

SOAP and Web Services (XML/SOAP Listener)

The EntireX XML/SOAP Wrapper supports SOAP version 1.1 and 1.2 and enables you to create Web services easily.

This chapter covers the following topics:

- SOAP Support
- Web Services

See also *EntireX Web Services Wrapper*.

SOAP Support

The XML Mapping Editor provides a default mapping for SOAP, both for the currently displayed program as well as for all programs in all libraries of the current IDL file. That is, the latter function can be used to easily SOAP-enable all programs in an IDL file. See *IDL to XML Mapping with the XML Mapping Editor*. The following mapping parameters can be chosen to fine-tune the SOAP default mapping:

- XML Schema URN for the XML Schema version to be used. This will define the xsd prefix in the SOAP-ENV:Envelope element, at the beginning of the SOAP message.
- Namespace URI of the "payload" element node (this is the singleton element under the SOAP-ENV:Body element). Various SOAP toolkits require certain namespace settings. The namespace prefix will always be "m".

Note that the SOAP default mapping also works for the "error" direction, where it defines the "standard" SOAP fault message structure, as described in the specification.

The XML/SOAP Runtime detects whether SOAP is used in incoming messages. If so, the special elements and attributes of the SOAP specification (SOAP-ENV:Envelope, SOAP-ENV:Body, type, arrayType etc.) are handled accordingly.

Web Services

Web services are programmable, distributed application components accessible on the Web using solely standard internet protocols. See *Introduction to Web Services in EntireX*.

You may create Web services with the EntireX XML/SOAP Listener by wrapping IDL programs in SOAP message structures, as described in the preceding section, and then generating service descriptions for them using the WSDL Wizard. The service descriptions use the de facto standard WSDL (Web Service Description Language) format.

➤ **To make Web services out of your IDL programs**

1. Select the IDL file that you want to turn into one or more Web services.
2. From the context menu, choose **Open With ... > EntireX XML Mapping Editor** and choose SOAP for mapping. Choose **Generate**.
3. Set up a servlet engine and configure the XML/SOAP Listener. See *Administering the EntireX XML/SOAP Listener* under UNIX | Windows.
4. Select the XMM file. Open the context menu and choose **Generate Web Service from EntireX Mapping...**

Or:
Select the IDL file. Open the context menu and choose **Web Service > Generate Web Service**.
5. The generated WSDL file and the deployment unit (AAR file) can be found in the same folder as the IDL file.

See *Software AG IDL Extractor for WSDL*.