Good Practices for Assertion Authors

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Good Practices for Assertion Authors is draft material intended as input to discussions in the WS-Policy Working Group at W3C. This material outlines a set of good practices for policy assertion authors.

Good practices - when applied consistently by assertion authors these practices can increase the value of Web services interoperability and tooling.

G1) An assertion author should reuse an existing assertion (rather than create a new one) whenever possible.

G2) An assertion author should define policy assertions for behaviors that are relevant to compatibility tests, such as web service protocols that manifest on the wire.

G3) An assertion author should use a unique QName to identify a distinct behavior.

G4) An assertion author should use independent assertions for modeling multiple versions of a behavior.

G5) An assertion description must clearly and completely specify the semantics of a policy assertion.

G6) An assertion description should provide an XML outline (plus an XML schema) to specify the syntax of an assertion.

G7) An assertion description should use the wsp:Optional attribute to indicate that the behavior indicated by the QName is optional for the associated policy subject.

G8) An assertion XML outline should allow the use of the wsp:Optional attribute to indicate optional behaviors.

G9) An assertion description should use the wsp:Ignorable attribute to indicate that the behavior indicated by the QName may be ignored by policy intersection.

G10) An assertion XML outline should allow for the use of the wsp:Ignorable attribute to indicate ignorable behaviors.

G11) An assertion author should represent useful (or additional) information necessary for engaging the behavior represented by a policy assertion as assertion parameters.

G12) An assertion author should represent dependent behaviors that are relevant to a compatibility test and apply to the same policy subject using nested policy assertions.

G13) If there is a nested policy expression, an assertion description should declare it and enumerate the nested policy assertions that are allowed.

G14) An assertion description should only specify domain specific intersection semantics when policy intersection is insufficient.

G15) An assertion description should specify a policy subject. For instance, if a policy assertion is to be used with WSDL, an assertion description should specify a WSDL policy subject – such as service, endpoint, operation and message.

G16) An assertion author should choose the most granular policy subject that the behavior (represented by a policy assertion) applies to.

G17) If an assertion is allowed to be associated with multiple policy subjects then the assertion description should describe the semantics of multiple instances of the same assertion attached to multiple policy subjects at the same time.

G18) An assertion author should specify a preferred attachment point for the chosen policy subject.

G19) A policy alternative can contain multiple instances of the same policy assertion. An assertion description should specify the semantics of multiple instances of a policy assertion in the same policy alternative and the semantics of parameters and nested policy (if any) when there are multiple instances of a policy assertion in the same policy alternative.

G20) An assertion author should start with a simple working assertion that allows assertion parameter extensibility.

G21) An assertion description should clearly specify how the assertion may compose with other related assertions, if any.

G22) An assertion author should not define policy assertions to represent information that is necessary to understand a message.

Appendix A- Map

The following table maps good practices for assertion authors to existing sections in the 'Web Services Policy 1.5 - Guidelines for Policy Assertion Authors' draft and shows what good practices need explanatory text.

Good Practice	Section
G1	4.3.4 Single Domains
G2	
G3	4.3.2 QName and XML Information Set Representation
G4	5.2 Evolution of Assertions (Versioning and Compatibility)
G5	4.1 Assertions and Their Target Use, 4.6 Typing Assertions
G6	4.3.2 QName and XML Information Set Representation, 4.6 Typing Assertions

G7	
G8	
G9	
G10	
G11	
G12	4.4.3 Considerations for choosing parameters vs nesting
G13	4.6 Typing Assertions
G14	4.4.3 Considerations for choosing parameters vs nesting
G15	4.1 Assertions and Their Target Use, 4.6 Typing Assertions
G16	
G17	
G18	
G19	4.6 Typing Assertions
G20	4.3.1 Minimal Approach
G21	4.8 Interrelated domains
G22	4.3.3 Self Describing Messages