Service Level Reporting for Business Process Monitoring with SAP Solution Manager 7.1

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1 Introduction to the Service Level Reporting – General Overview

The Service Level Report represents a customized collection of statistics about technical system indicators and business process indicators for a dedicated solution.

The regularly running Solution Manager operations framework produces periodic Service Level Reports which are based on the current customizing settings. Report variants facilitate different views on a solution regarding report content and time horizon. All report variants can be viewed in the Solution Managers Operation mode.

Service Level Reports may be manually post-processed before they get sent to the report addressee. Post-processing is carried out after the Solution Manager framework terminated processing and before the MS Word or HTML Report is sent out. Typical examples for post-processing actions are e.g. adding reasons for detected downtimes or entering individual comments into the comment panels of single chapters.


Remark: This document only describes the setup of the Service Level Report for Business Process Monitoring data.

2 Data Sources for SL Reporting

SL Reporting can collect data that comes from different sources like Business Process Monitoring, Business Intelligence, Early Watch Alert or Computing Center Management System as shown on the chart below (Figure 1). This document deals only with the setup of SLR for BPMon and BPMon Trend Analysis based on BPMon data.

Figure 1 – Data flow diagram
3 Setup of Service Level Reporting

The SLR Setup represents a customizing workbench for Service Level Reporting. The setup needs to be carried out prior to the usage of Service Level Reports and is used to determine report content, report frequency and monitored time interval. The customizing needs to be carried out in the System Monitoring Workcenter of the Solution Manager.

3.1 Customizing

To start the setup of SL Reporting in the System Monitoring Workcenter, transaction SOLMAN_WORKCENTER or SM_WORKCENTER must be called.

NOTE: In order to use the BPMon Service Level Reporting, a productive BPMon solution should already be available and Trend Analysis activated in SAP Solution Manager. It is strongly recommended to configure, generate and activate BPMon in a solution before going on with the activation process as described in the subsequent chapters.

For details see Setup Guide - BPMon Trend and Alert Analysis 7.1 SP05+ (http://service.sap.com/bpm → Media Library → Technical Information) and check chapters:

→ 2.1 Prerequisites
→ 2.2 Activation

Once there the customizing is being done under tab Solution Manager Administration → Solutions (see Figure 2)

![Figure 2 – Solution Manager Administration](http://example.com/image.png)

Choose your Solution, open Operations Setup, select Service Level Reporting and click Setup Service Level Reporting as shown (see Figure 2a).
Further activities that can be performed here will be explained at the end of chapter 3.
All settings of the SLR customizing get assigned to a specific report variant.

Specify a unique variant name or choose an existing one to modify. The report type can be 'Weekly' or 'Monthly' meaning the scheduling of the report and the period length to be analysed. In field “Weekday of Processing”, enter the day on which the report should be created. According to your settings the next date for the SL-report is calculated after saving (consider that if the SL report is set as of type weekly you will see the data earliest on the day which is specified in field “Weekday of processing”).

Example: if you setup the SLR on Wednesday and the “Weekday of processing” is Monday, the SLR report will be created on the next Monday).

A variant has to be flagged as 'Active' otherwise it is not taken into account for SL reporting (Figure 3). Save the changes. The SL Reporting enables you to report on business processes which are in relationship to the current solution landscape. On the tab Business Processes the business processes are shown which are defined in the current solution. For SLR based on BPMon at least one business process must be selected here (see Figure 4).

The (optional) entries in table Customer Address, Report Frontpage Customizing and Report Header/Footer Customizing will be displayed on the SL Report coverpage and in the MS Word document headers and footers. Especially the Report Frontpage Customizing may be used to add your individual
remarks, such as the name of the report editor or details about the report addressees along with some additional details (see Figure 5). Save the changes.

There are 3 different types of reporting available for SLR, only the first two are based on BPMon (see Figure 6).
- BPMon Alert Statistics (is analysing Alert data from BPMon alert database)
- BPMon Trend Analysis (data from BI)
- Runtime Analysis (data from EWA)

**BPMon Alert Statistics**
BPMon Alert Statistics is analyzing Alert data from BPMon alert database, and provides a tabular overview of red, yellow and green alerts that were triggered.

**Tab Monitoring Types** displays a list of all BPMon monitoring types. No further restriction on monitoring objects or key figures is possible (see Figure 7).
BPMon Trend Analysis

The BPMon Trend Analysis provides a graphical and tabular overview of the alerts. It is analyzing data from BI info cube OSM_BPM. This part of SLR will only deliver data as the BPMon BI Integration was activated on the system (for further information please see the “Setup Guide - BPMon Trend Analysis” under
https://service.sap.com/bpm ➔ Media Library ➔ Technical Information). The measured values of the alerts are aggregated according to the configuration.

![Trend Analysis configuration](image)

**Figure 9 – Trend Analysis configuration**

Tab **Monitoring Objects** displays a list of all BPMon monitoring objects and their key figures available to reporting in the SL Report. All monitoring objects of the list can be enabled and configured in the Solution Manager BPMon. Ticking the corresponding field **Last Week, Last Month, Last 6 Month** enables the SL Report to analyze the data of the corresponding period. The **Aggregation Type** is required for each key figure (the possible values are AVG, MAX, SUM).

Tab **BI RFC Destination** determines the RFC connection to the BI system which contains the BPMon Data. Normally ’NONE’ is the correct entry if the BI is on the same system (i.e. connected to the same database) as the solution manager system. If the used BI is located on another system, a basis contact person that was involved in the BI activation must be involved for determination /creation of proper BI RFC Destination in transaction SM59.

**Runtime Analysis**

In addition data from Early Watch Alerts can be included into SLR via Runtime Analysis (please consider that this part of SLR is not based on BPMon Data and is not included in this document).

**3.2 Display Generated SLR Report**

To display a generated report of the Service Level Reporting, transaction SOLMAN_WORKCENTER or SM_WORKCENTER must be called.

In the opened window proceed as described:

1. Navigate to the **Technical Monitoring** (Figure 10)
2. Click on the **Generated Documents** in the menu located on the left side of the screen (Figure 10)
3. Chose **Service Level Reporting** (Figure 11)
4. Take one of possible display actions (Figure 12):
   a. Display HTML Report
   b. Export
   c. Generate Word Report
   d. Open generated report in the Attachments
Service Level Reporting with SAP Solution Manager

Figure 10 – Display SLR report (step 1)

Figure 11 – Display SLR report (step 2)
Figure 12 – Display SLR report (display options)

4 Example Report

4.1 Report Frontpage

The MS Word report coverpage displays the name of the report variant (in this case: SL Report) as well as the system IDs of the included systems (see Figure 13).

The addressee of the SL Report is displayed in section Customer according to the customizing entries stored in the SLR Customizing workbench.

Additional header lines and text blocks are displayed as defined in the customizing.
Report Variant: SLR Standard Variant

Systems

Customer

Date of Session: 28.05.2013
Date of Report: 28.05.2013
Session No.: 100000004839
Customer No.: 0000041100

Figure 13 – SLR Frontpage
### 4.2 Business Process Alert Statistics

**Trends and Alert Statistics by Business Process** issues alert statistics for single business process steps. The statistics are retrieved from Business Process Monitoring (BPMon) and originate from alert types that were assigned to the applied monitoring type (see Figure 14). The alert statistics is reporting the number of alerts of a certain category (green, yellow, red) per day, week or month.

Chapter Outbound Delivery with WM - Alert Statistics (the chapter name is only an example for a business process step) displays the statistics about number of alerts provided by the Application Monitor for process Outbound Delivery with WM.

#### 2 Trends and Alert Statistics by Business Process

The following section of the Service Level Report contains a summary (an aggregated view) of the Business Process Monitoring alerts as configured in your SAP Solution Manager. This summary consists of two parts:

- **Alert Statistics**
- **Trend Analysis**

Alert statistics and trend analysis are displayed for selected business process steps of your solution.

For the alert statistics, each table entry includes the number of GREEN, YELLOW, and RED alerts aggregated for the related monitored and key figure (alert type) per day, week, or month (depending on configuration).

In addition, each table entry contains the number of YELLOW and RED alerts that have been confirmed. A confirmed alert indicates that somebody within your company or Support Organization has reacted to the alert and took corrective measures.

The trend analysis shows the development of the measured values over time (last week, last month, last six months) for selected key figures. The measured value could be the number of created or open documents, or the runtime of background jobs, for example.

#### 2.1 Outbound Delivery with WM

For any monitored step of this business process, you will find the configured monitoring types and their configured alert types in the following sections. Alert statistics and trend analysis can be displayed for selected business process steps, monitoring objects, and alert types.

#### 2.1.1 Create Delivery

For this monitored business process step, you will find the configured monitoring types and their configured alert types in the following sections.

In case of the alert statistics, a corresponding table containing the alert data aggregated per day, week, or month is shown for the alert type.

In case of the trend analysis, a figure is shown for the alert type displaying the development over time by means of a graph and table for each counter selected (also known as "selection 0").

<table>
<thead>
<tr>
<th>Deliveries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outbound Deliveries (created)</td>
</tr>
<tr>
<td>Alert Statistics</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th>Nº of GREEN Alerts</th>
<th>Nº of YELLOW Alerts</th>
<th>Nº of RED Alerts</th>
<th>Nº of Confirmed YELLOW Alerts</th>
<th>Nº of Confirmed RED Alerts</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.05.2013</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>21.05.2013</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>22.05.2013</td>
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<tr>
<td>23.05.2013</td>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>24.05.2013</td>
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</tr>
<tr>
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</tr>
<tr>
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<td>0</td>
</tr>
<tr>
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<td>0</td>
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<td>0</td>
</tr>
</tbody>
</table>

**Figure 14 – SLR Alert Statistics**

### 4.3 Business Process Trend Analysis

**Trends and Alert Statistics by Business Process** issues trend statistics for single business process steps.
The statistics are transferred from a defined BI source and originate from monitoring objects and key figures that were assigned to the applied monitoring type (see Figure15). The trend analysis is reporting the measured values for a key figure per time unit.

**Outbound Delivery with WM - Alert Statistics - Trend Analysis** displays the trend of key figure Outbound Deliveries (created) for last 6 months.

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**Figure 14 – SLR Trend Analysis**