

## Connecting SAP R/3 and Microsoft BizTalk Server

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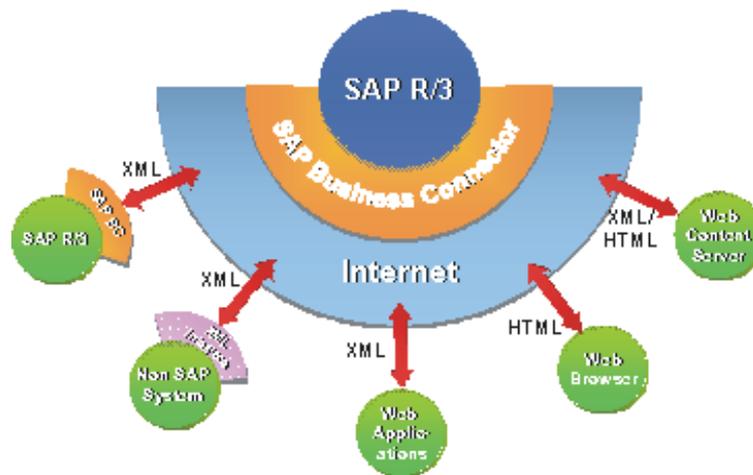
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### Project Description

Business-to-Business (B2B) requires companies to communicate, despite using different information systems. Transactions between businesses require the sender and receiver to understand the message the same way. An XML-based purchase order in one company must be acceptable for another company. The main advantage of electronic communication is cost and time reduction. The greatest problem is that the companies use different information systems, which can't communicate with each other unless there is a kind of connection is established.

We developed prototype solution for Slovenian company Iskratel d.o.o. They use SAP R/3 Enterprise Resource Planning system for internal operations. At the faculty two groups of undergraduate students were established to carry out this project. One group represented the buyer's perspective and the other supplier's perspective. In our prototype these two groups exchanged purchase order and purchase order confirmation in the electronic form. Two different software, SAP R/3 system and Microsoft BizTalk Server, were used in the prototype. We tested three different possibilities for the connection between these two systems: SAP DCOM Connector, BizTalk Adapter for SAP and SAP Business Connector.



**Figure 1:** Connecting SAP R/3 with Other Information Systems via SAP Business Connector

The interaction between systems can be established in two ways. Firstly, the SAP R/3 system is possible to be initiator. The new document is thus created in SAP R/3 system and immediately sent to the other system (in our case to BizTalk Server). Secondly, the client can be the initiator. Client checks in its partner's system (SAP R/3) if there is a document waiting. In our prototype, the second choice was used.

### How Does the Prototype Functions

The client starts the BizTalk Orchestration process. During the process the client connects to SAP R/3 system through the SAP Business Connector (SAP BC). SAP BC makes a request for new purchase order. SAP R/3 responds with the answer. After that SAP BC translates the document to XML standard form. In next step this document is transferred via File Transfer Protocol (FTP) to the client server. From there it is taken over by Microsoft BizTalk Server and transferred back to Orchestration process. In the end the purchase order data are stored in Microsoft SQL database server and purchase order confirmation is sent back to SAP R/3 system.

## Lesson Learned

In this project we:

- learned about purchasing and procurement processes,
- discovered SAP R/3 information system and Microsoft BizTalk Server,
- searched and tested different possibilities to connect these two systems,
- developed the prototype: Connecting SAP R/3 and Microsoft BizTalk Server, using SAP Business Connector.

## Undergraduate Students Participating:

SAP R/3 group: Janez Kvas, Daniel Mole, Florjan Pezdevšek

Microsoft BizTalk Server group: Goran Nedič, David Mohorič, Peter Rožič

## References

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SAP R/3: [www.sap.com](http://www.sap.com) in [www.sap.service.com](http://www.sap.service.com)