

Michał Krawczyk

# SAP® SOA Integration – Enterprise Service Monitoring

- ▶ Tools for Monitoring SOA Scenarios
- ▶ Forward Error Handling (FEH) and Error Conflict Handler (ECH) Configuration Tips
- ▶ SAP Application Interface Framework (AIF) Customization Best Practices
- ▶ Detailed Message Monitoring and Reprocessing Examples

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## 2 Local Integration Engine Monitor

Local Integration Engine Monitor is the most well known and most commonly used application for monitoring SOA integration scenarios in backend application systems. There's very little configuration required to make it run, but it has some features which can make it much easier to use. We will explore those features in this chapter.

### 2.1 Activation and initial configuration

In standard SAP, the Local Integration Engine Monitor does not require any activation and both kinds of asynchronous web services (mediated and point-to-point) will run through this monitor.

### 2.2 Message monitoring and error monitoring

Message monitoring and error monitoring is done with the same tool—transaction SXMB\_MONI • MONITOR FOR PROCESSES XML MESSAGES, or directly from transaction SXI\_MONITOR.

There are a number of standard selection criteria like sender/receiver interface name, namespace, system, as well as some more advanced selection criteria like Message ID, Error ID, etc. (see Figure 2.1).

Figure 2.1: Advanced selection criteria

After we run the selection, we can see all of the messages. If we double-click on any of them, we can see the contents of the message in the INBOUND MESSAGE • PAYLOADS • MAIN DOCUMENT section (see Figure 2.2).

Figure 2.2: Content of the SOAP message

In the event of an error, we will be able to see the red flag and short status on the first screen of the application.

If the web service was using a fault message type and was programmed correctly, then we can see some additional details by clicking on the red flag as shown in Figure 2.3 below.

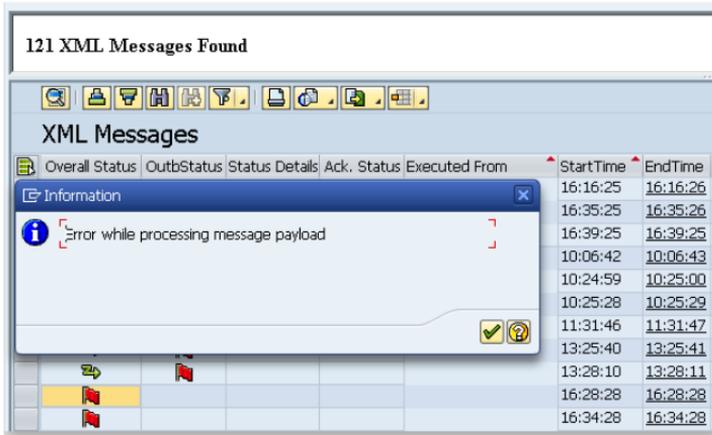


Figure 2.3: Error monitoring

## Fault message type



Fault message types are structures in which detailed information on an error is propagated to. All custom asynchronous web services should always use fault message types as this facilitates message monitoring (among other things).

A more detailed error description, or any other error information, can always be found by drilling down into the message content (double-click on the message) and by opening the error section of the SOAP HEADER as shown in Figure 2.4.

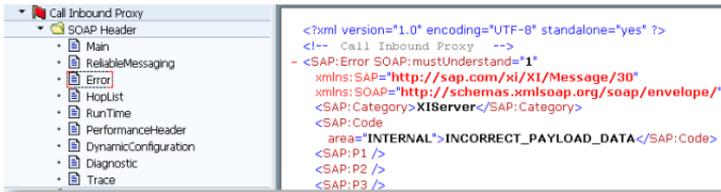


Figure 2.4: Error section of the SOAP header

As we can see, message and error monitoring with the use of Local Integration Engine Monitor is primarily done with the use of XML messages. The expectation is that the user knows how to work with XML standard. For that reason, it is not very user friendly compared to other SAP SOA integration monitoring tools.

## 2.3 Message reprocessing

Message reprocessing is one of the most typical tasks during day-to-day work with SOA integration scenarios. Messages tend to fail for different reasons and they either need to be reprocessed (which in some cases means that the content of the message also needs to be changed), or cancelled. A message which cannot or should not be reprocessed needs to be cancelled. A cancelled message is the only identification that an error was checked and proper action was taken. You can cancel messages directly from monitoring transaction by selecting the message that you want to cancel and EDIT • CANCEL MESSAGE WITH ERRORS from the menu (see Figure 2.5).

It's also possible to cancel messages from a special program called RSXMB\_CANCEL\_MESSAGES. In the event that you need to cancel a lot of messages, it is advisable to run it with this program.

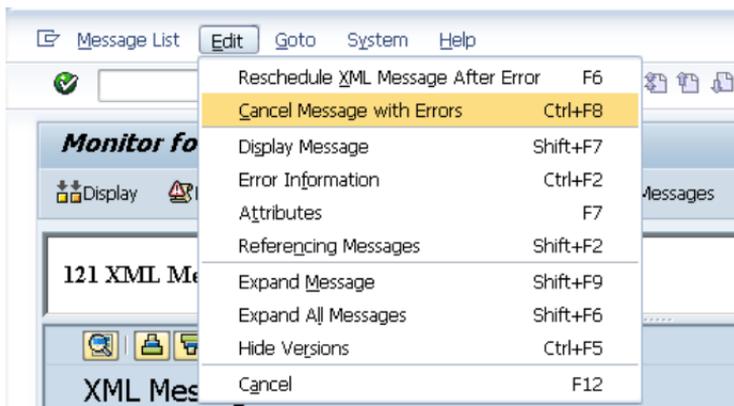


Figure 2.5: Cancelling messages from the message monitor

**RSXMB\_CANCEL\_MESSAGES—test mode**



Each time you use this special program to cancel messages, you should run it first in the test mode to see if the selection criteria you've used selects the correct messages. Only after you're sure that the selection was correct, run the program once more without test mode turned on.

If we know that the message can be reprocessed manually, which means that the error should no longer happen, we can deal with it similarly as cancelling the message. We need to select the message and click on the RESTART button in the menu (see Figure 2.6).

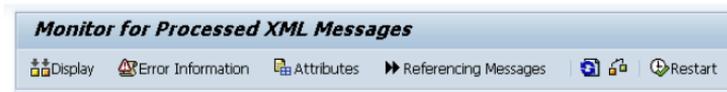


Figure 2.6: Restarting messages from transaction SXMB\_MONI

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