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# Test Assertions for the SCA Web Service Binding Version 1.1 Specification

## Working Draft 01

## 9 September 2009

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#### Technical Committee:

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#### Related Work:

This specification is related to:

- Service Component Architecture Web Service Binding Specification Version 1.1

#### Declared XML Namespace(s):

None

#### Abstract:

This document defines the Test Assertions for the SCA Web Service Binding specification.

The Test Assertions represent the testable items relating to the normative statements made in the SCA Assembly specification. The Test Assertions provide a bridge between the normative statements in the specification and the conformance TestCases which are designed to check that an SCA runtime conforms to the requirements of the specification.

**Status:**

This document was last revised or approved by the [OASIS Service Component Architecture / Bindings \(SCA-Bindings\)](#) TC on the above date. The level of approval is also listed above. Check the "Latest Version" or "Latest Approved Version" location noted above for possible later revisions of this document.

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# 1 Introduction

This document defines the Test Assertions for the SCA Web Service Binding Specification Version 1.1 [SCA-WSBinding].

The test assertions in this document follow the format defined in the OASIS Test Assertion Guidelines specification [TA-GUIDE].

## 1.1 Example Test Assertion

Test assertions are presented in a tabular format with rows corresponding to the entry types defined in [TA-GUIDE].

Assertion ID	BWS-TA-xxxx
Source	[BWSyyyyy]
Target	<kitchenSink/> element of composite file
Prerequisites	The <kitchenSink/> element has a @drain attribute
Predicate	The @drain attribute value of the <kitchenSink/> element is a URI that identifies a portal into the sewage system of the Domain.
Prescription Level	Mandatory
Tags	kitchenSink drain sewage

**Assertion ID:** Is a unique ID for the test assertion. Its format starts with a 3 letter string that identifies the specification to which it relates - "BWS" is for the SCA Web Service Binding specification. This is followed by "-TA-" to indicate that this identifier is for a test assertion. This is then followed by a unique 4 digit number.

**Source:** Is the identifier(s) of the normative statement(s) in the specification to which this assertion relates.

**Target:** Identifies the target which is addressed by this assertion. This is typically some SCA document element, or other SCA artifact but possibly could identify an SCA runtime and its behaviour.

**Prerequisites:** Defines any prerequisites for this test assertion. The prerequisites may be defined in terms of one or more other test assertions that must be true.

**Predicate:** The meat of the assertion - something that should evaluate to true or false for the given target.

**Prescription Level:** Mandatory (for MUST requirements) or Preferred (for SHOULD requirements) or Permitted (for MAY requirements).

**Tags:** Zero or more labels that may be attached to this test assertion - these tags can be used to group sets of assertions.

## 1.2 Terminology

The keywords "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this specification are to be interpreted as described in IETF RFC 2119 [RFC 2119].

## 1.3 Normative References

- [RFC 2119]** S. Bradner. *Key words for use in RFCs to Indicate Requirement Levels*. IETF RFC 2119, March 1997. <http://www.ietf.org/rfc/rfc2119.txt>.
- [TA-GUIDE]** Test Assertion Guidelines, Draft 0.9.9.6, 16 November, 2008.
- [SCA-WSBinding]** OASIS Committee Draft 03, "Service Component Architecture Web Service Binding Specification Version 1.1," July 2009. <http://docs.oasis-open.org/opensca/sca-bindings/sca-wsbinding-1.1-spec-cd03.pdf>

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## 2 Test Assertions

### 2.1 Section 2 Test Assertions

Assertion ID	BWS-TA-20001
Source	[BWS20001]
Target	The reference/binding.ws/@uri attribute
Prerequisites	
Predicate	The value of the attribute is an absolute value
Prescription Level	Mandatory
Tags	"uri attribute" "reference target"

Assertion ID	BWS-TA-20002
Source	[BWS20002]
Target	The binding.ws/@wsdlElement attribute
Prerequisites	
Predicate	The value of the attribute points to an existing WSDL 1.1 element
Prescription Level	Mandatory
Tags	"wsdlElement"

Assertion ID	BWS-TA-20003
Source	[BWS20003]
Target	The service/binding.ws/@wsdlElement attribute
Prerequisites	
Predicate	The value of the attribute is not of the form <WSDL-namespace-URI>#wsdl.service(<service-name>)
Prescription Level	Mandatory
Tags	"wsdlElement"

Assertion ID	BWS-TA-20004
Source	[BWS20004]
Target	The reference/binding.ws/@wsdlElement attribute

Prerequisites	The value of the attribute is of the form <WSDL-namespace-URI>#wsdl.service(<service-name>)
Predicate	The set of available ports for that reference-binding is non-empty
Prescription Level	Mandatory
Tags	"wsdlElement" "reference target" "port"
Comment	Awkward wording. Plus the set of available ports is for the reference binding not just the reference.

Assertion ID	BWS-TA-20004
Source	[BWS20004]
Target	The reference/binding.ws/@wsdlElement attribute
Prerequisites	The value of the attribute is of the form <WSDL-namespace-URI>#wsdl.service(<service-name>)
Predicate	The set of available ports for that reference-binding is non-empty
Prescription Level	Mandatory
Tags	"wsdlElement" "reference target" "port"
Comment	Awkward wording. Plus the set of available ports is for the reference binding not just the reference.

Assertion ID	BWS-TA-20005
Source	[BWS20005]
Target	SCA runtime
Prerequisites	The value of the attribute reference/binding.ws/@wsdlElement is of the form <WSDL-namespace-URI>#wsdl.service(<service-name>) and SCA runtime does not support any of the available ports
Predicate	The SCA runtime raises an error
Prescription Level	Mandatory
Tags	"wsdlElement" "reference target" "error"

Assertion ID	BWS-TA-20006
Source	[BWS20006]
Target	SCA runtime
Prerequisites	The value of the attribute reference/binding.ws/@wsdlElement is of the form <WSDL-namespace-URI>#wsdl.service(<service-name>) and the number of available ports is more than one
Predicate	The SCA runtime uses exactly one port for each invocation



Prescription Level	Mandatory
Tags	“wsdlElement” “reference target”
Comment	Untestable?

Assertion ID	BWS-TA-20007
Source	[BWS20007]
Target	The service/binding.ws/@wsdlElement attribute
Prerequisites	The value of the attribute is of the form <WSDL-namespace-URI>#wsdl.port(<service-name>/<port-name>)
Predicate	The portType associated with the port is compatible with the service interface and satisfies all the policy constraints of the binding
Prescription Level	Mandatory
Tags	“wsdlElement”
Comment	Would require multiple tests

Assertion ID	BWS-TA-20008
Source	[BWS20008]
Target	SCA runtime
Prerequisites	The value of the attribute service/binding.ws/@wsdlElement is of the form <WSDL-namespace-URI>#wsdl.port(<service-name>/<port-name>)
Predicate	The SCA runtime exposes the endpoint specified by the WSDL port or raises an error if the port is not supported
Prescription Level	Mandatory
Tags	“wsdlElement”

Assertion ID	BWS-TA-20009
Source	[BWS20009]
Target	The reference/binding.ws/@wsdlElement attribute
Prerequisites	The value of the attribute is of the form <WSDL-namespace-URI>#wsdl.port(<service-name>/<port-name>)
Predicate	The portType associated with the port is compatible superset of the reference interface and satisfies all the policy constraints of the binding
Prescription Level	Mandatory
Tags	“wsdlElement”

Comment	Would require multiple tests
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Assertion ID	BWS-TA-20010
Source	[BWS20010]
Target	SCA runtime
Prerequisites	The value of the attribute reference/binding.ws/@wsdlElement is of the form <WSDL-namespace-URI>#wsdl.port(<service-name>/<port-name>)
Predicate	The SCA runtime uses the endpoint specified by the WSDL port for invocations or raises an error if the port is not supported
Prescription Level	Mandatory
Tags	"wsdlElement"
Comment	Looks incorrect, what if there is an alternate binding specified?

Assertion ID	BWS-TA-20011
Source	[BWS20011]
Target	The service/binding.ws/@wsdlElement attribute
Prerequisites	The value of the attribute is of the form <WSDL-namespace-URI>#wsdl.binding(<binding-name>)
Predicate	The portType associated with the WSDL binding is compatible with the service interface and satisfies all the policy constraints of the binding
Prescription Level	Mandatory
Tags	"wsdlElement"
Comment	Would require multiple tests

Assertion ID	BWS-TA-20012
Source	[BWS20012]
Target	SCA runtime
Prerequisites	The value of the attribute service/binding.ws/@wsdlElement is of the form <WSDL-namespace-URI>#wsdl.binding(<binding-name>)
Predicate	The SCA runtime exposes an endpoint using the specified WSDL binding or raises an error if the WSDL binding is not supported
Prescription Level	Mandatory
Tags	"wsdlElement"

Assertion ID	BWS-TA-20013
Source	[BWS20013]
Target	The reference/binding.ws/@wsdlElement attribute
Prerequisites	The value of the attribute is of the form <WSDL-namespace-URI>#wsdl.binding(<binding-name>)
Predicate	The portType associated with the WSDL binding is compatible superset of the reference interface and satisfies all the policy constraints of the binding
Prescription Level	Mandatory
Tags	"wsdlElement"
Comment	Would require multiple tests

Assertion ID	BWS-TA-20014
Source	[BWS20014]
Target	SCA runtime
Prerequisites	The value of the attribute reference/binding.ws/@wsdlElement is of the form <WSDL-namespace-URI>#wsdl.binding(<binding-name>)
Predicate	The SCA runtime uses the WSDL binding specified for reference invocations or raises an error if the WSDL binding is not supported
Prescription Level	Mandatory
Tags	"wsdlElement"
Comment	Looks incorrect, what if there is an alternate binding specified?

Assertion ID	BWS-TA-20015
Source	[BWS20015]
Target	The reference/binding.ws/@wsdlElement attribute
Prerequisites	The value of the attribute is of the form <WSDL-namespace-URI>#wsdl.binding(<binding-name>)
Predicate	The endpoint address is either specified by the reference/binding.ws/@uri attribute, or the reference/binding.ws/EndpointReference element, except for the cases where the SCA Assembly specification allows the @uri attribute to be omitted
Prescription Level	Mandatory
Tags	"wsdlElement"
Comment	The predicate should be exemplified to include the exception cases. Would require multiple tests (positive and negative)



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## 4 Conformance

There are no conformance statements relating to the Test Assertions.

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## Appendix A. Acknowledgments

The following individuals have participated in the creation of this specification and are gratefully acknowledged

### Participants:

- [Participant name, affiliation | Individual member]
- [Participant name, affiliation | Individual member]
- [Participant name, affiliation | Individual member]

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## Appendix B. Revision History

Revision	Date	Editor	Changes Made
1	09/09/09	Anish Karmarkar	Created the initial draft with the first 15 assertions