

Marketplace and XI Marketplace Adapter Terminologies

Applies to:

SAP NetWeaver, SAP Exchange Infrastructure

This document is intended for those who want to understand the basics of Marketplace and SAP XI Marketplace Adapter.

Summary

The Marketplace is an online platform where buyers and suppliers communicate and perform some business transactions. The various terminologies related to the integration of such a marketplace environment using the middleware SAP XI is explained in this document.

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Introduction

In earlier days the businesses involved manual exchange of data like purchase order and sales orders. Then came the era of data exchange over Internet. With the increase in trading activities inside and across the boundaries of any organization there was a need of secure channel where in, both buyers and suppliers could come together and perform various online business transactions. This real time trading requirement gave rise to a concept called Marketplace.

What is Marketplace?

Marketplace in the Internet world is an online platform that caters to the need of various Business Partners, customers, buyers and suppliers by allowing them to communicate and perform business transactions. The Marketplace provides faster, reliable and smoother medium for the transactions. Examples of marketplaces include CommerceOne and Quadrem.

The transactions often fall into category of Business-to-Business (B2B) scenarios. Since B2B scenarios would heavily involve the message transfer across the boundaries of an organization, there is a need of a standard integration approach, which is provided by the middleware technology.

For meeting these integration needs, SAP earlier provided a middleware technology known as SAP Business Connector (SAP BC). The Marketset Connector of SAP BC was used for the communication with the Marketplaces. SAP now recommends the use of SAP XI for catering the integration needs of an organization. SAP XI uses its Marketplace Adapter for communication with the Marketsites.

Let's have a look at an example scenario wherein Marketplace environment is integrated with SAP using SAP XI. SAP XI has Marketplace Adapter which is the medium through which any System could communicate with Marketplaces.

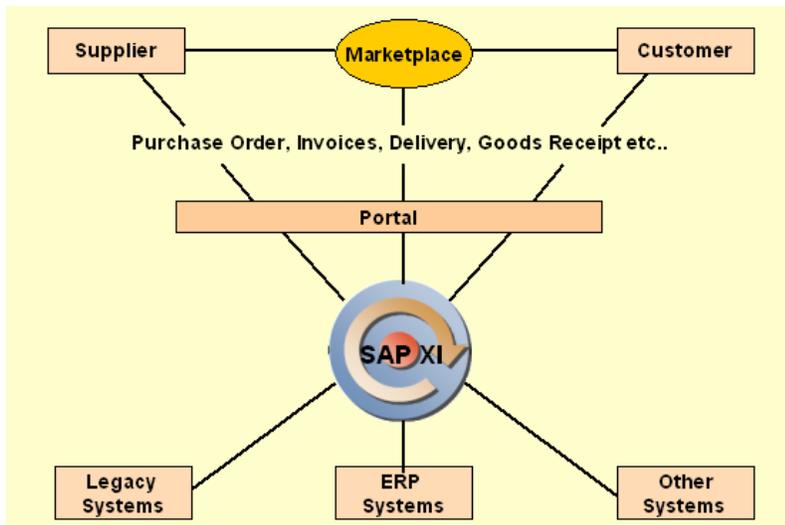
Marketplace Example Scenario

Let's have a look at the Product Procurement process. In this process, the user notifies the marketplace about the items to be purchased. The process would be as follows:

1. A user is using the SRM server to place the order to marketplace.
2. The user uses an Enterprise Buyer system which could be used for searching the catalog for suitable material.
3. This material can then be added to a shopping cart. This shopping needs to be sent to Marketplace.
4. SAP XI accepts the data from SRM server and pushes it to the Marketplace using the Marketplace adapter.
5. Marketplace accepts the order and responds based on the availability.

The Marketplace here could actually talk to many customers thereby reducing the supply chain cost considerably.

A typical landscape involving the marketplace with SAP XI integration could be as shown:



Marketplace Adapter

The marketplace adapter could be used to connect the Integration Server to marketplaces. It enables messages to be exchanged by converting the XI message format to the marketplace format (MML) and the other way around.

At sender, the marketplace adapter receives a message from the marketplace, converts the MML protocol into the XI message protocol and then sends the message to the Integration Server to be processed further.

To forward a message to a receiver marketplace, the marketplace adapter receives the message from the Integration Server, converts the message protocol from XI to MML, and then sends the message on to the receiver marketplace.

MML (MarketSet Markup Language)

In simple terms, it is the format of data that Marketplaces understands. The routing information is contained inside the MML header. It also includes the information about the attachments (such as Word or Excel files).

MML Message Format

A typical MML format message for document type PurchaseOrder is shown below:

```

Message-ID: <3457190.998989736058.JavaMail.SYSTEM@MARKETPLACE>
Date: Mon, 24 Sep 2007 10:12:34 -0500 (CDT)
Mime-Version: 1.0
Content-Type: multipart/related; boundary=" ----=_Part_1611_-656383962.1175785954375"
Content-ID: 07ac5cc2 0a3073ea-ef80-fde3-ad78-176e80e34dc1
x-Date-Sent: 24 Sep 2007 07:54:13 CDT
x-Document-Type: PurchaseOrder
x-Priority: 5
x-Correlation-Id: 0a3073ea-ef80-fde3-ad78-176e80e34dc1
x-Request-Mode: peer-peer; timeout=0; delivery=express; ack=yes
x-Recipient-Address: 0a3073ea-ef80-fde3-ad78-176e80e34dc1
x-Request-Annotation: normal
  
```

```

x-Sender-Id: 8630dee7-a1e9-4c06-a3e8-2b2d9f33ad68
x-Message-Format: Commerce One 1.0 N; owner="Commerce One"; version=1.0; date="June 1999";
variant=N
x-Recipient-Id: 72ff3c2f-edf7-47d3-a029-260d0829101f
x-Message-Id: 0a3073ea-ef80-fde3-ad78-176e80e34dc1
x-Date-Received: 26 Sep 2007 10:59:39 CEST
Content-Type: application/xml; ns="urn:x-commerceone:document:com:commerceone:CBL:CBL.sox$1.0";
owner=x-commerceone; version=1.0; charset=UTF-8; type=PurchaseOrder
Content-Transfer-Encoding: 7bit
Content-ID: d4291c52-79d3-1000-bc45-9e51a06f0001
Content-Description: Document
Content-Disposition: inline
<?soxtype urn:x-commerceone:document:com:commerceone:CBL:CBL.sox$1.0?>
<PurchaseOrder>
<.....>
<.....>
<.....>
</PurchaseOrder>

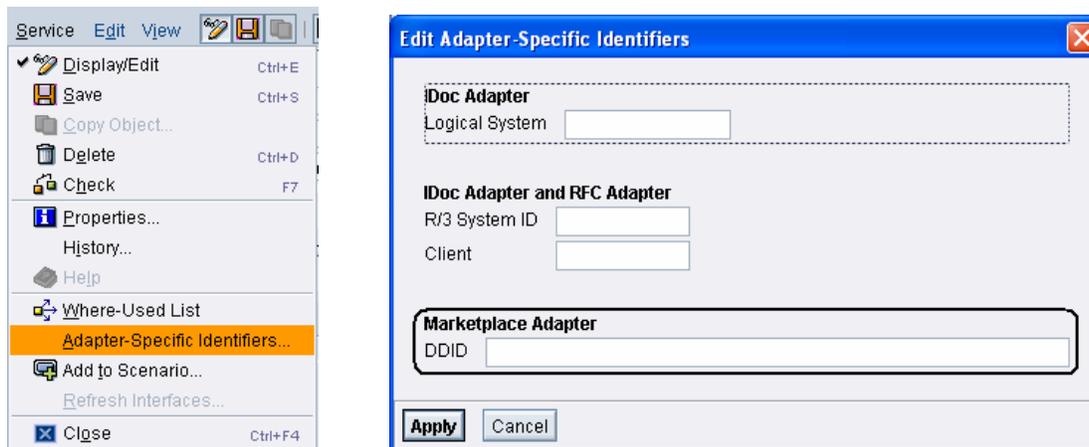
```

DDID

Marketplaces based on the MML (MarketSet Markup Language) message format use a DDID (Document Destination ID) to address senders and receivers. If you enter the DDID for the marketplace adapter for your communication party and service, the system checks that it is unique. Only one DDID could be set for a single system. Generally the client provides the DDID number.

The DDID could be seen at the following location.

Integration Directory -> Business System / Business Service -> Service -> Adapter-Specific Identifiers



xCBL

XML Common Business Library (xCBL) is an XML standard developed and maintained by CommerceOne. The xCBL Business Documents are defined using the schema language SOX. xCBL 2.0 which covered 12 different business document specifications, mainly meant for use in B2B scenarios. The usages of most common used xCBL documents is as shown.

xCBL 2.0 is mainly based on existing Electronic Data Interchange standards.

xCBL 3.0 covers wide variety of B2B scenarios.

xCBL 3.5 contains all of the documents found in xCBL 3.0 as well as 9 new xCBL documents.

xCBL 4.0 I is the latest version. Along with SOX, UBL (Universal Business Language) is also supported.

SOX

SOX (Schema for Object Oriented XML) language contains the basic XML data types as well as an added number of SOX data types. SOX is a schema language for defining the syntactic structure and partial semantics of XML document types. The marketplace adapter while parsing the xCBL documents expects the following soxtype definition processing instruction to be available in the main XML payload.

```
<?soxtype urn:x-commerceone:document:com:commerceone:schema1.sox$1.0?>
```

Related Content

- help.sap.com
- [SAP Notes](#)
- [SOX](#)
- [xCBL](#)

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