**7.2 Associating Policies With Endpoint References**

It is desirable for components that provide EPRs to other components to be able to efficiently communicate the effective policies of the endpoints referenced by those EPRs. For example, a subscriber may wish to indicate to an event source that the notification messages sent as part of a subscription must be digitally signed. Although the mechanisms described in **[7.1 Endpoint References Containing mex:Metadata](file:///C%3A%5C%5CUsers%5C%5Casirveda%5C%5CAppData%5C%5CLocal%5C%5CTemp%5C%5CTemp1_wsmex-7728-6.zip%5C%5Cwsmex-7728-6.html%22%20%5Cl%20%22Endpoint-References-Containing-mex-Metadata)** can be used to communicate the complete set of policies associated with an endpoint, the relationship of these policies to specific bindings, operations, or messages cannot be determined without additional information such as WSDL documents or wsp:PolicyAttachment elements.

A single wsp:Policy or wsp:PolicyReference element MAY appear as a child of the /wsa:EndpointReference/wsa:Metadata element.

<wsa:EndpointReference>

<wsa:Address> *xs:anyURI* </wsa:Address>

<wsa:ReferenceParameters> *xs:any*\* </wsa:ReferenceParameters>

 <wsa:Metadata>

 **( <wsp:Policy ...> ... </wsp:Policy> |**

 **<wsp:PolicyReference ...> ... </wsp:PolicyReference> )** ?

 </wsa:Metadata>

</wsa:EndpointReference>

If multiple alternatives are desired, the operators defined in [[WS-Policy]](file:///C%3A%5C%5CUsers%5C%5Casirveda%5C%5CAppData%5C%5CLocal%5C%5CTemp%5C%5CTemp1_wsmex-7728-6.zip%5C%5Cwsmex-7728-6.html%22%20%5Cl%20%22wspolicy) can be used to specify such alternatives within the single wsp:Policy element or the element referenced by the wsp:PolicyReference.

#### Policies that appear in an endpoint reference in this manner have Endpoint Policy Subject as explained below:

* The wsp:Policy or wsp:PolicyReference element, when present, represents the capabilities and requirements of the endpoint referenced by the EPR as defined by Section 3, "Policy Model", in the [[WS-Policy]](file:///C%3A%5C%5CUsers%5C%5Casirveda%5C%5CAppData%5C%5CLocal%5C%5CTemp%5C%5CTemp1_wsmex-7728-6.zip%5C%5Cwsmex-7728-6.html%22%20%5Cl%20%22wspolicy) specification. Policy attached to an EPR in this manner MUST be applicable to all message exchanges using the endpoint referenced by that EPR.

**Example 7-3: Endpoint Reference with Associated Policy**

(01) <wse:NotifyTo xmlns:wsa="http://www.w3.org/2005/08/addressing"

(02) xmlns:wse="http://www.w3.org/2009/09/ws-evt">

(03) <wsa:Address>http://www.example.com/EventSink/OnPriceChange</wsa:Address>

(04) <wsa:RerenceParameters>

(05) ...

(06) </wsa:ReferenceParameters>

(07) <wsa:Metadata>

(08) <wsp:Policy xmlns:wsp="..." wmlns:sp="...">

(09) <sp:SymmetricBinding>

(10) <wsp:Policy>

(11) <sp:ProtectionToken>

(12) <wsp:Policy>

(13) <sp:SecureConversationToken ...>

(14) ...

(15) </sp:SecureConversationToken>

(16) </wsp:Policy>

(17) </sp:ProtectionToken>

(18) </wsp:Policy>

(19) </sp:SymmetricBinding>

(20) </wsp:Policy>

(21) </wsa:Metadata>

(22) </wse:NotifyTo>

[Example 7-3](file:///C%3A%5C%5CUsers%5C%5Casirveda%5C%5CAppData%5C%5CLocal%5C%5CTemp%5C%5CTemp1_wsmex-7728-6.zip%5C%5Cwsmex-7728-6.html%22%20%5Cl%20%22PAEPR) shows a WS-Eventing NotifyTo EPR that refers to the endpoint to which an event source should send notification messages. Attached to this EPR is a Policy (lines 8-20) that indicates that WS-SecureConversation must be used when sending messages to this endpoint.

The [[WS-Addressing]](file:///C%3A%5CUsers%5Casirveda%5CAppData%5CLocal%5CTemp%5CTemp1_wsmex-7728-6.zip%5Cwsmex-7728-6.html#AddrCore) specification discusses caveats to the validity of Metadata information. These apply to policies contained within the wsa:Metadata element as discussed in this section.

The relationship, if any, between policies contained within the wsa:Metadata element and any other policies that may apply to the endpoint referred to by the containing EPR (e.g. policies that may appear in a WSDL document that describes one or more of the services offered by that endpoint) is not defined by this specification.