

Serac Solution Brief

SAP Business One
SAP All-in-One



Based on the proven technology of the XML server, Serac has now developed the XML WEB-SERVER. This makes important functions accessible to SAP for web services. The XML WEB-SERVER opens the door to the information of SAP via a standardised route, both for sending and receiving electronic messages. In addition to the fact that the exchange of information is more standardised, web services offer even more advantages, such as the possibility for authentication and encryption of messages according to commonly used protocols, including with the help of certificates. The option also exists for reliable and verifiable delivery of messages and exchange of messages on the basis of complete transactions. The latter involves a set of messages being processed, or not processed, as a whole.

XML WEBSERVER

Connect to SAP with Web services and more ...

Apart from exchange via **webservice**s, use can also be made of more traditional techniques, such as **FTP** or raw-socket. In addition to the SOAP (Simple Object Access Protocol) message format used by web services, other XML and non-XML message formats are also supported, including **EDI** (Electronic Data Interchange) and **CSV** (Comma Separated Value).

The following applications are used a great deal:

- intercompany communication between various SAP companies within the same system;
- communication with companies which make use of other ERP systems;
- linking third-party applications within the same business;
- linking to other businesses using third-party applications;
- integration with data entry equipment such as scanners and PDAs;
- integration with internal or external WEB Shops.

In addition to the applications referred to above, the XML WEB-SERVER offers extensive possibilities for new applications, thanks to the structured form of electronic communication.

Examples of electronic exchanges include:

- sending purchase orders to external suppliers;
- receiving purchase orders from customers;
- confirming sales orders to customers;
- exchanging intercompany purchase and sales orders within the SAP package;
- exchanging employee core data;
- article information, including prices and price lists;
- financial consolidation data;
- journal entries;
- sales forecasts;
- goods reception and shipment;
- invoices and terms and conditions of payment.

Two elements make the XML WEBSERVER exceptional when compared to other SAP integration products. **Firstly**, the **'XML Connector'**. This part of the XML WEBSERVER takes care of the complete processing of a received message or message to be sent within SAP. After all, a single message which is submitted can result in various transactions and documents within the SAP package. Equally, a single action within the SAP package can lead to a stream of outgoing messages. The XML Connector ensures that all these actions are carried out in the correct manner and that, if necessary, correct error processing takes place. **The second** unique element is the possibility for **synchronous** processing of transactions. This means that a reply is sent immediately after a message is submitted, indicating whether the transaction has succeeded or failed. For example, after an order message is submitted to SAP, the newly created order number is immediately returned in the reply. In addition to the option of synchronous processing of messages, there is of course the possibility for processing messages **asynchronously**, or in other words in batches. In such cases, the messages are processed at set times.

The XML WEBSERVER is a **software add-on** which connects to the Data Interface API of SAP. The XML Connector part of this add-on is installed on the SAP server. A web application also takes care of communication with the outside world. This application is a standard webcontainer application which is supplied with an open source Apache Tomcat web server. This web server can be installed on the same physical server, or on a different one.

The XML WEBSERVER makes use of **SOAP messages** for the **web services**, for a rapid and efficient message transmission across the internet. Secure exchange can take place by means of Transport Level Security, in other words the connection is secured by establishing an SSL connection or a secured VPN connection, for example with IPSEC. End-to-end security can also be realised by securing the message itself, so that these messages are illegible to unauthorised readers. These two techniques can be combined, if necessary.

Apart from web services, the XML WEBSERVER also offers the option of communicating via the FTP protocol. This involves the messages being delivered and processed in batches. There is also an option to set up a direct raw-socket connection. This can offer advantages in terms of simplicity and performance, but should preferably only be used through a secure channel or inside a LAN.

One of the most important functions of the XML WEBSERVER is the **conversion of messages**. Thanks to the extensive possibilities to convert almost any message, the XML WEBSERVER can connect to systems of almost any other / external parties. Not just XML messages - EDI and CSV messages can also be converted into SAP messages.

A special version of the XML WEBSERVER has a special interface to **barcode scanners**, which makes it possible to have all scanned data processed in SAP. Data can also be sent to the scanner from SAP. Serac supplies a scan solution which connects to the XML WEBSERVER. As a result the options for working with scanners for goods reception and shipment are virtually unlimited. Extensive information on this is available in the Serac Solution Letter on 'Scanning XML'.

