Partner Test Management - Adapter
Setup & Configurations

Applies to:

SAP Solution Manager 7.2 – Test Suite – Partner Test Management – Adapter

Summary

To Integrate the SAP Solution Manager & HP ALM (formerly HP QC), we need to perform setup activities. This document would explain you the required configurations for SAP Solution Manager as well as in the Partner.

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Author Bio

Detail-oriented Senior Development Expert with over 9 years' of experience in SAP HANA, SAPUI5, FIORI, ABAP (including the new features of 740/ 750), ABAP on HANA, ABAP Objects, ABAP – Webdynpro, Gateway Services, FPM, HR-ABAP, Interfacing, ABAP XML Processing (XSLT, Simple Transformations, ODATA and JSON), Solution Manager 7.1/ 7.2 and upgrade. Skilled in both the "object" and the "classical" sides of ABAP stream, focusing on technical arena involved dynamic programming, design, optimization, and performance tuning.

Contents

1. Overview

The Partner Test Management (PTM) – Adapter would enable the customer to integrate the Solution Manager and Partner Test Management Tools such as HP ALM (formerly HP QC). Beforehand using the functionalities of an adapter, the set of manual and automatic activities needs to be performed in SOLMAN_SETUP transaction.

The configuration of the PTM can be accessed in the below path,

SOLMAN_SETUP >> Test Suite >> SAP Quality Center/ SAP TAO >> Partner Test Management.

2. Prerequisites

To use an adapter the following activities needs to be performed,

- Install the Software Component ST-QCA
- Activate the Business Function SM_QC_AD in the transaction SFW5

Once you are done with the aforementioned mandatory activities, the below step would be in green state,

3. Create Technical Users

In this activity, the following technical users has to be created & the roles has to be assigned,

➢ SAML configuration user (SM_HPCOM)
➢ Access the WSDL (TMT_ALIAS)

To create the user, click on the button "Create/ update all users" & click on "Execute" to assign the roles.

4. SAML Configurations

The authentication has to be enabled with SAML protocol in Solution Manager as well as in the HP QC. Please refer the below blog for End to End SAML setup

http://scn.sap.com/docs/DOC-75247

As this step has manual activities, once you are done with the SAML configurations make each steps "Performed".
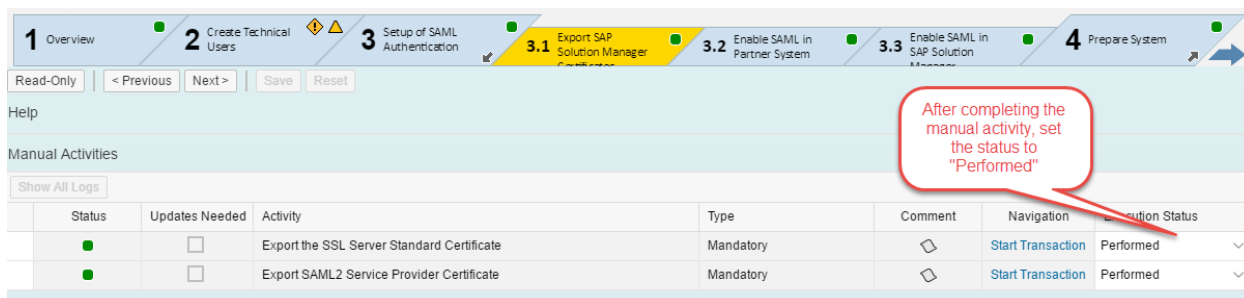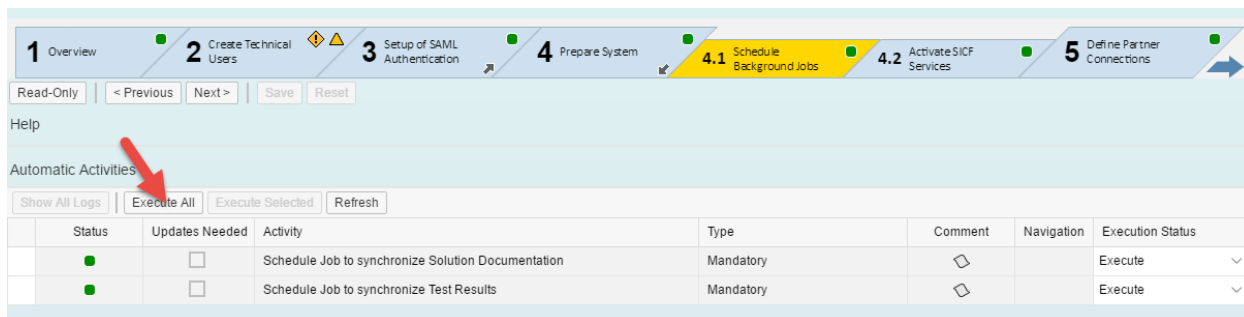
5. Prepare System

In this step, you need to schedule the background jobs & activate the services

5.1. Schedule the background jobs and activate the WSDL

In this automatic activity, you needs to perform the following,

Schedule the background Jobs for following operations in the step 4.1 (Schedule background jobs),
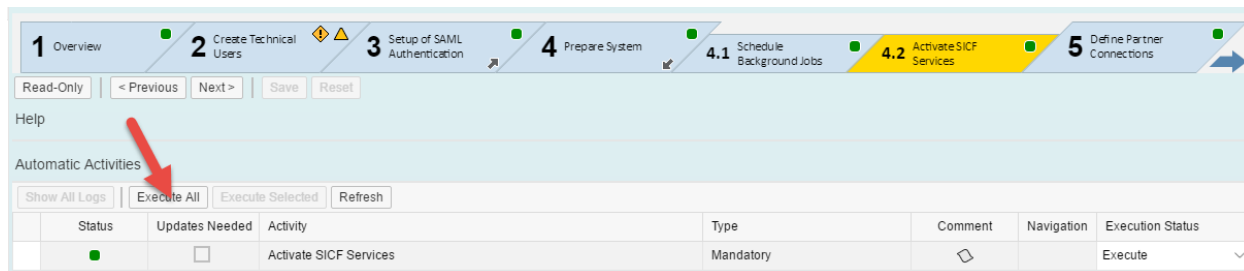
- o Solution Documentation Sync
- o Test Results Sync


5.2. Activate the SICF services

This automatic activity is to access the following in the step 4.2 (Activate SICF Services)

- o WSDL
- o Solution Manager Documents

6.   Create Partner Connections

In the step – 5 (Define Partner Connection) you need to create the connections the HP ALM system. In case you need to integrate the Solution Manager system to multiple HP ALM systems, create multiple partners.
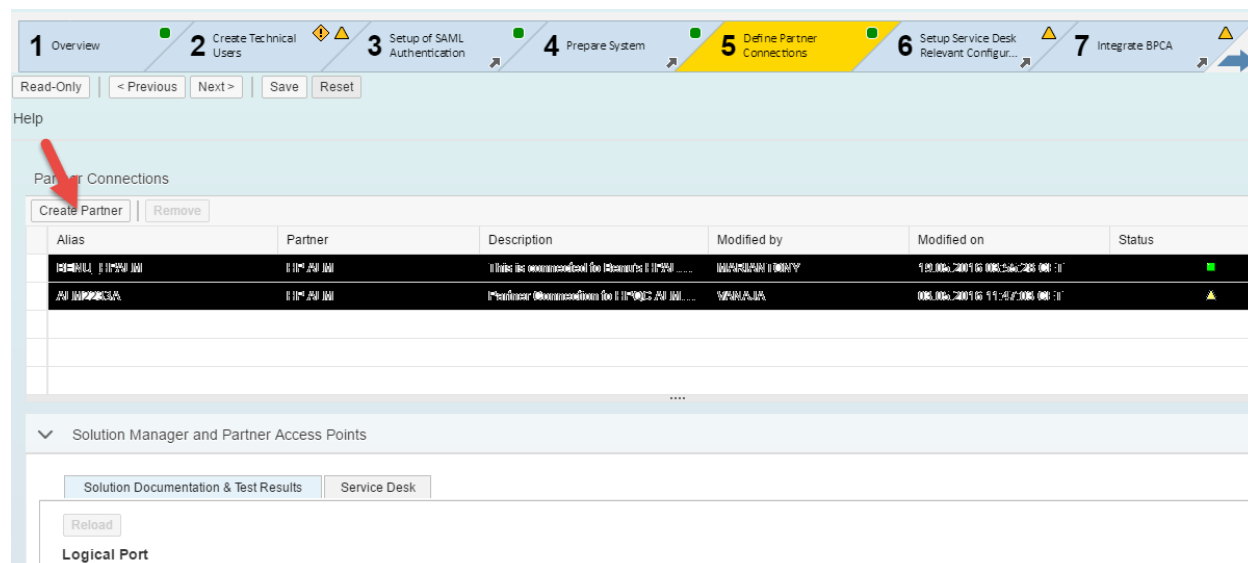
Click on the button "Create Partner"

Fill the details & click on "Create Connection". The connection will be created.

After creating the connection, lead select the connection in order to create the logical ports and service binding.

6.1. Solution Documentation & Test Results

6.1.1. CO_EXTTOOL_SM_BLUEPRINT_API

The creation of the logical port serves the following purposes

- ➢ Retrieves the HP domain, Project and User Defined Attributes
- ➢ Enables to associate the Solution Documentation branch and HP Project
- ➢ Push the Solution Documentation from the SAP Solution Manager System to HP projects
- ➢ Merge the Solution Documentation
- ➢ To perform the Content Activation
- ➢ Map the SAP Attribute to HPE User Defines Attributes

<u>Step 1:</u> Click on the link "launch logical port". This launches the popup that lets you to create the logical port.
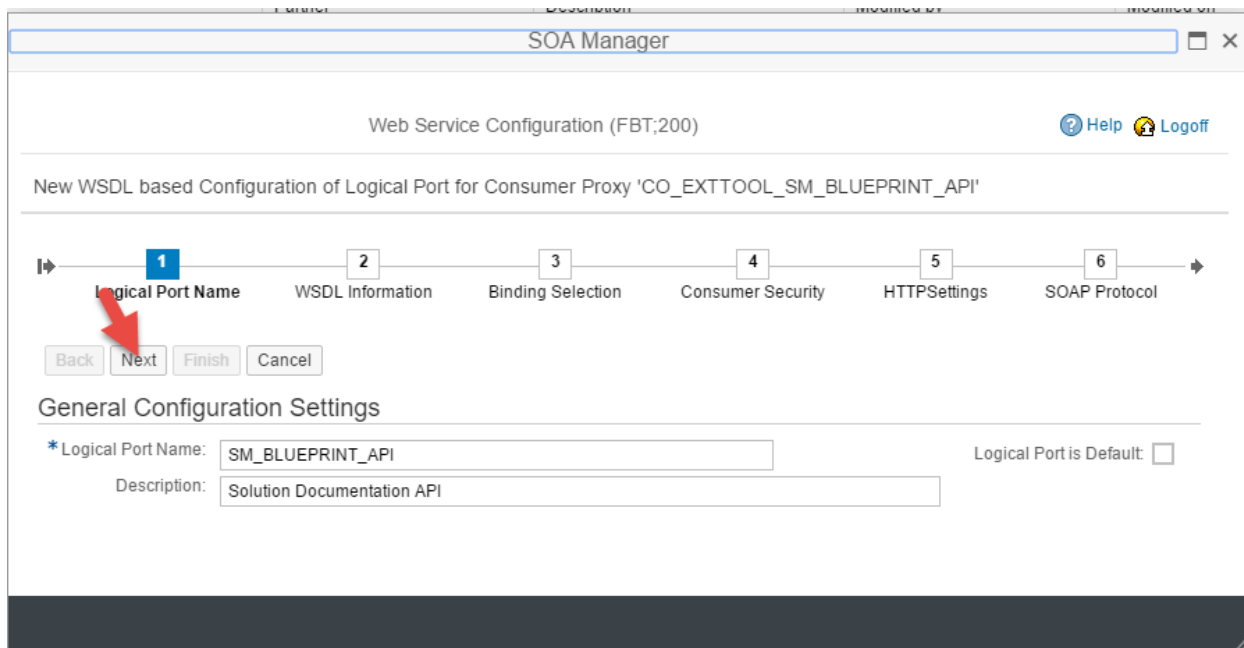
Step 2: Choose "WSDL based configuration" in the SOA Manager popup,
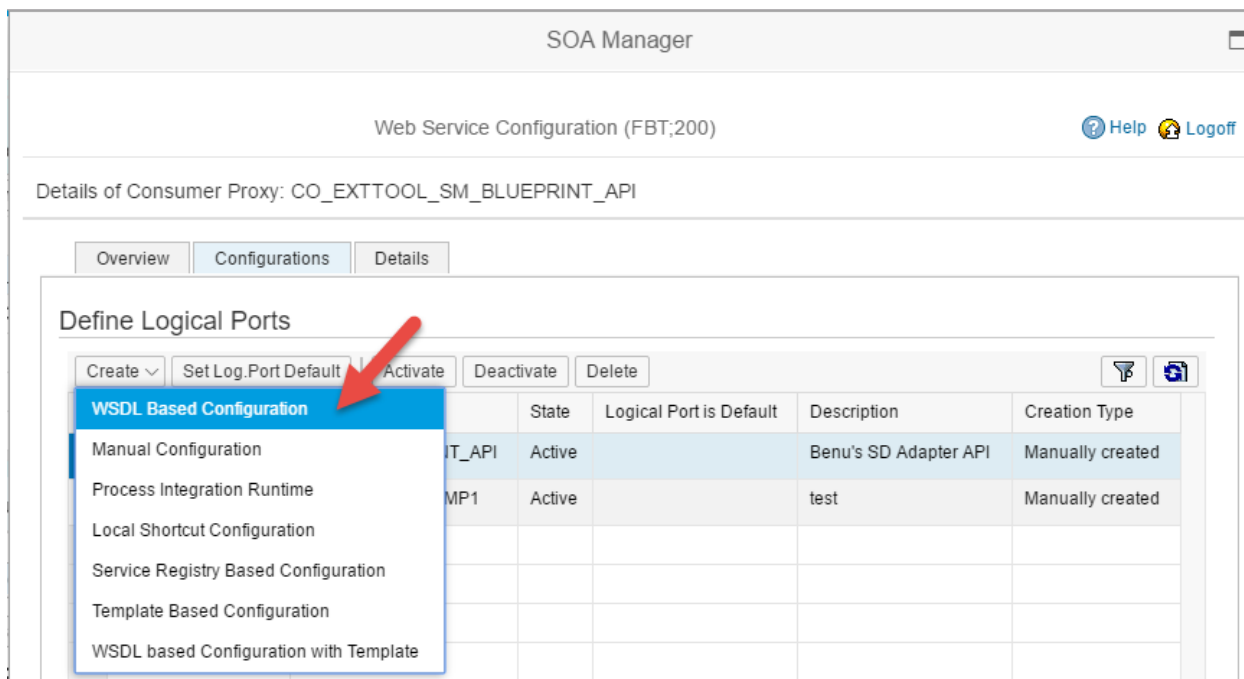
Step 3: Provide the Logical Port name & the description

Step 4: Provide the HP ALM WSDL URL for AGS_SM_BLUEPRINT_API. The URL would be like the following

URL: http(s)://HostName or IP Address:8080/qcbin/EIServer/services/AGS_SM_BLUEPRINT_API?wsdl

Note: *As much as possible try to provide the IP Address instead of the fully qualified host name.*

Step 5: Choose "Next" in the rest of the steps with the default setting (DO NOT CHANGE any DEFAULT SETTING) & finish the wizard.
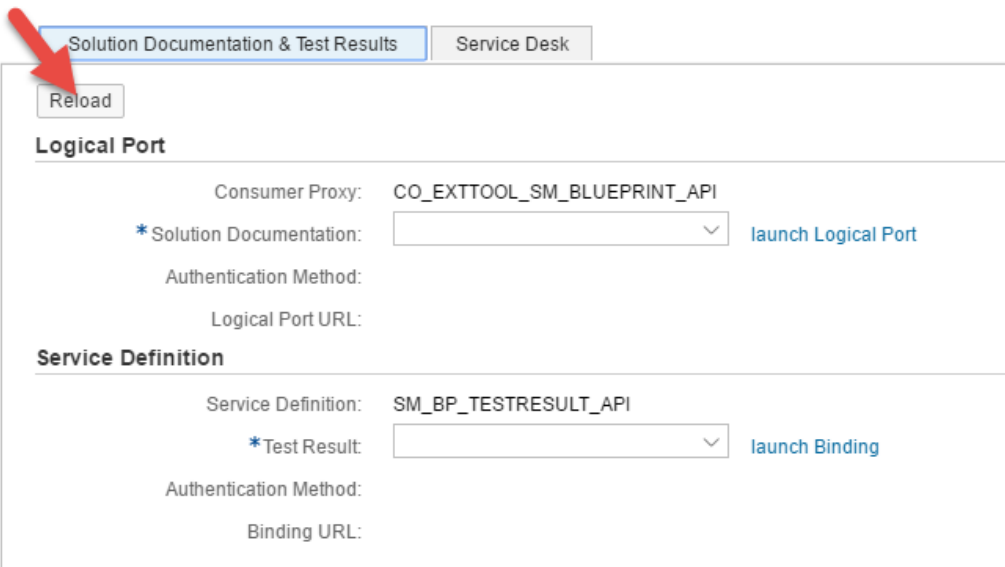
Close the popup after the successful creation of the logical port.

Step 6: Click on the "Reload button" to reload the created logical ports.

Step 7: Choose the created Logical Port

6.1.2. SM_BP_TESTRESULT_API

The creation of the Service Binding serves the following purposes,

- ➢ To Update the Test Results from the HP ALM to Solution Manager
- ➢ To notify the status of the asynchronous process
- ➢ To Import the Solution Documentation in HP ALM

Step 1: Click on the link "Launch Binding"

Step 2: The SOA Manager popup would be launched. Click on the button "Create Service"

Step 3: Provide the Service Name & the Binding Name (Preferably the SID of the Solution Manager system)

Step 4: In the "Provider Security" tab fill in the following details,

Transport Level Security	SSL
Message Security Level	None
Message Authentication	Single Sign-On using SAML

Note: In Solution Manager 7.2 SP03, the adapter expects SAML to be configured. This is Mandatory otherwise the incoming calls are prohibited.

Configuration of New Binding for Service Definition 'SM_BP_TESTRESULT_API'

Transport Guarantee

Transport Level: None

Transport Level Security

○ None (http)
● SSL (https)

Message Level Security

● None
○ Symmetric Message Signature and Encryption
○ Asymmetric Message Signature
○ Asymmetric Message Signature and Encryption

☐ Secure Conversation
☐ Extended Signature and Header Protection

Authentication Settings

Authentication Level: Basic

Authentication Method

☐ No Authentication

Transport Channel Authentication

☐ User ID/Password
☐ X.509 SSL Client Certificate
☐ Single Sign On using SAP Assertion Ticket
☐ Single Sign On using SPNego

Message Authentication

☐ User ID/Password
☐ X.509 Certificate
☑ Single Sign On using SAML

Secure Token Service Settings

● Sender-vouches
○ Holder-of-Key
○ Holder-of-Key with specified external Token Issuer

SAML Version: 1.1
SAML Keytype: Asymmetric Key
SAML1.1 Trust: Use SAML Trust

SAML2 Configuration

Step 5: In the Step – 3 (SOAP Protocol) and Step – 4 (Operation Settings) please use the default configurations. (Do not change anything in this step). Finish the configurations.

Configuration of New Binding for Service Definition 'SM_BP_TESTRESULT_API'

Operation
AGS_SM_TRIGGER_PUSH_BLUEPRINT
AGS_SM_SET_TEST_RESULTS
AGS_SM_NOTIFY

Step 6: After the "Service Binding" creation, close the popup & reload the configurations to select the created Service Binding.

Once you are done with this, save the configurations.

6.2. Service Desk

Note: The configuration of the Service Desk is required only if you are going to have defect exchange between Solution Manager & HP ALM.

Before creating the logical port & service binding for Service Desk, make sure the following notes are implemented. (It is not possible to create the logical port unless you implement the following notes)

OSS Notes:

- ➢ 2316667
- ➢ 2297419

6.2.1. CO_AGS_SD_ADAPTER_API

This logical port serves the following purpose,

➢ To register the HP ALM system in the Solution Manager (in the transaction ICTCONF which would be covered later)
➢ Closing the defect
➢ To propose the Solution from Solution Manager

Step 1: Launch the SOAMANAGER popup by clicking on the link "Launch Logical Port".

Step 2: Choose the "WSDL based configuration"

Step 3: Fill in the Logical Port Name

Step 4: provide the following details

URL	http://10.53.149.79:8080/qcbin/EIServer/services/ICT_SERVICE_DESK_API?wsdl
User	HP ALM User Name
Password	<<Password>>

Step 5: Provide the default setting for the rest of the steps in SOAMANAGER wizard. Do not change the default setting.

Choose "Finish" to create the logical port

6.2.2. CO_PCICT_SERVICE_DESK_API

Creating a logical port of this Consumer Proxy is required for following purposes to assign the Responsibility of the defect to HP ALM

Step 1: Launch the SOAMANAGER popup by clicking on the below link,

Step 2: Choose the "WSDL Based Configuration"

Step 3: Fill in the logical Port Name and description

Step 4: Fill in the URL of the WSDL & the login credentials of the HP ALM system,

http:// IP Address:8080/qcbin/EIServer/services/AGS_SD_ADAPTER_API?wsdl

Step 5: Proceed the rest of the steps with the default values & Finish the wizard to create the logical ports.
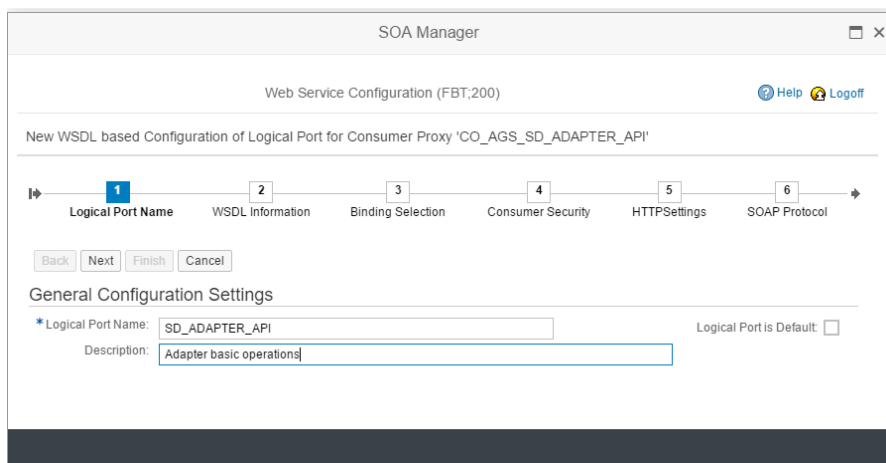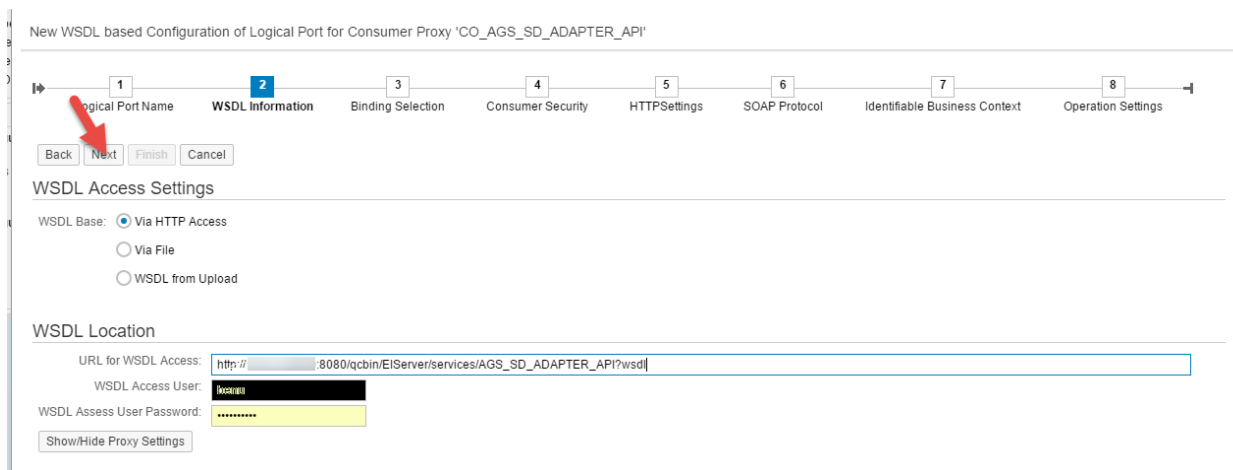
6.2.3. ICT_SERVICE_DESK_API

The Service Binding service the following purpose,

> ➢ Assign the Responsibility of Defect to Solution Manager
> ➢ Request the Responsibility of HP ALM Defect from Solution Manager

<u>Step 1</u>: Open the SOAMANAGER popup by clicking on the link "launch Binding"

<u>Step 2</u>: Click on "Create Service" to create the service binding

Step 3: Provide the following details,

Service Name	ICT_SERVICE_DESK_API
Description	Service Desk API
New Binding Name	SID of the Solution Manager system

Step 4: Fill in the following details in the "Provider Security"

Transport Level Security	SSL
Message Security Level	None
Message Authentication	Single Sign-On using SAML

Note: In Solution Manager 7.2 SP03, the adapter expects SAML to be configured. This is Mandatory otherwise the incoming calls are prohibited.

Step 5: Proceed with the default values for the rest of the steps & click in "Finish"

6.2.4. AGS_SD_ADAPTER_API

The Service Binding service the following purpose,

> ➢ Syncs the defect in Solution Manager system
> ➢ Get the Fields from the Solution Manager system for "Field Mapping"
> ➢ Close the defect
> ➢ Send an attachment along with the defect

Step 1: Open the SOAMANAGER popup by clicking on the link "launch Binding"

Step 2: Click on "Create Service" to create the service binding

Step 3: Provide the following details,

Service Name	AGS_SD_ADAPTER_API
Description	Service Desk API
New Binding Name	SID of the Solution Manager system

Step 4: Fill in the following details in the "Provider Security"

Transport Level Security	SSL
Message Security Level	None
Message Authentication	Single Sign-On using SAML

For more information, please refer Step – 4 in the section 6.2.3

Note: In Solution Manager 7.2 SP03, the adapter expects SAML to be configured. This is mandatory otherwise, the incoming calls are prohibited.

Step 5: Proceed with the next steps with the default values & Finish the wizard
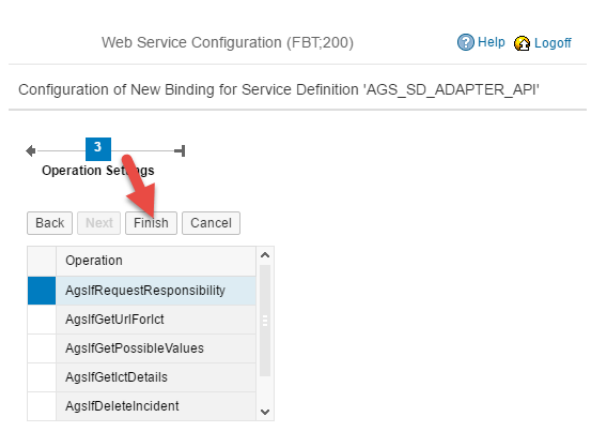
Once you are done with the creation of the Logical Ports and Service Binding, click on the "Reload" to load the created SOAMANAGER artifacts & choose the created logical port and service Binding.
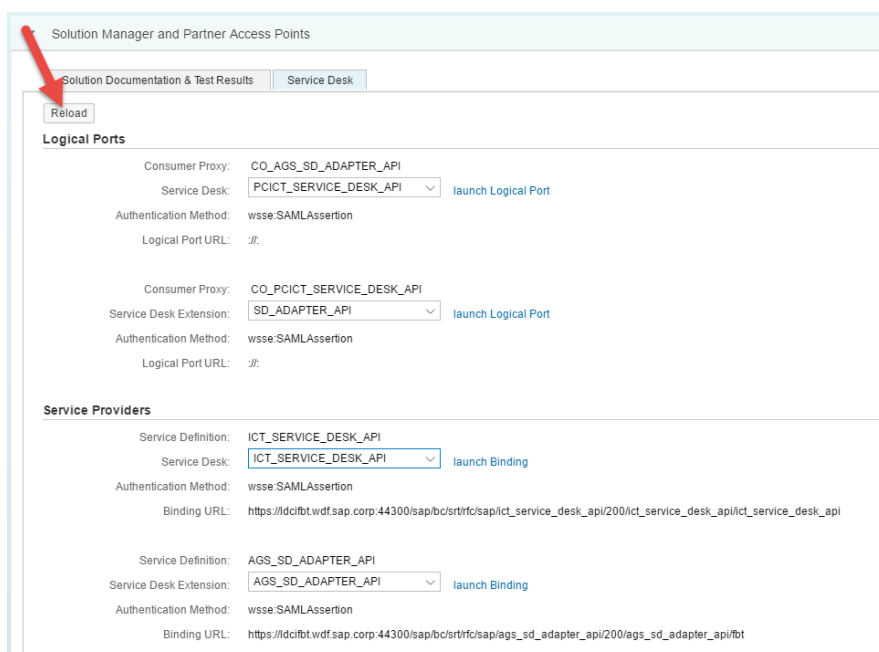
After selecting the Logical Port & the Service Binding, save the step in order to save the configurations.

7. Setup Service Desk Relevant Configurations
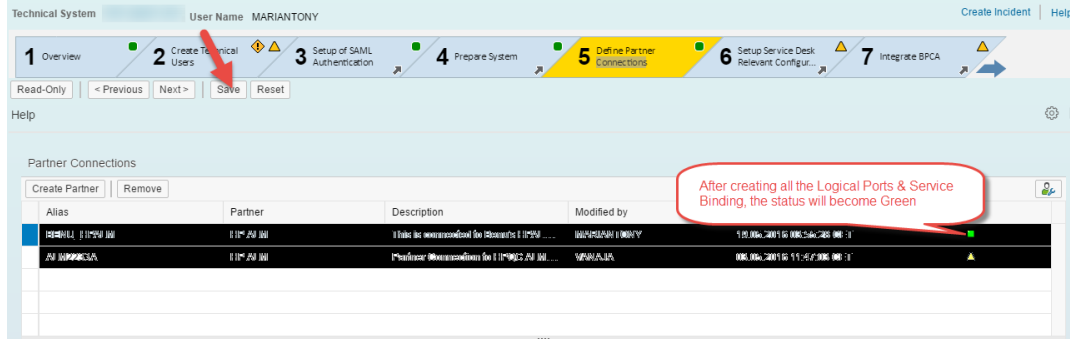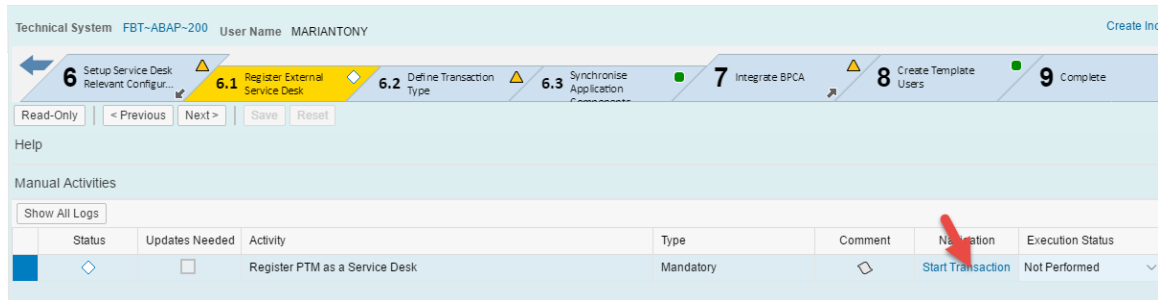
In this, you need to do the following activities for the Service Desk operations.

6.1	Register the HP QC in the Service Desk	Mandatory
6.2	Define CRM Transaction Type	Optional
6.3	Synchronize Application Components	Mandatory

7.1. Register External Service Desk (HP QC)

Step 1: Click on the "Start Transaction" link,

In case you face any difficulties launching the transaction, use the transaction ICTCONF for the Service Desk registration
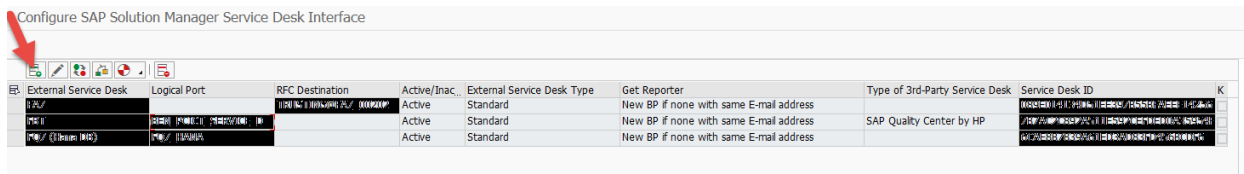
Step 2: Click the "Add" button in order to create the Service Desk registration & fill in the following details,

External Service Desk System	System ID of the Solution Manager System
Logical Port	Choose the Logical Port which had been created in the step 6.2.1
RFC Destination	Not Applicable

External Service Desk Type	Standard
Method to get Reporter	New BP if none with same E-mail address
Automatically Synchronize	yes

Step 3: Generate the External Service Desk & Save the Entries

Step 4: Activate the External Service Desk

Step 5: Once the Service Desk is registered, set the Execution Status to "Performed"

7.2. Define Transaction Type

The default CRM Transaction type that we use for adapter operations is SMIN. In case you would like to customize the status profile, you need to create a new Transaction Type "ZMIN" or "YMIN" by copying the SMIN.

How to create a ZMIN or YMIN from SMIN?

The new Transaction Type can be created by executing any one of the following,

Transaction	AI_CRM_CPY_PTYPE_WEB
Report Program	AI_CRM_CPY_PROCTYPE

Provide the following parameters & execute (F8) the report program

Source Transaction Type	SMIN
Target Transaction Type	YMIN

and copy the setting,

Specify Several Transaction Types

1. Note to refer & Implement:

Follow **SAP Note 1567793** "HP Quality Center: Multiple transaction types to enable field mapping for multiple transaction types"

2. Mention the customized Transaction Type

Specify a custom transaction type which can be used with the SAP Solution Manager ITSM. This transaction type has to be defined as PROCESS_TYPE in transaction DNO_CUST04.

Transaction	DNO_CUST04
Field	PROCESS_TYPE

7.2.1. Define Target Transaction Type

As you use several transaction types for Incidents and receive messages from external service desks, you can use this implementation (BAdI: BADI_DECT_PROC_TYPE_FOR_EXT_SD) to specify what target transaction type the message is created in.

If you have never implemented a BAdI before, you should read the blog **How to implement a BAdI And How to Use a Filter - Part 4 of the Series on the New Enhancement Framework**, ignoring the part about filters that is not required here.

Click on the link below to implement the BAdI "BADI_DECT_PROC_TYPE_FOR_EXT_SD"

This would launch the below popup with the list of existing BAdI implementations. To create a new BAdI Implementation, click on "Create" button.
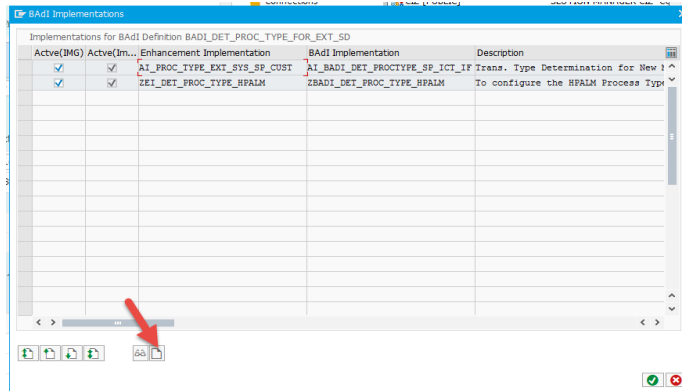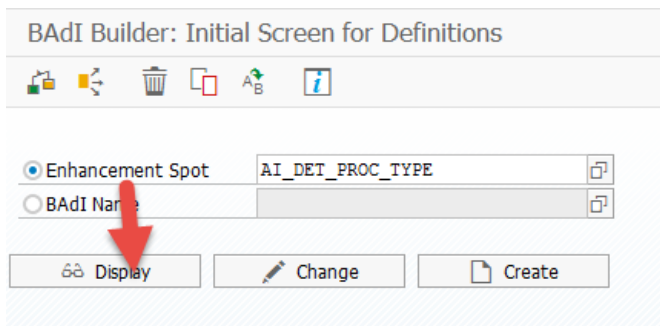
and follow the instructions from Step – 5.

In case the aforementioned link does not work please follow the below instructions,

Step 1: please use the transaction SE18 to implement the BAdI,

| Transaction Code	SE18
Enhancement Spot	AI_DET_PROC_TYPE (or)
BAdI Definition Name	BADI_DET_PROC_TYPE_FOR_EXT_SD

Step 2: The enhancement spot with existing BAdI definitions will be displayed:
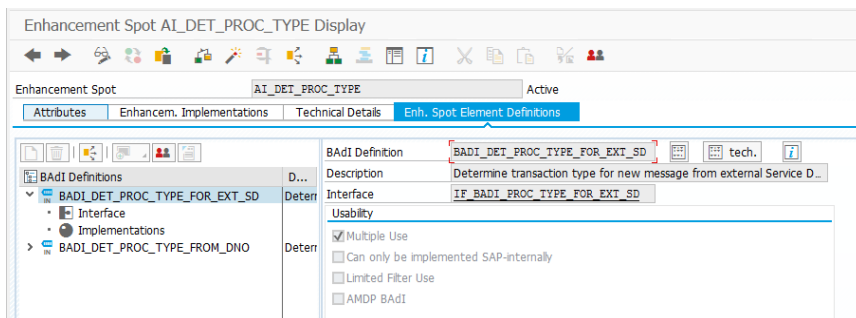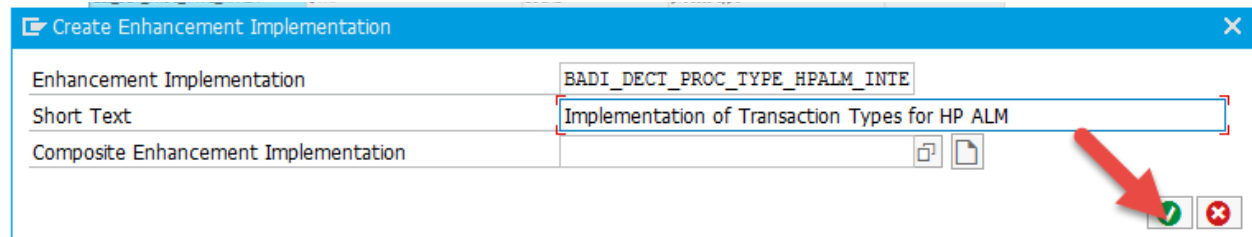

Step 3: To create an enhancement implementation for the BAdI BADI_DET_PROC_TYPE_FOR_EXT_SD, expand the tree under the BAdI BADI_DET_PROC_TYPE_FOR_EXT_SD, select 'Implementations' and with right mouse click choose 'Create BAdI Implementation'
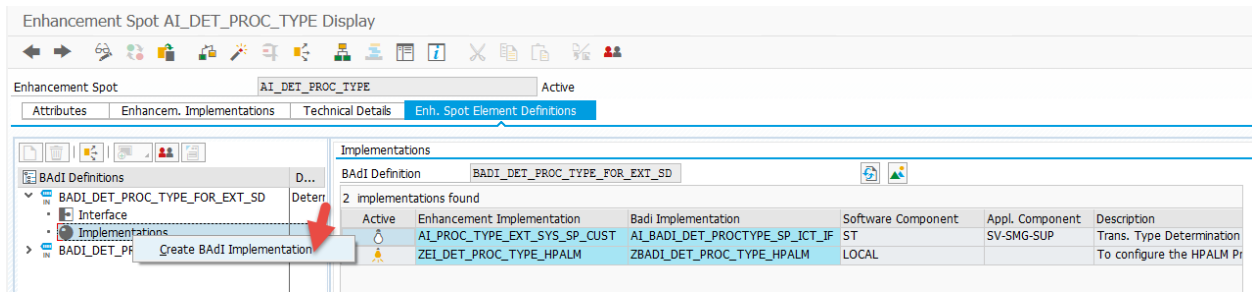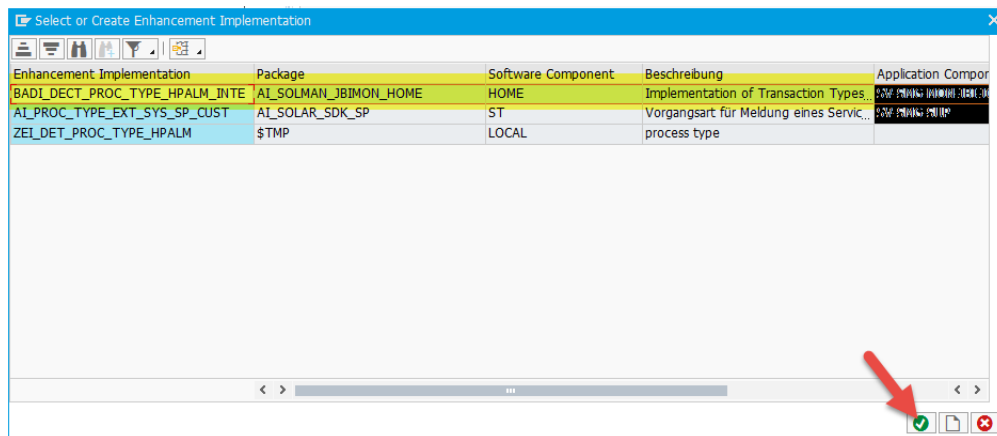
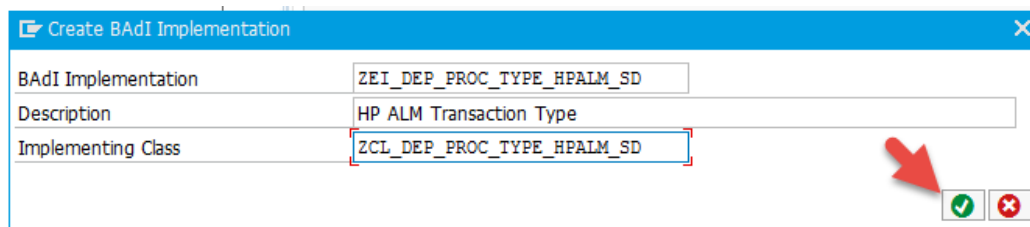**Step 4:** In the below popup choose "Create" to implement the BAdI,
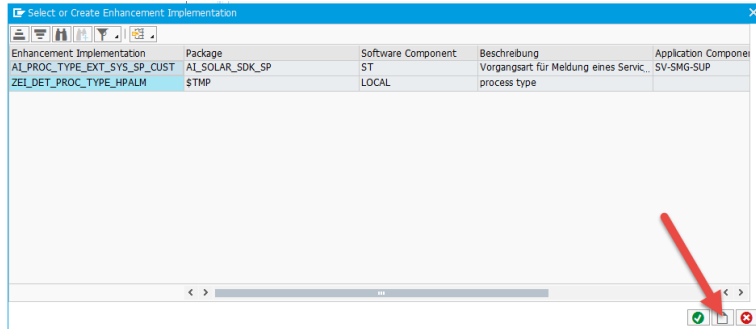
Step 5: Create an Enhancement Implementation

Step 6: Assign the object under the package "AGS_ADAPTER_TSTM" & store it in the Transport Request. The new Enhancement Implementation would be displayed in the popup below,
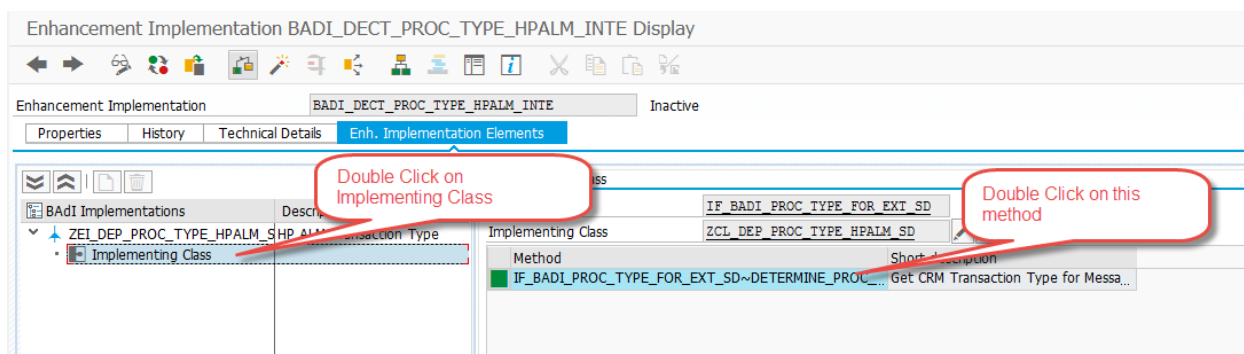

Step 7: Fill in the new BAdI Implementation & class Name

Assign the objects to the package "AGS_ADAPTER_TSTM" & store it on the Transport Request.

Step 8: Double click on the method shown above & assign the new Transaction Type "YMIN"

Step 9: Save & activate the method.

Once you are done with 7.2.1, set an execution status to "Performed"

7.2.2. Adjust Status Schema for Transaction Type

The Status Profile for Transaction Type SMIN (default) or YMIN (if modified using the step 7.2.1) needs to be underlined adjusted for the integration of SAP Solution Manager Service Desk messages and Defect Management.

Click on the link below,
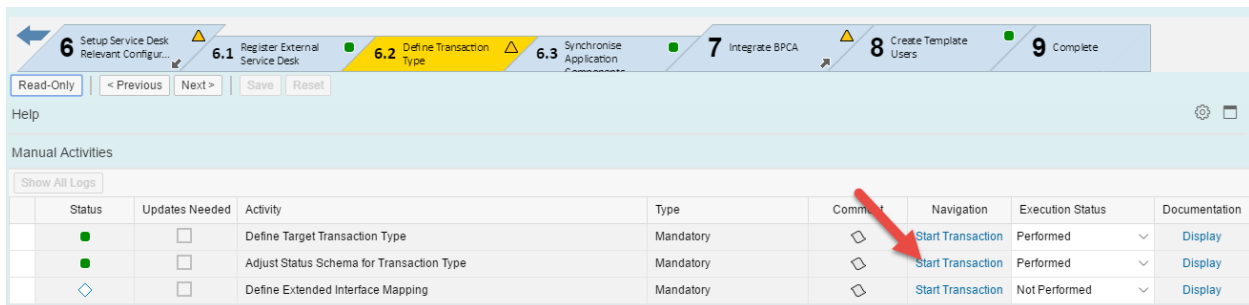
In case the transaction does not launch, use the transaction SM34 with the following details,

Transaction	SM34
View Cluster	CRMV_PROCESS_MA

Click on Maintain to adjust the status profile,

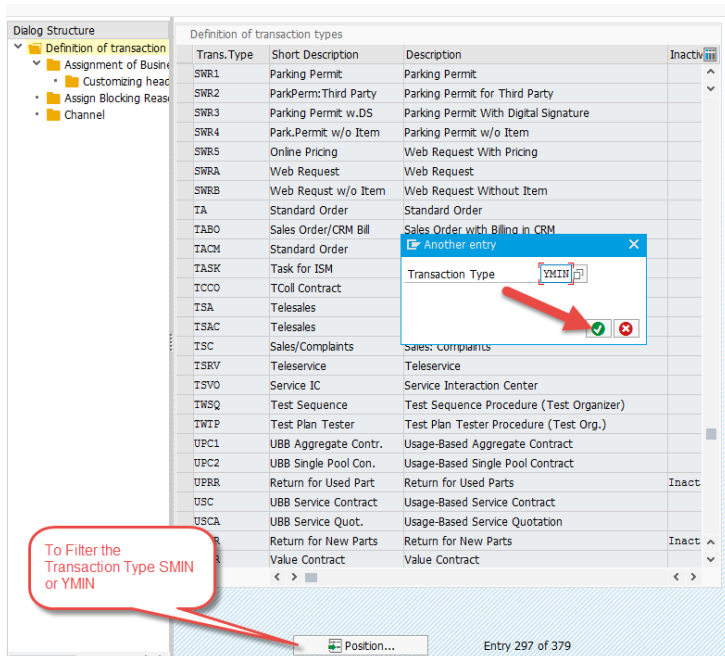Double click on the Transaction Type "SMIN" or "YMIN" (in case adjusted using the step 7.2.1)
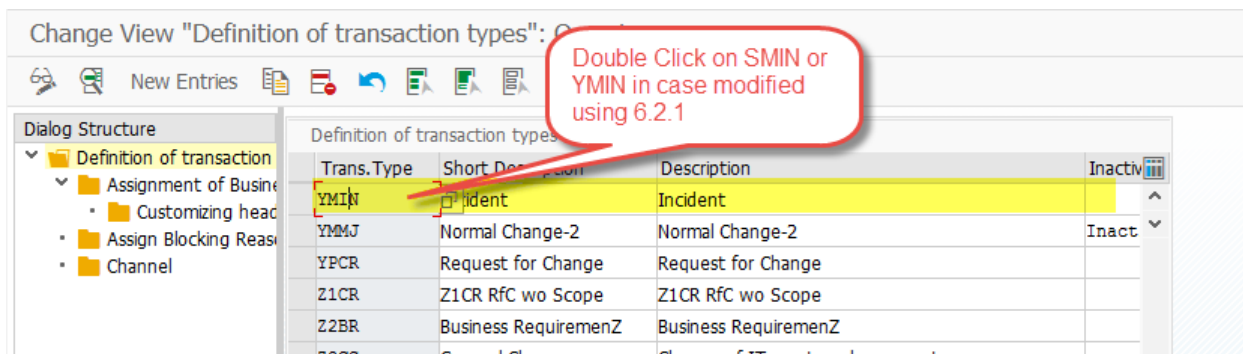
Change the Status Profile to "SMINHPQC" & save the transaction.

Once you are done with 7.2.2, set an execution status to "Performed"

7.2.3. Define Extended Interface Mapping

This step is required in order to adjust the status mapping in table ICT_CUSTOM to fulfill your requirements of Status Profile.

Click on the link below,
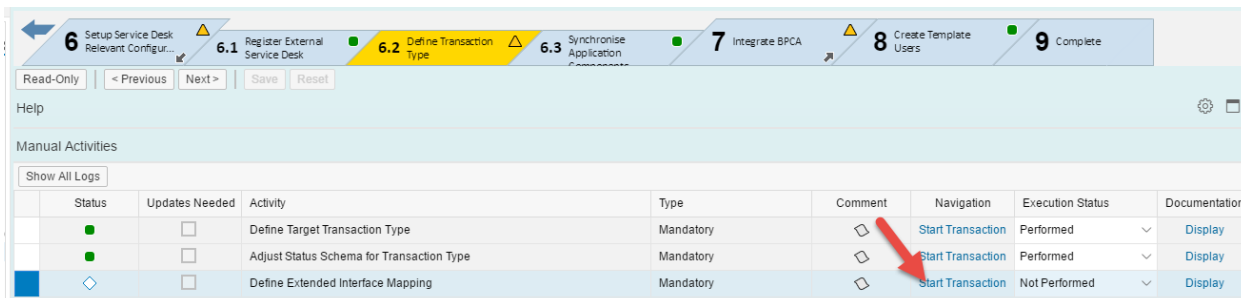
In case the transaction does not launch, use the transaction SE38 with the following details,

Transaction	SE38
Report Program	AGS_ADAPTER_ICTCUSTOM_AUTOCONF

➤ Choose the Third Party GUID by choosing the Service Registration created in "Step – 2" of 7.1.

➤ Choose the Transaction Type "SMIN" or "YMIN" (if modified by following the step 7.2.1)

➤ Execute the Report Program (or) hit F8
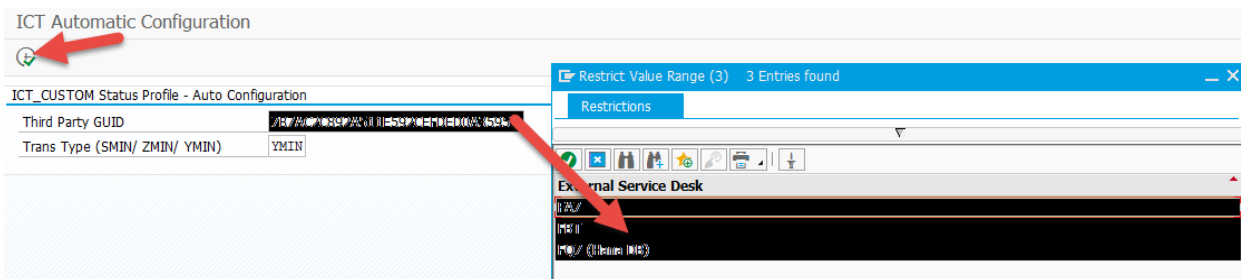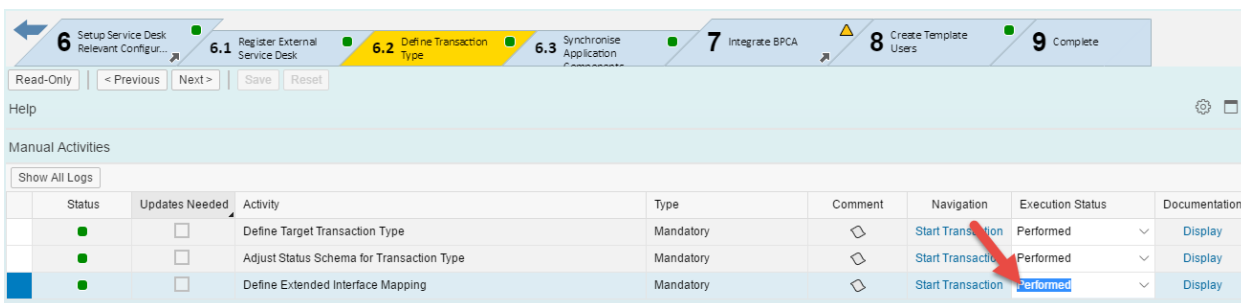
Refer the below screenshot for more information

Once you are done with 7.2.3, set an execution status to "Performed"


7.3. Synchronize Application Components, System and Client

To create a "HP ALM – SAP Related Defect", it is mandatory to mention the Application Component, System and the Client as it is mandatory in Solution Manager. This automatic step is to schedule the Job to synchronize the following,

➤ Application Components (for example, SV-SMG-QC, SV-SMG-INS and etc

> ➢ System Details (the system from the Logical Component Group would be consolidated & synced with HP ALM)
> ➢ Clients

"Execute All" in the below step,
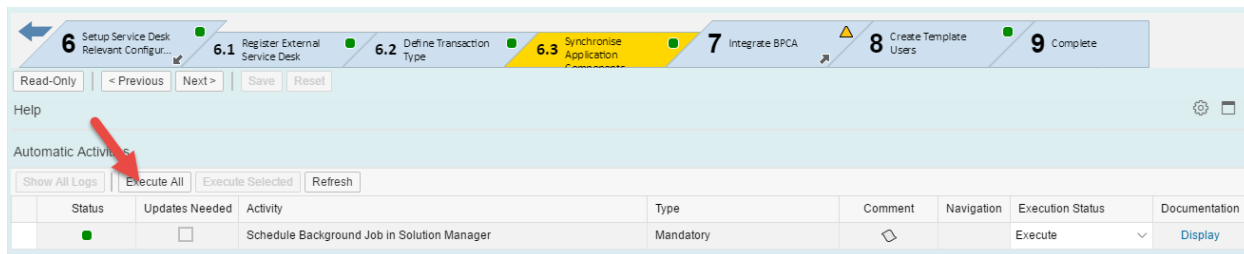
8. Integrate BPCA

For the setup of the BPCA, refer the section 6.3 of the BPCA How to Guide

9. Create Template Users

Once the setup is completed, we need to let the end users (consultants/ business process experts/ functional experts/ testers/ Solution Owners) to use the Partner Test Management by creating the users for them with corresponding roles. The user creation shall be automatically created in this Step – 8 (Create Template Users)