



Integration Guide | PUBLIC
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Egypt Electronic Invoicing: Setting Up SAP Integration Suite (SAP ERP, SAP S/4HANA) - Cloud Foundry Environment

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1 Disclaimer

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2 Introduction

You use SAP Integration Suite to establish the communication with external systems with whom you want to exchange electronic documents created with SAP Document and Reporting Compliance. This document lists the required setup steps you perform in the SAP ERP or SAP S/4HANA system* and the SAP Integration Suite tenant so that the integration between the systems works.

The setup steps are typically done by an SAP Integration Suite consulting team, which is responsible for configuring the SAP back-end systems and the connection with SAP Integration Suite. This team may be also responsible for maintaining the integration content and certificates/credentials on the SAP Integration Suite tenant.

i Note

Although the service name **SAP Integration Suite** is used in the guide title and throughout the guide, this guide **also applies to SAP Cloud Integration running in the Cloud Foundry environment**. If you were onboarded before July 2020, the service you use is SAP Cloud Integration. The initial setup steps for the two services are different, while the integration flow settings and configuration steps in your back-end system are the same. See the **Prerequisites** section for their respective initial setup steps.

i Note

This document describes functionality that is provided by the Integration Package itself, that is, by the artifacts that are deployed in the SAP Integration Suite tenant. It may happen, however, that in the SAP back-end systems the access to such functionality is only partially implemented. Additionally, it may also happen that the tax authority servers do not provide all services that are described in this document. Please refer to the relevant SAP back-end systems documentation and to the relevant tax authority information, respectively.

For the sake of simplicity in this guide, we mention SAP back-end systems when something refers to both SAP ERP or SAP S/4HANA.

3 Prerequisites

Before you start with the activities described in this document, ensure that the following prerequisites are met.

1. You have installed in the test and productive systems all necessary SAP Notes for the Document and Reporting Compliance Solution.
2. You have set up your tenant as follows:
 - If you have subscribed to Process Integration, perform all the initial setup steps described in [Initial Setup of SAP Cloud Integration in Cloud Foundry Environment](#).
 - If you have subscribed to Integration Suite, perform all the initial setup steps described in [Initial Setup](#).

i Note

SAP Document and Reporting Compliance requires the **Cloud Integration capability**. You need to activate this capability in the step **Provisioning the Capabilities**.

4 Connectivity Steps



4.1 Setup of Secure Connection

You establish a trustworthy SSL connection to set up a connection between the SAP back-end systems and the SAP Integration Suite. For more information, see [Connecting a Customer System to Cloud Integration](#).

Outbound HTTP connections are required, and are supported with specific, public certificates.

You use SAP ERP Trust Manager (transaction `STRUST`) to manage the certificates required for a trustworthy SSL connection. The certificates include public certificates to support outbound connections, as well as trusted certificate authority (CA) certificates to support integration flow authentication.

Refer to the system documentation for more information regarding the certificate deployment to SAP back-end systems. In case of issues, refer to the following SAP notes:

- [2368112](#)  Outgoing HTTPS connection does not work in AS ABAP
- [510007](#)  Setting up SSL on Application Server ABAP

For more information, see [Operating and Monitoring Cloud Integration](#).

i Note

If you encounter any issues in the information provided in the SAP Integration Suite product page, open a customer incident against the `LOD-HCI-PI-OPS` component.

Client Certificate

If you are using a client certificate, this must be signed by one of the root certificates supported by the load balancer. A self-signed certificate is not suitable. For more information see [Load Balancer Root Certificates Supported by SAP](#).

4.1.1 Retrieve and Save Public Certificates

Prerequisites

If you do not find any integration flows in your tenant then refer to [Copy Integration Flows \[page 15\]](#) and [Configuring Integration Flows \[page 16\]](#).

Context

Find and save the public certificates from your SAP Integration Suite runtime.

Procedure

1. Access the SAP BTP cockpit, and navigate to your subaccount (tenant) page.
2. Click the subscriptions link to display the subscriptions for your subaccount.
3. Use the tenant URL you created as defined in the prerequisites of this document. The URL has the following format: `https://<tenant>.cfapps.<data center>.hana.ondemand.com`, where <tenant> corresponds to the dynamic part and is unique for each subaccount and <data center> corresponds to the data center you are using.
4. In the *Operations* view, choose *Manage Integration Content* and select *All* to display the integration flows available.
5. Select an integration flow to display its details.
6. Copy the URL listed within the *Endpoints* tab, and paste the URL into your web browser.
7. When prompted by the *Website Identification* window, choose *View certificate*.
8. Select the root certificate, and then choose *Export to file* to save the certificate locally.
9. Repeat these steps for each unique root, intermediate and leaf certificate, and repeat for both your test and production tenants.

4.1.2 Upload the Certificates

Store the public certificates used for your productive and test tenants.

Context

You use the SAP ERP Trust Manager (transaction `STRUST`) to store and manage the certificates required to support connectivity between SAP back-end systems and SAP Integration Suite.

Procedure

1. Access transaction `STRUST`.
2. Navigate to the PSE for **SSL Client (Anonymous)** and open it by double-clicking the PSE.
3. Switch to edit mode.
4. Choose the *Import certificate* button.
5. In the *Import Certificate* dialog box, enter or select the path to the required certificates and choose *Enter*. The certificates are displayed in the *Certificate* area.
6. Choose *Add to Certificate List* to add the certificates to the *Certificate List*.
7. Save your entries.

4.1.3 Authenticate Integration Flows

Create an own certificate and get it signed by a trusted certificate authority (CA) to support integration flow authentication.

Context

You use the SAP ERP Trust Manager (transaction `STRUST`) for this purpose.

This process is required only if you use certificate-based authentication (that is, you choose the **x.509 SSL Client Certification** option in your settings for SOAMANAGER).

Procedure

1. Access transaction `STRUST`.

2. Create your own PSE (for example, Client SSL Standard) and then generate a certificate sign request.
3. Export the certificate sign request as a *.csr file.
4. Arrange for the certificate to be signed by a trusted certificate authority (CA).

If you are using a client certificate, this must be signed by one of the root certificates supported by the load balancer. A self-signed certificate is not suitable. For more information, see [Load Balancer Root Certificates Supported by SAP](#).

The CA may have specific requirements and request company-specific data, they may also require time to analyze your company before issuing a signed certificate. When signed, the CA provides the certificate for import.

5. Navigate to the PSE for **SSL Client Standard** and open it by double-clicking the PSE.
6. Switch to edit mode.
7. Choose the *Import certificate* button.
8. In the *Import Certificate* dialog box, enter or select the path to the CA-signed certificate and choose *Enter*. The certificate is displayed in the *Certificate* area.
9. Choose *Add to Certificate List* to add the signed certificate to the *Certificate List*.

Ensure that you import the CA root and intermediate certificates to complete the import.

10. Save your entries.

The certificates can now be used in the SOA Manager (transaction SOAMANAGER).

5 Configuration Steps

5.1 General Information

The package *SAP Document and Reporting Compliance: Electronic Invoice for Egypt* contains the following integration flows:

Egypt e-Invoicing Integration Flows

Integration Flow Name in WebUI	Project Name/Artifact Name
Egypt Submit Document	com.sap.GS.Egypt.SubmitDocument
Egypt Document Cancellation or Rejection	com.sap.GS.Egypt.CancelReject
Egypt Get Recent Documents	com.sap.GS.Egypt.GetRecentDocuments
Egypt Get Document Details	com.sap.GS.Egypt.GetDocDetails
Egypt Get Document PDF	com.sap.GS.Egypt.GetDocPDF
Egypt Decline Document Cancellation or Rejection	com.sap.GS.Egypt.Decline
Egypt Search Documents	com.sap.GS.Egypt.SearchDocuments
Egypt Trust Digital Signature Integration	com.sap.GS.Egypt.EgyptTrustDigitalSignatureIntegration

i Note

The *Egypt Get Recent Documents* integration flow is obsolete.

Document Notification Integration Flows

Integration Flow Name in WebUI	Project Name/Artifact Name
Egypt ERP Ping	com.sap.GS.Egypt.ERPPing
Egypt ERP Notification	com.sap.GS.Egypt.ERPNotifications

i Note

The integration flows *Egypt ERP Ping* and *Egypt ERP Notification* are supported only for S/4HANA versions 2021 onwards.

5.2 Deploy Credentials to Tenants

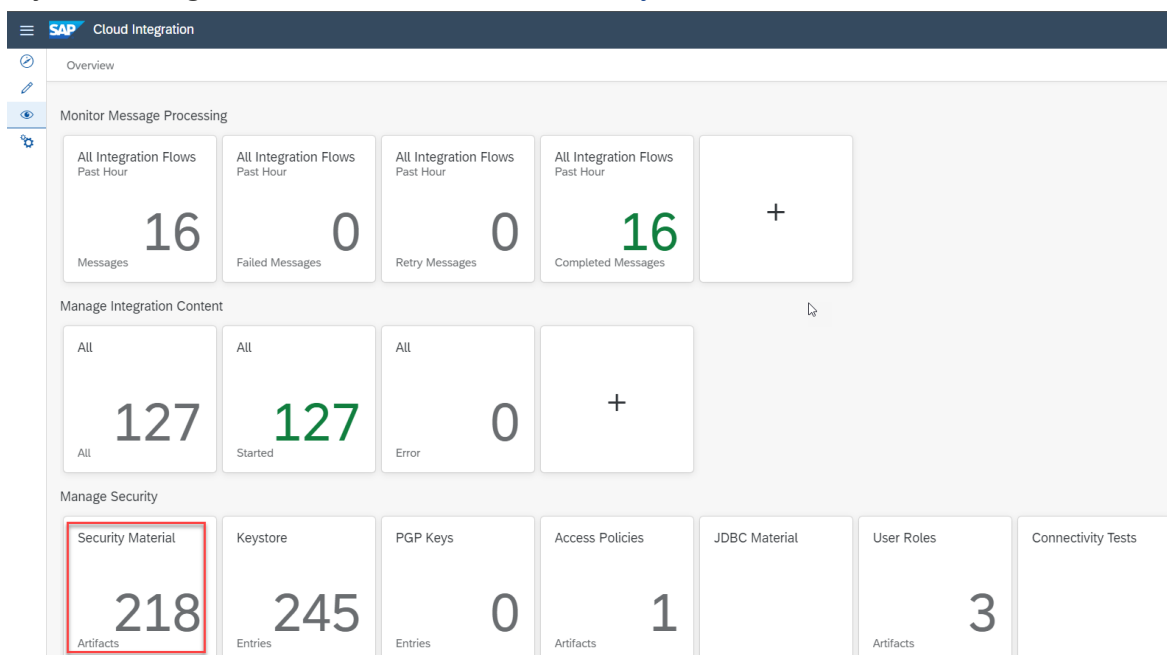
To establish a connection between the SAP Integration Suite and tax authority servers, you must obtain several security materials, and then add these to the SAP Integration Suite tenant.

5.2.1 Add Credentials for Authenticating Signature Device

SAP Integration Suite uses a *Secure Parameter* to authenticate the communication with Signing device/server. For the Egypt elnvoice scenario, you must include credentials that are recognized by the eSeal provider like eTrust. A *Secure Parameter* is used to specific if a technical user is registered with a signing device/server.

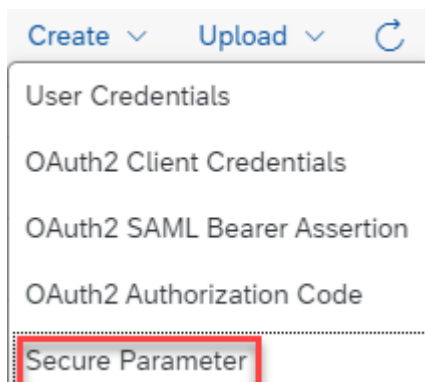
If you use the Egypt Trust Signing Server then you can follow the steps in this section to deploy the Name and Secure Parameter to your SAP Integration Suite tenant.

1. In your browser, go to the *Overview* tab and choose *Security Material*.



The screenshot shows the SAP Cloud Integration Overview page. The 'Monitor Message Processing' section displays four cards: 'All Integration Flows Past Hour Messages' (16), 'All Integration Flows Past Hour Failed Messages' (0), 'All Integration Flows Past Hour Retry Messages' (0), and 'All Integration Flows Past Hour Completed Messages' (16). The 'Manage Integration Content' section shows three cards: 'All' (127), 'Started' (127), and 'Error' (0). The 'Manage Security' section shows seven cards: 'Security Material Artifacts' (218), 'Keystore Entries' (245), 'PGP Keys Entries' (0), 'Access Policies Artifacts' (1), 'JDBC Material', 'User Roles Artifacts' (3), and 'Connectivity Tests'.

2. Choose *Create* on the right corner and choose *Secure Parameter*.



The screenshot shows the 'Create' dropdown menu in the SAP Cloud Integration interface. The menu items are: 'User Credentials', 'OAuth2 Client Credentials', 'OAuth2 SAML Bearer Assertion', 'OAuth2 Authorization Code', and 'Secure Parameter'. The 'Secure Parameter' option is highlighted with a red box.

3. Enter the name, description and secure parameter, and deploy them.

Create Secure Parameter

Name: *

Description:

Secure Parameter: *

Repeat Secure Parameter: *

[Deploy](#) [Cancel](#)

You need to add Secure Parameter as follows:

- Name: The required format for the *Name* is "edoc_egypt_<type>_<taxpayerid>" (For example, edoc_egypt_secretkey_123456789).

i Note

Here the <type> can be:

- pin
- thumbprint
- secretkey
- signingServer

The *Name* is case sensitive.

- Description: 'Egypt Security Material Type'
- Secure Parameter: The value of the pin, thumb print, secret key and signing server should be entered for the *Secure Parameter*.

i Note

For the Signing Server security material the Secure Parameter is in the form of a URL. The required format of the URL is "<protocol>://<IP Address>:Port" (For example, Http://1.2.3.4:9999).

- Repeat Secure Parameter: Re-enter the value of the *Secure Parameter*.

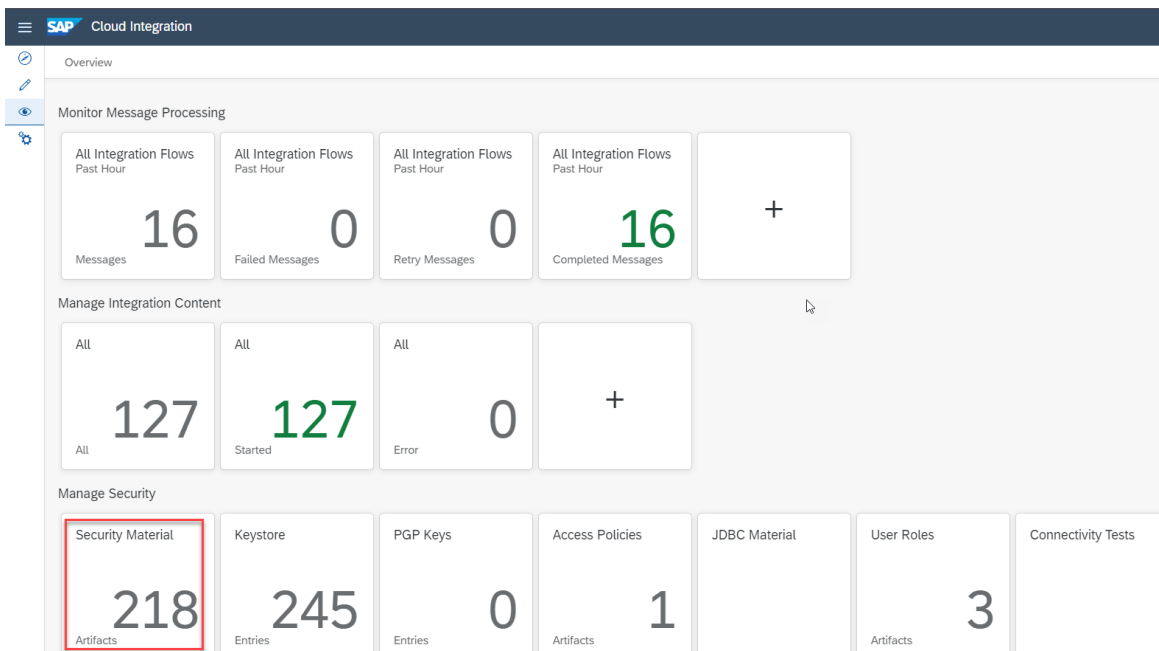
5.2.2 Add Credentials for Authenticating Tenant at Tax Authority

SAP Integration Suite uses a *OAuth2 Credential* to authenticate the communication with tax authority's system. For the Egypt eInvoice scenario, you must include credentials that are recognized by the tax authority (Egyptian Tax Authority, ETA). A *OAuth2 Credential* is specific to a technical user registered in the Online Invoicing System of the tax authority.

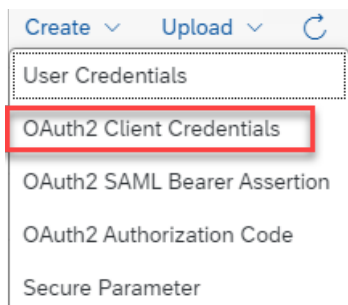
You need to add and deploy your *OAuth2 credentials* as Client Credentials in the Security Material section of your SAP Integration Suite tenant.

The user needs to add and deploy their credentials in the Test and Production systems based on the Tenants.

1. In your browser, go to the *Overview* tab and choose *Security Material*.



2. Choose *Create* on the right corner and choose *Secure Parameter*.



3. Enter the name, description and secure parameter, and deploy them.

Create OAuth2 Credentials

Name: *	<input type="text"/>
Grant Type:	Client Credentials <input type="button" value="v"/>
Description:	<input type="text"/>
Token Service URL: *	<input type="text"/>
Client ID: *	<input type="text"/>
Client Secret: *	<input type="text"/>
Client Authentication:	Send as Request Header <input type="button" value="v"/>
<input checked="" type="checkbox"/> Include Scope:	
Scope:	InvoicingAPI <input type="text"/>
Content Type:	application/x-www-form-urlencoded <input type="button" value="v"/>

[Deploy](#) [Cancel](#)

You need to add the Client Credentials as follows:

- Name: The required format for the *Name* is "edoc_egypt_eta_<mode>_<taxpayerid>" (For example, edoc_egypt_eta_prod_123456789).

i Note

Here the <mode> can be:

- test
- prod

The *Name* is case sensitive.

- Token Service URL: To get the access token there are two types of service URLs based on the mode:
 - Test: <https://id.preprod.eta.gov.eg/connect/token>
 - Prod: <https://id.eta.gov.eg/connect/token>
- Client ID: Enter the *Client ID* received after registration with ETA.
- Client Secret: Enter the *Client Secret* received after registration with ETA.
- Scope: Enter the value "InvoicingAPI" for the *Scope*.

i Note

Select the *Include Scope* check box in order to enter the *Scope* and *Content Type*.

- Content Type: Select the value "application/x-www-form-urlencoded" for the *Content Type*.

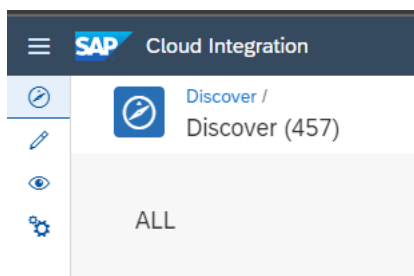
5.3 Copy Integration Flows

Context

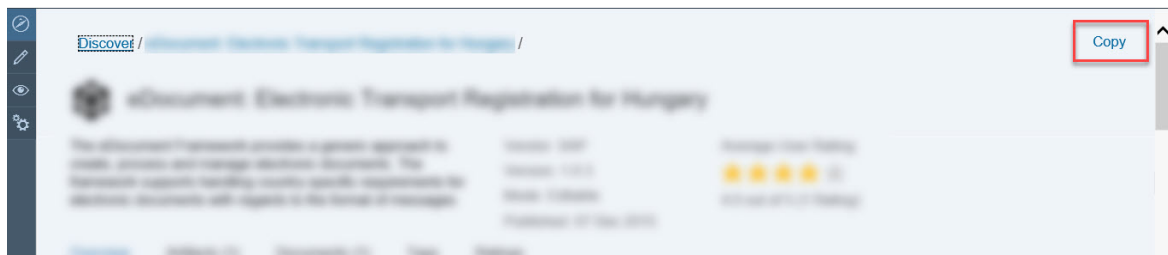
Copy all integration flows in the package *SAP Document and Reporting Compliance: Electronic Invoice for Egypt* to the target tenant as follows:

Procedure

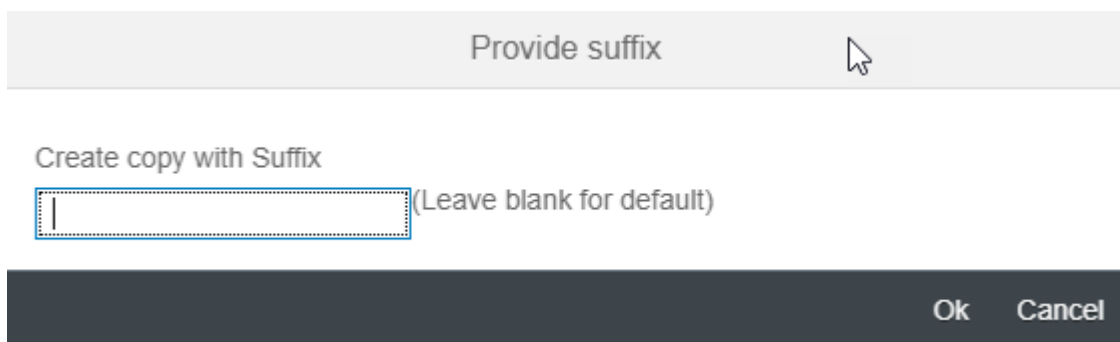
1. In your browser, go to the WebUI of the tenant (URL: <Tenant URL>/itspaces/#shell/catalog).
2. Choose **Discover** > **All**.



3. Search for *SAP Document and Reporting Compliance: Electronic Invoice for Egypt*.
4. Select the Package and choose **Copy**.



5. In the *Provide suffix* dialog box, leave the field blank, and choose **Ok**.



5.4 Configuring Integration Flows

Context

You configure the package that you've copied as described in [Copy Integration Flows](#).

Procedure

1. Choose [Design](#) from the upper left corner of the page.
2. Click on the package that you copied from the original [SAP Document and Reporting Compliance: Electronic Invoice for Egypt](#) package.
3. Go to the [Artifacts](#) tab page.
4. There are nine [Artifacts](#) in the integration package [SAP Document and Reporting Compliance: Electronic Invoice for Egypt](#):
 - Egypt Submit Document
 - Egypt Document Cancellation or Rejection
 - Egypt Get Recent Documents
 - Egypt Get Document Details
 - Egypt Get Document PDF
 - Egypt Decline Document Cancellation or Rejection
 - Egypt Search Documents
 - Egypt Trust Digital Signature Integration
 - Egypt ERP Notification
 - Egypt ERP Ping

i Note

The [Egypt Get Recent Documents](#) integration flow is obsolete.

Please follow the steps in the below sections to configure your integration flows.

5.4.1 Configuring Egyptian Tax Authority's Integration Flows

Context

Take [Egypt Submit Document](#) as an example, similar steps should be done for the other integration flows.

Procedure

1. Choose **Actions > Configure** for the artifact you're configuring.

The screenshot shows the SAP Integration Suite interface. At the top, there's a navigation bar with 'Integrations and APIs / SAP Document and Reporting Compliance: Electronic Invoice for Egypt / SAP Document and Reporting Compliance: Electronic Invoice for Egypt'. Below this, there's a description of the package and its version (1.0.8). The main area displays a table of artifacts (integration flows) with columns for Name, Type, Version, and Actions. The 'Egypt Submit Document' flow is selected, and a context menu is open over its 'Actions' column, with 'Configure' highlighted in red.

Name	Type	Version	Actions
Egypt Decline Document Cancellation or Rejection Unmodified This integration flow is to Decline the Cancellation or Decline the Rejection	Integration Flow	1.0.1	[Configure]
Egypt Document Cancellation or Rejection Unmodified This integration flow is to Cancel or Reject invoice documents	Integration Flow	1.0.2	[Configure]
Egypt ERP Notification Unmodified This integration flow will send the document status change notifications of cancellation, rejection, decline cancellation, and decline rejection to SAP ERP	Integration Flow	1.0.0	[Configure]
Egypt ERP Ping Unmodified This integration flow will send a ping request to ERP to ensure system connectivity	Integration Flow	1.0.1	[Configure]
Egypt Get Document Details Unmodified This integration flow is to Get the Document details from Egyptian Tax Authorities	Integration Flow	1.0.1	[Configure]
Egypt Get Document PDF Unmodified This integration flow is to get the document in PDF format from Egyptian Tax Authorities	Integration Flow	1.0.1	[Configure]
Egypt Get Recent Documents Unmodified This integration flow is to retrieve the latest documents received that are available on the Egyptian Tax Authorities system for the requested Taxpayer ID	Integration Flow	1.0.2	[Configure]
Egypt Search Documents Unmodified This integration flow is to retrieve the latest documents received that are available on the Egyptian Tax Authorities system for the requested Taxpayer ID. It replaces the existing integration flow Egypt Get Recent Documents with enhanced filters.	Integration Flow	1.0.0	[Configure]
Egypt Submit Document Modified This integration flow is to Submit the Document to ETA	Integration Flow	1.0.3	[Configure]
Egypt Trust Digital Signature Integration Created This Integration Flow Integrates SAP Document and Reporting Compliance: Electronic Invoice for Egypt solution with Egypt Trust Digital Signature solution	Integration Flow	1.0.0	[Configure]

2. Choose **Configure > More** tab (in some versions it may be *Externalized Parameters*).

Configure "Egypt Submit Document"

Sender **More**

Type:	All Parameters
Language:	EN
Mode:	TEST
Receiver_Prod_URL:	https://api.invoicing.eta.gov.eg
Receiver_Test_URL:	https://api.preprod.invoicing.eta.gov.eg
Signing_Server_Process_Address:	/EgyptGetDigitalSignature/EgyptTrust

i Note

Signing_Server_Process_Address parameter is only valid for *Egypt Submit Document* integration flow. For more information on what value you need to enter for this parameter, please refer to [Integration with Signing Server \[page 19\]](#).

i Note

When you configure the *Mode* as "TEST" or "PROD" the "TEST" or "PROD" APIs will be triggered along with the "TEST" or "PROD" credentials.

There are specific URLs you need to enter for different integration flows.

Parameter Name	URL
RECEIVER_PROD_URL	https://api.invoicing.eta.gov.eg
RECEIVER_TEST_URL	https://api.preprod.invoicing.eta.gov.eg

3. Choose **Configure** > **Sender** tab.

- Use the `Address` parameter to set up the integration package address. Normally you don't have to change this field. In case you change the field, make sure to use the same address when configuring the logical ports in the next chapter.
- Use the `Authorization` parameter to configure the authorization type.

Value	Description
User Role	You want to use basic authentication (user/password).
Client Certificate	You want to use client certificate authentication.

- Use the `User Role` parameter to configure the role based on which the inbound authorization is checked. Choose [Select](#) to get a list of all available roles. The role `ESBMessaging.send` is provided by default.

- Use the `Subject DN` and `Issuer DN` parameters to configure the Certificate based on which inbound authorization is checked. Choose [Select](#) and upload the required Certificate from your local machine.

4. Choose **Save** and **Deploy** to deploy it actively to server. Note down the URLs of the endpoints for each service.

i Note

Depending on the version of your tenant, after pressing these buttons, a warning message can appear.

5.4.2 Integration with Signing Server

The standard package contains the *Egypt Trust Digital Signature Integration* integration flow by default to integrate the *Egypt Submit Document* integration flow with the Egypt Trust Digital Signature solution. You can create your own integration flow in the standard package based on the Signing Server you are using.

The *Egypt Submit Document* integration flow provides the externalized parameter `Signing_Server_Process_Address` to enter the address of customer developed integration flow, which is used to integrate with the preferred Digital Signature solution.

The *Egypt Submit Document* integration flow will send the JSON version of the electronic invoice to the customer developed integration flow via ProcessDirect receiver adaptor.

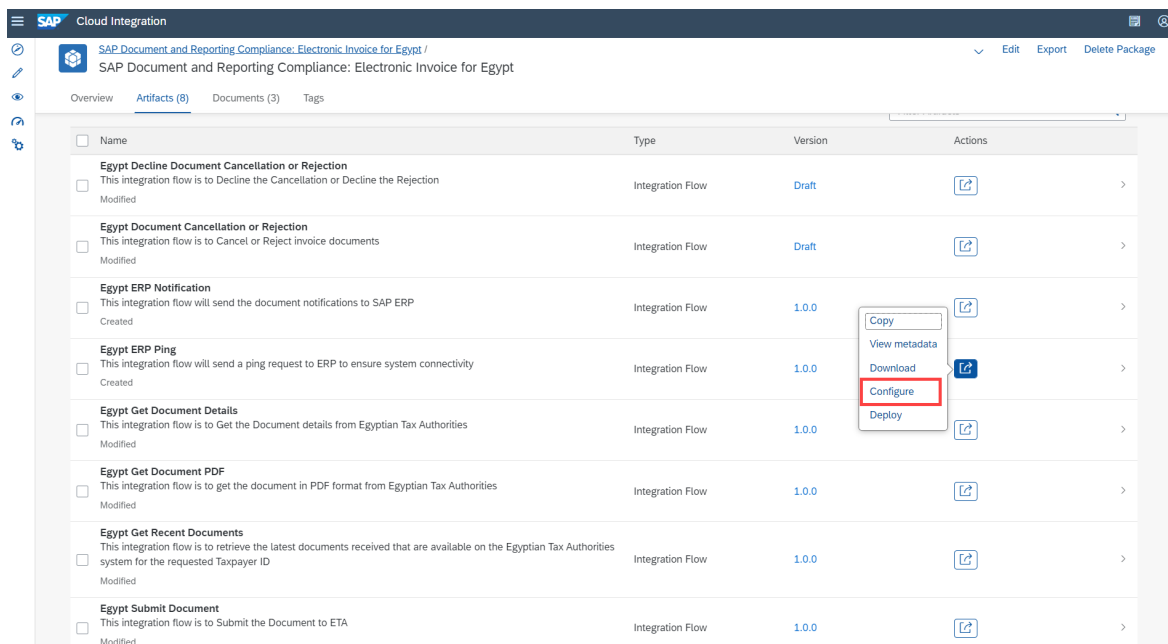
The customer developed integration flow is expected to receive the request from *Egypt Submit Document* via ProcessDirect sender adaptor and send back a response with the message body containing only the Digital Signature in Base64 format.

5.4.3 Configuring Egypt ERP Ping Integration Flow

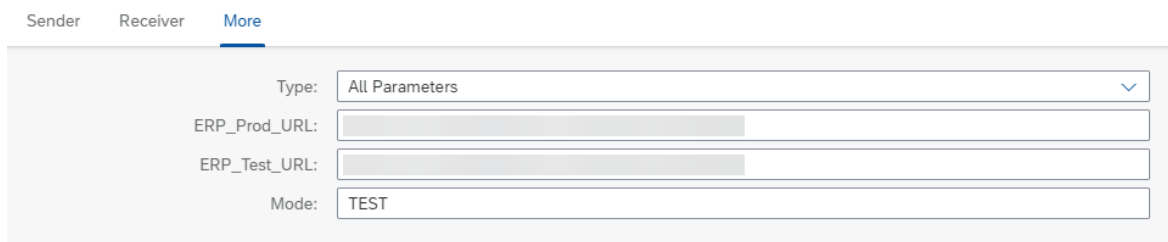
Provides instructions for configuring integration flow for Egypt ERP Ping.

Procedure

1. Choose **► Actions ► Configure ►** for the artifact you're configuring.



2. Choose **Configure > More** tab (in some versions it may be *Externalized Parameters*).



i Note

When you configure the *Mode* as "TEST" or "PROD" the "TEST" or "PROD" APIs will be triggered along with the "TEST" or "PROD" credentials.

Enter the Service URL created for ERP Ping web service in your ERP system. For more information, please refer [Create Services and Bindings for Document Notification Service Definitions \[page 31\]](#).

i Note

If the target ERP system is not hosted publicly then you can expose the ERP Ping web service via SAP Cloud Connector.

3. Choose **Configure > Sender** tab.

- Use the `Address` parameter to set up the integration package address. Normally you don't have to change this field. In case you change the field, make sure to use the same address when configuring the logical ports in the next chapter.
- Use the `Authorization` parameter to configure the authorization type.

Value	Description
User Role	You want to use basic authentication (user/password).
Client Certificate	You want to use client certificate authentication.

- Use the `User Role` parameter to configure the role based on which the inbound authorization is checked. Choose [Select](#) to get a list of all available roles. The role `ESBMessaging.send` is provided by default.

Configure "Egypt ERP Ping"

Configure "Egypt ERP Ping"

Sender Receiver More

Connection

Sender: ETA

Adapter Type: HTTPS

Address: /EgyptERP/ping

Authorization: User Role

User Role: ESBMessaging.send

Configure "Egypt ERP Ping"

Configure "Egypt ERP Ping"

Sender Receiver More

Connection

Sender: ETA

Adapter Type: HTTPS

Address: /EgyptERP/ping

Authorization: Client Certificate

4. Choose **Configure > Receiver** tab.

- You can select the *Proxy Type* as **Internet** or **On-Premise** if you are using SAP Cloud Connector.
- You can select the *Authentication* as **Basic** or **Client Certificate**.
- For the *Credential Name* (or *Private Key Alias* if you are using **Client Certificate** as the Authentication method) you need to enter the value of the *Secure Parameter* from the security material.

Configure "Egypt ERP Ping"

Sender **Receiver** More

Connection

Receiver: ERP

Adapter Type: HTTP

Proxy Type: Internet

Authentication: Basic

Credential Name:

Configure "Egypt ERP Ping"

Sender **Receiver** More

Connection

Receiver: ERP

Adapter Type: HTTP

Proxy Type: Internet

Authentication: Client Certificate

Private Key Alias:

5. Choose [Save](#) and [Deploy](#) to deploy it actively to server. Note down the URLs of the endpoints for each service.

i Note

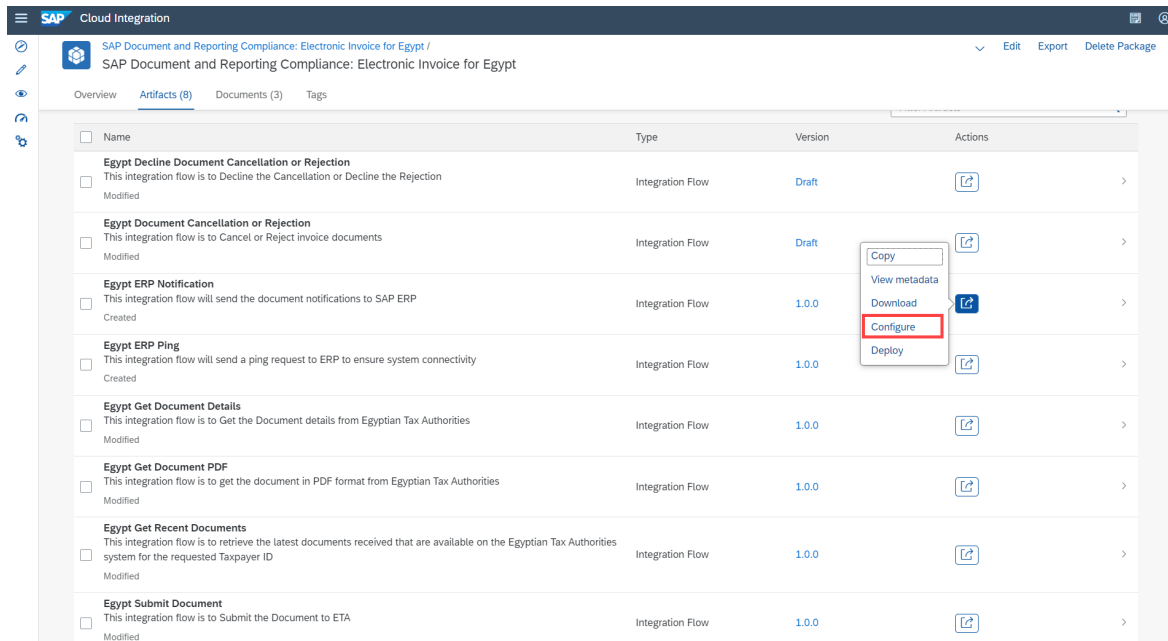
Depending on the version of your tenant, after pressing these buttons, a warning message can appear.

5.4.4 Configuring Egypt ERP Notification Integration Flow

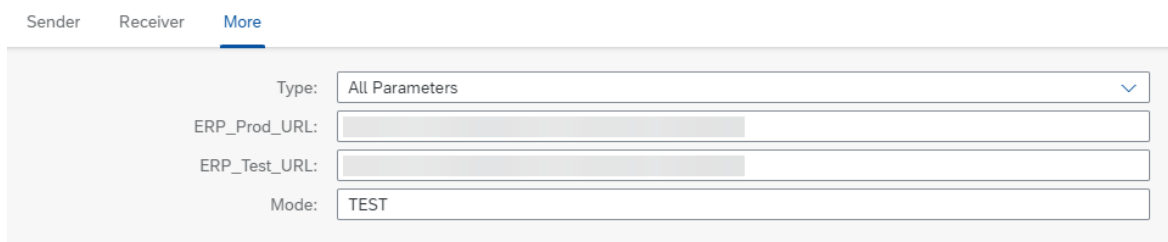
Provides instructions for configuring integration flow for Egypt ERP Notification.

Procedure

1. Choose **Actions** **Configure** for the artifact you're configuring.



2. Choose **Configure > More** tab (in some versions it may be *Externalized Parameters*).



i Note

When you configure the *Mode* as "TEST" or "PROD" the "TEST" or "PROD" APIs will be triggered along with the "TEST" or "PROD" credentials.

Enter the Service URL created for ERP Notification web service in your ERP system. For more information, please refer [Create Services and Bindings for Document Notification Service Definitions \[page 31\]](#).

i Note

If the target ERP system is not hosted publicly then you can expose the ERP Notification web service via SAP Cloud Connector.

3. Choose **Configure > Sender** tab.

- Use the `Address` parameter to set up the integration package address. Normally you don't have to change this field. In case you change the field, make sure to use the same address when configuring the logical ports in the next chapter.
- Use the `Authorization` parameter to configure the authorization type.

Value	Description
User Role	You want to use basic authentication (user/password).
Client Certificate	You want to use client certificate authentication.

- Use the `User Role` parameter to configure the role based on which the inbound authorization is checked. Choose [Select](#) to get a list of all available roles. The role `ESBMessaging.send` is provided by default.

Configure "Egypt ERP Notification"

Sender Receiver More

Connection

Sender: ETA

Adapter Type: HTTPS

Address: /EgyptERP/notifications/documents

Authorization: User Role

User Role: ESBMessaging.send [Select](#)

Configure "Egypt ERP Notification"

Sender Receiver More

Connection

Sender: ETA

Adapter Type: HTTPS

Address: /EgyptERP/notifications/documents

Authorization: Client Certificate

4. Choose **Configure > Receiver** tab.

- You select the *Proxy Type* as **Internet** or **On-Premise** if you are using SAP Cloud Connector.
- You can select the *Authentication* as **Basic** or **Client Certificate**.
- For the *Credential Name* (or *Private Key Alias* if you are using **Client Certificate** as the Authentication method) you need to enter the value of the *Secure Parameter* from the security material.

Configure "Egypt ERP Notification"

Sender **Receiver** More

Connection

Receiver: ERP

Adapter Type: HTTP

Proxy Type: Internet

Authentication: Basic

Credential Name:

Configure "Egypt ERP Notification"

Sender **Receiver** More

Connection

Receiver: ERP

Adapter Type: HTTP

Proxy Type: Internet

Authentication: Client Certificate

Private Key Alias:

5. Choose *Save* and *Deploy* to deploy it actively to server. Note down the URLs of the endpoints for each service.

i Note

Depending on the version of your tenant, after pressing these buttons, a warning message can appear.

5.5 Create SOAMANAGER Configurations

Required step for configuring the Integration Package for electronic documents and SAP Integration Suite.

5.5.1 Create Logical Ports in SOAMANAGER

Context

You configure proxies that are needed to connect to the SAP Integration Suite tenant via logical ports. In test SAP back-end systems, the logical ports are configured to connect to the test tenant. In productive SAP back-end systems, the logical ports are configured to connect to the productive SAP Integration Suite tenant.

i Note

Depending on your release, the look-and-feel of the screens in your system may differ from the screenshots displayed below.

Procedure

1. In your SAP back-end system, go to the `SOAMANAGER` transaction and search for *Web Service Configuration*.

The screenshot shows the SOAMANAGER transaction menu with the following options:

- Service Administration** (highlighted)
- Technical Administration
- Logs and Traces
- Management Connections
- Services f

Under Service Administration, the following options are listed:

- Identifiable Business Context**
Define Identifiable Business Contexts (IBCs)
- Identifiable Business Context Reference**
Define Identifiable Business Context references (IBC reference)
- Design Time Cache**
Display central design time cache
- Web Service Configuration** (highlighted with a red box)
Configure service definitions, consumer proxies and service groups
- Simplified Web Service Configuration**
Configure service definitions for Web service consumers with limited capabilities
- Logon Data Management**
Define logon data used by business scenario configuration
- Pending Tasks**
Process pending tasks generated by business scenario configuration
- Local Integration Scenario Configuration**
Configure multiple service definitions and service groups supporting change management
- Logical Determination of Receiver using ServiceGroups**
Define rules for determining receiver IBC reference during service group runtime
- Logical Determination of Receiver, Sender, and Authentication using Consumer Factories**
Define rules for determining receiver IBC, sender IBC reference and authentication method during consumer factory runtime
- Web Service Isolation**
Tool to isolate service definitions and consumer proxies

2. Find the proxies for SAP Document and Reporting Compliance (eDocument) for Egypt with search term `*edo*eg*`.

The screenshot shows the search criteria dialog with the following settings:

- Search criteria** (dropdown)
- Object Type: [dropdown] is [dropdown] All [dropdown] (+) (-)
- Object Name: [dropdown] contains [dropdown] [text field]
- Maximum Number of Results: 100
- Buttons: Search, Clear values, Reset search criteria

A red box highlights the search criteria and the search term. A callout bubble points to the text field containing the text "Enter the search term here".

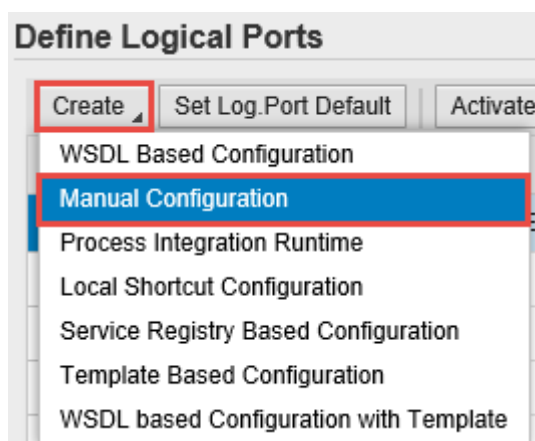
The following table lists the proxies and the logical port name, description, and path for each proxy.

List of Proxies, Logical Port Names, and Paths

Proxy Name	Logical Port Name	Description	Path
CO_EDO_EG_SUBMIT_DOC_V1_1	LP_EDOC_EG_SUBMIT_DOC_V1_1	eDocument Egypt: Logical port for Submit document V1	/cxf/EgyptSubmitDocument
CO_EDO_EG_GET_DOC_DETAILS_V1_0	LP_EDOC_GET_DOC_DETAILS_V1_0	eDocument Egypt: Logical Port for Get Document Details	/cxf/EgyptGetDocDetails
CO_EDO_EG_CANC_REJECT_V1_0	LP_EDOC_EG_CANC_REJECT_V1_0	eDocument Egypt: Logical port for cancel/reject document V1	/cxf/EgyptCancelReject
CO_EDO_EG_DECL_CANC_REJECT_V1_0	LP_EDOC_EG_DECL_CANC_REJECT_V1_0	eDocument Egypt: Logical port for Decline Cancel and Reject V1	/cxf/EgyptDecline
CO_EDO_EG_GET_DOC_PDF_V1_0	LP_EDOC_EG_GET_DOC_PDF_V1_0	Logical Port for eDocument Egypt Get Document PDF	/cxf/EgyptGetDocPDF
CO_EDO_EG_GET_RECENT_DOCS_V1_0	LP_EDOC_EG_GET_RECENT_DOCS_V1_0	eDocument Egypt: Logical Port for get recent documents	/cxf/EgyptGetRecentDocuments
CO_EDO_EG_SEARCH_DOCUMENT_V1_0	LP_EDOC_EG_SEARCH_DOCUMENT_V1_0	eDocument Egypt: Logical Port for Search Document	/cxf/EgyptSearchDocuments

3. In the *Result List*, select a proxy from the list above and create a logical port for each proxy. Choose

► [Create](#) ► [Manual Configuration](#) ►



4. Enter the logical port name and a description.

- The configuration you do in the *Consumer Security* tab in the *Configuration* screen depends on the security being used in the communication between the back-end system and SAP Integration Suite.

- If you use the basic authentication for *User Name*, enter the value for the **clientid** and for *Password*, enter the value for **clientsecret**. You've created these values for your service instance in SAP Integration Suite. See [Creating Service Instances](#).

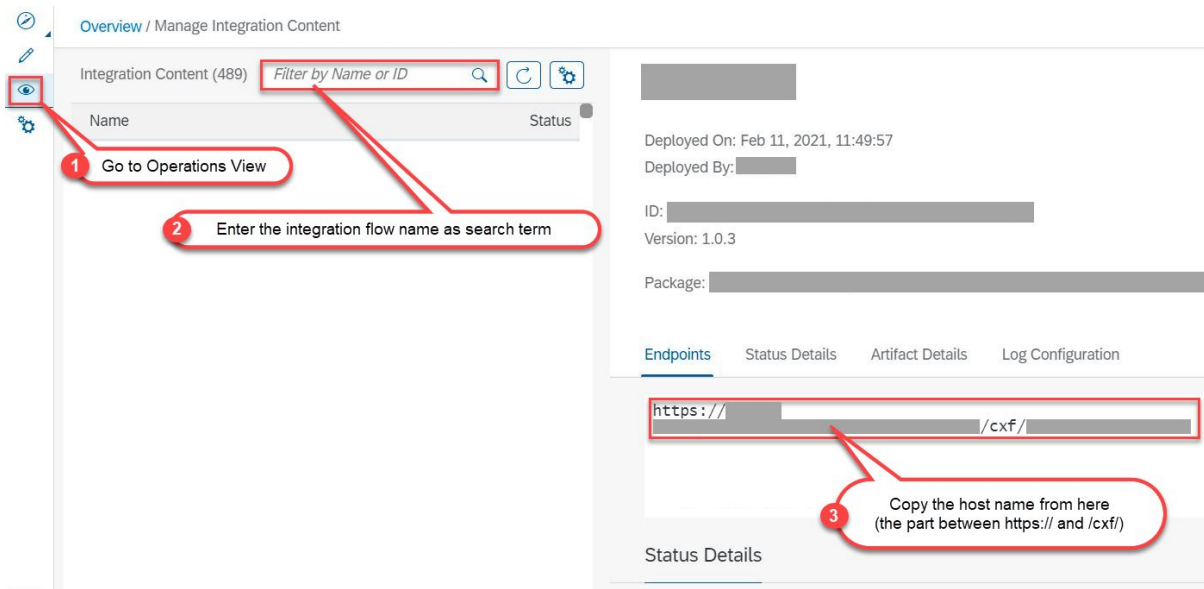
- If you use certificate-based authentication, select *X.509 SSL Client Certification* and choose the certificate you've uploaded to `STRUST`. You must configure this certificate in SAP Integration Suite

too. For that you create a service instance using the required grant_type. You create the service key using the certificate uploaded to the `STRUST`. For more information, see [Defining a Service Key for the Instance in the Cloud Foundry Environment](#)

6. On the *HTTP Settings* tab, make the following entries:

Port 443 is the standard port for the HTTPS protocol.

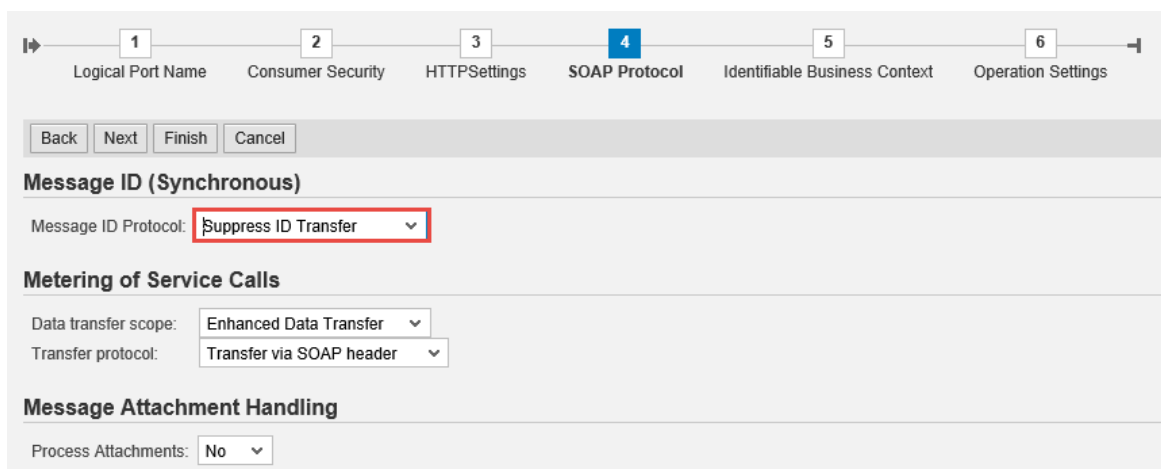
To find the Host, go to SAP Integration Suite Web UI and under Managed Integration Content, go to [Monitor > All](#). Use the search to find your integration flow as in the screenshot below:



Note

The entries for the proxy fields depend on your company's network settings. The proxy server is needed to enable the connection to the internet through the firewall.

- On the *SOAP Protocol* tab, set *Message ID Protocol* to *Suppress ID Transfer*.



- No settings are required in the *Identifiable Business Context* and *Operation Settings* tabs. Just select **Next** **Finish**.

To check if the connection works, choose Ping Web Service. If the connection works, the system shows the following result (HTTP 405 Service Ping ERROR: Method Not Allowed).

You can set up an HTTP connection in the sm59 transaction. Maintain a host and a port of SAP Integration Suite service and execute a connection test. If there is a successful connection, you receive an error with HTTP return code 500.

- Remember to create logical ports for each proxy and to execute the following steps in the SAP back-end systems, see SAP Note [2683318](#) for more information.

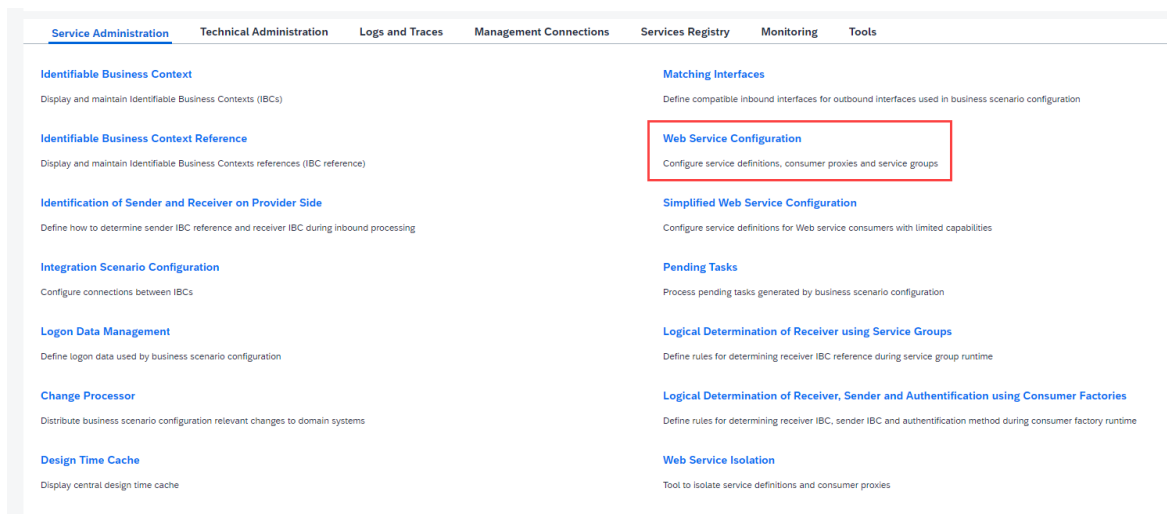
- Define the SOA service names and assign the logical ports to the combination of a SOA service name and a company code in `EDOSOASERV` view.
- Assign the SOA service names you created before to an interface ID in `EDOINTV` view.

5.5.2 Create Services and Bindings for Document Notification Service Definitions

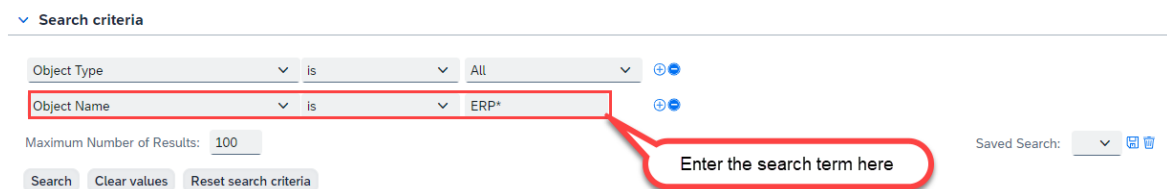
You configure endpoints to receive ERP Ping requests and ERP Notifications from ETA via your SAP Integration Suite tenant.

Procedure

1. In your SAP back-end system, go to the `SOAMANAGER` transaction and search for *Web Service Configuration*.



2. Find the Service Definitions for ERP Ping and ERP Notification with search term `ERP*`.

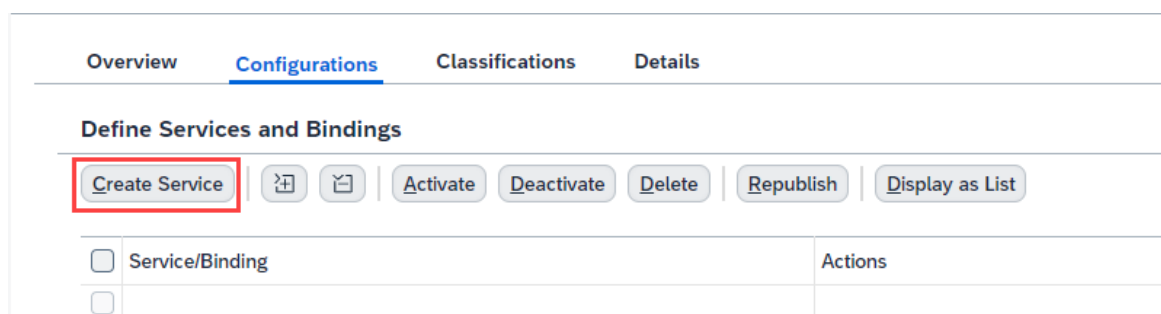


The following table lists the Document Notification Service Definitions and their example Service Names and Service Bindings.

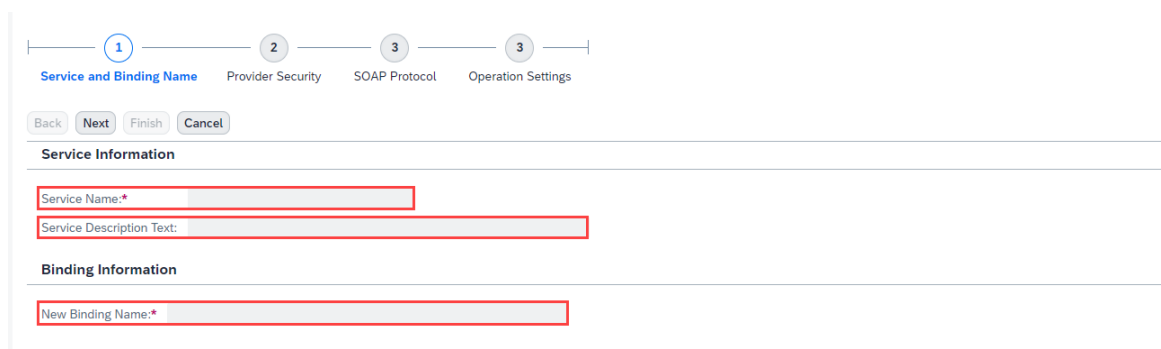
List of Service Definitions and their example Service Names and Service Bindings.

Service Definition	Service Name	Service Description	Service Binding
ERP_PING	eDocEgyptERPPing	eDocument Egypt: ERP Ping	eDocEgyptERPPingHTTP
ERP_NOTIFICATIONS	eDocEgyptERPNotification	eDocument Egypt: ERP No- tification	eDocEgyptERPNotifica- tionHTTP

- For each of the service definitions listed above, create a service and a service binding. Choose [Create Service](#).



- Enter *Service Name*, *Service Description Text*, and *New Binding Name*.



- The configuration you do in the *Provider Security* tab in the *Configuration* screen depends on the security being used in the communication between the back-end system and SAP Integration Suite.

For more information please refer [Configuring a Service Provider | SAP Help Portal](#).

- In the *SOAP Protocol* tab, maintain the following entries and select *Finish*.



Back Next Finish Cancel

Transport Binding

Alternative Access URL:

Calculated Access URL:

Calculated Protocol: HTTP

Make Local Call: No Call in Local System

State Management Timeout:

Message Attachment Handling

Process Attachments: No

Identifiable Business Context

Type of IBC Identification on receivi... : No IBC-based identification

- Follow the steps 3 to 6 to create a Service and a Service Binding for each Service Definitions listed in Step 2.

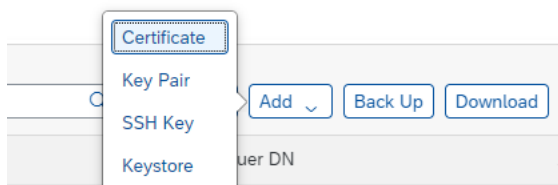
5.6 Retrieve and Save Server Certificate Chain of Tax Authority

You can find and save the Server Certificate Chain from your Tax Authority

Procedure

- In your browser, navigate to the WebUI of the tenant (URL: <Tenant URL>/itspaces/shell/monitoring/).
- Under *Manage Security*, choose *Connectivity Tests*.
- Choose *TLS*. Enter the following details:
 - Host: There are two *Host* names based on the type of tenant:
 - PROD: api.invoicing.eta.gov.eg
 - TEST: api.preprod.invoicing.eta.gov.eg
 - Port: 443
 - Clear the options **Authenticate with Client Certificate** and **Valid Server Certificate Required**.

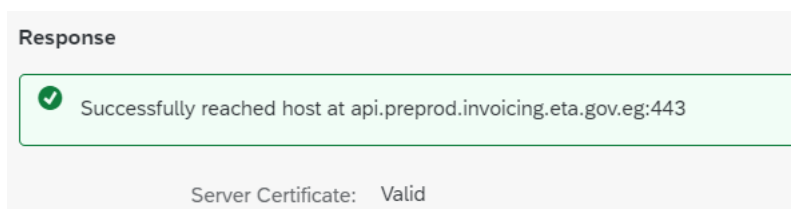
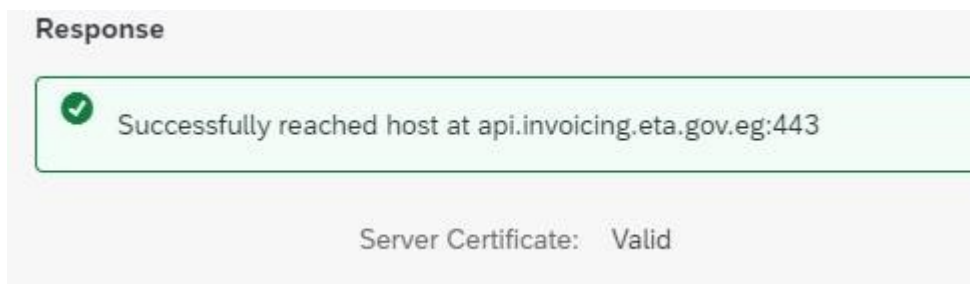
4. Choose [Send](#).
5. Download and extract the Server Certificate Chain.
6. Navigate to [Manage Security](#) from step 2. Choose [Keystore](#).
7. Add all the extracted Certificates, one after another. Choose [Add](#) [Certificate](#). Browse and choose a certificate to upload. Choose [Add](#).



Note

You should add the TEST or PROD certificates based on the [Host](#) name entered in Step 3.

8. Repeat steps 3 and 4 after adding all the certificates.



6 Test the Integration

Describes the steps to test the integration of SAP Document and Reporting Compliance with the integration scenario from SAP Integration Suite.

Context

The best way to test if the integration works is to create and submit an eDocument from SAP backend system and see if that reaches the destination system, typically the tax authority's system.

Procedure



1. In the back-end system, go to the *eDocument Cockpit* (EDOC_COCKPIT) transaction, in the relevant process.
2. Select an eDocument and check the status of the eDocument in the Cockpit and perform the following actions, accordingly:
 - a. If the status of the eDocument is *Created*, the eDocument was created but not submitted yet. In this case, select it and choose *Submit*. This action triggers the creation of the XML and the subsequent communication with SAP Integration Suite.
 - a. If the status is green or yellow, but not *Created*, the communication with SAP Integration Suite was triggered and was probably successful. You can double-check if the message went through on the SAP Integration Suite tenant. Alternatively, you can use a trace from the *SRT_UTIL* transaction to look at the XMLs transmitted via web services from the SAP back-end systems.
 - b. If the status is red, an error happened during the submission of the eDocument. Select the *Interface Field* to be directed to the Application Interface Platform (AIF) where you can check the log. Any communication errors are displayed there.
3. If the eDocument is successfully submitted, the status changes to *Acknowledged by ETA*, then the connection to tax authority has been correctly set up.

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