

## AXIS Web Services Security Suite

### A Library implementing the enhanced Web Services Technology Concept

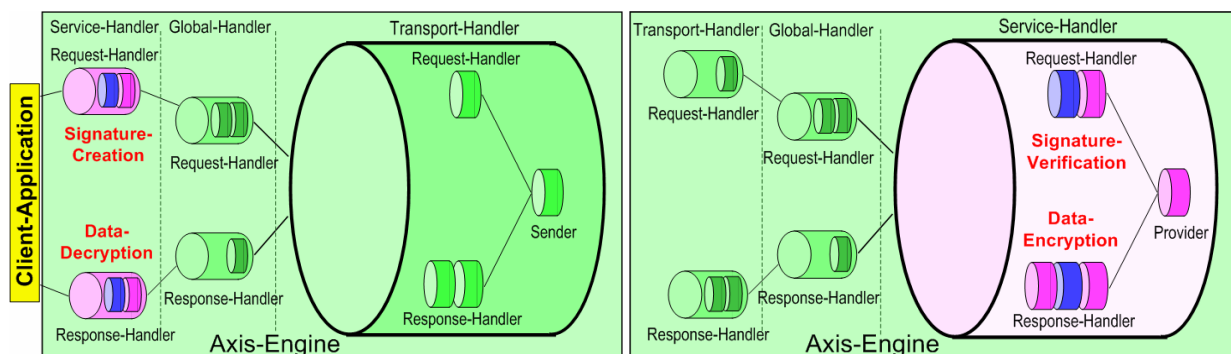
Web services communicate with their clients using the SOAP-protocol. Data delivered using this protocol are plain text and easily human-readable. It is necessary to encrypt critical or valuable data to ensure the confidentiality. It is also necessary to electronically sign them to ensure their authenticity. Those operations have to work transparently on the data without violating the SOAP-protocol.

The first working implementation of the **enhanced Web Services (eWS)** technology concept uses the AXIS framework to achieve this. The AXIS framework connects two worlds. It translates parameters, results and method calls between the application logic (in this case the JAVA world) and the SOAP protocol (for more information about AXIS framework see <http://ws.apache.org/axis>).

Inside the AXIS framework so-called message-paths responsible for the processing of both request and response messages exist. Those paths are made up of so-called handlers – small software components responsible for whatever transformations are required. The handler chains are not hard-wired but can be configured and even augmented with new handlers. Our approach was to write some new handlers for the transformations needed to fulfill the promises made by enhanced Web Services:

- Signing of an outgoing message
- Verification of an incoming message
- Encryption of arbitrary parts of an outgoing message
- Decryption of all the encrypted parts of an incoming message

These handlers are widely configurable to achieve flexible security policies (especially concerning the verification of signatures found on incoming messages)



**Figure:** Message paths inside the AXIS-engine on server and client side augmented with handlers

## Secure Your Communication With enhanced Web Services Technology!

For more information about **AXIS Web Services Security Suite** or the **enhanced Web Services Technology Concept** visit <http://www.netsys-it.com/ews>