ABAP proxy provider implementation and testing

SAP proxy model enables to differentiate Integration logic from the Application logic, proxies are outside-in development approach where we can generate executable interface from non-language specific code (like WSDL). In SAP Exchange Infrastructure environment using proxy runtime application system (Business System) can send and receive messages from/to the Integration Server.

SAP provide two approaches to implement proxies

1. ABAP Proxies
2. Java Proxies

Software Requirements

WAS 6.20 with xi2.0 add-on is the minimum configuration to support ABAP proxies, updating to WAS 6.40 need regeneration of all the proxy objects generated on previous versions.

SAP J2EE Engine 6.40 with Service Pack SP5 or higher needed to work with proxies, along with this installing Java Proxy Runtime (JPR) and Messaging Service (MS), which provides services like messaging, queuing, and persistency of XI messages.

The following figure illustrates the scenario where ABAP proxy as synchronous inbound, which receives the request message from Integration Server and the ABAP proxy runtime processes and send the response.

In Exchange Infrastructure’s Repository we need to create the following objects.

1. Namespace
2. Data Type
3. Message Type
4. Message Interface
5. Mapping Program
6. Mapping Interface

1. Implementing the Inbound ABAP Proxy

In Receiver R/3 system go to transaction SPROXY and select the inbound interface and create server proxy, this will generate Interface and implementing class, along with this structure objects and table type.

You can view the structure of the method EXECUTE_SYNCHRONOUS in the interface generated.
vbtyp
auart
llsk
falek
netwr
vkorg
kunnr
from vbak into table itab_sales
where vbeln = input-mt_sales_doc_req-document_no.
loop at itab_sales into fs_sales.
move-corresponding fs_sales to fs_out_res.
append fs_out_res to output-mt_sales_doc_res-details.
endloop.
endmethod.

In order to test this server proxy functionality, go to SPROXY transaction and select the Test Interface icon from toolbar as show in following figure.

2. Testing the Inbound ABAP Proxy

This will display the sender payload; you can edit the pay load and change the request parameter value and execute.