Proposal for Bug 3730

External Attachment to WSDL 2.0 Components

Section 3.4 of the PolicyAttachment document defines an external attachment mechanism that allows policies to be associated with a policy subject independent of that subject's definition and/or representation through the use of a wsp:PolicyAttachment element. The PolicyAttachment element has a child element called wsp:AppliesTo which takes a DomainExpression as argument. The DomainExpression refers to the Policy Subject.

Section 3.4 (Editors draft 9/26) further says "Domain expressions are used to identify entities such as endpoints, messages or resources with which a policy can be associated. For example, domain expressions may be used to refer to WSDL 1.1 definitions, WSDL 2.0 components, endpoint references, etc. " This proposal addresses discusses how to use the external attachment mechanism to associate policies with WSDL 2.0 components.

The proposal recommend that we add section 3.4.1 to the PolicyAttachment document with the following content:

3.4.1 External Policy Attachment to WSDL 2.0 Components

To attach policies to WSDL 2.0 components using the external attachment mechanism requires DomainExpressions that can be used to identify WSDL 2.0 components as policy subjects. Appendix A of the WSDL 2.0 specification (http://www.w3.org/TR/wsdl20) defines a mime media type called "application/wsdl+xml". Appendix A.2 of this specification defines fragment identifiers for WSDL 2.0 components when this media type is used. Defining these fragment identifiers allows URI References to be constructed that allow individual WSDL 2.0 components to be identified as policy subjects by adding fragment identifiers to the URI for the file of WSDL 2.0 definitions.

Consider a WSDL 2.0 file that is available at http://samples.otn.com.LoanFlow. Now consider that you want to associate a policy with a service defined in this file. First you construct a URI reference for the service such as http://samples.otn.com.LoanFlow#wsdl.service(LoanFlowService) by adding the fragment identifier "wsdl.service(LoanFlowService)" to the URL for the file where "LoanFlowService" is the name of the service. Then you use this URI reference as a DomainExpression in a PolicyAttachment element. Constructing URI references to other types of WSDL 2.0 components follows the same general pattern but may require more context. For example, to the pattern for the fragment identifier for a message is: wsdl.bindingMessageReference(*binding*/*operation*/*message).*

Thus, using the styles defined in A.2 of the WSDL 2.0 specification, URI References can be constructed for other types of WSDL 2.0 components. These URI references can be used as DomainExpressions in a PolicyAttachment element to associate policies with WSDL 2.0 components.