



Workday Adapter Guide

For SAP Integration Suite and SAP Cloud Integration

Version 1.2.0 – October 2025

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1. INTRODUCTION

This is the official guide for the Workday Adapter for SAP Cloud Integration. This guide covers all relevant information for integration developers to start working with the Workday Adapter. Read this guide carefully before using the Adapter.

1.1 Coding Samples

Any software coding and/or code lines/strings ("Code") included in this documentation are only examples and are not intended to be used in a productive system environment. The Code is only intended to better explain and visualize the syntax and phrasing rules of certain coding. The correctness and completeness of the Code given herein are not warranted.

1.2 Internet Hyperlinks

The documentation may contain hyperlinks to the Internet. These hyperlinks are intended to serve as hints about where to find related information. The availability and correctness of this related information or the ability of this information to serve a particular purpose are not guaranteed.

2. WORKDAY INTEGRATION

2.1 Introduction

Workday provides an all-in-one cloud solution for businesses to manage finance, human resources, and planning.

Workday provides the following products: Financial Management, Human Capital Management, Enterprise Planning, Spend Management, Talent Management, Payroll, and Workforce Management and Analytics and Reporting.

For more information about Workday and its products, visit the Workday website: <https://www.workday.com>

2.2 Workday Adapter

The Workday Receiver Adapter enables an SAP Cloud Integration tenant to accelerate the implementation time and reduce the complexity of connecting to Workday based on its API.

2.2.1 Features

From a high-level perspective, the following key features are provided by the Workday Adapter:

- **Support for multiple versions:** The Workday Adapter allows integration with Workday using a preferred SOAP API version. Currently, API versions up to v45.0 are supported by the adapter.
- **Eclipse Plugin for Workday:** Simplify the discovery of Workday entities and their properties using the provided Eclipse Plugin.
- **XSD generation:** The Adapter comes equipped with an Eclipse Plug-in which generates XSDs representing objects in Workday.
- Supports **Basic** and **Certificate Based Authentication** mechanisms to connect to Workday.
- Support for multiple operations:
 - Absence_Management
 - ACA_Partner_Integrations
 - Academic_Advising
 - Academic_Foundation
 - Admissions
 - Adoption
 - Benefits_Administration
 - Benefits_Partner_Program_Integrations
 - Campus_Engagement

- Cash_Management
- Compensation
- Compensation_Review
- Drive
- Dynamic_Document_Generation
- External_Integrations
- Financial_Aid
- Financial_Management
- Flex_Team
- Human_Resources
- Identity_Management
- Integrations
- Inventory
- Learning
- Moments
- Metadata_Transactions
- Notification
- Payroll
- Payroll_CAN
- Payroll_FRA
- Payroll_GBR
- Payroll_Interface
- Payroll_AUS
- Performance_Management
- Prism_Analytics
- Professional_Services_Automation
- Recruiting
- Requests
- Resource_Management
- Revenue_Management
- Scheduling
- Settlement_Services
- Staffing
- Student_Core
- Student_Finance
- Student_Records
- Student_Recruiting
- Student_Transfer_Credit
- Talent
- Tenant_Data_Translation
- Time_Tracking
- Workday_Connect
- Workday_Extensibility
- Workforce_Planning

2.3 Architecture Overview

From a technical perspective, the Workday Adapter can only be used on the receiver side. This means that SAP Integration Suite is the initiator of the calls. In case the calls toward Workday need to be scheduled, a Scheduler within the integration flow can be used.

Figure 4.1 shows how the Workday Adapter can be used in a simple Request-Reply scenario. Various operations can be used in the Adapter – such as Query Data, Delete or Create an entity, etc. These operations are explained in detail in Section 3.

To learn more about the different adapter operations and their configuration, refer to Section 9.

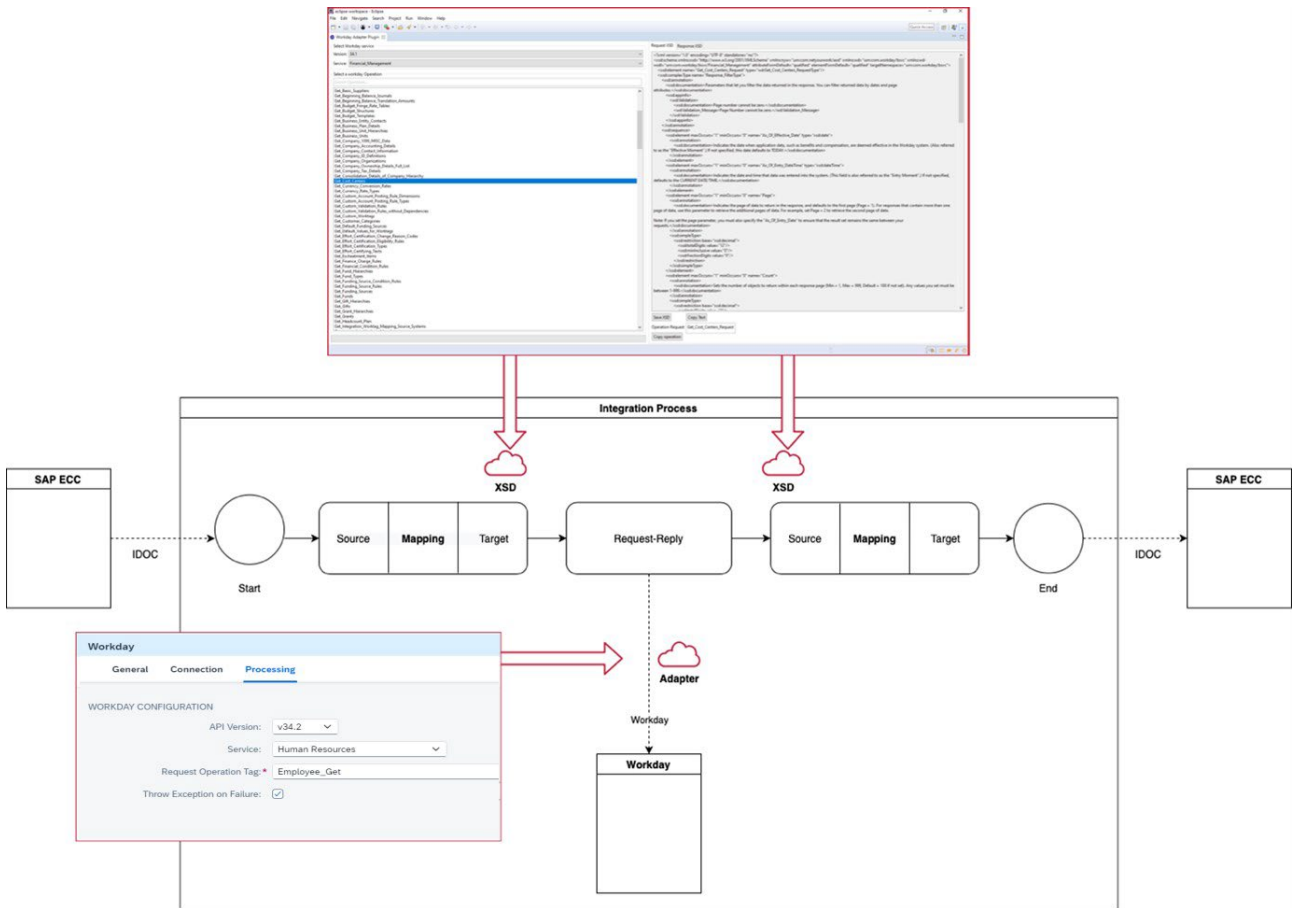


Figure 2.1 Workday Adapter solutions for SAP Cloud Integration

The mapping step makes mapping to other systems' message types easier as there are several XSDs created for the operations that the Workday Adapter supports.

For the Workday plug-in and XSD Generator configuration, please refer to Section 6.

3. SUPPORTED SERVICES AND VERSIONS

Currently, API versions up to v45.0 are supported by the adapter.

Table 1 lists the different services that are supported by the Workday Adapter.

Services	Description
Absence_Management	The Absence Management Web Service contains operations that expose absence-related data, including Employee Time Off and Absence Inputs for time off and accrual adjustments and overrides, and Leave Requests, in Workday Human Capital Management Business Services.
ACA_Partner_Integrations	The ACA Partner Integrations Web Service provides Federal and State reporting operations for ACA partners and vendor integrations that report customer ACA data
Academic_Advising	Web Service for retrieving objects related to Academic Advising, such as Student Academic Requirement Assignments.

Services	Description
Academic_Foundation	Public Web Service for creating, editing, and retrieving the foundational objects for the Student System, such as Programs of Study, Educational Institutions, and other objects with cross-module uses.
Admissions	Web Service for creating, editing, and retrieving objects related to Admissions, such as Applicants.
Adoption	Adoption Web Service Operations.
Benefits_Administration	The Benefits Administration Web Service contains operations that expose Workday Human Capital Management Business Services benefits-related data.
Benefits_Partner_Program_Integrations	The Benefit Program Partner Integrations provides operations for Benefits Providers and vendor integration that creates benefit program card data.
Campus_Engagement	Public Web Service for creating, editing, and retrieving objects related to planning and organizing communication between Student Prospects and Recruiters.
Cash_Management	The Cash Management Web Service contains operations that expose Workday Financials Cash Management data. It includes data relative to Banking.
Compensation	The Compensation Web Service contains operations that expose Workday Human Capital Management Business Services compensation-related data.
Compensation_Review	The Compensation Review Web Service contains operations that expose Workday Human Capital Management Business Services compensation review-related data.
Drive	Public Web Services for Drive
Dynamic_Document_Generation	Web service for creating, editing, and retrieving objects related to Document Templates, such as Text Blocks and Text Block Categories.
External_Integrations	The External Integrations Web Service provides an operation that informs external systems of Integration Events that have been triggered from within Workday. The WSDL for this service provides the structure that needs to be implemented by an external system to receive event "Launch" information.
Financial_Aid	This web service is for the Financial Aid module.
Financial_Management	The Financial Management Web Service contains operations that expose Workday Financials data. It includes data relative to Accounts, Accounting, Business Plans, Financial Reporting, Tax, Financial Organizations, Basic Worktags, Related Worktags, and more.
Flex_Team	The Flex Team Web Service contains operations for creating, editing and retrieving Flex Team data.
Human_Resources	The Human Resources Web Service contains operations that expose Workday Human Capital Management Business Services data, including Employee, Contingent Worker, and Organization information. This Web Service can be used for integration with enterprise systems including corporate directories, data analysis tools, email or other provisioning sub-systems, or any other systems needing Worker and/or Organization data.
Identity_Management	The Identity Management Web Service contains operations that relate to Workday Identity and Access Management.
Integrations	This Web Service contains operations related to all Integrations within the Workday system.

Services	Description
Inventory	Submits Interview Feedback for Interviewers on the Interview Schedule. Also, allows you to move a candidate to the next stage of the business process. This web service is being retired in a future release. These operations are available under the Recruiting (Public) web service.
Learning	The Inventory Web Service contains operations that expose Workday Financials Inventory data.
Metadata_Transactions	Import Metadata Translations using EIB
Moments	The Learning Web Service contains operations for creating, editing and retrieving Workday Learning-related data such as Courses, Course Offerings, and Enrollments.
Notification	Web Service for creating, editing, and retrieving objects related to Workday Moments.
Org_Studio	Web service operations designed for the interaction with Org Studio Setup Data.
Payroll	The Notification Web Service provides an operation that informs external systems of business events that occur within Workday. The WSDL for this service provides the structure that needs to be implemented by an external system to receive notifications for their subscribed Workday business events. Subscriptions and Notification details (i.e. Endpoint and security information) are defined within the Workday application.
Payroll_CAN	The Workday Payroll Web Service contains operations that expose Workday Payroll data for integration with third parties (such as time and attendance).
Payroll_FRA	The Workday Payroll CAN Web Service contains operations that expose Workday Payroll CAN data for integration with third parties (such as time and attendance).
Payroll_GBR	The Workday Payroll FRA Web Service contains operations that expose Workday Payroll FRA data for integration with third parties
Payroll_AUS	The Workday Payroll AUS Web Service contains operations that expose Workday Payroll AUS data for integration with third parties.
Payroll_Interface	The Payroll Interface Web Service contains operations that expose Workday Human Capital Management Business Services data for integration with external payroll systems.
Performance_Management	The Payroll Interface Web Service contains operations that expose Workday Human Capital Management Business Services data for integration with external payroll systems.
Prism_Analytics	This service is for creating, editing, and retrieving objects related to Prism Analytics, such as Analytic Dimension Business Object, Analytic Dimension Hierarchy, and Analytic Dimension Value.
Professional_Services_Automation	The Performance Management Web Service contains operations that expose Workday Employee Performance Management Business Services data. This Web Service can be used for integration with other employee performance management systems.
Recruiting	The Professional Services Automation Web Service contains operations that expose Workday Financials Business Services data for integration with Professional Services Automation (PSA) systems.
Requests	Public web service for creating objects related to Requests.

Services	Description
Resource_Management	The Recruiting Web Service contains operations that expose Workday Human Capital Management Business Services data for integration with Talent Management and Applicant Tracking systems.
Revenue_Management	The Resource Management Web Service contains operations that expose Workday Financials Resource Management data. It includes data relative to Suppliers, Supplier Accounts, Expenses, Business Assets, and Projects.
Scheduling	Operations for importing and exporting scheduling data.
Settlement_Services	The Revenue Management Web Service contains operations that expose Workday Financials Revenue Management data. It includes data relative to Customers, Customer Accounts, Prospects, and Opportunities.
Staffing	Web Service used for settlement management and services.
Student_Core	The Staffing Web Service operations expose Workday Human Capital Management Business Services and data. These services pertain to staffing transactions for both employees and contingent workers, such as bringing employees and contingent workers on board.
Student_Finance	Web Service for creating, editing, and retrieving objects related to students' personal information, such as Student Documents.
Student_Records	Web service for creating, editing, and retrieving objects related to Student Finance, such as charges and payments for Students.
Student_Recruiting	Web Service for creating, editing, and retrieving objects related to Student Records, such as Student Courses, Sections, etc.
Student_Transfer_Credit	Public web service for creating, editing, and retrieving data related to Student Transfer Credit.
Talent	Web Service for creating, editing, and retrieving objects related to Student Recruiting, such as Student Recruiting Events, Campaigns, Cycles, Recruiters, and Prospects.
Tenant_Data_Translation	This web service consists of operations for interfacing with the Workday Talent Management web service operations.
Time_Tracking	Public Web Service to export and import translatable tenant data
Workday_Connect	Operations for importing and exporting time and work schedule information.
Workday_Extensibility	Get and put web services used for communication capabilities across applications.
Workforce_Planning	Public Web Service for extensibility features across applications.

Table 1 Description of Supported Operations

4. WORKDAY ADAPTER CONFIGURATION

To connect SAP Cloud Integration to Workday, an integration user must be created in Workday.

Follow this guide to generate this user type.

4.1 Creating an Integration User in Workday

Note: This section is sufficient for Basic authentication, however do not skip, in case you want to choose Certificate Based Authentication as this step is mandatory for both authentication mechanisms.

1. Login to the Workday tenant with an admin user.
2. In the Workday Portal search for “Create User” and click the task **Create Integration System User**.

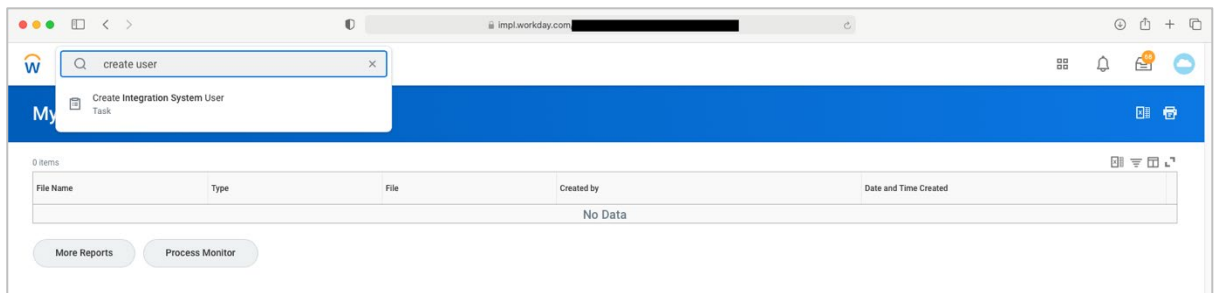


Figure 4.1 Workday Portal

3. In the **Account Information** form, fill in a **User Name** and a **New Password**. Leave the **Require New Password at Next Sign In** option unchecked, as this user will be logging in programmatically.
4. Leave the **Session Timeout Minutes** with the default value of 0. This prevents the user's sessions from timing out prematurely.
5. Finally, check the option **Do Not Allow UI Sessions**. This provides an added layer of security that prevents a user with the password of the integration system from logging into Workday.

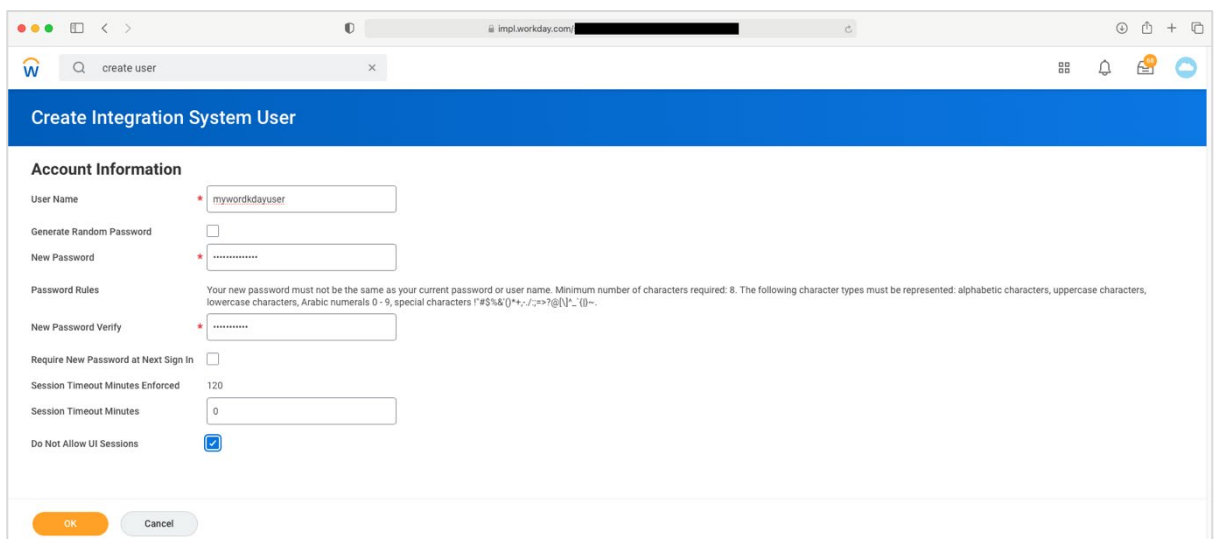


Figure 4.2 Workday Account Creation

Section	Parameter Name	Description
User Creation in Workday Application	User Name*	Provide a username. Example: myworkdayuser
	New Password*	Set a password. Alternatively, check the Generate Random Password checkbox to generate a password automatically.
	New Password Verify*	Repeat the password.
	Require New Password at Next Sign In	Unchecked
	Session Timeout Minutes	0
	Do Not Allow UI Sessions	Checked

Table 2 Workday Account Creation Configuration Details

Note: Username and Password are needed to create credentials in the SAP Cloud Integration tenant.

4.2 Certificate Based Authentication

To use the certificate based authentication provided by Workday to make calls using SOAP API, you must set up X509 authentication.

The steps have been highlighted below:

- i) Create a certificate which contains a public/private key pair.
- ii) You need to extract the public key from the certificate and save it.
- iii) Create or Add a Key Pair in SAP Integration Suite.
- iv) Create a X509 key in Workday and store the public key extracted from the certificate.
- v) The newly created X509 key must be associated with an integration user.

Note: Consult with your IT team to get the suitable certificate, the following steps can be used as a reference for test environment.

4.2.1 Creating a certificate (including public/private key pair).

1. The `keytool` command is a key and certificate management utility. You can find it as part of your standard Java JDK.

Note: Verify that `JAVA_HOME%\bin` is included in the `%PATH%` variable, as this is the directory that contains the `keytool` utility.

The command below generates a keypair and stores the resulting certificate containing the keypair in a keystore.

```
keytool -genkeypair -alias WorkdayCreds -keyalg RSA -keystore WorkdayCredsKeystore.jks
```

```

C:\Windows\System32>keytool -genkeypair -alias WorkdayCreds -keyalg RSA -keystore WorkdayCredsKeystore.jks
Enter keystore password:
Re-enter new password:
What is your first and last name?
  [Unknown]: C K
What is the name of your organizational unit?
  [Unknown]: MYORG
What is the name of your organization?
  [Unknown]: ORG
What is the name of your City or Locality?
  [Unknown]: CITY
What is the name of your State or Province?
  [Unknown]: STATE
What is the two-letter country code for this unit?
  [Unknown]: CC
Is CN=C K, OU=MYORG, O=ORG, L=CITY, ST=STATE, C=CC correct?
[no]: Y

```

Note: Keep this handy as this needs to be uploaded in SAP Integration Suite for creating a Key Pair.

2. You can verify if the above command has successfully run using the command below.

```
keytool -list -v -keystore WorkdayCredsKeystore.jks
```

4.2.2 Extracting the Public Key from Keystore

After ensuring key pair creation, you must extract the public key from the key store. To extract the public key, execute the following command:

```
keytool -exportcert -keystore WorkdayCredsKeystore.jks -rfc -alias
WorkdayCreds -file MyWorkdayCreds.cer
```

```

C:\Windows\System32>keytool -exportcert -keystore WorkdayCredsKeystore.jks -rfc -alias WorkdayCreds -file MyWorkdayCreds.cer
Enter keystore password:
Certificate stored in file <MyWorkdayCreds.cer>

```

Note: Keep this handy as this needs to be copied and pasted in Workday application.

4.2.3 Creating or Adding a Key Pair in SAP Integration Suite.

For more information, see [Adding Key Pair as Keystore](#) and [Creating Key Pair as Keystore](#).

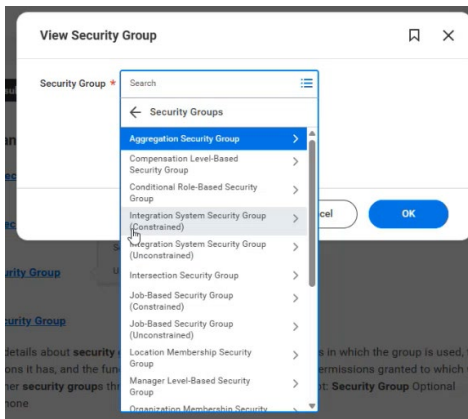
4.2.4 Configuring Security Group and Storing Public key in Workday

4.2.4.1 Creating a Security Group

1. Log in as an admin to Workday.
2. Search for “Security Group” and select **Create Security Group**.
3. Set **Type of Tenant Security Group** to **Integration System Security Group(UnConstrained)**
4. Enter the Name for the Security Group and Click **OK**.

4.2.4.2 Adding the Integration User to Security Group

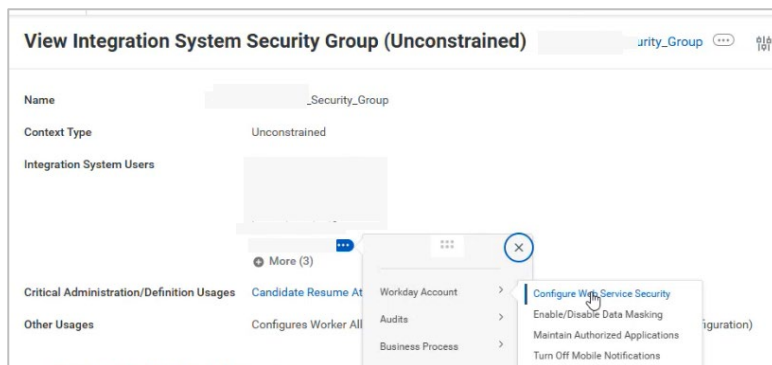
1. Search **Security Groups** in Workday.
2. Click **View Security Group**.
3. A dropdown with Security Group will appear, Select **Integration System Security Group(Unconstrained)**.



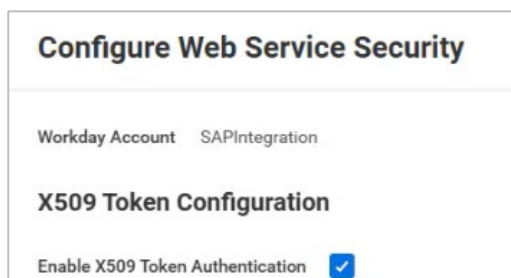
4. Navigate to the security group that you have created and add your integration user to it.

4.2.4.3 Configure Web Service Security and Create x509 Public Key

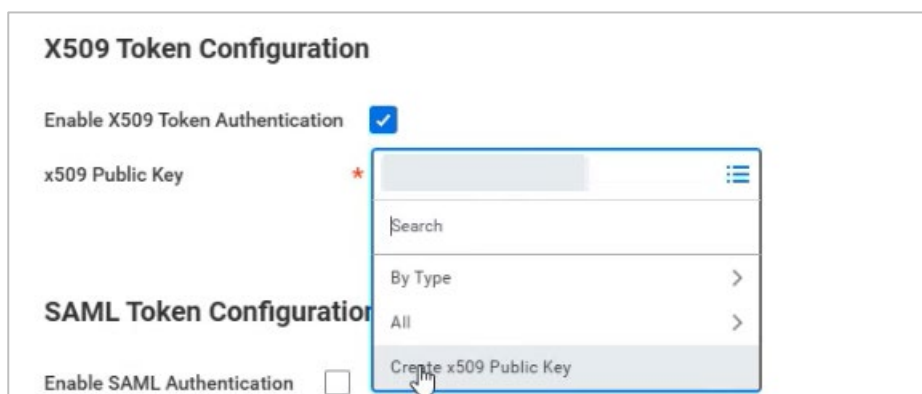
1. Go to your security group that now is associated with the integration user and Navigate to **Configure Web Service Security**.



2. Enable **X509 Token Configuration** by selecting the checkbox.

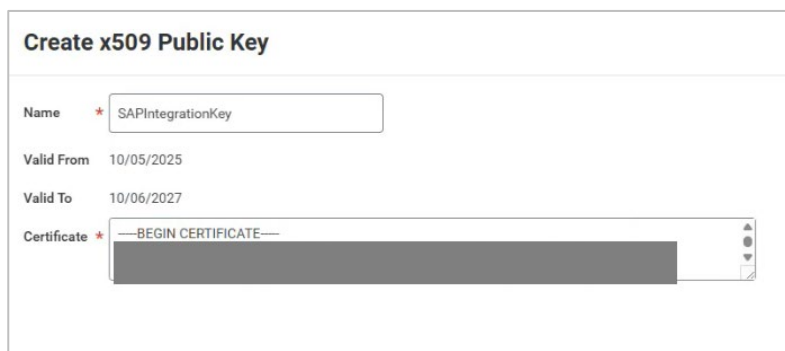


3. Create an X509 Public Key.



4. Enter a name for your Public Key and paste the public key from the [.cer](#) obtained in [Extract Public Key from Keystore](#).

Note: Ensure that you include all content including -----BEGIN CERTIFICATE----- and -----END CERTIFICATE-----.



Create x509 Public Key

Name * SAPIntegrationKey

Valid From 10/05/2025

Valid To 10/06/2027

Certificate * -----BEGIN CERTIFICATE-----
[Redacted]

5. Click **OK** to confirm.

5. ADAPTER INSTALLATION

Refer to the Workday Adapter Installation Guide included in the package for detailed steps on installing the Workday Adapter.

Note: Ensure you have completed relevant steps in [Workday Adapter Configuration](#).

6. ECLIPSE PLUG-IN INSTALLATION

Refer to the Eclipse Plug-in Installation Guide included in the package for detailed steps on installing the Eclipse Plug-in.

7. AUTHENTICATION

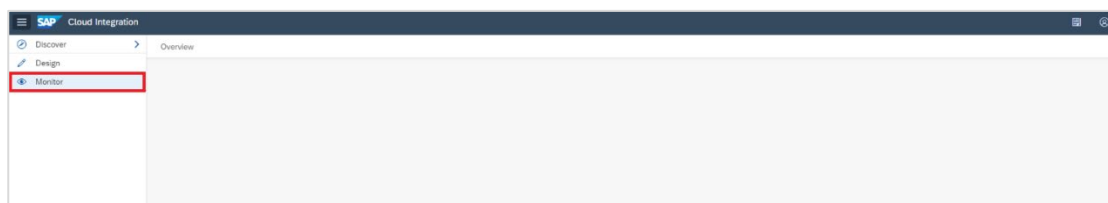
7.1 Creating Credentials as Security Material

To follow the best practices and the security policy of SAP Cloud Integration, the Adapter works with standard security artifacts such as Secure Parameter and User Credentials. These are stored in the SAP secure store.

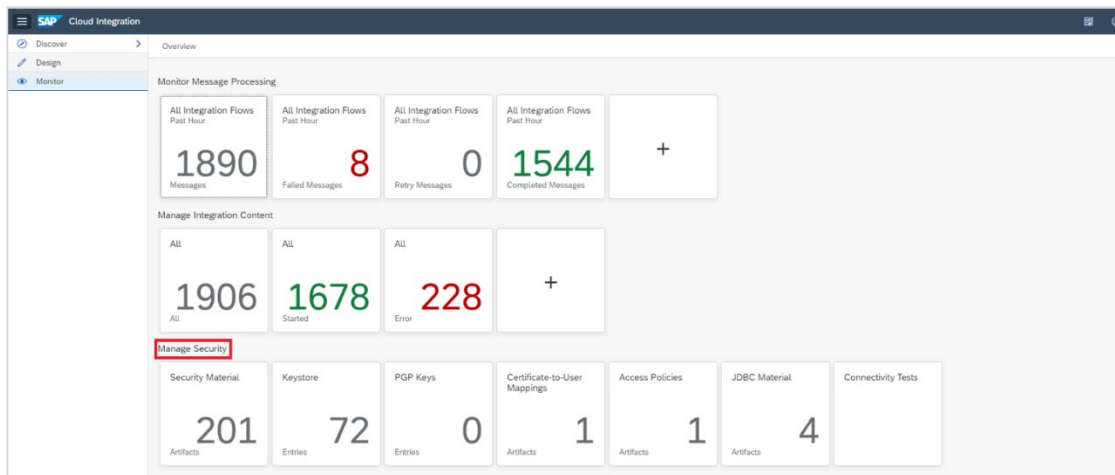
This way, credentials can be safely provided to the Adapter using aliases.

To create a Security Material for the Workday Adapter, proceed with the following steps:

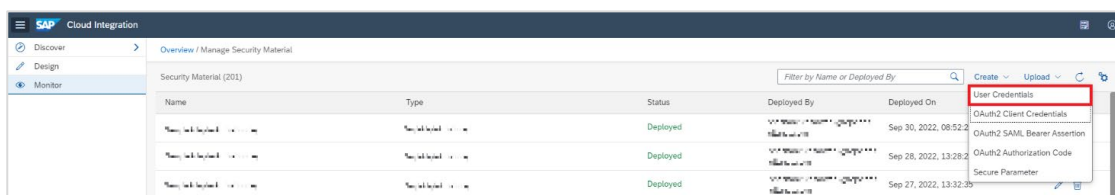
1. In SAP Cloud Integration, navigate to the **Monitor** View.



2. Select **Security Material** under the **Manage Security** section.



3. Click on the Create dropdown button at the top right and select User Credential.



4. Provide a name to the Security Material and ensure that User Credential is selected in the Type dropdown.

Create User Credentials

Name:

Description:

Type:

User:

Password:

Repeat Password:

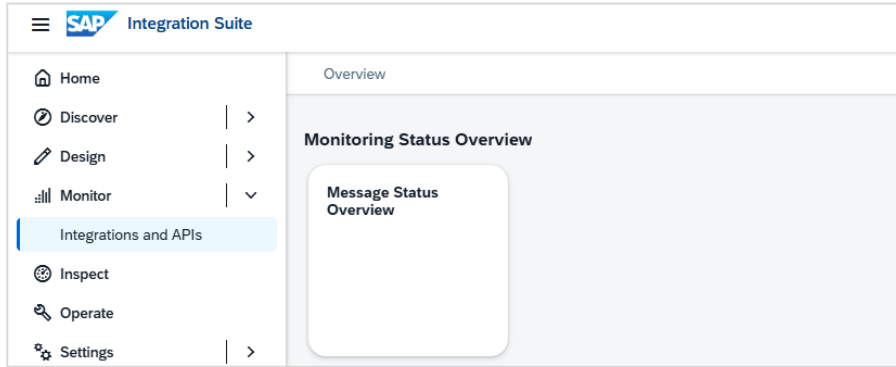
5. Supply the Workday username and password.
6. Click on **Deploy**.

7.2 Adding Key Pair as Keystore

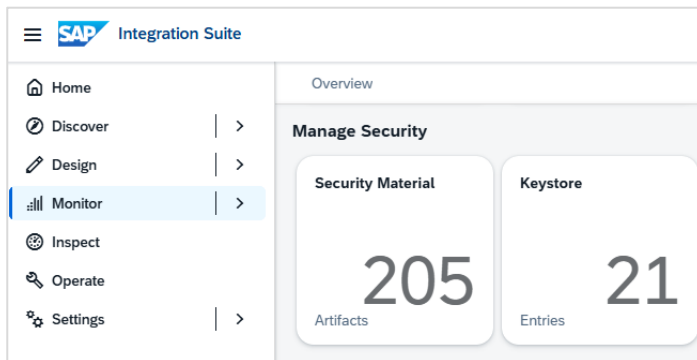
Note: You must have the **.jks** file and **.cer** file before you proceed. This option is applicable only if you have completed in 4.2.1 Creating a certificate (including public/private key pair) and 4.2.2 Extracting the Public Key from Keystore.

To Add a Keystore for the Workday Adapter, proceed with the following steps:

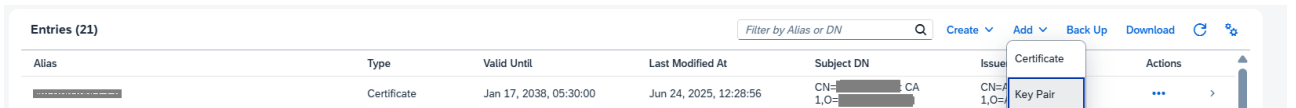
1. In SAP Integration Suite, navigate to the **Monitor** View.



2. Choose the **Keystore** tile under **Manage Security** section.



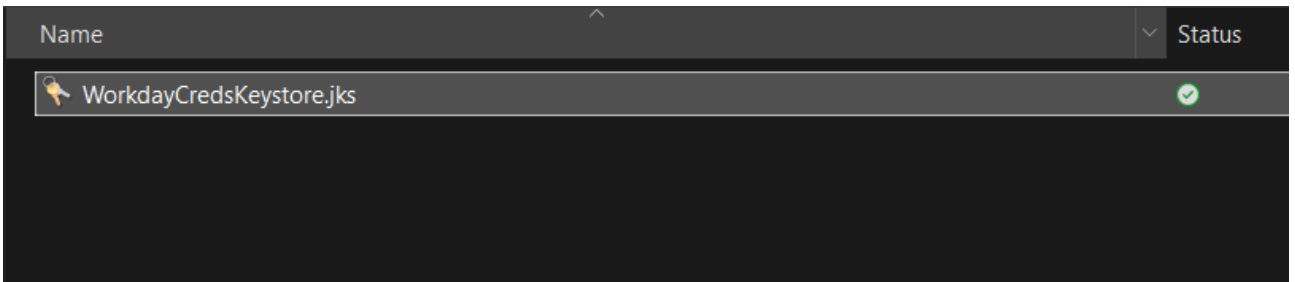
3. Click **Add** and select **Key Pair** from the dropdown.



4. A window to **Add Key Pair** pops up. Enter the same **Alias** and password the was used to create key pair.

The screenshot shows the 'Add Key Pair' dialog box. It contains three input fields: 'Alias: *' with the value 'WorkdayCreds', 'File: *' with the placeholder 'Choose a key pair for upload...' and a 'Browse...' button, and 'Password: *' with masked characters. At the bottom right are 'Add' and 'Cancel' buttons.

5. Upload the **.jks** file and click **Add** to confirm.

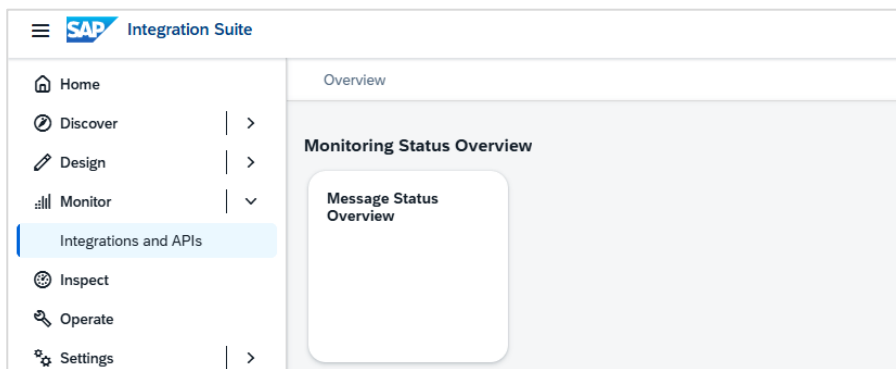


7.3 Creating Key Pair as Keystore

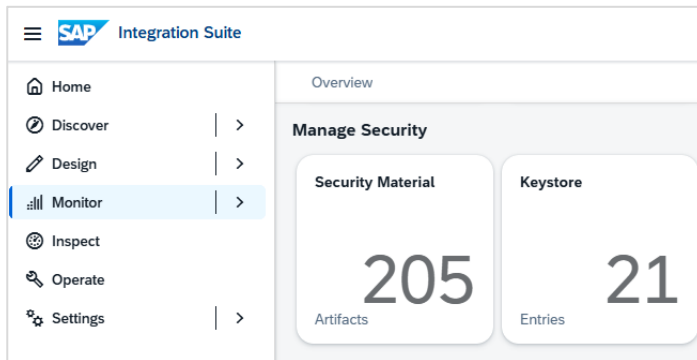
Note: This credential creation step falls under Certificate Based Authentication.

To create a Keystore for the Workday Adapter, proceed with the following steps:

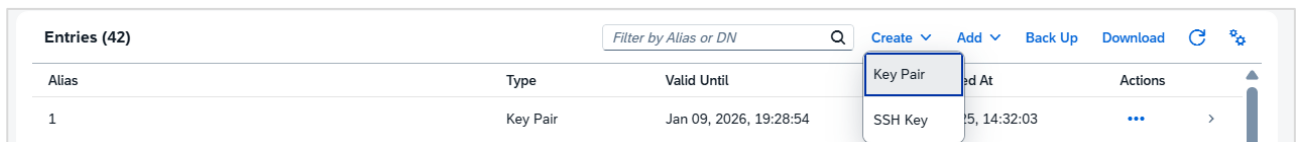
1. In SAP Integration Suite, navigate to the **Monitor** View.



2. Choose the **Keystore** tile under **Manage Security** section.



3. Click **Create** and select **Key Pair** from the dropdown.



4. A window to **Create Key Pair** pops up. Populate the below details as follows:
 - i) Specify an **Alias** to refer the key pair.
 - ii) The **Key Type**, **Key Size** and **Secure Algorithm** are populated by default.
 - iii) **Common Name (CN)** and **Country/Region** must be populated according to your requirements.
 - iv) Finally, define a validity period.

Create Key Pair

Alias: * workday_cert

Key Type: * RSA

Key Size: * 2048

Signature Algorithm: * SHA-512/RSA

Common Name (CN): *

Organizational Unit (OU):

Organization (O):

Location (L):

State or Province (ST):

Country/Region (C): * US

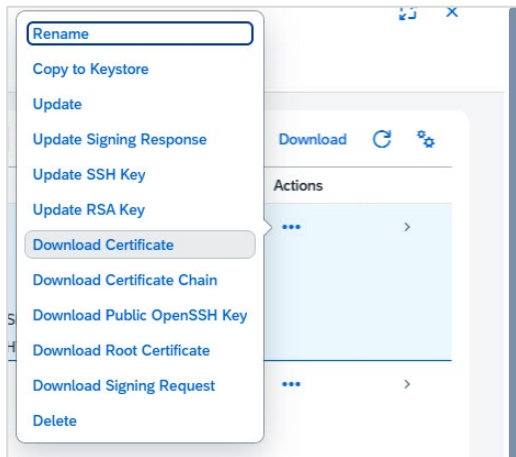
E-Mail (E):

Valid From: * Oct 8, 2025

Valid Until: * Oct 8, 2027

Create Cancel

5. Click **Create** to finalize the key pair creation.
6. You can now download the **.cer** file that is required to be copied and pasted during Public Key creation in Workday application.



8. USING THE ECLIPSE PLUG-IN

The Eclipse Plug-In or Workbench can be used to extract and generate XSDs of the different Workday entities. These XSDs can then be used in mappings for the request or response messages in the integration scenarios.

The next sections will explain how to use the Plug-in.

8.1 Configuring Login Information for Workday Tenant

The Eclipse Plug-In generates the XSDs according to the metadata of the business objects or entities that are part of a given Workday tenant. To retrieve the metadata, the users need to configure the connection and authentication information for the target tenant.

To configure the connections and authentications, click **Window** on the Eclipse menu bar and select the **Preferences** item from the menu.

On the left side of the dialogue box, navigate to the Workday preference page. A page that looks like Figure 7.1 will be shown.

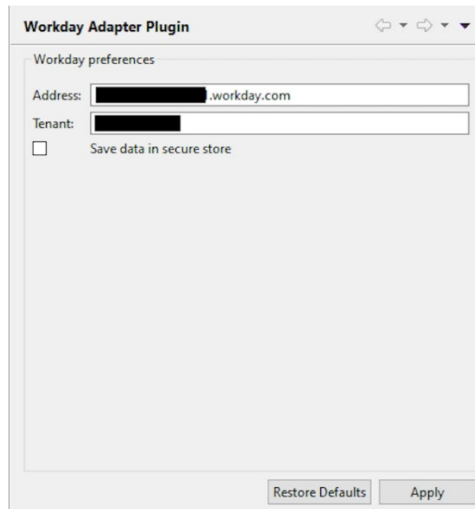


Figure 7.1 Configuring the Connection Details of the Plug-In

On the preference page, the Host field refers to the **Address** of the target Workday tenant.

Example: <https://youraccount.workday.com/>.

In the **Tenant** field, the tenant's name must be provided.

Note that these fields correspond to the same information required in the Adapter's Connection Tab. See Section 9.1 for more information.

After providing these details, click **Apply and Close**.

8.2 Generate XSD

The Workday XSD generator allows the creation of schemas for all operations. The next sections contains information on how to use the plugin.

8.2.1 Workday Service

The Workday Service configuration pane is situated on the left side of the window.

Provide the API Version and the Service as shown in Figure 7.2.

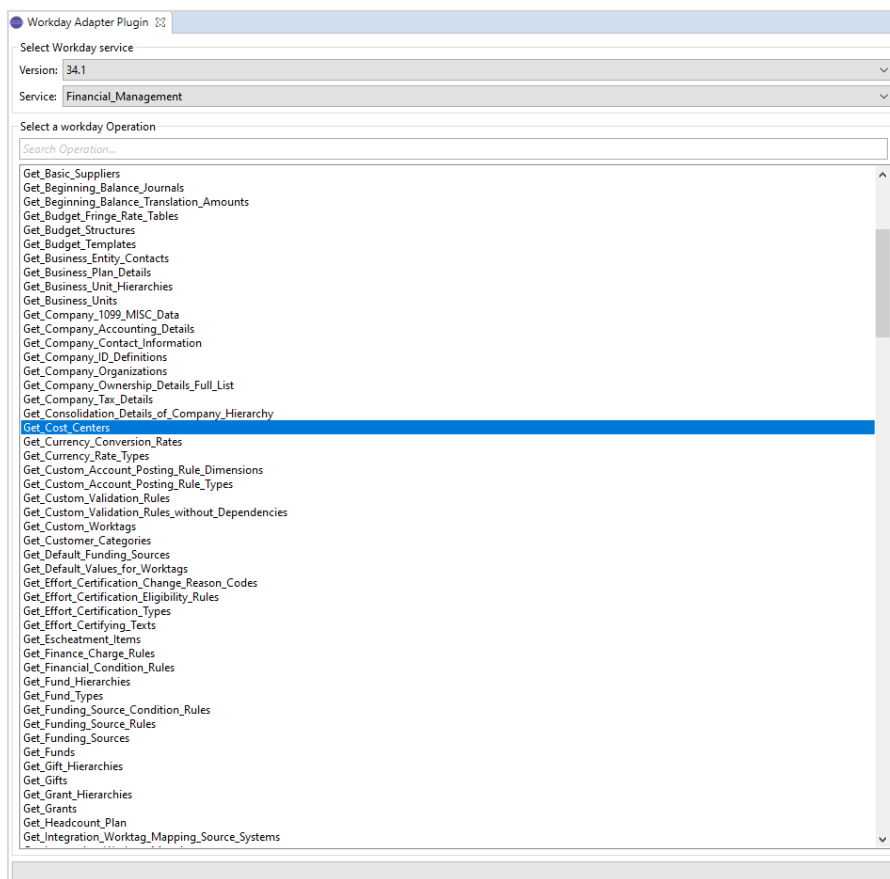


Figure 7.2 Workday Plug-in Configurations

Tab	Parameter	Description
Workday Adapter Plugin	API Version	Select the required version of the Workday API. Currently, API versions up to v45.0 are supported by the adapter.
	Service	Select the category of service for your operation. Eg. Inventory
	Operation	Select the Operation for which the XSD needs to be generated. Eg. Get_Cost_Center

Table 3 Workday Plug-In Configuration Setting Details

Once the settings are configured per the scenario, click the Generate button to generate XSDs.

On the right side of the screen are three tabs: Request XSD and Response XSD.

The Request XSD tab contains the XSD that represents the properties of the selected entity in Workday. This XSD can be copied or saved to the local machine.

It can later be used in a mapping of the integration flow, see Figure 7.3.



Figure 7.3 Example Request XSD

Similarly, the Response XSD tab contains the XSD that represents the properties of the selected module. Note that this XSD only includes properties that are returned in the response of the specified operation.

For example, if the Create operation is selected, the primary key property might not be present in the input (Request XSD) but will be present in the response XSD. See Figure 7.4 for visualization.

In contrast with the Request XSD tab, the Response XSD tab is always filled for all the operations.

```

Request XSD | Response XSD
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:nyw="urn:com.netyouwork/aod" xmlns:wd="urn:com.workday/bsvc" xmlns:wd-
wsdl="urn:com.workday/bsvc/Financial_Management" attributeFormDefault="qualified" elementFormDefault="qualified" targetNamespace="urn:com.workday/bsvc">
  <xsd:element name="Get_Cost_Centers_Response" type="wd:Get_Cost_Centers_ResponseType"/>
  <xsd:complexType name="Cost_CenterType">
    <xsd:annotation>
      <xsd:documentation>Get Cost Center Response Data</xsd:documentation>
    </xsd:annotation>
    <xsd:sequence>
      <xsd:element minOccurs="0" name="Cost_Center_Reference" type="wd:Cost_CenterObjectType">
        <xsd:annotation>
          <xsd:documentation>Reference to an existing Cost Center</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element minOccurs="0" name="Cost_Center_Data" type="wd:Cost_Center_DataType">
        <xsd:annotation>
          <xsd:documentation>Element containing all Cost Center data.</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
      <xsd:element minOccurs="0" name="Simple_Cost_Center_Data" type="wd:Simple_Cost_Center_DataType">
        <xsd:annotation>
          <xsd:documentation>Element Containing Simple Cost Center data (Name and ID)</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
  <xsd:complexType name="Cost_Center_Response_DataType">
    <xsd:annotation>
      <xsd:documentation>Get Cost Center Response Data</xsd:documentation>
    </xsd:annotation>
    <xsd:sequence>
      <xsd:element maxOccurs="unbounded" minOccurs="0" name="Cost_Center" type="wd:Cost_CenterType">
        <xsd:annotation>
          <xsd:documentation>Element containing all Cost Center data.</xsd:documentation>
        </xsd:annotation>
      </xsd:element>
    </xsd:sequence>
  </xsd:complexType>
  <xsd:simpleType name="External_URLReferenceEnumeration">
    <xsd:restriction base="xsd:string">
      <xsd:annotation>
        <xsd:appinfo>
          <wd:enumeration value="WID"/>
          <wd:enumeration value="URL"/>
        </wd:appinfo>
      </xsd:annotation>
    </xsd:restriction>
  </xsd:simpleType>
  <xsd:complexType name="Get_Cost_Centers_ResponseType">
    <xsd:annotation>
      <xsd:documentation>Get Cost Center Response</xsd:documentation>
    </xsd:annotation>
    <xsd:sequence>
      <xsd:element minOccurs="0" name="Request_References" type="wd:Cost_Center_Request_ReferencesType">
        <xsd:annotation>

```

Save XSD | Copy Text

Figure 7.4 Example Response XSD

The generated XSDs can be copied or saved to the local computer using the Save and Copy buttons. See the bottom left corner of Figure 7.4.

9. ADAPTER CONFIGURATION

This section describes different parameters that can be configured for the Receiver Adapter. The Adapter has two tabs, Connection, and Processing.

Each is discussed in the next sections. Note that when (*) is present in a property, it indicates that the property is mandatory.

9.1 Connection Tab

The Connection Tab contains parameters that define how the adapter connects and authenticates with the Workday tenant.

CONNECTION DETAILS

Address: * wd9-impl-serv.workday.com

Tenant: * wdy_host

Authentication Type: Certificate Based Authentication

Username: * wd_user@wdtenant

Private Key Alias: * PK_Alias

Connection Timeout (in ms): 60000

Response Timeout (in ms): 60000

Figure 9.1 Example of Connection Tab

The details of each field included in the Connection tab are explained in Table 4.

Tab	Parameter	Description
Connection	Address*	Specify the recipient's endpoint URL. This is the URL to which you connect to your Workday tenant. Example: <hostname>.workday.com
	Tenant*	Specify the Workday tenant to be used. Example: yourhost.workday.com Example: Workday_Tenant
	Authentication Type	Select the required authentication type to connect to Workday: <ul style="list-style-type: none"> • Basic • Certificate Based Authentication
	Username*	Specify the Workday username specific to your tenant. Example: wd_user@wdtenant
	Private Key Alias*	Specify the alias to identify the private key used for authentication using a certificate based authentication.
	Credential Name*	Specify the credential name used to authenticate against the server. This represents the Workday credential name (username-password) pair stored as Security Material. You created this User Credential in SAP Integration Suite (see Section 7).
	Connection Timeout (in ms)	Specify the maximum waiting time (in milliseconds) for the connection to be established.
	Response Timeout (in ms)	Specify the maximum waiting time (in milliseconds) for a response message.

Table 4 Connection Tab Description

9.2 Processing Tab

Figure 9.2 illustrates the basic options of the Processing Tab. Selecting a Service automatically fills its corresponding Request, Operation Tag.

The screenshot shows a configuration window for the Processing Tab. It is divided into two sections: 'PROCESSING DETAILS' and 'HEADER DETAILS'. In the 'PROCESSING DETAILS' section, there is a 'Configuration Type' dropdown menu currently set to 'Advanced'. Below it is a 'Relative URL' field with the value '/ccx/service/{tenant}/v32.0/Staffing'. A 'Throw Exception on Failure' checkbox is checked. The 'HEADER DETAILS' section contains a 'Request Headers' text area which is currently empty.

Figure 9.2 Processing Tab, Basic and Advanced Tab

This complete list of fields for operation related configurations are described below:

Tab	Parameter	Description
Processing	Configuration Type	Select the configuration type: <ul style="list-style-type: none"> Basic to use the dropdowns and parameter text fields Advanced to specify the relative URL.
	API Version	The version of the Workday API. Currently, API versions up to v45.0 are supported by the adapter. This must match API version selected when generating the XSD in the Eclipse Plug-in.)
	Service	Select the Service under which the operation you want is situated. Example: Financial Management, Identity Management, or Human Resources. Table 1 provides a full list of all Services supported by the Adapter.
	Request Operation Tag*	Specify the operation tag of your payload. Example: For Service Financial Management Service, value could be Get_Basic_Customers or Put_Cost_Center.
	Relative URL*	Specify the endpoint path, excluding the Host. Example: /ccx/service/{tenant}/v32.0/Staffing.
	Throw Exception on Failure	Enable to throw an exception in case of a failed response from the remote server. Note: Throw Exception on Failure checkbox is enabled by default.
	Request Headers	Enter a list of custom headers, separated by a pipe (), to be sent to the target system. Use an asterisk (*) to send all

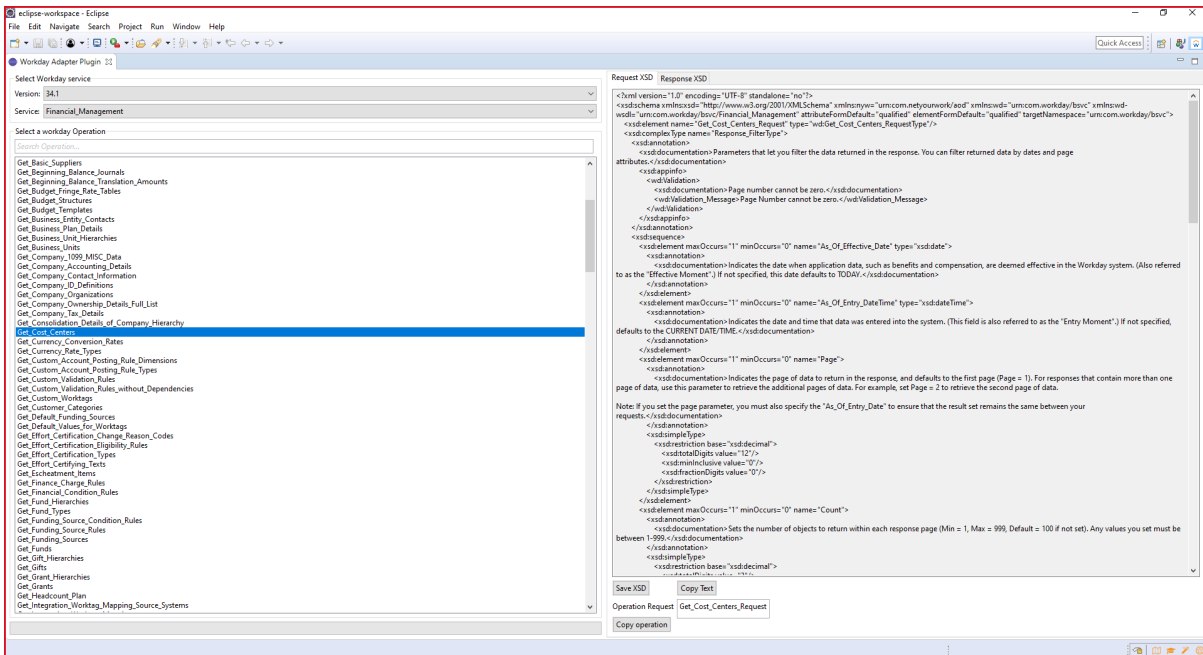


Figure 10.3 Workday Plug-in, Example Set Up

To create the XSD, follow these steps:

1. Select the API version as v34.1.
2. Choose Service as Human Resources.
3. Corresponding operations are displayed. Select “Get_Employee”.
4. Click on the Generate XSD button.

Using the XSD created, a one-to-one mapping can be made. See Figure 10.4 for reference.

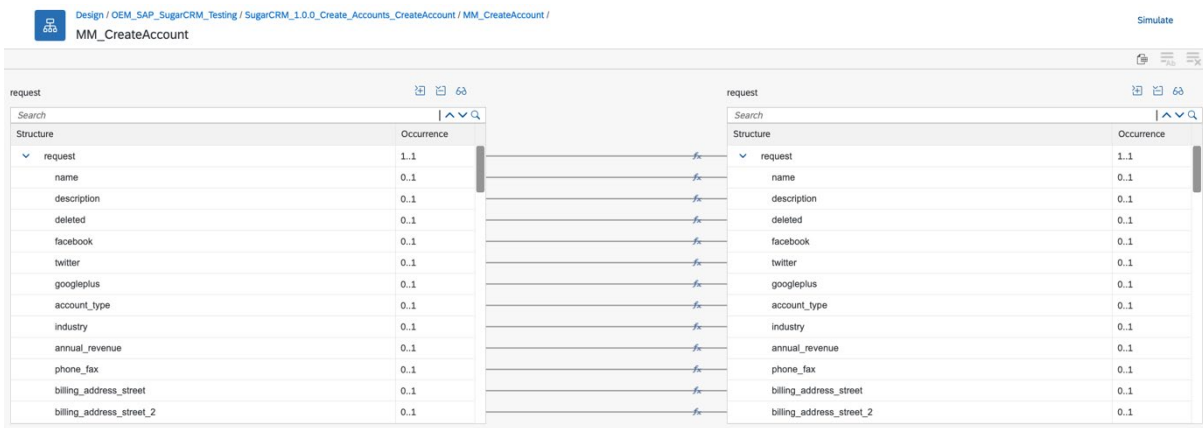


Figure 10.4 Workday Plug-in, Mapping

After the mapping is completed, the Workday Adapter needs to be configured.

Workday

General **Connection** Processing

CONNECTION DETAILS

Address: * wd2-impl-services1.workday.com

Tenant: * wdy_host

Credential Name: * WorkdayCreds

Connection Timeout (in ms): 60000

Response Timeout (in ms): 60000

Figure 10.5 Workday Adapter, Connection Tab Details

In the Connection Tab shown in Figure 10.5, supply the Workday tenant details. Credentials previously deployed for Credential Name are used in the Connection details.

Refer to Section 7 for further instructions on how to deploy these credentials.

Each field of the Connection tab is explained in Section 9.1.

Following the Connection tab, the next step is to configure the Process Tab. An example of the needed configuration to achieve the integration of the example is shown in Figure 10.6.

Workday

General Connection **Processing**

PROCESSING DETAILS

Configuration Type: Basic

API Version: v34.2

Service: Human Resources

Request Operation Tag: * Employee_Get

Throw Exception on Failure:

HEADER DETAILS

Request Headers:

Figure 10.6 Workday Adapter, Processing Tab Details

- In the Processing Tab, select the **Configuration Type** as Basic and **API Version** as v34.2(This must match API version selected when generating the XSD in the Eclipse Plug-in.)
- Select **Service** as Human Resources, **Request Operation Tag** as Employee_Get, and enable/disable Throw Exception on Failure as per your preference by selecting the checkbox.
- **Throw Exception on Failure** checkbox is enabled by default.

Each field of the Processing tab is explained in Section 9.1.

Now that all the necessary configurations are made, the integration flow can be deployed and then called from Postman.

Figure 10.7 shows an example of the input message.

```
<bsvc:Employee_Get bsvc:As_Of_Date="2020-09-29" bsvc:As_Of_Moment="2020-09-18T23:18:33" bsvc:version="string">
  <bsvc:Employee_Reference>
    <bsvc:Integration_ID_Reference bsvc:Descriptor="string">
      <bsvc:ID bsvc:System_ID="string">io123091h34089u0sdfsa</bsvc:ID>
    </bsvc:Integration_ID_Reference>
  </bsvc:Employee_Reference>
</bsvc:Employee_Get>
```

Figure 10.7 Workday Gets Employee Request

As a result, Employee information is retrieved from Workday.

11. REFERENCES

11.1 Finding Workday Address

To find the address that can be used in the Address field of the Connection Tab, log in to the Workday portal and navigate to the Home Page.

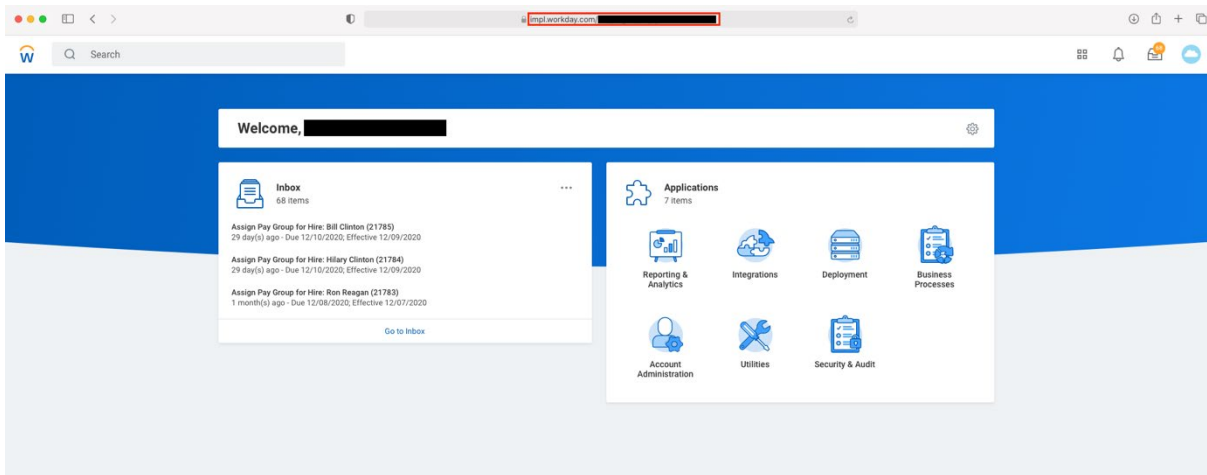


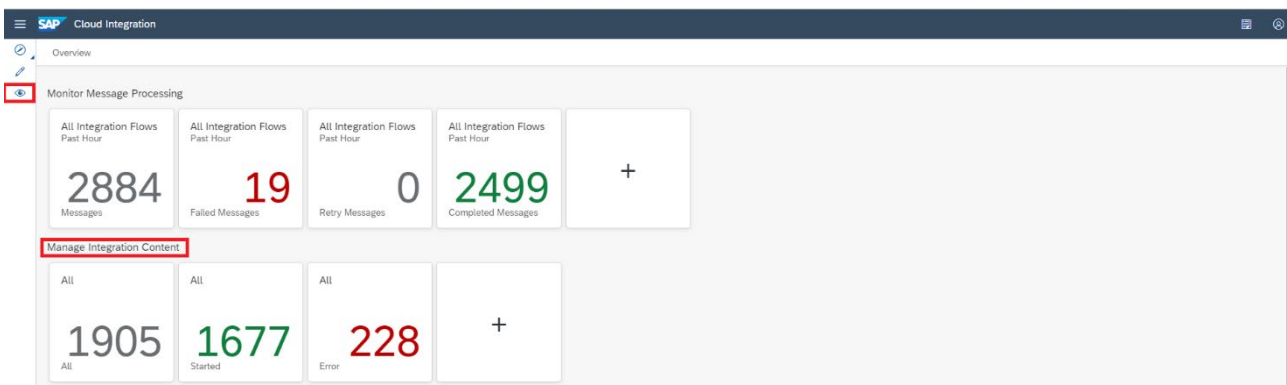
Figure 11.1 Workday Address

From the browser URL, use the tenant's name of the Workday instance as highlighted in Figure 11.1.

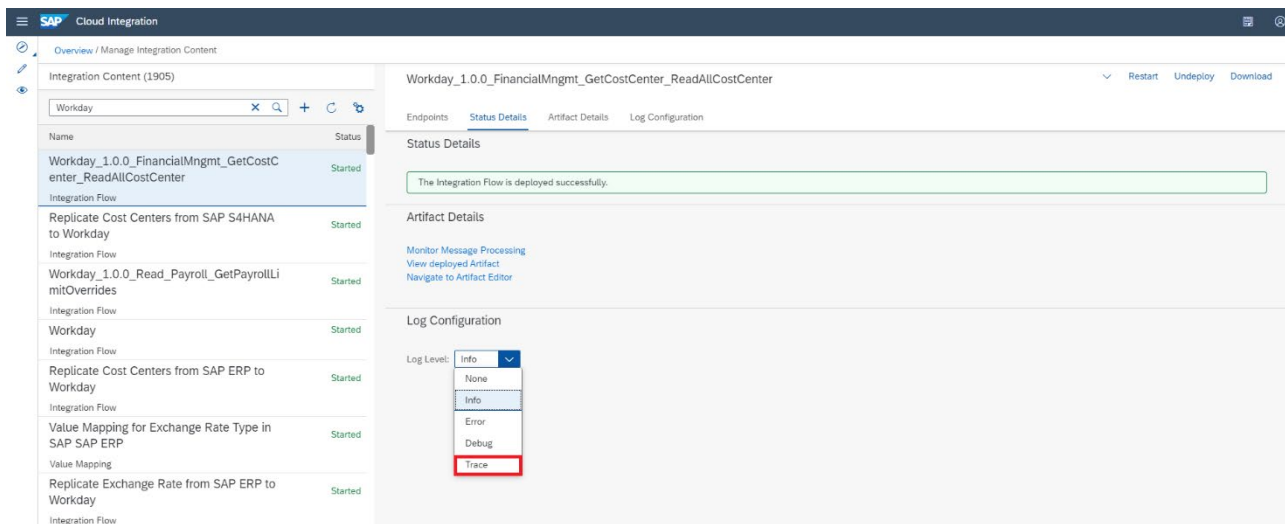
12. SUPPORT AND TROUBLESHOOTING

In case of errors, the source of the issue can be traced by changing the Log level of the integration flow to Traces.

Navigate to the Monitor view of SAP Cloud Integration and proceed to the Manage Integration Content page.



Set the Log Level to Trace Log level. This enables the collection of more traces that can be used to effectively understand the problem. These traces can also be used in a ticket.



In the next sections, a few issues that may be encountered and possible solutions are discussed.

12.1 SSL Handshake Exception

Error Message:

```
javax.net.ssl.SSLHandshakeException: sun.security.validator.ValidatorException: PKIX path building failed: sun.security.provider.certpath.SunCertPathBuilderException: unable to find valid certification path to requested target, cause: sun.security.provider.certpath.SunCertPathBuilderException: unable to find valid certification path to requested target.
```

Possible Solution: This error generally means that an entry for the root certificate of Workday is missing in the Keystore of SAP Cloud Integration.

At the time this document is published, Workday expects a DigiCert Global Root G2 certificate.

12.2 Unknown Host Exception

Error Message:

```
java.net.UnknownHostException: xxxxxxxx.workday.com
```

Possible Solution: This error generally indicates that the URL used in the Address field of the Connection Tab in the Adapter is incorrect. Correct the value of this field.

Refer to Section 11.1 which explains how to find the Workday Address.

12.3 No Artifact Descriptor Found

Error Message:

```
[CAMEL][IFLOW][CAUSE]: Cause: com.sap.it.nm.types.NodeManagerException: [CONTENT][CONTENT_DEPLOY][NoArtifactDescriptorFoundForArtifactName]:No artifact descriptor found for artifactName WorkdayCredentials
```

Possible Solution: This error generally indicates that the Security Artifact used in the Connection Tab does not exist. Ensure that the artifact used in the Connection Tab exists as a Security Material.

Refer to Section 8 for guidance on how to create Security Material in SAP Cloud Integration.

12.4 Invalid Input XML

Error Message:

```
org.apache.camel.CamelException: Invalid input XML. org.apache.camel.CamelException: Invalid input XML. The root node "request" is missing in the input.
```

Possible Solution: This error generally indicates that the Adapter is expecting an XML input but is getting the wrong XML or even another language such as JSON.

12.5 Cannot Produce Target Element

Error Message:

```
com.sap.xi.mapping.camel.XiMappingException:  
com.sap.aii.mappingtool.tf7.IllegalInstanceException: Cannot produce target element  
/request/entry/name. Queue has not enough values in context. Target xsd requires a value for this  
element, but target field mapping does not produce one. Probably the xml-instance is not valid to the  
source xsd, or the target field mapping does not fulfill the requirement of the target xsd., cause:  
com.sap.aii.mappingtool.tf7
```

Possible Solution: This error generally indicates that the mapping requires a missing mandatory value in the message body sent when creating or updating an instance of an entity in Workday.

12.6 Non-Existing Field

Error Message:

```
org.apache.camel.CamelException:org.apache.camel.CamelException:  
{"error":"invalid_parameter","error_message":"Non existing field: somefield in module: Accounts"}
```

Possible Solution: This error usually indicates that a field does not match a known field found for this entity type

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