SAP Solution Manager – Message Flow Monitoring
Alerting – Frequently Asked Questions
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What are the alerts available in SP12 for Message Flow Monitoring?

You can configure the following alerts for various alert conditions:

- Erroneous Flow Instances exceeding threshold
- Scheduled Flow Instances exceeding threshold
- Flow Instances exceeding E2E Processing Time
- Flow Instances with negative acknowledgement received
- Flow Instances with pending acknowledgement exceeding threshold in the last 24hr
- High number of Canceled Instances in the last 24 hr
- High number of Canceled Instances in the last 60 mins
- High number of Erroneous Instances in the last 24 hr
- High number of Erroneous Instances in the last 60 mins
- High number of Instances in the last 24 hr
- High number of Instances in the last 60 mins
- High number of Scheduled Instances in the last 24 hr
- High number of Scheduled Instances in the last 60 mins
- Low number of Successful Instances in the last 24 hr
- Low number of Successful Instances in the last 60 mins

How to Setup Alerting?

1) Go to Solman_setup → Technical Monitoring → Interface Monitoring → Message Flow
2) Go to Step 6 and perform the following:
   a. Select the flow group which you want alerting to be turned on.
   b. Click Next.
3) In step 7
   a. Click Edit.
   b. Expand the flow group
All the flows has “Modified” flag unchecked, which means all the flows has the SAP Settings applied. By Default SAP has turned ON only 2 alerts:

- High number of Scheduled Instances in the last 60 mins Exceptions
- High number of Erroneous Instances in the last 60 mins Exceptions

c. Click Activate Alerting to activate the alerts. In the above case, 2 alerts are activated.
d. Check the activation logs.
How to activate more alerts that are not active by default?

I have activated 2 alerts which are active by default. I want to activate one more alert. This will be explained with the alert “Erroneous Flow Instances exceeding threshold Exceptions” and a sample flow.

User wants to be alerted when a flow instance is in error status for a longer duration for all payloads.

- Flow to be alerted= Flow A (Sample Flow)
- Raise a Red alert in case there are instances for Flow A which is in error status for longer than 30 Mins in the last 24 hrs.
- Single alerts: Raise single alerts for each instance. If there are 10 instances for Flow A in error status longer than 30 mins, created 10 red alerts. Send the corresponding instance ID as part of each alert.
- Aggregate Alerts: If there are more than 10 instances (example:50 instances), there is a general issue in the domain, don’t raise separate alerts for each instance. Create only one alert, and send the number of instances in error longer than 30 mins (Count=50).

The above rules are applicable to yellow alerts as well.

- Raised a Yellow alert in case there are instances for Flow A which is in error status for longer than 15 Mins.

In the context of Monitoring and Alerting Infrastructure (MAI) following are the terminologies used for the above use case.

- FlowA= Monitored Object
- Erroneous Flow Instances exceeding threshold= Metric
- 30 mins= Red Threshold
- 15 Mins= Yellow Threshold
- 10= Maximum Instance count(Engine Cap)
Configuration
1) Go to Solman_setup → Technical Monitoring → Interface Monitoring → Message Flow
2) Go to Step 6 and perform the following:
   a. Select the flow group which you want alerting to be turned on.
   b. Click Next.
3) In step 7
   a. Click Edit.
   b. Expand the flow group
   c. All the flows will have “Modified” flag unchecked. This means all the flows will have the SAP Setting applied.
      By Default SAP has turned ON only 2 alerts
d. Select the FlowA and click Change SAP Settings. Now the user case marks more alerts as active. Note the modified flag is marked. This means there is a change from the SAP Setting.

e. In Alerts tab → Click Active flag for Alert “Erroneous Flow Instances exceeding threshold”. Save
1. In Metric Tab ➔

- Note the Active flag for Metric "Erroneous Flow Instances exceeding threshold" is checked. Turning ON an alert will turn on the metric.
- In “Data Collection tab” edit the:
Red Threshold → For Red Alert
Yellow Threshold → Yellow Alert
Payload → Empty means alert for all payload.
Engine cap → Limit for single alerts. After the limit only the count of instances will be available in the alert. This is to avoid alert flooding.

g. Save the changes.
h. Click on Activate Alerting Button.
i. Check the activation logs

Runtime: Alerts will be raised based on the setting.

Single Alert
4) Trigger an error message for Flow A in PI System.
5) Wait until the Monitoring UI in Sap Solution Manager displays the error flow instance.
6) Wait until the next DPC data collection for MAI. Check the current data collection run for the DPC and wait until the next run is over.

7) After 15 mins the error is triggered, the user will get a Yellow alert in alert Inbox with the instance ID of the error instance.

8) After 30 mins the error is triggered, the user will get a Red alert in alert Inbox with the instance ID of the error instance.

 Aggregate Alert

9) Trigger more than 10 error messages for FlowA in PI System. Say 12.
10) Wait until the Monitoring UI in Sap Solution Manager displays the error flow instance.
11) Wait until the next DPC data collection for MAI.
12) After 15 mins the error is triggered, the user should get a Yellow alert in alert Inbox with the count of instances exceeding the threshold.
13) After 30 mins the error is triggered, the user should get a Yellow alert in alert Inbox with the count of instances exceeding the threshold.

How to get alerts for specific payload?

User wants to be alerted when a flow instance is in error status for a longer duration for specific payloads.

- **Flow to be alerted= Flow A** (Sample Flow)
- Raise a **Red** alert incase there are instances for Flow A which is in error status for longer than 30 Mins in the last 24 hrs and the **Flow has a specific payload attribute (UDS Attribute).**
  - **Eg: passenger name=Rashmi**
- **Single Alerts:** Raise single alerts for each instance. If there are 10 instances for Flow A in error status longer than 30 mins, created 10 red alerts. Send the corresponding instance ID as part of each alert.
- **Aggregate Alerts:** If there are more than 10 instances (example: 50 instances), there is a general issue in the domain, don’t raise separate alerts for each instance. Create only one alert, and send the number of instances in error longer than 30 mins (Count=50).
  - The above rules are applicable to yellow alerts as well.
- Raised a **Yellow** alert in case there are instances for FlowA which is in error status for longer than 15 Mins.

In the context of Monitoring and Alerting Infrastructure (MAI) following are the terminologies used for the above use case.

1) **Flow A =** Monitored Object
2) **Erroneous Flow Instances exceeding threshold =** Metric
3) **30 Mins =** Red Threshold
4) **15 Mins =** Yellow Threshold
5) **10 =** Maximum Instance count (Engine Cap)

**Configuration**

6) Go to **Solman_setup** → **Technical Monitoring** → **Interface Monitoring** → **Message Flow**
7) Go to Step 6 and perform the following:
   a. Select the flowgroup which you want alerting to be turned on.
   b. Click **Next.**
8) In step 7
   a. Click Edit.
   b. Expand the flow group
   c. All the flows will have “Modified” flag unchecked. This means all the flows will have the SAP Setting applied.
      By Default SAP has turned ON only 2 alerts
      High number of Scheduled Instances in the last 60 mins Exceptions
      High number of Erroneous Instances in the last 60 mins Exceptions
d. Select the Flow A and click on Change SAP Setting button.

e. Now the user case marks more alerts as active. Note the modified flag is marked. This means there is a change from the SAP Setting.

f. In Alerts tab→Click on Active flag for Alert “Erroneous Flow Instances exceeding threshold” and then Save.
In Metric Tab:

- Note the Active flag for Metric “Erroneous Flow Instances exceeding threshold” is checked. Turning ON an alert will turn on the metric.
- In “Data Collection tab” : Click on Add Variant Button
- A new row will be added

Enter the data for the row.

- Red Threshold → For Red Alert
- Yellow Threshold → Yellow Alert
- Payload → Click on Add Variant

- Engine cap → Limit for single alerts. After the limit only the count of instances will be available in the alert. This is to avoid alert flooding.

- Save the changes.
- Expand the node at the metric level and disable the default variant.

  - If you don’t disable the default variant: You will get alerts for all payload and also separate alerts for the payload specific variant.
i. Save the changes  

j. Click on Activate Alerting Button.  

k. Check the activation logs

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Runtime: Alerts will be raised based on the setting.

**Single alert**

9) Trigger an error message for Flow A in PI System for the specific payload for which alert was configured.  

10) Wait until the Monitoring UI in Sap Solution Manager displays the error flow instance.
11) Wait until the next DPC data collection for MAI.
Check the current data collection run for the DPC and wait until the next run is over.

Here SD7 is the SAP Solution Manager system.

12) After 15 mins the error is triggered, the user will get a Yellow alert in alert Inbox with the instance ID of the error instance which had the configured payload.

13) After 30 mins the error is triggered, the user will get a Red alert in alert Inbox with the instance ID of the error instance which had the configured payload.

**Aggregate Alert**

14) Trigger more than 10 error messages for Flow A in PI System for the specific payload for which alert was configured. Say 12.

15) Wait until the Monitoring UI in Sap Solution Manager displays the error flow instance.

16) Wait until the next DPC data collection for MAI.

17) After 15 mins the error is triggered, the user should get a Yellow alert in alert Inbox with the count of instances exceeding the threshold which had the configured payload.
18) After 30 mins the error is triggered, the user should get a Yellow alert in alert Inbox with the count of instances exceeding the threshold which had the configured payload.