3.1 Policy Assertion

A policy assertion identifies a behavior that is a requirement (or capability) of a policy subject. Assertions indicate domain-specific (e.g., security, transactions) semantics and are expected to be defined in separate, domain-specific specifications.

Assertions are strongly typed by the domain authors that define them. The policy assertion type is identified only by the XML Infoset [namespace name] and [local name] properties (that is, the qualified name or QName) of the root Element Information Item representing the assertion.

[Definition: A policy assertion type represents a class of policy assertions and implies a schema for the assertion and assertion-specific semantics.] Assertions of a given type MUST be consistently interpreted independent of their policy subjects.

The XML Infoset of a policy assertion MAY contain a non-empty [attributes] property and/or a non-empty [children] property. The attributes property is an assertion parameter. The children property may contain assertion parameters and/or nested assertions. [Definition: A policy assertion parameter qualifies the behavior indicated by a policy assertion.] An example assertion parameter is an attribute information item indicating how long an endpoint will wait before sending an acknowledgement, qualifying an assertion identifying support for a specific reliable messaging mechanism.

Domain authors MAY define that an assertion contains one or more parameters as its [children]. Each such parameter
MUST be expressed as a direct child element of the assertion. Parameters MUST not contain assertion descendants, as parameters are only passed through as opaque content as part of the normalization process.

Domain authors may qualify one or more policy aspects of an assertion by using nested assertions. An example is the use of an assertion to specify the type of security token applied to a specific security binding. Use of a nested assertion is appropriate since much information may be associated with a token assertion.

A nested policy assertion MUST be contained within a policy framework element direct child or policy framework assertion descendent of the containing assertion. [Definition: A policy framework element is an element in the policy namespace of http://www.w3.org/@@%/@@/policy with a local name property of "All", "ExactlyOne" or "All".] [Definition: A policy framework assertion descendent is a policy framework element that is the descendent of an assertion through one or more policy framework elements.] Use of a policy framework element to contain a nested assertion enables nested assertions to be distinguished from assertion parameters and processed appropriately.

It is the responsibility of domain authors to design so that domain assertions and parameters are appropriately defined. Domain authors should be cognizant of the processing requirements when defining complex assertions containing additional assertion content or nested policy expressions. Specifically, domain authors are encouraged to
consider when the identity of the root Element Information Item alone is enough to convey the requirement or capability.