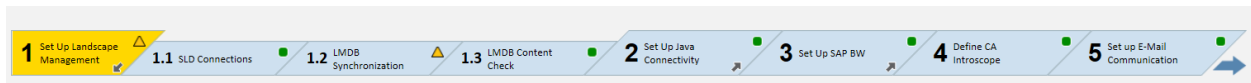## Infrastructure Preparation

Steps:

1. Setup Landscape management
2. Setup java Connectivity
3. Setup SAP BW
4. Define CA introscope
5. Setup Email Communication
6. Configure CRM basics
7. Enable gateway services

1. Set Up Landscape Management

1.1 SLD Connections

In this step you enable SAP Solution Manager to access to the System Landscape Directory (SLD). If SLDs exist, specify all of them to which either managed systems or Diagnostics Agents are connected. If no central SLD exists yet in your landscape, you should set up a local one in the SAP Solution Manager system.

Create new connection → Select new SLD connection according to role available

- Source for LMDB

- Runtime SLD

- PI SLD

- Other

Once selected enter the HTTP destination i.e URL, Communication user and password and then save the details and below screen will appear. You can also add or modify the connections of SLD according to the role available.

1.2 LMDB syncronization

In this sub-step the Landscape Management Database (LMDB) will be synchronized with the System Landscape Directory (SLD) to collect the following information from the system landscape:

- SAP Software Catalog (CR content)

- CIM Model

- Technical system landscape description

We need to configure the LMDB object server first (If the SLD of SAP Solution Manager is used, please use a prefix "LMDB_" with the host name of SAP Solution Manager as LMDB Object Server Name.) Then save the entry.

Add the synchronization connections between SLD and LMBD with active SLD and the URL details later save it to activate the connection.

LMDB Object Server Configuration

| Configure LMDB Object Server |

Synchronization Connections between SLD and LMDB

| Add | Delete | Activate | Deactivate | Advanced... | Refresh |

Status	Description	Source URL	Source Namespace	Target Namespace	Is CR Source
●	SMP SLD	http://~~~~~~~~7:50500/sld/cimom	sld/active	active	✓

This process takes several hours and once the syncronization is done we can see above screen .

1.3 : LMDB Content Check

In this step, you set up the system on which SAP Solution Manager is running. It has to be managed in the landscape management database (LMDB) like any other technical system in the landscape.

- At the same time, automatic checks for the correct setup of the LMDB are run. The AS ABAP stack of SAP Solution Manager is displayed.

- Define the AS Java stack:

If a system ID matching the AS ABAP is found, it is proposed. If not, select an AS Java from the input help.

- Choose *Save and Execute*

SAP Solution Manager System

Application Server ABAP: SMP
Application Server Java: [SMJ]   SMJ

[Save and Execute]

2. Setup JAVA Connectivity

In these steps, you set up the SAP Solution Manager Java system for inbound and outbound connectivity.

2.1 Define HTTP Connetivity

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In this step, you configure the HTTP(S)-based connections of the SAP Solution Manager system.

Status	Update Needed	Description	Type
●	☐	Define HTTP Connectivity	Mandatory
●	☐	Enable Connectivity	Mandatory
●	☐	Diagnostics Agent Authentication	Mandatory

The information is used to configure the internal Web Service calls performed between SAP Solution Manager ABAP and Java stack and from Diagnostics Agents to SAP Solution Manager Java stack.

SAP Solution Manager Connectivity

Go to Advance Mode | Test Connectivity

☐ Use Load Balancer / SAP Web Dispatcher

ABAP Application Server
ICM for External Access: http://[____]corp.capgemini.com:8000   SMP
ICM for Internal WS Access: http://[____]corp.capgemini.com:8000

Java Application Server
ICM for External Access: http://[____]corp.capgemini.com:50500   SMJ   See Selection
ICM for Internal WS Access: http://[____]corp.capgemini.com:50500   **HTTP**
Message Server: http://[____]

2.2 Enable Connectivity

In this step, you check and set up the SAP Solution Manager Java system to support, for example, Web Service calls, Java Connector RFC calls, and single sign-on for Web User Interfaces.
Select the *Execute All* pushbutton to perform all activities automatically.

Automatic Activities

	Status	Updates Needed	Activity	Type
	●	☐	Update HTTPURLLOC Table	Mandatory
	●	☐	Check User Management Engine Settings	Mandatory
	●	☐	Check Java Software Prerequisites	Mandatory
	●	☐	Create Logical Ports	Mandatory
	●	☐	Create RFC Connectivity (WEBADMIN)	Mandatory
	●	☐	Set Up Single Sign-On	Mandatory
	●	☐	Turn Off Maintenance Mode	Mandatory
	●	☐	Run Java Upgrader	Mandatory

2.3 Diagnostics Agent Authentication

In this step, you configure the connections between the Diagnostics Agents and SAP Solution Manager.

Diagnostics Agents Connections

Manage Agents | Refresh Counters

Authenticated Diagnostics Agents: 4
Unauthenticated Diagnostics Agents: 1

Agent Authentication Root Certificate

Generate | Upload

Certificate Algorithm: RSA
Certificate Key-Length: 1024
Expiring on: 01.01.2021 12:49:17

Agentadmin:

http://<hostname:port>/smd/AgentAdmin

3. Set up BW

In this section we set up SAP BW to be used for reporting.

	Status	Update Needed	Description	Type
	●	☐	Confirm SAP BW	Mandatory
	●	☐	Maintain Users	Mandatory
	●	☐	Enable SAP BW	Mandatory

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3.1 Confirm SAP BW

SAP NetWeaver Business Warehouse (BW) provides important reporting functions to the various SAP Solution Manager Scenarios, such as Root Cause Analysis, IT performance reporting and change analytics.

There are three different options to specify the SAP BW system. Select the option relevant for your system setup.

Specify SAP BW System.

Set time zone for Sap Business Information Warehouse (BW). All data will be stored with this time zone.

3.2 Maintain users

Set In this step, you create or update dialog, technical (of type System) or BW users, and assign roles to them, depending on the scenario and step

User **SM_BOC** is used to acquire data from BW queries (for ex: Incident management and Test management) so that end users can view related queries in business cloud objects.

User **SM_BW_ACT** is used to activate BI content for individual scenarios, such as incident management, data volume management, or Enterprise Support reports in transaction SAP Solution Manager Configuration.

SM_BW_ACT Technical User (in BW system)

● User SM_BW_ACT exists with the recommended roles

Action:	
	☐ Accept Manually Created User Without Checking Role Assignments
User:	SM_BW_ACT
Password:	
Repeat Password:	

Required Roles

Refresh

	Automatic Action	U...	Delivered SAP Source Role	Copy from SAP Role	Role Scope	Start Transacti...	Role Descri...
	Do nothing	☐	SAP_BI_E2E	ZSAP_BI_E2E	BW	Display	Display

Execute   Advanced Mode

3.3 Enable SAP BW

This step activates the BW component in SAP Solution Manager system automatically. **Note:** The execution of the activities can take a few minutes.
Choose Execute All to start the activity**.**

Automatic Activities

Show All Logs   Execute All   Execute Selected   Refresh

	Status	Updates Needed	Activity	Type
	●	☐	Activate BW Source System	Mandatory
	●	☐	Maintain RFC from BW to SAP Solution Manager	Mandatory
	●	☐	Store BW Settings	Mandatory
	●	☐	Customizing the BW Read Access	Mandatory

4. Define CA introscope

Install WilyAgent/CA Introscope Enterprise manager having version 10.1 or higher as recommended for solman 7.2. It would be installed in following path
/usr/sap/ccms/apmintroscope
Note : For the installation details and procedure : check SAP note 2285189 and 797147
After you installed an Enterprise Manager, the connection needs to be maintained between the Enterprise Manager and the SAP Solution Manager.
Select the *Discover Introscope EM* pushbutton:

CA Introscope Enterprise Managers

Discover Introscope EM   Refresh   Advanced Mode

Remove   Unassign agent   User Management

	Host	Port	Version	Type	Status	Capacity
	IN-MUM-SAPEP7	6001	10100	Standalone	●	14%

Prerequisite: In the System Preparation scenario you have installed the Diagnostics Agents on all hosts of your CA Introscope Enterprise Manager(s) (EM) and you have connected the

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Diagnostics Agents to the SAP Solution Manager. You need to ensure that the user which is running the Diagnostics Agent has read/write authorizations to the Introscope installation directory. Select and maintain the connection user
(e.g. *Guest* with the password *guest12)*:

Admin with Admin89

http://<hostname>:8081/webview

5. Set up Email communication

In this step, you set up the infrastructure that enables SAP Solution Manager to send notifications using e-mail and text messaging (short message service, SMS), and enable e-mail encryption, manually.

	Status	Updates Needed	Activity	Type
Manual Activities				
Show All Logs				
	◇	☐	Enable Mail Encryption for Notification	Optional

6. Configure CRM Basics

In this step, you configure several infrastructure components for SAP Customer Relationship Management (CRM) that is used by the mandatory scenarios in SAP Solution Manager.
- In the Documentation column, choose the *Display* link.
- To perform the activity, choose the link in the *Navigation* column.
- Set the status in the column *Execution Status* to *Performed*.

Manual Activities

Show All Logs

	Status	Updates Needed	Activity	Type
	●	☐	Technically Upgrade Products	Mandatory
	●	☐	Deactivate Creation of BDocs	Mandatory

Automatic Activities

Show All Logs | Execute All | Execute Selected | Refresh

	Status	Updates Needed	Activity	Type
	●	☐	Maintain Product ID Length	Mandatory
	●	☐	Create Hierarchy for Material Products	Mandatory
	●	☐	Maintain Number Range for Material	Mandatory
	●	☐	Prepare IBase	Mandatory
	●	☐	Set Priorities for CRM Transaction Types	Mandatory

For Manual activity :

Manual Activities

Show All Logs

Status	Updates Needed	Activity	Type	Comment	Navigation	Execution Status	Documentation
◇	☐	Technically Upgrade Products	Mandatory	◇	Start Transaction	Not Performed ⌄	Display
◇	☐	Deactivate Creation of BDocs	Mandatory	◇	Start Transaction	Not Performed ⌄	Display

Automatic Activities

Show All Logs | Execute All | Execute Selected | Refresh

Status	Updates Needed	Activity	Type	Comment	Navigation	Execution Status	Documentation
◇	☐	Maintain Product ID Length	Mandatory	◇	Start Transaction	Execute ⌄	Display
◇	☐	Create Hierarchy for Material Products	Mandatory	◇	Start Transaction	Execute ⌄	Display
◇	☐	Maintain Number Range for Material	Mandatory	◇	Start Transaction	Execute ⌄	Display
◇	☐	Prepare IBase	Mandatory	◇	Start Transaction	Execute ⌄	Display
◇	☐	Set Priorities for CRM Transaction Types	Mandatory	◇	Start Transaction	Execute ⌄	Display

ABAP: Program Execution

With variant   Overview of variants   Background

Program   COM_PRODUCT_UPGRADE

Display logs

Technical Information   STOP 0   ⬤ 0   △ 0   ■ 1   Help

Typ	Message text
■	Upgrade Method from Class CL_CRM_PRODIL_UPGRADE_50 Starting

In this activity, you deactivate the creation of Business Document (BDoc) messages.A BDoc is a document that contains information on changes made to business objects. The SAP Solution Manager system exchanges BDoc messages with other SAP systems, such as the SAP ERP system, using CRM middleware.

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SAP Solution Manager creates BDOc messages for the following BDoc types:

- BUPA_MAIN
- BUS_TRANS_MSG
- CRM_IBASE_MESS
- PRODUCT_INDOBJ
- PRODUCT_SRV

Requirements

Check whether your SAP Solution Manager scenarios use BDocs and which BDOcs you want to deactivate.

Activities

- To deactivate the BDoc creation, in the Navigation column, start transaction BDoc Type Customizing: Details (SMW3_00).

- Choose New Entries.

- In Short Name, enter the BDoc type.

- Select Do Not Send.

- Save your entries.

7. Enable gateway services

In this step, you activate SAP Gateway services (OData services), which are required to enable the SAP Solution Manager Fiori launchpad, SAP Fiori apps, and mobile applications.
- You need to activate the SAP Gateway services for each of your scenarios.
- **Note**: You can only work with the SAP Solution Manager Launchpad if you have activated the SAP Gateway services *UI BE: Services Model Provider* and *OData Service for GPA document.* If you haven't activated them, the status of this step is red. The OData services for the SAP Solution Manager Launchpad are grouped under the entry with the description *UI BE: Services Model Provider, under Cross Scenario.*

Manual Activities

	Status	Updates Needed	Activity	Type	Comment	Navigation	Execution Status	Documentation
	●	☐	Activate Launchpad Services	Mandatory	◇	Start Transaction	Performed	Display

Gateway Services for SMP —

☐ Select/Deselect all Gateway Services | Prepare Activation |

List of Gateway Services

Scenario / Status	To be activated	External Service Name	Description of the Service Group
▸ Application Operations			
▸ Application Operations/Business Process Operations			
▸ Business Process Operations			
▸ Change Request Management			
▸ Cross Scenario Configuration			
▸ Custom Code Management			
▸ IT Service Management			
▸ Process Management			
▸ Project Management			

8. Complete

Finishing steps can be summeried as below :

Steps

Configuration Step	Status	Last Changed On	Last Changed By	Description
▾ Set Up Landscape Management	⚠	09.04.2018 19:03:35	SMPCONFIG2	Set Up Landscape Management
SLD Connections	●	09.04.2018 16:32:13	SMPCONFIG2	SLD Connections
LMDB Synchronization	⚠	09.04.2018 19:03:35	SMPCONFIG2	LMDB Synchronization
LMDB Content Check	●	10.01.2018 15:17:47	SOLMAN_ADMIN	LMDB Content Check
▾ Set Up Java Connectivity	●	01.01.2018 12:49:21	SOLMAN_ADMIN	Set Up Java Connectivity
Define HTTP Connectivity	●	30.12.2017 22:33:05	SOLMAN_ADMIN	Define HTTP Connectivity
Enable Connectivity	●	01.01.2018 12:48:24	SMD_RFC	Enable Connectivity
Diagnostics Agent Authentication	●	01.01.2018 12:49:21	SOLMAN_ADMIN	Diagnostics Agent Authentication
▾ Set Up SAP BW	●	01.01.2018 13:02:33	SOLMAN_ADMIN	Set Up SAP Business Information Warehouse
Confirm SAP BW	●	01.01.2018 12:50:55	SOLMAN_ADMIN	Confirm SAP BW
Maintain Users	●	01.01.2018 12:57:34	SOLMAN_ADMIN	Maintain BW Technical Users
Enable SAP BW	●	01.01.2018 13:02:33	SOLMAN_ADMIN	Enable SAP Business Warehouse
Define CA Introscope	●	21.02.2018 00:53:09	SMPCONFIG2	Define CA Introscope
Set up E-Mail Communication	●	07.05.2015 23:37:44	SAMIDESA	Set up E-Mail Communication
Configure CRM Basics	●	01.01.2018 13:06:49	SOLMAN_ADMIN	Configure CRM Basics
Enable Gateway Services	●	01.01.2018 14:22:17	SOLMAN_ADMIN	Enable Gateway Services

Exceptional cases in Modifying LMDB

SAP NOTE : 1816146 - Correction of installed software information Method 1:

- Modify the required product versions in LMDB and upload the same data to the maintenance planner
- Use report RLMDB_DOWNLOAD_INST_SOFT_INFO in solman to get the CISI_stack.xml file for the relevant system
- Run the SUM tool in the affected system with the above generated xml file and get the system product versions corrected

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Method 2 :

- Modify the required product versions in LMDB and upload the same data to the maintenance planner
- Verify the data which is uploaded in MP with that of required product versions and download the stack XML file
- Repeat the SUM tool as mentioned in method 1 to change the product versions