Component-Based Message Alerting with SAP NW PI 7.31
Overview on Component-Based Message Alerting

**Supported Consumers**
- Alert representation in SAP Solution Manager 7.1 SP3. Full support with 7.1 SP5.
- Aggregated alert view or individual alert view prevent inbox flooding
- Option to suppress alert creation until / for x hours
- Tight integration with Service Desk Management and Notification Management
- PI Local email generator solution

**Overall features**
- Supporting any consumer solutions by publishing all relevant APIs (based on JMS standard)
- Supporting multiple consumers at the same time
- Support of old ABAP Proxies that are connected to AEX
- Improved robustness and performance
Component-Based Message Alerting
Configuration Features

Configuration Features for Alert Rules

• Dedicated configuration UIs in NWA and DIR
• Default configuration settings are delivered (Default alert rule)
• Transparent and consistent configuration by using existing Directory objects such as
  • ‘Party’,
  • ‘Service Interface’,
  • ‘Configuration Scenario’,
  • ‘Communication Component’,
  • ‘Integration Configuration’,
  • ‘Receiver/Sender Agreement’,
  • ‘Integration Flow’
• Filtering of failed messages upon status details (grouping of status details)
• Selection for PI Runtime Component
• Alert Rule objects are transportable as any other Directory objects
• Consistency checks per alert rule and global consistency checks
Component-Based Message Alerting
Configuration Overview

**SAP Netweaver PI**
- Integration Directory / NWA -

**Step 1**
1. Create alert rule
2. Detail alert rule
3. Activate alert rule

**Step 2**
1. Select alert rule
2. Maintain recipient details
3. Register as consumer
4. Perform activation of PI Monitoring

**Step 3**
1. Alert rule gets activated and deployed on relevant runtime components

**SAP Solution Manager**
- Monitoring Configuration -
1. Central Alert Rule configuration

2. Consumer actively registers to alert rules

3. Configuration gets distributed to runtime components

4. Failed message is checked against local configuration and is written into consumer-specific queue

5. Consumer collects alert events and writes into his own persistency

**PI Domain XYZ**

**Configuration**
- Rule1 = Sales Order Mgmt.
- Rule2 = Material Master

**DIR / NWA**
- Activation

**Routing**
- dAE1
- dAE2
- ABAP Proxy A

**Runtime**
- Master Queue
- Queue – Consumer XYZ
- Queue – Consumer SolMan
- Queue – Consumer ...

**Diagn. Agent**
- Agelet
- DPC

**SolMan**

**Configuration**
- Rule1 -> Notification settings
- Rule2 -> Notification settings

**Alert Inbox**
- Rule1 = 100Msgs failed (10…; 90…)
  - > 10:00am = 10 (2…; 8…)
  - > 10:05am = 90 (90…)
- Rule2 = 10Msgs failed (7 Rec.Determ.)
  - > 09:00am = 5 (5 Rec.Determ.)
  - > 09:05am = 2 (2 Rec.Determ.)
Component-Based Message Alerting
Configuration Steps in NWA

1. Create Alert Rule in NWA

2. Assign DIR objects as Msg. Header Filters

3. Select relevant Runtime Components

4. Select relevant Status Details
1. PI Monitoring configuration

2. Configuration of Message Alerting

3. Set of alert rules as defined in PI NWA to which SolMan can register as consumer
Component-Based Message Alerting
Alert Inbox (Scope of SP4)

Alert Inbox displays Message Alert per Alert Rule

Alert Inbox can be reached also from the PI Monitoring application
Component-Based Message Alerting
Alert Inbox Mockup for Aggregated Message Alerts

Alerts on "PI Message Processing for 'Sales Orders – Adapter Engine PXI"

- **Sales Orders**
  - Category: Sales Orders
  - Managed Object: ABAP Proxy XYZ
  - Type: Very high
  - Priority: Very high
  - Worst Total Changes: n/a

- **Material Master**
  - Category: Material Master
  - Managed Object: Integration Engine PXI
  - Type: High
  - Priority: 20
  - Worst Total Changes: n/a

- **Default_Alertrule**
  - Category: Default_Alertrule
  - Managed Object: Decentral AE5
  - Type: Low
  - Priority: 1
  - Worst Total Changes: n/a

**Aggregated Message Alerts**

**Timeframe**
- All
- From: 00:00:00
- To: 23:59:59

**Integration Flow Name**
- Sales Order
- Sales Order Confirmation
- Sales Order
- n.a.

**Message Status Details**
- Messaging System Error
- Receiver Determination failed
- Messaging System Error
- Messaging System Error

**Status**
- Open
- Open
- Open
- Open

**Processor**
- Default
- Analysis ongoing
- Open
- Open

**Incident ID**
- 513242
- 513242
- n/a
- n/a

**Incident Status**
- Open
- Analysis ongoing
- Open
- Open

**Export**
- Confirm
- Assign
- Navigate To
- Create Incident
- Create Notification
- Create Analysis Report

**Filter**
- Settings

**Confirm**
- Export
- Assign
- Navigate To
- Create Incident
- Create Notification
- Create Analysis Report

**Timestamp**
- 29.03.10, 17:24
- 29.03.10, 17:24
- 28.03.10, 08:43
- 24.02.11, 13:30
Aggregated alert after exceeding level for ‘max. atomic alerts per DC run’ avoids creation of 55 atomic alerts

Atomic Message Alerts (one per PI message)
Component-Based Message Alerting

PI Local email generator solution – Example Email
Thank You!