How to configure SAP Solution Manager 7.1. Change Request Management with SOLMAN_SETUP

Purpose
This document will focus on the different guided procedures and activities that you need to complete to get the Change Request Management (ChaRM) scenario correctly configured for SAP Solution Manager 7.1.

Screenshots are taken from a SAP Solution Manager 7.1 SP13 system.

Overview
There are activities in the different guided procedures that needs to be configured in order to get the Change Request Management scenario correctly configured.

See in bold letters the activities that are really important for the Change Request Management scenario.

System Preparation

Needs to be performed entirely after the SAP Solution Manager system has been installed and/or upgraded from SAP Solution Manager 7.0.

After installing a new SP/FP it is necessary to update the indicated activities that have “Update Needed” flagged.

1. Maintain users
2. Check installation

3. Specify Connectivity Data SAPOSS, SAP-OSS and SAP-OSS-LIST-O01 are created

4. Implement SAP Note

5. Configure Connectivity – only 5.6. Configure SAP Connect

6. Prepare Landscape Description

6.1. Select SLD
6.2. Set Up LMDB
6.3. Set Up SAP Solution Manager
6.4. Migrate SMSY Data into LMDB
6.5. Configure automatically
Basic Configuration

Needs to be performed after new installations and after support packages to perform delta configuration.

1. Specify Solution

2. Specify User & Connectivity Data
   2.1. Specify SAP BW Systems
   2.2. Set Up Credentials
   2.3. Maintain Users
   2.4. Solution Manager Internal Connectivity

4. Configure Manually
   - Enable Work Center Authorization Check
   - Enable Remote HTTP Connection
   - Enable Remote R/3 Connection
   - Import Calendar Entries
   - Schedule Application Log Cleanup
   - Deactivate BDocs Creation

5. Configure Automatically
   - Activate BW Source System
   - Store BW settings
   - Check BW Work Processes Mandatory
   - Activate BW content for RCA Mandatory
   - BW Content Activation (UPL)
   - Connection to SAP
   - Enable Solution Manager Usage
   - SSO Setup
   - Maintain RFC from BW to SolMan
   - Customizing of BW read access
   - Setup Extractor Framework
   - Schedule Sol. Manager Background Jobs

Pay attention to job SM:TMWFLOW_CMSSYSCOL (report /TMWFLOW/CMSSYSCOL2): Program for collecting data of transports, notes and support packages of each System defined in table /TMWFLOW/CMSCONF using asynchronous RFC-function calls, scheduled daily.

- Schedule NetWeaver Standard Jobs

- **Activate Piece Lists**

After installing a new SP/FP you need to run this activity again to get the latest standard customizing. This piece list contains the default configuration for Incident Management. The SAP default customizing will be copied from client 000 to your logon client from where you call solman_setup and overwrite only SAP customizing. This activity has no effect on customer configuration and has to be run after each Support Patch import.
Because of this it is VERY IMPORTANT that you copy all change documents transaction types into your own namespace or <Z>, <Y> namespace. Before starting to use Change Request Management, copy change documents transaction types, copy status profiles, action profiles, etc... If you do not your modifications to the standard will be overwritten after the next support package import. So, when using standard customizing, you should copy all standard entries into your own namespace or <Z>, <Y> namespace. This is really important and mandatory in Solman 7.1!

- Create External Aliases
- Activate Services
- Prepare Business Partner Change
- Generate Business Partner Screen
- Prepare SAProuter Data
- Work Centers Query Refresh

7. Maintain Systems in IBase, all activities

Ensure that have implemented the latest version of note 1935934 "Various problems when creating IBase components and objects" before starting the execution of the activities in this point.

8. Create Scenario Configuration Users

Managed Systems Configuration

With the Managed Systems Configuration, you connect the required systems to SAP Solution Manager:

- To configure a single system, choose the Technical System tab page.
- To configure a double (ABAP and Java) stack system, choose the Technical Scenario tab page (Technical scenarios need to be created manually first)
- To configure a standalone database, choose the Database tab page, select the system and click on System Operations->Maintain system. This will open the system in LMDB where you can create the RFC connections in Destination-> RFC Maintenance.

For ChaRM scenario you will need to create the RFC destinations from Solman to the systems in your managed landscape where you want to control the software changes via Change Request Management.

Change Request Management requires a READ, TMW and TRUSTED RFC to every Managed System/Client.

Select the system and click on System Operations->Maintain system. This will open the system in LMDB where you can create the RFC connections in Destination-> RFC Maintenance; this will create the required RFC connections from Solman to the managed systems.

For Change Request Management scenario you don’t need to create any connections from the managed system to the Solman system unless you want to use CSOL or Retrofit functionalities.

Change Request Management

1. Check Prerequisites
   1.1. Check Sol. Mgr. Central Correction Note
   1.2. Check Piece List Activation
   1.3. Check BW System Configuration
   1.4. Check LMDB Configuration
   1.5. Check Background Jobs
   1.6. Check Service Activation
1.7. Check IBase Component Creation

Here we check the activities done in System Preparation and in Basic Configuration that needs to end correctly for starting with the ChaRM configuration.

2. Implement Master Note

For ChaRM there is master note that contains the most critical known corrections. You should also check the note status in SNOTE periodically so that newer versions can be downloaded and applied as soon as possible.

The implementation status has to be set manually.

When transporting the master note from development to quality, to other systems in your track, and finally to production system you need to manually execute the Post-Processing in these systems.

3. Perform Standard Configuration

3.1. Configure Transport Management System

- Define Transport routes
- Activate Extended Transport Control
- Configure Transport Strategy
- Check Transport Domain Controller
- Add Import Authorization
- Create RFC Dest. to Domain Controller

Here you need to define your TMS managed landscape, in most of the case you have already a TMS managed landscape in place and you only need to ensure that this landscape fulfills the ChaRM requirements.

The following parameters are required for all managed systems:

CTC: CTC must be set to 1 for single ABAP stack systems and dual stack systems; for standalone non-ABAP systems, CTC should be set to 0.

IMPORT_SINGLE_ONLY = 1

IMPORT_SINGLE_STRATEGY = 1

NO_IMPORT_ALL = 1

Note: you have to activate the "Single transports" strategy. This prevents you from accidentally executing "Import All". All transports within the system landscape of Change Request Management must be processed by project or document imports.

WORKFLOW_STRATEGY = 0

Note: In the transport tracks where the software distribution is controlled by Change Request Management, you must deactivate the QA approval procedure in the TMS, since this procedure is incompatible with the approval procedure in Change Request Management.

Logon to the domain controller system client 000 -> Transaction STMS -> System Overview -> Double click on the managed system entry -> Go to tab Transport Tool -> Adjust/insert parameters with correct value -> Save and distribute the configuration change.

Since the client control (CTC) has been activated for managed systems, all transport routes need to be set as client dependent.

To define or check the transport routes logon to the domain controller system client 000 -> Transaction STMS -> Transport Routes -> Go to Change mode and configure transport routes and transport layers according to your landscape and requirements. Save and distribute the configuration changes.

When building the consolidation route, please choose an appropriate transport layer accordingly; see note 1401611 for details.

If you have more than one development system/client, please make sure all of the transport layer settings are configured correctly here, otherwise ChaRM may not be able to calculate the transport tracks based on your STMS configurations

Logon to domain controller system client 000 -> Transaction STMS -> Transport Routes -> Go to Change mode -> Double click on the development system -> Go to tab Standard Transport Layer -> Insert row for client-specific settings -> Enter development client number and the transport layer which should be used in ChaRM -> Save and distribute the configuration change.

If you have multiple target systems starting from one single source system you can use Transport Target Group, which is also supported by ChaRM.

Ensure that you have defined consolidation transport routes from the development system (source system role for ChaRM project) to the first
We recommend that you assign exactly one development system to a production system, and that these two systems are connected by exactly one unique transport track.

If you are using Harmonizing RFC communication infrastructure (see note 1384598 for details), the users triggering the import actions in the Solman system need to exist in the target system:client of the managed landscape with the same name and have trusted authorization (S_RFC authorization objects) and import authorizations. This user should have at least the authorization profile S_TMW_OPERA; role SAP_CM_MANAGED_OPERATOR will contain both necessary authorizations.

If you are not using Harmonizing RFC communication infrastructure, the old infrastructure with domain links will be used (see note 913232), and then the users triggering the import action to the managed landscape will need to exist in client 000 of the target system with import authorizations.

After configuring the TMS I would create the RFC Destinations for the managed systems from solman_setup -> Managed system configurations. Select the system and click on System Operations->Maintain system; this will open the system in LMDB where you can create the RFC connections in Destination-> RFC Maintenance. This will create the required RFC connections from the Solman to the managed systems.

Create RFC destinations (READ, TMW and TRUSTED).

**Note:** When creating those RFCs in LMDB, by default the 'LOGIN' type will be assigned to “RFC for SAP Solution Manager”. You must change it to TRUSTED RFC, otherwise ChaRM cannot functional properly in CRM UI.

Also I would create the logical components in LMDB, Logical Components tab.

You have a managed landscape where you want to control the software changes via Change Request Management.

You need to create a logical component, one of several, that contains the systems of the real managed landscape. Enter in the logical component only the systems that you want to control via ChaRM—it is not required that you create a logical component that contains all the systems in transport routes of the managed landscape.

Logical components can be regarded as a projection of managed system infrastructure into SAP Solution Manager system, so it must represent the real landscape and the system roles should be consistent to their real roles in business scenarios.

If you are going to customize the system roles and add new roles by yourself, please make sure the Type of Role is always consistent to your system role. That is, for development system, the Type of Role should be Source Systems; for test system, the Type of Role should be Target Systems; for production system, the Type of Role should also be Production Systems.

You can see the Type of role assignment in solar_project_admin -> select the project -> click in System role assignment button and then in System roles.

Ensure that there are consolidation routes defined from the source system to the first target system and delivery routes created between target systems and from the last target system to production system.

Details in 1484964 - ChaRM: incorrect systems are checked in /TMWFLOW/CHARMCHK

### 3.2. Configure Enhanced Change and Transport System (non-ABAP)

- Define TMS for Non-ABAP and Dual Stack
- Define Users in Non-ABAP Dev. Systems
- Define Users in Non-ABAP Target Systems
- Maintain Non-ABAP Systems
- Refresh Domain Controller Info

To configure TMS for non-ABAP or double-stack systems you need to define a communication system:client. You can find details in Transporting Non-ABAP Objects in Change and Transport System in [http://help.sap.com/saphelp_sm71_sp12/helpdata/en/bb/6fab6036a146baa58e42fac032ab7b/frAMESET.htm](http://help.sap.com/saphelp_sm71_sp12/helpdata/en/bb/6fab6036a146baa58e42fac032ab7b/frAMESET.htm)

Logon to the domain controller system client 000 -> Transaction STMS -> System Overview and create the Non-ABAP (Create -> Non-ABAP System) or add the Java Stack to an ABAP system( Create ->Java Stack) then ensure that you have entered the following parameters:

For development system (source system):

- CTC 0
- CTS_SYSTEM_TYPE JAVA (according to note 1464456 it should be MDM for MDM systems, BOBJ for Business Object systems, HANADB for Hana systems ...)

- NON_ABAP_SYSTEM 1

- COMMUNICATION_SYSTEM: SID (SID= SAPSID of the ABAP communication system (e.g. the domain controller))

- NON_ABAP_WBO_CLIENT XXX (XXX= Client of the ABAP stack on which the Transport Organizer Web UI (CTS_BROWSER) is activated and will run.)

- WBO_GET_REQ_STRATEGY TAGGED
- WBO_REL_REQ_STRATEGY MANUAL

For quality and production Java system (target systems):

- CTC 0

- CTS_SYSTEM_TYPE JAVA (according to note 1464456 it should be MDM for MDM systems, BOBJ for Business Object systems...)

- NON_ABAP_SYSTEM 1

- COMMUNICATION_SYSTEM: SID

- DEPLOY_WEB_SERVICE CTSDEPLOY

- DEPLOY_DATA_SHARE: <DIR_TRANS>\data

- DEPLOY_URL: http://<JQS_host>:<JQS_SDM_Port>

Note: This would be the CTC correct value:

CTC=1 Client specific for ABAP and Double Stack systems

CTC=0 Client independent for Java standalone systems

After having the Non-ABAP system or double-stack systems correctly created, create the transport routes between them.

Save and distribute the configuration.

After this go to LMDB and check under Technical system if your Non-ABAP system is there, and assign a Product to the Technical system under Software area, then create a logical component that fits with your defined TMS landscape.

Ensure that you get the information about your Non-ABAP system correctly saved in SMSY: under ABAP Transport System/Client for non-ABAP systems, you need to see the ABAP transport system that acts as the communication system; the non-ABAP development system is the only non-ABAP system that needs to also have the client of the communication system. For this go in SMSY to the domain controller of the communication system and run Read System Data Remote.

If you are using Harmonizing RFC communication infrastructure (see note 1384598 for details), the users triggering the import actions in the Solman system needs to exist in the communication system:client with the same name and have trusted authorization (S_RFC* authorization objects) and import authorizations, user should have at least the authorization profile S_TMW_OPERA; the role SAP_CM_MANAGED_OPERATOR will contain both authorizations.

If you are not using Harmonizing RFC communication infrastructure, the old infrastructure with domain links will be used, see note 913232, and then the users triggering the import action will need to exits in the client 000 of the communication systems with import authorizations.

Create RFC connections to the communication system:client and then the logical component for the managed landscape.

3.3. Configure automatically
- **Activate Services**
- **Activate BI Content**
- **Schedule Extractors**
- **Activate Categorization Scheme**

**Set Client for Change Request Management**

Change Request Management can only be configured in one client of the Solution Manager system.

**Add Contact Person to Business Partners**

In this automatic activity, you can add the role Contact Person to all existing Business Partners of type person. The role Contact Person is needed to use Business Partners in the WebClient UI.

**Check and Correct Number Ranges**

3.4. Configure manually

- **Activate Switches**

Please activate the functions that you really need.

- **Copy Transaction Types**

Copy preconfigured transaction types into the customer namespace, for example from SMMJ to ZMMJ.

After installing a new SP/FP you should update the already copied transaction types with newly shipped SAP standard configuration. Only transaction types that have been created with this function can be updated.

- **Define Copy Control**
- **Specify Mapping Rules**
- **Define Proposals for Rel. Transactions**
- **Specify used Transaction Types**

- **Create Users and Business Partners**

You need to create in the Solman system the developers, testers, IT operators.. users with a BP of type employee linked to it, you can use bp_user_gen for this or create users and business partners manually.

3.5. Maintain transaction types

Ensure that you select Channel CRM UI if you want to work with document of the transaction type in sm_crm.

3.6. Create Template Users

You can create ChaRM template users in the Solution Manager system for these roles: administrator, change manager, developer, tester, operator, requester.

4.1. Make General Settings

- **Maintain Impact, Priority, and Urgency**
- **Maintain Visibility of the Buttons**
- **Define Status Change by Approval Result**
- **Synchronize Project and Solution Context**
- **Maintain Risks for Request for Change**
- **Define Approval Procedures**
- Make Settings for Transaction Types
- Define Date Management
- Assign Impl. to Transaction Types
- Define Settings for Processing Log
- Define Landscape Assignment Block
- Assign Business Part. to iBase / Objects
- Activate Partner and Address Inheritance
- Configure Reporting Services
- Maintain Categorization Schemas
- Set up TREX for Search
- Adapt Action Profiles
- Adapt Status Profiles
- Adapt Partner Profiles
- Adapt Text Profiles
- Define Chge Req. Mgmt Framework
- Define Consistency Checks
- Make Settings for IT Calendar
- Restrict Transaction Types for BI

4.2. Set Up E-Mail Notifications
- Activate PPF
- Adapt E-Mail Templates

5. Configure Extended Functionality
- Deploy CTS Plug to Managed Systems
- Configure cCTS Infrastructure
- Activate Domain Links
- Configure CSOL and Downgrade Protection
- Define Critical Transport Objects
- Configure Retrofit
- Enhance Schedule Manager
- Define Checklists

6. Perform Administrative Task
- **Activate Chge Request Mgmt for Project**
- Retrieve Users from LDAP
- Maintain Users and Business Partners
- Set up Organizational Model
7. Configure UI
8. Create Managed System Template Users
   8.1. Select System
   8.2. Select Client
   8.3. Create Managed System Template Users

Related Content

Related Documents
Solman_setup documentation of each activity

Related Notes
SAP Note 1935934: Various problems when creating IBase components and objects
SAP Note 1574224: General note for Change Request Management ST 7.1
SAP Note 1703391: General note for managed systems in Change Management
SAP Note 1384598: Harmonizing RFC communication infrastructure in ChaRM/QGM