
      "clockInClockOutGroupCode": "CICOG-1",
      "localeId": "en_US",
      "name": "CICO Group 1"
    },
    {
      "clockInClockOutGroupCode": "CICOG-1",
      "localeId": "defaultValue",
      "name": "Default Text"
    }
  ]
}
]
}

```

6.1.2 Querying All Available Clock In Clock Out Groups

This example shows how to read all the available Clock In Clock Out Groups and the time event types associated with them.

Request

Operation	Query
HTTP Method	GET

URI	https://<api-server>/odatav4/ timemanagement/timeeventprocessing/ ClockInClockOutIntegration.svc/v1/ ClockInClockOutGroups? \$expand=timeEventTypeNav
-----	---

Payload	N/A
---------	-----

Response

Note

You will get the results for the Clock In Clock Out groups, only if you have the [View Clock In Clock Out Groups](#) permission.

```
{
  "@odata.context": "https://<api-server>/odatav4/timemanagement/
$metadata#ClockInClockOutGroups",
  "@odata.metadataEtag": "\"f19acb74-52d3-4d73-8100-06f11f448331\"",
  "value": [
    {
      "code": "TETG-1",
      "createdAt": "2022-01-25T13:22:10.105Z",
      "createdBy": "admin",
      "lastChangedAt": "2022-01-25T13:22:10.105Z",
      "lastChangedBy": "admin",
      "name": "Clock In Clock Out Group 1",
      "timeEventTypeNav": [
        {
          "active": true,
          "code": "CI",
          "description": "Clock In",
          "event": "START",
          "name": "English US Text"
        },
        {
          "active": true,
          "code": "CO",
          "description": "Clock Out",
          "event": "STOP",
          "name": "English US Text"
        }
      ]
    },
    {
      "code": "TETG-2",
      "createdAt": "2022-03-03T15:28:55.584Z",
      "createdBy": "admin",
      "lastChangedAt": "2022-03-03T15:28:55.584Z",
      "lastChangedBy": "admin",
      "name": "Clock In Clock Out Group 2",
      "timeEventTypeNav": [
        {
          "active": true,
          "code": "CI",
          "description": "Clock In",
          "event": "START",
          "name": "English US Text"
        }
      ]
    }
  ]
}
```

```

        "active": true,
        "code": "CO",
        "description": "Clock Out",
        "event": "STOP",
        "name": "English US Text"
    },
    ...
    ...
]
},
...
...
]
}

```

Viewing Translations for All Available Clock In Clock Out Groups

This example shows how to view the translations for all the available Clock In Clock Out Groups along with the associated time event types and their respective translations.

Request

Operation	Query
HTTP Method	GET
URI	https://<api-server>/odatav4/ timemanagement/timeeventprocessing/ ClockInClockOutIntegration.svc/v1/ ClockInClockOutGroups? \$expand=translations,timeEventTypeNav(\$exp and=translations)
Payload	N/A

Response

Note

You will get the results for the Clock In Clock Out groups, only if you have the [View Clock In Clock Out Groups](#) permission.

```

{
  "@odata.context": "https://<api-server>/odatav4/timemanagement/  

  timeeventprocessing/ClockInClockOutIntegration.svc/  

  v1/$metadata#ClockInClockOutGroups(timeEventTypeNav(),translations())",
  "@odata.metadataEtag": "\"026566dd-9e92-4c2d-a398-93a8c04704f5\"",
  "value": [
    {
      "code": "CICOG-1",
      "createdAt": "2022-05-17T16:49:02.817Z",
      "createdBy": "admin",
      "lastChangedAt": "2022-05-17T16:49:02.817Z",
      "lastChangedBy": "admin",
      "name": "CICO Group 1",
      "timeEventTypeNav": [
        {
          "active": true,
          "code": "CI",
          "description": "Clock In",

```

```

        "event": "START",
        "name": "Clock In",
        "translations": [
          {
            "localeId": "defaultValue",
            "name": "Default Text",
            "timeEventTypeCode": "CI"
          },
          {
            "localeId": "en_US",
            "name": "Clock In",
            "timeEventTypeCode": "CI "
          },
          {
            "localeId": "de_DE",
            "name": " Den Arbeitsbeginn restriieren",
            "timeEventTypeCode": "CI"
          }
        ]
      },
      {
        "active": true,
        "code": "CO",
        "description": "Clock Out",
        "event": "STOP",
        "name": "English US Text",
        "translations": [
          {
            "localeId": "de_DE",
            "name": "Ausstempeln",
            "timeEventTypeCode": "CO"
          },
          {
            "localeId": "en_US",
            "name": "Clock Out",
            "timeEventTypeCode": "CO"
          },
          {
            "localeId": "defaultValue",
            "name": "Default Text",
            "timeEventTypeCode": "CO"
          }
        ]
      }
    ],
    "translations": [
      {
        "clockInClockOutGroupCode": "CICOG-1",
        "localeId": "de_DE",
        "name": "CICO Gruppe 1"
      },
      {
        "clockInClockOutGroupCode": "CICOG-1",
        "localeId": "en_US",
        "name": "CICO Group 1"
      },
      {
        "clockInClockOutGroupCode": "CICOG-1",
        "localeId": "defaultValue",
        "name": "Default Text"
      }
    ]
  },
  {
    "code": "CICOG-2",
    "createdAt": "2022-05-17T16:50:42.503Z",
    "createdBy": "admin",

```

```

    "lastChangedAt": "2022-05-17T16:50:42.503Z",
    "lastChangedBy": "admin",
    "name": "CICO Group 2",
    "timeEventTypeNav": [
      {
        "active": true,
        "code": "CI",
        "description": "Clock In",
        "event": "START",
        "name": "English US Text",
      }
    ],
    "translations": [
      {
        "localeId": "defaultValue",
        "name": "Default Text",
        "timeEventTypeCode": "CI"
      },
      {
        "localeId": "en_US",
        "name": "Clock In",
        "timeEventTypeCode": "CI"
      },
      {
        "localeId": "de_DE",
        "name": "Den Arbeitsbeginn restriieren ",
        "timeEventTypeCode": "CI"
      }
    ],
    ...
  ],
  "translations": [
    {
      "clockInClockOutGroupCode": "CICOG-2",
      "localeId": "defaultValue",
      "name": "Default Text"
    },
    {
      "clockInClockOutGroupCode": "CICOG-2",
      "localeId": "en_US",
      "name": "CICO Group 2"
    },
    {
      "clockInClockOutGroupCode": "CICOG-2",
      "localeId": "de_DE",
      "name": "CICO Gruppe 2"
    }
  ]
}
]
}
}

```

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