Monitoring Processes

Purpose

We can monitor the processing of XML messages, the throughput and the processing of integration processes using monitoring functions. Monitoring functions are available for PI scenarios and integration processes.

Process Flow

1. Monitor XML messages (PI)
2. Monitor Business Process Engine (PI)
3. Monitor process efficiency (application, for example BI)

A monitoring process is a special kind of integration process that you use as part of Business Activity Monitoring (BAM). We use a monitoring process to monitor the milestones in a business process. The business process can be distributed across multiple applications. When a milestone is reached, the applications each publish events, to which a central monitoring process is subscribed.

We can define a monitoring process that can monitor events from different applications. A monitoring process can subscribe to events from SAP or non-SAP systems. The monitoring process can filter the events and then process them further.

In monitoring processes you can define that alerts are triggered if particular events occur or deadlines are missed. Furthermore, you can define conditions for creating alerts. You can also include information shipped by Business Intelligence in the conditions, for example, whether a customer is an A customer.

Note

Only use monitoring processes to monitor events from applications. Do not use a monitoring process to monitor events from other monitoring processes. These kinds of monitoring process hierarchies are not supported.

A monitoring process usually comprises the following elements:

- One event message that starts the process
- Further event messages that the process subscribes to by means of correlations.
- Conditions that evaluate the events and create corresponding alerts

Procedure

1. Create a monitoring process.
2. Define a starting receive step that waits for the event message that is to start the monitoring process. If various different event messages are able to start the monitoring process, define a starting receive step for each one.
3. Define a correlation for the event messages that the monitoring process is to subscribe to.
4. To receive the remaining event messages in the monitoring process, insert the relevant receive steps in the process definition. Each of these receive steps must use an activated correlation. A receive step can in turn activate a correlation.
5. To query data from Business Intelligence, use a transformation step that calls a parameterized mapping. You can use the result in a condition and make further processing dependent on the result.
6. Define conditions for filtering the events and for triggering alerts:
   Insert a switch and for each branch define the relevant condition and the action that is to be executed when the condition is satisfied.

Triggering and Propagating a Business Event

An application can trigger an event based on the change to the status of a business object. This can be an SAP or non-SAP application. The system creates an event message from the event and the corresponding data. An intermediate monitoring process can then subscribe to this event message. For this you require the local event infrastructure, which is provided by SAP Net Weave Process Integration 7.1.

Process Flow

The following steps describe what happens when an event is triggered by an SAP application. The following IT process runs in usage type AS ABAP and in the corresponding application in the SAP Business Suite:

1. System changes the status of a business object. The status of a business object is changed in the course of a business process.
2. System triggers event. The system triggers the relevant event for the change to the status of the object.
3. System filters events by means of a condition
4. System sends the event message. A message proxy creates an event message from the event and the corresponding data; a monitoring process can then subscribe to this event message.

If the application is a non-SAP application, an event message can instead be sent to the monitoring process by using the Adapter Framework in usage type Process Integration (PI).

**Result**

The event message is created. A monitoring process subscribed to the event message can now receive the message and process it further.

**Milestone Monitoring**

This IT process receives an event message. A monitoring process processes the event message. The monitoring process can process the message further. For example, the monitoring process can query key performance indicators determined by Business Intelligence and use rules to decide whether a situation is relevant. If so, the monitoring process generates an alert for the Alert Framework.

**Process Flow**

The following IT process runs in usage type Process Integration (PI):

1. System receives the event message. The monitoring process that is subscribed to the event message receives the event message.
2. Optional: System performs BI lookup. The monitoring process can use lookups to take further information into account. A typical application would be the use of particular indicators (KPIs) for significance determination.
3. System determines the significance by means of a condition
4. System triggers an alert depending on the significance

**Result**

The alert is sent to the responsible user by Alert Management and can then be processed by that user.

Regards

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