Alert Consumption for Business Process Monitoring on MAI with SAP Solution Manager 7.1 SP12
Setup and features of notifications and incidents
TABLE OF CONTENTS

1 INTRODUCTION.......................................................................................................................... 3

2 FUNCTIONAL OVERVIEW .......................................................................................................... 4
  2.1 General Behavior.................................................................................................................... 4
  2.2 Additional features ................................................................................................................. 4

3 NOTIFICATION SETUP: EMAILS AND SMS ............................................................................... 5
  3.1 Assign a notification variant .................................................................................................. 5
  3.2 Activate automatic notifications ............................................................................................ 5
  3.3 Set the notification alert level ............................................................................................... 5
  3.4 Set the email sender .............................................................................................................. 6
  3.5 Choose between email and SMS .......................................................................................... 6
  3.6 Add recipients and recipient lists ......................................................................................... 6
  3.7 Access personal notification settings in CNM ...................................................................... 6
  3.8 Send notification for closed alerts ....................................................................................... 7
  3.9 Delay the notification sending ............................................................................................. 7
  3.10 Send additional notifications ............................................................................................. 7
  3.11 Set a customized subject text ............................................................................................ 8
  3.12 Set a customized introductory long text .............................................................................. 8
  3.13 Assign a MAI text BAdI implementation .......................................................................... 8

4 INCIDENT SETUP ........................................................................................................................ 9
  4.1 Assign an incident variant ..................................................................................................... 9
  4.2 Activate automatic incident creation ................................................................................... 9
  4.3 Set the incident alert level ..................................................................................................... 9
  4.4 Set incident transaction type ............................................................................................... 10
  4.5 Set support component ........................................................................................................ 10
  4.6 Set incident reporter ............................................................................................................. 10
  4.7 Set incident processor .......................................................................................................... 10
  4.8 Set incident category ............................................................................................................ 11
  4.9 Confirmation of incident confirms alert .............................................................................. 11
  4.10 Update incident on certain events ..................................................................................... 11
  4.11 Set a customized subject text ............................................................................................ 11
  4.12 Set a customized introductory long text .............................................................................. 11
  4.13 Assign a MAI text BAdI implementation .......................................................................... 12

5 CONSUMER VARIANTS ............................................................................................................. 13
  5.1 Assign and maintain variants ............................................................................................... 13

6 ALERT HANDLING..................................................................................................................... 14
  6.1 Create a custom alert description ......................................................................................... 14
  6.2 Add a guided procedure ....................................................................................................... 15

7 THIRD-PARTY CONNECTORS .................................................................................................. 16
  7.1 Add a custom BAdI implementation ................................................................................... 16
1 INTRODUCTION
With ST 7.1 SP12 Business Process Monitoring (BPMon) can be realized by the Monitoring and Alerting Infrastructure (MAI) and shown in a new alert inbox in work center “Business Process Operations (New)”. To set up automatic notifications and incidents for “BPMon on MAI” alerts, the MAI notification/incident setup has been embedded in the BPMon setup for automatic notifications/incidents. This setup guide describes how to set up automatic sending of notifications and SMS, and the auto-creation of SAP Solution Manager Incidents for such “BPMon on MAI” alerts.

In addition to the standard alert consumption methods, the enhancement options by the use of different BAdIs are also described in this Guide.

For the general information how to set up Business Process Monitoring on MAI, please see the Setup Guide for BPMon on MAI.
2 FUNCTIONAL OVERVIEW

2.1 General Behavior
The notification (email, SMS, incident or BAdI processing) is triggered by the creation of a new alert group for a managed object:
A new alert opens a new alert group. This group stays active until the monitor reports a different alert rating (e.g. yellow $\rightarrow$ red; or red $\rightarrow$ green) or the alert processor closes the alert group manually. If the monitor doesn’t process collector data anymore, the alert group is also closed (grey alert).
Alert groups are usually created per managed object. That means that several key figures (metrics) can be grouped into one alert group.

2.2 Additional features

2.2.1 Notification in case of metric rating deterioration
The alert rating is determined based on the rating of the defined metrics. If one of the metric ratings gets worse (e.g. yellow $\rightarrow$ red), a notification is triggered even if the overall alert rating s doesn’t change (i.e. no new alert group is created)

2.2.2 Notification after alert group closure (optional)
A notification can also be triggered, if the alert group is closed. This may help to stop unnecessary problem solving activities.

2.2.3 Delayed notification
Instead of sending the notification immediately after the alert is raised, you can also wait for a certain time and send the notification delayed.

2.2.4 Reminder notifications after self-defined latency time
It is possible to send reminder emails after a certain time if the alert group has still not been closed.

2.2.5 Customizable subject and introductory text of email
Although most of the notification text is pre-defined, you can add an introductory text for the notification recipient. The default email subject text or incident short text can be overwritten with user-defined texts.

2.2.6 Customer exits for text handling and dynamic recipient determination
With SP12 we offer the possibility to change the complete long text and to determine the email recipients and the incident processor depending on the metric data in a pre-delivered BAdI implementation.

2.2.7 Customer exit for third-party connector
It is possible to use a self-defined BAdI implementation to connect to third-party incident systems or to trigger additional activities.

2.2.8 Reuse of existing BPMon BAdI implementations
If the existing BPMon BAdI implementations cannot be replaced by new MAI BAdI implementations, it is possible to reuse the old coding by implementing SAP notes.

2.2.9 Variants to enable reuse of global settings
Variants can be used to deliver the same settings to multiple monitors. These variants are equivalent to the well-known notification templates in the classical BPMon.
3 NOTIFICATION SETUP: EMAILS AND SMS

The notifications for a monitoring object can be defined in tab „Notifications“ in the BPMon Setup for this monitoring object.

3.1 Assign a notification variant

You can assign here an existing notification variant. The notification variant comprises notification settings which can be used in various monitoring objects. In the classical BPMon this feature was called Notification Templates. See chapter 5 Consumer Variants for more information on how to maintain the variants.

3.2 Activate automatic notifications

This field needs to be set to Active to enable automatic email or SMS creation for alerts.

3.3 Set the notification alert level

You can choose for which alerts a notification should be created:

- Red and yellow alerts (default)
- Red alerts only
- Yellow alerts only
3.4 Set the email sender

Sender: SOLMAN_BTC

A sender of the notification needs to be set here. An SAP user with a valid email address is required. This is a mandatory field and you get a warning message if the field is empty or if the no valid email address is assigned to the selected user. SOLMAN_BTC is taken by default.

3.5 Choose between email and SMS

Notification Mode: Email and SMS

An email, an SMS or both (default) can be sent out to the recipient. The recipient data set needs to have a valid email address and mobile number.

3.6 Add recipients and recipient lists

Recipients and/or recipient lists of the Central Notification Management (CNM) need to be added here. Recipients can be created from this screen or in the CNM application of the Solution Manager:
Work center Technical Administration → Notification Management

3.7 Access personal notification settings in CNM

My notification settings

Access the CNM settings for your personal recipient settings, e.g. presence, absence and off-duty substitution rules.
3.8 Send notification for closed alerts

If this checkbox is marked an additional notification is created when the alert group is closed. Possible reasons for a closure of the alert group are:

- Alert rating changes
- Monitor is re-configured and activated
- Alert group is manually closed by alert processor or other person
- Work mode of underlying system changes

3.9 Delay the notification sending

Instead of sending the notification immediately after the alert is raised, you can also wait for a certain time frame and send the notification delayed. If the alert has been closed during this latency time, no notification will be sent.

This feature can be used to suppress notifications for events which are not critical and disappear automatically after a certain time.

3.10 Send additional notifications

By default a notification is sent only when an alert is raised for the first time and the yellow or red alert group is created.
You can receive additional (reminder) notifications

- Periodically after a defined time or
- For every occurrence of the alert, i.e. whenever the alert receives the same rating again

The reminder notifications show the actual situation after the most recent data collection.

Be aware of potential notification flooding!

3.11 Set a customized subject text

The entered subject text overwrites the generic standard subject text. Some text variables in the subject text can be replaced by using a standard BAdI implementation (see chapter 3.13 Assign a MAI text BAdI implementation):

- $SIDS$ → replaced by the system ID
- $MOBS$ → replaced by the monitoring object name
- $BUP$ → replaced by the business process (if monitored object is assigned uniquely)
- $SOL$ → replaced by the solution name

3.12 Set a customized introductory long text

The entered introductory long text will appear in the notification on top of the technical default long text. You can use it to address the alert processor personally. Some text variables can be replaced by using a standard BAdI implementation (see also chapter 3.11 Set a customized subject text):

- $SIDS$ → replaced by the system ID
- $MOBS$ → replaced by the monitoring object name
- $BUP$ → replaced by the business process (if monitored object is assigned uniquely)
- $SOL$ → replaced by the solution name

3.13 Assign a MAI text BAdI implementation

You can assign here an implementation of the MAI text BAdI BADI_DYN_INCI_NOTIF_MULTIPLE. You can define your own MAI text BAdI implementation to overwrite the default notification text, subject and recipients.

Two standard implementations are available by default:

- Replace text variables in subject text and short text
  As mentioned in chapter ‘Set customized subject text’, this implementation replaces the text variables $SIDS$, $MOBS$, $BUP$ and $SOL$ with the corresponding names

- Notification routing with BRF+ and text variable replacement
  This implementation enables the dynamic determination of notification recipient by using BRF+ decision tables. See SAP note 1983091 for further information.

The MAI text BAdI can also be used to reuse your existing implementation of the BPMon text BAdI BADI_BUILD_MESSAGE. See SAP note 1980912 for further information.
4 INCIDENT SETUP

You can assign here an existing incident variant. The incident variant comprises incident settings which can be used in various monitoring objects. In the classical BPMon this feature was called Notification Templates. See chapter Variants for more information.

4.2 Activate automatic incident creation

This field needs to be set to Active to enable automatic incident creation for alerts.

4.3 Set the incident alert level

You can choose for which alerts an incident should be created:
- Red and yellow alerts (default)
- Red alerts only
• Yellow alerts only

4.4 Set incident transaction type

The CRM transaction type of the incident can be set here. The default value is taken from the CRM customizing transaction SPRO → SAP Reference IMG →

4.5 Set support component

You need to choose the support component on which the incident is opened (mandatory field)

4.6 Set incident reporter

The incident reporter is a mandatory field. SAP user SOLMAN_BTC is the default value.

4.7 Set incident processor

This is an optional field. You can set a dedicated processor or service team for incident processing.
4.8 Set incident category

The category can be chosen out of a four-level hierarchy with different classifications, e.g. Incident → SAP application → Error message → JAVA Exception
A category hierarchy is called Schema. Different schema can be used. It is possible to define an own schema or enhance an existing one. The default schema is SAP_SOLUTION_MANAGER_TEMPLATE
More information can be found here:
http://wiki.scn.sap.com/wiki/display/SAPITSM/Multilevel+Categorization

4.9 Confirmation of incident confirms alert

If this checkbox is marked, the confirmation of the incident triggers an automatic alert confirmation.

4.10 Update incident on certain events

Update for new alerts: The incident long text will be updated if new alerts occur
Update on alert closure: The incident long text will be updated when the alert is closed.

4.11 Set a customized subject text

The entered subject text overwrites the generic standard subject (description) text of incident. Some text variables in the subject text can be replaced by using a standard BAdI implementation (see chapter 4.13 Assign a MAI text BAdI implementation):
- $SID$ → replaced by the system ID
- $MOB$ → replaced by the monitoring object name
- $BUP$ → replaced by the business process (if monitored object is assigned uniquely)
- $SOL$ → replaced by the solution name

4.12 Set a customized introductory long text

The entered introductory long text will appear in the incident on top of the technical default long text
You can use it to address the incident processor personally. Some text variables can be replaced by using a standard BAdI implementation (see also chapter 4.11 Set a customized subject text):
- $SID$ → replaced by the system ID
- $MOB$ → replaced by the monitoring object name
• $BUP$ → replaced by the business process (if monitored object is assigned uniquely)
• $SOL$ → replaced by the solution name

4.13 Assign a MAI text BAdI implementation

You can assign here an implementation of the MAI text BAdI $BADI_DYN_INCI_NOTIF_MULTIPLE$. You can define your own MAI text BAdI implementation to overwrite the default incident text, subject and processors.

Two standard implementations are available by default:

- Replace text variables in subject text and short text
  As mentioned in chapter 4.11 ‘Set a customized subject text’, this implementation replaces the text variables $SID$, $MOB$, $BUP$ and $SOL$ with the corresponding names

- Notification routing with BRF+ and text variable replacement
  This implementation enables the dynamic determination of the incident processor by using BRF+ decision tables. See SAP note 1983091 for further information.

The MAI text BAdI can also be used to reuse your existing implementation of the BPMon text BAdI $BADI_BUIL_MESSAGE$. See SAP note 1980912 for further information.
5 CONSUMER VARIANTS

5.1 Assign and maintain variants

BPMon on Mai uses three types of variants: notification, incident and third-party variants (A fourth variant type auto-reaction variant is similar to type third-party variant and not explicitly used here).

The three variant types can be found on the corresponding tab of monitoring object setup.

Variants can be assigned to various monitoring objects by selecting an existing variant from the drop-down list.

Enter the Consumer Variant Maintenance by selecting the Maintain xxx Variants text on the right:

On the maintenance screen you can choose an existing variant or create a new one. The screen contains the same fields as in the individual monitoring object setup. There is a maintenance screen for every variant type.
6 ALERT HANDLING

6.1 Create a custom alert description

The custom description will appear in the notification text. It can be edited using html tags. Different objects can be added: symbols, images, MIME links and URLs. The URLs can be selected from the pre-defined list of the URL framework which can be accessed by pressing the Insert URL button → Select Dynamic URL. The correct URL can be found by filtering on the application id or name. Useful URLs are

- ALERT_DETAILS_ST Alert Details in Satellite System
- GENERIC_TRANS_ST Generic Transaction on Satellite System
- GENERIC_TRANS_SM Generic Transaction on Solution Manager

Example: You want to include the link to transaction SLG1 on the managed system:
Choose Insert URL → application ID GENERIC_TRANS_ST → add the transaction (SLG1) as Static Value for Parameter Key ~transaction → press OK.
6.2 Add a guided procedure

A guided procedure can be assigned to this monitoring object by selecting it from the value list. If you want to create a new guided procedure for this monitoring object or edit an existing one, the guided procedure browser can be accessed from the link [Open Guided Procedure Browser](#).
7 THIRD-PARTY CONNECTORS

7.1 Add a custom BA\text{d}I implementation

You can assign an implementation of the MAI custom BA\text{d}I BADI\_ALERT\_REACTION. This MAI BA\text{d}I can be used to e.g. connect to external systems. It is also used to reuse your existing implementation of the BPMon custom BA\text{d}Is BADI\_CUSTOM\_MESSAGE and BADI\_CUSTOM\_SUPNOTIF (See SAP note 1897251 - BPMon: Safeguarding BPMon BA\text{d}I Implementations in MAI for further information) More Information on the MAI alert consumer BA\text{d}I interface and how you can create a new BA\text{d}I implementation can be found here: http://wiki.scn.sap.com/wiki/display/TechOps/Alert+Consumer+BA\text{d}I+Interface