Solution Manager Service Readiness

Overview

1. Service Data Quality
2. Quality of Data in Service Data Control Center (SDCC)
3. Quality of Service Data in Solution Manager Diagnostics - BW
   1. Java Performance Data
   2. Hardware Utilization Data
4. Quality of Service Data in Configuration and Change Database
5. SAP Solution Manager Software Configuration
6. Service Preparation Check (RTCCTOOL) or ST-PI and ST-A/PI Plug-Ins
7. SAP Solution Manager Functionality

Please Note: Section 3 is named differently depending on the system type

- In a Solution Manager EWA report, it is referred to as SOLUTION MANAGER SERVICE READINESS
- In a managed system EWA report, it is referred to as SERVICE PREPARATION AND DATA QUALITY

Information Regarding Section 3 Rating:

In order to have an accurate and reliable EWA report section 3 must be GREEN rated. Before contacting SAP, make sure section 3 is GREEN rated.

The image above shows how a section 3 should look like. If your EWA section 3 is not GREEN rated, please follow the recommendation reported there and make sure you get a GREEN rated section 3.

1. Service Data Quality

This section comprehensively shows issues with the data quality and provides hints on how to resolve them. Any issue with the quality of service data is shown in this section to inform the service engineer and the customer. Data missing can affect the overall rating of the EWA report.

The EWA service data is collected by the Service Data Control Center (SDCCN) on the managed system or read from the Solution Manager's BW or Configuration and Change Database (CCDB).

The latter is especially true for Non-ABAP systems or systems using the SMD Agent framework. This is accessible through Solution Manager Work Center - Root Cause Analysis.

If a check does not find the data required, or if there are quality issues, this is reported in these checks, which show all the information in a central location.
Rating

The rating is set automatically from the sub-checks.

Explanation for 'Priority' Column In Tables Below

In this sub-check, the explanation of the priority column is shown. In the first screenshot below, the Priority indicate an optional check was skipped. An optional check will not affect the overall rating of the EWA report. RED / YELLOW priorities will affect the overall rating of the EWA report and may result in a Gray rating.

<table>
<thead>
<tr>
<th>Prio.</th>
<th>Explanation: Impact of Missing or Erroneous Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>An optional check was skipped.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Prio.</th>
<th>Explanation: Impact of Missing or Erroneous Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Overall important data are missing. Detecting a critical situation may fail. Report cannot be rated green or yellow.</td>
</tr>
<tr>
<td>3</td>
<td>Data for an important chapter are missing. Some issues may not be detected. Report cannot be rated green.</td>
</tr>
</tbody>
</table>

2. Quality of Data in Service Data Control Center (SDCC)

It focuses on data collected by the SDCCN framework and will alert when SDCCN data is missing. Service data is provided using the add-on ST-PI. It is therefore important to ensure this is at the latest support package level.

If an issue is found with data collection, the problem and the corresponding note is shown to resolve the issue.

Example 1:

3.1.1 Quality of Data in Service Data Control Center (SDCC)

<table>
<thead>
<tr>
<th>Priority</th>
<th>Report Area affected</th>
<th>Details and Related ST-PI Logical Function</th>
<th>SAP Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Performance of ABAP System NFP</td>
<td>The hourly time profile of response times in the Workload Monitor (ST03) is missing for all application servers for the system. Check the configuration settings for the monitor and job SAP_COLLECTOR_FOR_PERFMONITOR.</td>
<td>144 853</td>
</tr>
<tr>
<td>3</td>
<td>Workload of ABAP System NFP</td>
<td>No activity was measured in the workload monitor (ST03). Check the configuration for the monitor and job SAP_COLLECTOR_FOR_PERFMONITOR.</td>
<td>144 853</td>
</tr>
</tbody>
</table>

Recommendation:

1. Connect to the managed system and verify if there are any errors shown in the ‘Done’ tab of the corresponding session in SDCCN. Double click on the icon under the ‘Log’ column.
Example below where errors are shown in SDCCN.

In addition, always follow the steps in the corresponding note shown. In the above example, review SAP Note 144864.

Check on the managed system that the latest add-ons are being used. Run ST13 - RTCCTOOL. The add-ons ST-PI & ST-A/PI are responsible for service data.

Ensure that the Maintenance Package task is running on a daily basis and the corresponding log file is not showing errors with regards to Service Definition refresh.

Example 2:

In the example below, the EWA is listing the exact name of the function modules such as DLD_ORA_TABLESPACE_HIST. More than likely the cause is the function module is missing or the data download is empty.

<table>
<thead>
<tr>
<th>Prio</th>
<th>Report Area affected</th>
<th>Details and Related ST-PI Logical Function</th>
<th>SAP Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Size and Growth of Database TZ1</td>
<td>This report does not contain the section 'Top 10 Segments' because of incomplete data. ST-PI function: DLD_ORA_CRIT_TAB_GROWTH used in section 'Database Performance'.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Size and Growth of Database TZ2</td>
<td>This report does not contain the section 'Top 10 Tables' because of incomplete data. ST-PI function: DLD_ORA_LARGEST_TABLES used in section 'Database Performance'.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Size and Growth of Database TZ2</td>
<td>This report does not contain the section 'Tablespace Freespace' because of incomplete data. ST-PI function: DLD_ORA_TABLESPACE_HIST used in section 'Database Performance'.</td>
<td></td>
</tr>
</tbody>
</table>

Recommendation:

1. Connect to the managed system and verify if there are any errors shown in the 'Done' tab of the corresponding session in SDCCN. Double click on the icon under the 'Log' column.
2. Ensure that the Maintenance Package task is running on a daily basis and the corresponding log file is not showing errors with regards to Service Definition refresh.
3. Check if data exist in the SDCCN download by navigating to DSA on Solution Manager. Open the specific session and then click on the truck icon for the respective session.
4. Open the session - Expand DBSYSTEMS - Click on Oracle - and open the respective function module. For example, DLD_ORA_TABLESPACE_HIST.

Note: If you cannot find the function module that is mentioned in the EWA report e.g. DLD_ORA_TABLESPACE_HIST, then you need to update your ST-PI (ST13 - RTCCTOOL) or check the SDCCN log using t-code SDCCN. ST-PI provides the function modules to your system.
If the function module exists but data is missing (see screenshot below) then use the folder **IT_MESSAGE** to check the reason why data was missing.

Expand the **IT_MESSAGE** folder. As you can see below, the reason is listed for the missing data in the EWA report. Follow the recommendations.
Example 3:
The message below is shown in the EWA report:

No checks are carried out for this ABAP system because all (or almost all) service data modules are missing. (Fewer than 10 modules for context R3SYSTEM were found.) If this session was processed before service data arrived, repeat it. Otherwise, check SDCCN. Many or all SDCC functions are affected.

<table>
<thead>
<tr>
<th>Details and Related ST-PI Logical Function</th>
<th>SAP Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>No checks are carried out for this ABAP system because all (or almost all) service data modules are missing. (Fewer than 10 modules for context R3SYSTEM were found.) If this session was processed before service data arrived, repeat it. Otherwise, check SDCCN. Many or all SDCC functions are affected</td>
<td>1801236</td>
</tr>
</tbody>
</table>

Recommendation: Refer to 2561607 - Quality Of Service Data in ST-PI message shown for EarlyWatch Alert (EWA)

3. Quality of Service Data in Solution Manager Diagnostics - BW

It focuses on data collected by the Diagnostics framework (Root Cause Analysis) and will also alert when BW data is missing. If an issue is found with data collection, the problem and the corresponding note is shown to resolve the issue.

Example 1: EWA is rated Grey because of missing Java Data. The EWA is not receiving full data and therefore you need to fix the issue.

3.1.1 Quality of Service Data in Solution Manager Diagnostics - BW

<table>
<thead>
<tr>
<th>Prio</th>
<th>Report Area affected</th>
<th>Details and Related Infocube</th>
<th>SAP Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Performance of Application Server Java</td>
<td>No performance data is returned from BW InfoCube. InfoCube: CSMD_MPEH, metric type: JAVA MEMORY USAGE, metric name: % GC TIME (LAST 5 MINUTES) used in section Java System Data for</td>
<td>1332428</td>
</tr>
<tr>
<td>4</td>
<td>Performance of Java System DDQ</td>
<td>No performance data is returned from BW InfoCube. InfoCube: CSMD_MPEH, metric type: APPLICATION THREADS, metric name: ACTIVETHREADSCOUNT used in section Java System Data for</td>
<td>1332428</td>
</tr>
</tbody>
</table>

Recommendation: For resolving this issue, refer to 1827116 - Rating not determined (Grey) at SAP EarlyWatch Alert. You can also use the link provided by the corresponding note 1332428.

Additional troubleshooting information:
1332428 - Missing performance data in service sessions from Solution Manager's BW

3a. Java Performance Data

Symptom:
The Early Watch Alert (EWA) is showing a Grey rating for a JAVA or Dual stack system and you need further assistance. It is important to understand that the EWA is depending on BW data so therefore the next logical step would be to validate and resolve the BW issue. The EWA will always report the specific error in the Service Data Quality section of the report. The most common Alerts are shown below.

- APPLICATION THREADS and metric name: ACTIVETHREADSCOUNT
- JAVA MEMORY USAGE and metric name: % GC TIME (LAST 5 MINUTES)
3b. Hardware Utilization Data

Hardware Capacity checks cannot be completed if Hardware Utilization Data is missing in the EWA. Use the link below for troubleshooting this section.
https://wiki.scn.sap.com/wiki/x/hAZiGg

4. Quality of Service Data in Configuration and Change Database

The EWA reads service data from various sources, one of them being CCDB. When EarlyWatch Alert (EWA) session tried to read data in the Configuration and Change Database (CCDB) and run into an error, the message will be shown here.

**Example 1:**

To analyze missing data in CCDB, call transaction CCDB. Choose the system and the store. CCDB Store: TREXExtensions.ini, TREXIndexServer.ini, TREXPreprocessor.ini, TREXQueueServer.ini and TREXTcpipClient.ini with key fields LANDSCAPE CLASS = CL_DIAGLS_TREX_INSTANCE

**Recommendation:** Follow the steps from the corresponding note mentioned in the EWA (SAP Note 1777751) and check CCDB, Managed System and Landscape Browser.

In one example, using the steps from the note, the error message Extractor not performed was shown in the Landscape Browser. The solution for the error Extractor not performed error is to follow the steps from 1955036 - Extractor not performed

**Example 2:**

The store is missing. CCDB Store: servlet_jsp used in section 'Security'
**5. SAP Solution Manager Software Configuration**

This focuses on ensuring that the Solution Manager system has the latest patch level for ST and ST-SER. ST version is the Solution Manager component and ST-SER is the component used to deliver session content for services such as EWA, SLR, CQC.

It is therefore important to maintain a current patch level for these components.

**Additional troubleshooting information:**
For further information, see SAP Notes 394616 and 569116

**Symptom:** In the Solution Manager Software Configuration section, the column 'Latest Avail. SAP Component Version' is lower than the patch level of ST / ST-SER.

**Recommendation:** This is due to an issue where the utility RTCCTOOL (ST13 - RTCCTOOL) is providing outdated information to the EWA report. First ensure that you run ST13 - RTCCTOOL on the affected system and follow the recommendation to ensure ST-A/PI is fine. Refer to 69455 - Servicetools for Applications ST-A/PI (ST14, RTCCTOOL, ST12) for details on this add-on.

If this does not resolve the issue, open an incident in component SV-SMG-SER-EWA.

**6. Service Preparation Check (RTCCTOOL) or ST-PI and ST-A/PI Plug-Ins**

These focus on ensuring that the system has the prerequisites to ensure a proper service readiness.

**Additional troubleshooting information:**
69455 - Servicetools for Applications ST-A/PI (ST14, RTCCTOOL, ST12)

**7. SAP Solution Manager Functionality**

This focuses on the result of the Self Diagnosis tool. The purpose of the Self Diagnosis tool is to verify whether the prerequisites have been fulfilled for running Solution Manager correctly.

During the EWA creation process, the result of the Self Diagnosis tool is used to populate this section.

You can manually view the output of the tool using Solution Manager Work Center (SM_WORKCENTER) - System Monitoring - Self Diagnosis. The steps to resolve the issue found is also shown in this area.

If these instructions are not clear, create an incident in component SV-SMG-SDG.

The Self Diagnosis job name is SM:SELFDIAGNOSIS running the corresponding ABAP program RDSWP_SELF_DIAGNOSIS. By default, the job runs on a daily basis.

**Additional troubleshooting information:**
1862010 - Red alert in Solution Manager In SAP Solution Manager Functionality General Infrastructure SDCCN