# SAML Conformance Clause

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## Abstract

This document describes the conformance clause for the SAML
specification. The conformance clause is intended for inclusion within
the SAML specification, rather than being maintained as a separate
document.

## Referenced Documents

1. http://www.itl.nist.gov/div897/ctg/conformProject.shtml

2. http://lists.oasis-open.org/archives/conformance/200104/msg00000.html

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29  3. XML Protocol specification conformance issues

## Notational Conventions

31  The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT",
32  "SHOULD", "SHOULD NOT", "RECOMMENDED",  "MAY", and "OPTIONAL" in this
33  document are to be interpreted as described in Key Words for Use in
34  RFC's to Indicate Requirement Levels (RFC 2119).

## Status of this Document

36  This document represents work in progress upon which no reliance should
37  be made.

## Document Version History

39  o  Version 0.001: Initial version

40  o  Version 0.002: First Review draft to conformance subgroup 21-May-2001

41  o  Version 0.003: Internal Editor's version

42  o  Version 0.004: Second review draft to SAML TC 11-June-2001

43  o  Version 0.005: Third review draft to conformance subgroup 14-June-
44     2001

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# 1 Conformance Clause

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## 1.1 Introduction

65     The objectives of the SAML Conformance Clause are to:

66         a) Ensure a common understanding of conformance and what is required to
67             claim conformance;

68         b) Promote interoperability for the exchange of authentication and
69             authorization information

70         c) Promote uniformity in the development of conformance tests.

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72      The conformance clause specifies explicitly all the requirements that have
73     to be satisfied to claim conformance to the SAML Specification. These
74     requirements can be applied at varying levels, so that a given
75     implementation or application of the SAML Specification can achieve
76     clearly-defined conformance with all or part of the entire set of
77     requirements.

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79     SAML conformance provides for both validation and certification.
80     Validation may be done without certification, especially for such purposes
81     as self-test. An implementer who has validated SAML conformance by means of
82     self-test cannot legitimately use the term "certified for SAML
83     conformance". However, validation may be all that is required for the
84     particular purposes for which an implementer is using SAML.

85

86     Certification requires validation by a third-party rather than through
87     self-test.

88

89     The SAML conformance is expressed by three orthogonal dimensions.

90         • The first dimension is an authority, which is a subset of the overall
91             specifications that includes all of the functionality necessary to
92             satisfy the requirements of a particular community of users. The
93             authorities for SAML are authentication authority, authorization
94             authority, attribute authority, session authority, Policy decision
95             authority and policy enforcement authority.

96         • The second dimension is the role of a system – consumer, producer or
97             producer-consumer.

98         • The third dimension is the mapping of the assertions to a binding viz
99             http, xmlp, soap, ebXML et al.

**1.1.1 Conformance Nomenclature**

102     The nomenclature for expressing SAML conformance would be two SAML
103     conformance matrices as follows:

104         1. <u>Authority-Role Table</u> :

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| *Authority* | *Consumer* | *Producer* | *Producer/Consumer* |
|---|---|---|---|
| *Authentication authority* | y | Y | y |
| *Authorization authority* | y | Y | y |
| *Attribute authority* | y | Y | y |
| *Session authority* | y | Y | y |
| *Policy decision authority* | y | Y | y |
| *Policy enforcement authority* | y | Y | y |

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107         2. <u>Authority-Bindings Table</u>:

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| Authority | http | xmlp | SOAP | BEEP |
|---|---|---|---|---|
| Authentication authority | y | y | y | Y |
| Authorization authority | y | y | y | Y |
| Attribute authority | y | y | y | Y |
| Session authority | y | y | y | Y |
| Policy decision authority | y | y | y | Y |
| Policy enforcement authority | y | y | y | Y |

109 **1.1.2 Mandatory/Optional :**

110     A system can choose to implement any or all of the authorities as per table
111     1, as a producer of SAML assertions, a consumer of SAML assertions or both.
112     For each authority, role, binding combination (i.e., cell in the table) all
113     functionality is mandatory. i.e. the system should support all SAML
114     assertions related to that authority. It is optional as to which authority,
115     role, binding combinations are supported (implemented).

116     In short, as an example, if a system describes itself as conforming to a
117     SAML Authorization authority, producer-consumer over http and SOAP, it has
118     to consume and produce *all* SAML authentication assertions and be able to
119     support the http and SOAP bindings described in the SAML specifications.

### 1.1.3 Extensions :

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121 The implementations must perform all the functionality of the
122 specifications exactly as specified and not break conforming
123 functionality.

124 • Extensions shall not re-define semantics for existing functions

125 • Extensions shall not alter the specified behavior of interfaces
126 defined in this standard

127 • Extensions may add additional behaviors

128 • Extensions shall not cause standard-conforming functions (i.e.,
129 functions that do not use the extensions) to execute incorrectly.

130 SAML assertions can be extended so long as the above conditions are met. It
131 is requested that, if a system is extending the SAML assertions,

132 • The mechanism for determining application conformance and the
133 extensions shall be clearly described in the documentation, and the
134 extensions shall be marked as such;

135 • Extensions shall follow the principles and guidelines of the SAML
136 specification, that is, the specifications must be extended in a
137 standard manner.

138 • In the case where an implementation has added additional behaviors,
139 the receiver implementation shall provide a mechanism whereby a
140 conforming application shall be recognized as such, and be executed
141 in an environment that supports the functional behavior defined in
142 this standard

143

### 1.1.4 Alternate approaches

144

145 The different transport mechanisms are covered under the bindings
146 dimension.

## 1.2 Authorities

147

148 <Describe the authorities and relevant use case sections>

## 1.3 Roles

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150 <Describe the roles and relevant use case sections>

## 1.4 Bindings

151

152 <Describe the bindings and relevant use cases sections>

## 1.5 SAML Conformance Program

The Conformance Program is described in detail in the separate SAML
Conformance Program Specification V1.0.  This document describes the tests
required for validation and/or certification at a given profile and level, the
procedure for running those tests, and the resources available to assist in
validating or certifying implementations and applications.

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## 2 Things To Do

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