



Test Assertions for the SCA WS-BPEL Client and Implementation Version 1.1 Specification

Working Draft 05

10 April 2009

Specification URIs:

This Version:

[http://docs.oasis-open.org/sca-bpel/\[additional path/filename\].html](http://docs.oasis-open.org/sca-bpel/[additional path/filename].html)
[http://docs.oasis-open.org/sca-bpel/\[additional path/filename\].odt](http://docs.oasis-open.org/sca-bpel/[additional path/filename].odt)
[http://docs.oasis-open.org/sca-bpel/\[additional path/filename\].pdf](http://docs.oasis-open.org/sca-bpel/[additional path/filename].pdf)

Previous Version:

Latest Version:

[http://docs.oasis-open.org/sca-bpel/\[additional path/filename\].html](http://docs.oasis-open.org/sca-bpel/[additional path/filename].html)
[http://docs.oasis-open.org/\[sca-bpel/\[additional path/filename\].odt](http://docs.oasis-open.org/[sca-bpel/[additional path/filename].odt)
[http://docs.oasis-open.org/sca-bpel/\[additional path/filename\].pdf](http://docs.oasis-open.org/sca-bpel/[additional path/filename].pdf)

Technical Committee:

OASIS SCA-BPEL TC

Chair(s):

Anish Karmarkar, Oracle
Sanjay Patil, SAP

Editor(s):

Anish Karmarkar, Oracle
Sanjay Patil, SAP
Khanderao Kand, Oracle

Related Work:

This specification is related to:

- Service Component Architecture WS-BPEL Client and Implementation Specification Version 1.1

Declared XML Namespace(s):

[list namespaces here]
[list namespaces here]

Abstract:

[Summary of the technical purpose of the document.]

Status:

This document was last revised or approved by the [TC name | membership of OASIS] 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.

Technical Committee members should send comments on this specification to the Technical Committee's email list. Others should send comments to the Technical Committee by using the "Send A Comment" button on the Technical Committee's web page at [http://www.oasis-open.org/committees/\[specific location\]](http://www.oasis-open.org/committees/[specific location]).

For information on whether any patents have been disclosed that may be essential to implementing this specification, and any offers of patent licensing terms, please refer to the Intellectual Property Rights section of the Technical Committee web page ([http://www.oasis-open.org/committees/\[specific location\]/ipr.php](http://www.oasis-open.org/committees/[specific location]/ipr.php)).

The non-normative errata page for this specification is located at [http://www.oasis-open.org/committees/\[specific location\]](http://www.oasis-open.org/committees/[specific location]).

Notices

Copyright © OASIS® 2009. All Rights Reserved.

All capitalized terms in the following text have the meanings assigned to them in the OASIS Intellectual Property Rights Policy (the "OASIS IPR Policy"). The full Policy may be found at the OASIS website.

This document and translations of it may be copied and furnished to others, and derivative works that comment on or otherwise explain it or assist in its implementation may be prepared, copied, published, and distributed, in whole or in part, without restriction of any kind, provided that the above copyright notice and this section are included on all such copies and derivative works. However, this document itself may not be modified in any way, including by removing the copyright notice or references to OASIS, except as needed for the purpose of developing any document or deliverable produced by an OASIS Technical Committee (in which case the rules applicable to copyrights, as set forth in the OASIS IPR Policy, must be followed) or as required to translate it into languages other than English.

The limited permissions granted above are perpetual and will not be revoked by OASIS or its successors or assigns.

This document and the information contained herein is provided on an "AS IS" basis and OASIS DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTY THAT THE USE OF THE INFORMATION HEREIN WILL NOT INFRINGE ANY OWNERSHIP RIGHTS OR ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

OASIS requests that any OASIS Party or any other party that believes it has patent claims that would necessarily be infringed by implementations of this OASIS Committee Specification or OASIS Standard, to notify OASIS TC Administrator and provide an indication of its willingness to grant patent licenses to such patent claims in a manner consistent with the IPR Mode of the OASIS Technical Committee that produced this specification.

OASIS invites any party to contact the OASIS TC Administrator if it is aware of a claim of ownership of any patent claims that would necessarily be infringed by implementations of this specification by a patent holder that is not willing to provide a license to such patent claims in a manner consistent with the IPR Mode of the OASIS Technical Committee that produced this specification. OASIS may include such claims on its website, but disclaims any obligation to do so.

OASIS takes no position regarding the validity or scope of any intellectual property or other rights that might be claimed to pertain to the implementation or use of the technology described in this document or the extent to which any license under such rights might or might not be available; neither does it represent that it has made any effort to identify any such rights. Information on OASIS' procedures with respect to rights in any document or deliverable produced by an OASIS Technical Committee can be found on the OASIS website. Copies of claims of rights made available for publication and any assurances of licenses to be made available, or the result of an attempt made to obtain a general license or permission for the use of such proprietary rights by implementers or users of this OASIS Committee Specification or OASIS Standard, can be obtained from the OASIS TC Administrator. OASIS makes no representation that any information or list of intellectual property rights will at any time be complete, or that any claims in such list are, in fact, Essential Claims.

The names "OASIS", [insert specific trademarked names, abbreviations, etc. here] are trademarks of OASIS, the owner and developer of this specification, and should be used only to refer to the organization and its official outputs. OASIS welcomes reference to, and implementation and use of, specifications, while reserving the right to enforce its marks against misleading uses. Please see <http://www.oasis-open.org/who/trademark.php> for above guidance.

Table of Contents

1 Introduction.....	5
1.1 Terminology.....	5
1.2 Normative References.....	5
1.3 Non-normative References.....	5
2 [Section Title].....	6

1 Introduction

This document defines the Test Assertions for the SCA WS-BPEL Client and Implementation Version 1.1 specification.

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	SBL-TA-xxxx
Source	[SBPELyyyy]
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 - "SBL" is for the SCA WS-BPEL Client and Implementation 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 Error: Reference source not found.

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.

1.4 Non-normative References

- [TBD] [TBD]

NOTE: The proper format for a citation to an OASIS Technical Committee's work (whether Normative or Non-Normative) is:

OASIS
Stage (Committee Draft 01, Committee Draft 02, Committee Specification 01, etc. or Standard)
Title (italicized or in quotation marks)
Approval Date (Month YYYY)
URI of the actual Authoritative Specification (namespace is not acceptable as the content changes over time)

For example:

- [EDXL-HAVE] OASIS Standard, "Emergency Data Exchange Language (EDXL) Hospital AVailability Exchange (HAVE) Version 1.0", November 2008.
http://docs.oasis-open.org/emergency/edxl-have/os/emergency_edxl_have-1.0-spec-os.doc

2 Test Assertions

Assertion ID	SBL-TA-1001
Source	[SBPEL1001]
Target	The @process attribute of a <implementation.bpel> element
Prerequisites	The <component> element has a <implementation.bpel> child element
Predicate	The value of the @process attribute is a QName that identifies an executable BPEL process
Prescription Level	Mandatory
Tags	"implementation.bpel" "BPEL process"
Comment	

Assertion ID	SBL-TA-2001
Source	[SBPEL2001] [SBPEL2002]
Target	The component type of the component that uses <implementation.bpel>
Prerequisites	A partner link of a BPEL process that is pointed to by <implementation.bpel> has the @sca-bpel:service attribute specified
Predicate	The component type contain a <service> element that corresponds to the partner link and whose @name attribute value is the same as the @sca:service attribute value
Prescription Level	Mandatory
Tags	"component type" "service" "sca-bpel:service" "partner link"
Comment	

Assertion ID	SBL-TA-2002
Source	[SBPEL2003] [SBPEL2004]
Target	The component type of the component that uses <implementation.bpel>
Prerequisites	A partner link of a BPEL process that is pointed to by <implementation.bpel> has the @sca-bpel:reference attribute specified
Predicate	The component type contains a <reference> element that corresponds to the partner link and whose @name attribute value is the same as the @sca:service attribute value
Prescription Level	Mandatory
Tags	"component type" "reference" "sca-bpel:reference" "partner link"
Comment	

Assertion ID	SBL-TA-2003
Source	[SBPEL2005]
Target	The component type of the component that uses <implementation.bpel>
Prerequisites	The partner link of a BPEL process that is pointed to by <implementation.bpel>: a) does not have either the @sca-bpel:service attribute nor the @sca-bpel:reference attribute b) static analysis of the process determines that it is possible that the first message for the partner link will be received in a <receive> activity, the <onMessage> element of a <pick> activity or the <onEvent> element of an event handler
Predicate	The component type contains a <service> element that corresponds to the partner link
Prescription Level	Mandatory
Tags	"component type" "service" "partner link" "static analysis"
Comment	

Assertion ID	SBL-TA-2004
Source	[SBPEL2006]
Target	The component type of the component that uses <implementation.bpel>
Prerequisites	a) Those specified for SBL-TA-2003 b) The name of the partner link is unique within the BPEL process
Predicate	The component type contains a <service> element that corresponds to the partner link and the @name attribute value of the <service> element is the same as the @name attribute value of the <bpel:partnerLink> element
Prescription Level	Mandatory
Tags	"component type" "service" "partner link" "static analysis"
Comment	

Assertion ID	SBL-TA-2005
Source	[SBPEL2007]
Target	The component type of the component that uses <implementation.bpel>
Prerequisites	a) A partner link of a BPEL process that is pointed to by <implementation.bpel> has neither the @sca-bpel:reference or the @sca-bpel:service attribute specified b) static analysis of the process does not determines that it is possible that the first message for the partner link will be received in a <receive> activity, the <onMessage> element of a <pick> activity or the <onEvent> element of

	an event handler
Predicate	The component type contains a <reference> element that corresponds to the partner link
Prescription Level	Mandatory
Tags	“component type” “reference” “partner link” “static analysis”
Comment	SBPEL2007 incorrectly talks about the range SBPEL2001-SBPEL2006. It is actually the rules: 2001, 2003 and 2005.

Assertion ID	SBL-TA-2006
Source	[SBPEL2008]
Target	The component type of the component that uses <implementation.bpel>
Prerequisites	a) Those specified for SBL-TA-2005 b) The name of the partner link is unique within the BPEL process
Predicate	The component type contains a <reference> element that corresponds to the partner link and the @name attribute value of the <reference> element is the same as the @name attribute value of the <bpel:partnerLink> element
Prescription Level	Mandatory
Tags	“component type” “reference” “partner link” “static analysis”
Comment	

Assertion ID	SBL-TA-2007
Source	[SBPEL2009]
Target	
Prerequisites	
Predicate	
Prescription Level	Mandatory
Tags	
Comment	SBPEL-2009 is not necessary. It reiterates what is already covered by 2010-2013

Assertion ID	SBL-TA-2008
Source	[SBPEL2010]
Target	The component type of the component that uses <implementation.bpel>
Prerequisites	A partnerLink in the BPEL process has the @sca-bpel:multiRefFrom

	attribute
Predicate	The multiplicity of the <reference> that corresponds to the parnerLink, in the generated component type, is the same as the multiplicity specified by the <sca-bpel:multiRerence> child element of the variable pointed to by the @sca-bpel:multiRefFrom attribute
Prescription Level	Mandatory
Tags	"component type" "reference" "partner link" "multiplicity" "multiReference" "multiRefFrom"
Comment	

Assertion ID	SBL-TA-2009
Source	[SBPEL2011]
Target	The component type of the component that uses <implementation.bpel>
Prerequisites	The partnerLink in the BPEL process: a) does not have the @sca-bpel:multiRefFrom attribute, and b) has the attribute @initializePartnerRole attribute with a value of "yes"
Predicate	The multiplicity of the <reference> that corresponds to the parnerLink, in the generated component type, is "1..1"
Prescription Level	Mandatory
Tags	"component type" "reference" "partner link" "multiplicity" "initializePartnerRole"
Comment	

Assertion ID	SBL-TA-2010
Source	[SBPEL2012]
Target	The component type of the component that uses <implementation.bpel>
Prerequisites	The partnerLink in the BPEL process: a) does not have the @sca-bpel:multiRefFrom attribute, and b) does not have the attribute @initializePartnerRole attribute with a value of "yes" c) static analysis of the process determines that the first use of the partner link by any activity is in an <assign> activity that sets the partner role
Predicate	The multiplicity of the <reference> that corresponds to the parnerLink, in the generated component type, is "0..1" and the value of the attribute @wiredByImpl is "true"
Prescription Level	Mandatory
Tags	"component type" "reference" "partner link" "multiplicity"

Comment	
---------	--

Assertion ID	SBL-TA-2011
Source	[SBPEL2013]
Target	The component type of the component that uses <implementation.bpel>
Prerequisites	The partnerLink in the BPEL process: a) does not have the @sca-bpel:multiRefFrom attribute, and b) does not have the attribute @initializePartnerRole attribute with a value of "yes" c) static analysis of the process does not determines that the first use of the partner link by any activity is in an <assign> activity that sets the partner role.
Predicate	The multiplicity of the <reference> that corresponds to the parnerLink, in the generated component type, is "0..1"
Prescription Level	Mandatory
Tags	"component type" "reference" "partner link" "multiplicity"
Comment	

Assertion ID	SBL-TA-2012
Source	[SBPEL2014]
Target	<binding> associated with a service that is provided by <implementation.bpel>
Prerequisites	The partnerLink in the BPEL process maps to a <sca:service> in the component type associated with the process and has the @initializePartnerRole attribute with a value of "yes"
Predicate	The binding used knows the identity of the partner as soon as the partner link associated with the service becomes active
Prescription Level	Mandatory
Tags	"component type" "service" "partner link" "binding" "initializePartnerRole"
Comment	Is this testable?

Assertion ID	SBL-TA-2013
Source	[SBPEL2015]
Target	The component type of the component that uses <implementation.bpel>
Prerequisites	The partnerLink in the BPEL process maps to a <sca:service> in the component type associated with the process

Predicate	The WSDL portType of the forward interface specified in the <interface.wSDL> child element of the service is the same as WSDL portType of the role pointed to by the value of the @myRole attribute of the <partnerLink>
Prescription Level	Mandatory
Tags	"component type" "service" "partner link" "interface" "portType" "role" "myRole"
Comment	

Assertion ID	SBL-TA-2014
Source	[SBPEL2016]
Target	The component type of the component that uses <implementation.bpel>
Prerequisites	a) The partnerLink in the BPEL process maps to a <sca:service> in the component type associated with the process b) The partnerLinkType associated with the partnerLink has two roles
Predicate	The WSDL portType of the callback interface specified in the <interface.wSDL> child element of the service is the same as WSDL portType of the role pointed to by the value of the @partnerRole attribute of the <partnerLink>
Prescription Level	Mandatory
Tags	"component type" "service" "partner link" "interface" "portType" "role" "partnerRole" "callback"
Comment	The assertion does not say that the partnerLink has to be mapped to a service. It is clear from the context. If we want the assertion to stand on its own we should include the fact that this is for services only

Assertion ID	SBL-TA-2015
Source	[SBPEL2017]
Target	The component type of the component that uses <implementation.bpel>
Prerequisites	The partnerLink in the BPEL process maps to a <sca:reference> in the component type associated with the process
Predicate	The WSDL portType of the forward interface specified in the <interface.wSDL> child element of the reference is the same as WSDL portType of the role pointed to by the value of the @partnerRole attribute of the <partnerLink>
Prescription Level	Mandatory
Tags	"component type" "reference" "partner link" "interface" "portType" "role" "partnerRole"
Comment	

Assertion ID	SBL-TA-2016
Source	[SBPEL2018]
Target	The component type of the component that uses <implementation.bpel>
Prerequisites	a) The partnerLink in the BPEL process maps to a <sca:reference> in the component type associated with the process b) The partnerLinkType associated with the partnerLink has two roles
Predicate	The WSDL portType of the callback interface specified in the <interface.wsdl> child element of the reference is the same as WSDL portType of the role pointed to by the value of the @myRole attribute of the <partnerLink>
Prescription Level	Mandatory
Tags	"component type" "reference" "partner link" "interface" "portType" "role" "myRole" "callback"
Comment	The assertion does not say that the partnerLink has to be mapped to a reference. It is clear from the context. If we want the assertion to stand on its own we should include the fact that this is for references only

Assertion ID	SBL-TA-2017
Source	[SBPEL2019]
Target	The component type of the component that uses <implementation.bpel>
Prerequisites	a) Multiple partner links defined in different scopes. b) Multiple partner links share the same name
Predicate	??
Prescription Level	Mandatory
Tags	"component type" "local partner link"
Comment	Do we need this 2119 statement? Covered by SBPEL2020-2022.

Assertion ID	SBL-TA-2020
Source	[SBPEL2020]
Target	The component type of the BPEL process
Prerequisites	Multiple partner links, defined in different scopes, share the same name
Predicate	The component type contains services or references corresponding to the partner links with names: "_originalName_i" where "originalName" is the original NCName used in multiple partner link declarations and "i" is a sequential number. For example. "_invoicing_1", "_invoicing_2".

Prescription Level	Mandatory
Tags	“component type” “service” “reference” “local partner link” “static analysis”
Comment	

Assertion ID	SBL-TA-2021
Source	[SBPEL2021]
Target	The component type of the component that uses <implementation.bpel>
Prerequisites	a) As in SBL-TA-2020
Predicate	The number suffixes for the partner links is based on the lexical order of the corresponding partner link occurrences in the process definition.
Prescription Level	Mandatory
Tags	“component type” “service” “reference” “local partner link” “static analysis”
Comment	

Assertion ID	SBL-TA-2022
Source	[SBPEL2022]
Target	The component type of the component that uses <implementation.bpel>
Prerequisites	Name “_originalName_i” is already the name of a partner link declaration in the process definition.
Predicate	Additional underscore characters are added at the beginning of all aliases consistently.
Prescription Level	Permitted
Tags	“component type” “service” “reference” “local partner link” “static analysis”
Comment	

Assertion ID	SBL-TA-3001
Source	[SBPEL3001]
Target	Variable declaration in WS-BPEL process definition
Prerequisites	In the WS-BPEL process definition, sca-bpel:property=”yes” is used on two or more variable declaration.
Predicate	The name of a variable used as a property of the component type is unique within the process.
Prescription Level	Mandatory

Tags	"sca bpel extension" "sca property" "variable"
Comment	

Assertion ID	SBL-TA-3002
Source	[SBPEL3002]
Target	Runtime
Prerequisites	<ul style="list-style-type: none"> •a) A variable declaration has an sca-bpel property attribute •b) A value is provided for the property via component configuration
Predicate	Any initialization from-spec is first evaluated and immediately after the evaluation, the value of the variable is changed to the provided property value.
Prescription Level	Mandatory
Tags	"sca bpel extension" "sca property" "variable initialization from-spec" "runtime analysis"
Comment	Any side effects that result from the execution of the initialization from-spec will occur irrespective of whether the property is set.

Assertion ID	SBL-TA-3003
Source	[SBPEL3003]
Target	Component Typeof the BPEL process
Prerequisites	<ul style="list-style-type: none"> a) As in SBL-TA-3001 b) the variable has an initialization from-spec
Predicate	On component type property declaration, mustSupply="false" is specified.
Prescription Level	Mandatory
Tags	"sca bpel extension" "sca property" "variable initialization from-spec"
Comment	This should be specified even if the default value is not literal and not in the component type.

Assertion ID	SBL-TA-3004
Source	[SBPEL3004]
Target	A WS-BPEL process definition
Prerequisites	Component Types has a reference with multiplicity
Predicate	A variable includes an sca-bpel:multiReference extension element.

Prescription Level	MANDATORY (As per Issue BPEL-42)
Tags	"sca bpel extension" "sca property" "multi value references"
Comment	

Assertion ID	SBL-TA-3005
Source	[SBPEL3005]
Target	Variable declaration in WS-BPEL process definition
Prerequisites	A variable has sca-bpel:multiReference extension element
Predicate	The type of variable is an element of sca-bpel:serviceReferenceList.
Prescription Level	Mandatory
Tags	"sca bpel extension" "sca property" "multi value references"
Comment	

Assertion ID	SBL-TA-3006
Source	[SBPEL3006]
Target	The component type of the BPEL process
Prerequisites	A variable has sca-bpel:multiReference extension element (As in SBL-TA-3005)
Predicate	The component type includes a reference with multiplicity of either "0..n" or "1...n" corresponding to a variable with the sca-bpel:multiReference extension element.
Prescription Level	Mandatory
Tags	"sca bpel extension" "sca property" "multi value references"
Comment	

Assertion ID	SBL-TA-3007
Source	[SBPEL3007]
Target	The component type of the BPEL process
Prerequisites	As in SBL-TA-3005
Predicate	The reference type in component type is determined by the partner link type and partner role attributes of the sca-bpel:multiReference extension element.

Prescription Level	Mandatory
Tags	"sca bpel extension" "sca property" "multi value references"
Comment	

Assertion ID	SBL-TA-3008
Source	[SBPEL3008]
Target	Partner link element in a BPEL process
Prerequisites	Partner link has a myRole attribute referencing to a role which is the only role of a partner link type.
Predicate	Partner link element has no sca-bpel:multiRefFrom attribute declared
Prescription Level	Mandatory
Tags	"sca bpel extension" "sca property" "multi value references"
Comment	

Assertion ID	SBL-TA-3009
Source	[SBPEL3009]
Target	The WS BPEL Definition, partner link element
Prerequisites	Partner link has a sca-bpel:service attribute. •
Predicate	Partnerlink does not have the sca-bpel:multiRefFrom attribute
Prescription Level	Mandatory
Tags	"sca bpel extension" "sca property" "multi value references"
Comment	

Assertion ID	SBL-TA-3010
Source	[SBPEL3010]
Target	Sca-bpel:multiRefFrom attribute on partnerLink element
Prerequisites	•Partner link has a sca-bpel:multiRefFrom attribute.
Predicate	The value of sca-bpel:mutiRefFrom attribute refers to the name of a variable manifesting an SCA multi-valued reference.

Prescription Level	Mandatory
Tags	“sca bpel extension” “sca property” “multi value references”
Comment	

Assertion ID	SBL-TA-SP01- 1
Source	[SBPEL3011]
Target	partnerLink element
Prerequisites	<p>The WS-BPEL process definition has</p> <ul style="list-style-type: none"> •A variable representing a multi-valued Reference in a manner specified by the section 3.2 (see SBPEL3004 and SBPEL3005). •A partnerLink associated with the multi-valued reference via a sca-bpel:multiRefFrom attribute (see SBPEL3010, SBPEL3008 and SBPEL3009).
Predicate	<p><u>For the <sca-bpel:multiReference> child element of the variable whose @name value is same as the value of the @multiRefFrom attribute of the <partnerLink>, the partnerLinkType attribute of the <partnerLink> is the same as the partnerLinkType attribute of the <sca-bpel:multiReference>.</u></p> <p><u>The partnerLinkType and partnerRole attributes of the partnerLink and the multi-valued reference variable have same values.</u></p>
Prescription Level	Mandatory
Tags	“sca bpel extensions” “multi-valued references”
Comment	The RFC 2119 statement is ambiguous/incorrect

Assertion ID	SBL-TA-SP01- 2
Source	[SBPEL3011]
Target	partnerLink element
Prerequisites	<p><u>The WS-BPEL process definition has</u></p> <ul style="list-style-type: none"> •<u>A variable representing a multi-valued Reference in a manner specified by the section 3.2 (see SBPEL3004 and SBPEL3005).</u> •<u>A partnerLink associated with the multi-valued reference via a sca-bpel:multiRefFrom attribute (see SBPEL3010, SBPEL3008 and SBPEL3009).</u>
Predicate	<p><u>For the <sca-bpel:multiReference> child element of the variable whose @name value is same as the value of the @multiRefFrom attribute of the <partnerLink>, the name of the partnerRole for the <partnerLink> is the same as the partnerRole attribute of the <sca-bpel:multiReference>.</u></p>
Prescription Level	Mandatory

Tags	"sca bpel extensions" "multi-valued references"
Comment	The RFC 2119 statement is ambiguous/incorrect

Assertion ID	SBL-TA-SP02
Source	[SBPEL3012]
Target	A WS-BPEL process definition
Prerequisites	The WS-BPEL process definition has <ul style="list-style-type: none"> •A variable representing a multi-valued Reference in a manner specified by the section 3.2 (see SBPEL3005 and SBPEL3004). •A partnerLink associated with the multi-valued reference via a sca-bpel:multiRefFrom attribute (see SBPEL3011, SBPEL3010, SBPEL3009 and SBPEL3008).
Predicate	At least one code path exists that copies the values from the multi-valued reference to the partner link.
Prescription Level	Mandatory
Tags	"sca bpel extension" "multi-valued references"
Comment	A code analyzer for the WS-BPEL process definition will be required for testing this assertion. The predicate for this assertion will have to be formatted in a manner required by the WS-BPEL code analyzer.

Assertion ID	SBL-TA-SP03-1
Source	[SBPEL3015]
Target	partnerLink with sca-bpel:service attribute WS-BPEL process definition
Prerequisites	Process definition has more than one instances of partnerLink with sca-bpel:service attribute A partnerLink with sca-bpel:service attribute
Predicate	The value of the sca-bpel:service attribute of the target partnerLink is not the same as that of any other partnerLink elements in the process definition (see SBPEL2001 and SBPEL2002). <ul style="list-style-type: none"> •The value of sca-bpel:service attribute of any other partnerLink element in the process definition (See SBPEL2001 and SBPEL2002) •The name of a partnerLink at the <process> level identified as an SCA service via static analysis of the process definition (see SBPEL2005 and SBPEL2006) <p>The disambiguated name (see SBPEL2019) of a partnerLink local to a <scope> identified as an SCA service via static analysis of the process definition</p>
Prescription Level	Mandatory
Tags	"sca bpel extensions"
Comment	Implicitly covers [SBPEL3014] and partially (the service part) of [SBPEL3013]. Do these statements need to contain 'MAY'?

Assertion ID	SBL-TA-SP03-2
Source	[SBPEL3015]
Target	partnerLink with sca-bpel:service attribute
Prerequisites	Static analysis of the process definition identifies at least one partnerLink element (with no sca-bpel:service attribute) as an SCA service
Predicate	The value of the sca-bpel:service attribute of the target partnerLink is not the same as the name of any of the partnerLink elements identified as an SCA service via static analysis of the process definition (see SBPEL2005 and SBPEL2006).
Prescription Level	Mandatory
Tags	"sca bpel extensions"
Comment	

Assertion ID	SBL-TA-SP03-3
Source	[SBPEL3015]
Target	partnerLink with sca-bpel:service attribute
Prerequisites	Static analysis of the process definition identifies at least one partnerLink element (with no sca-bpel:service attribute) local to a <scope> as SCA service with name disambiguated as per SBPEL2019.
Predicate	The value of the sca-bpel:service attribute of the target partnerLink is not the same as the disambiguated name (see SBPEL2019) of a partnerLink local to a <scope> identified as an SCA service via static analysis of the process definition
Prescription Level	Mandatory
Tags	"sca bpel extensions"
Comment	

Assertion ID	SBL-TA-SP04
Source	[SBPEL3016]
Target	partnerLink element
Prerequisites	<ul style="list-style-type: none"> •A partnerLink with sca-bpel:service attribute •The partner link type of the partnerLink has only one role
Predicate	The partnerRole attribute of the partnerLink is not specified. The partnerRole attribute of the partnerLink is not the only role of the partner-link type.
Prescription Level	Mandatory

Tags	"sca bpel extensions"
Comment	

Assertion ID	SBL-TA-SP05-1
Source	[SBPEL3018]
Target	<u>partnerLink with sca-bpel:reference attribute</u> WS-BPEL process definition
Prerequisites	<u>Process definition has more than one instances of partnerLink with sca-bpel:reference attribute</u> A partnerLink with sca-bpel:reference attribute
Predicate	<p>The value of the sca-bpel:reference attribute is not the same as <u>that of any other partnerLink elements in the process definition (see SBPEL2003 and SBPEL2004)</u></p> <ul style="list-style-type: none"> •The value of sca-bpel:reference attribute of any other partnerLink element in the process definition (See SBPEL2003 and SBPEL2004) •The name of a partnerLink at the <process> level identified as an SCA reference via static analysis of the process definition (see SBPEL2007 and SBPEL2008) <p>The disambiguated name (see SBPEL2019) of a partnerLink local to a <scope> identified as an SCA reference via static analysis of the process definition</p>
Prescription Level	Mandatory
Tags	"sca bpel extensions"
Comment	<u>Implicitly covers [SBPEL3017] and partially (the reference part) of [SBPEL3013]. Do these statements need to contain 'MAY'?</u>

Assertion ID	SBL-TA-SP05-2
Source	[SBPEL3018]
Target	<u>partnerLink with sca-bpel:reference attribute</u>
Prerequisites	<u>Static analysis of the process definition identifies at least one partnerLink element (with no sca-bpel:reference attribute) as an SCA reference</u>
Predicate	<u>The value of the sca-bpel:service attribute of the target partnerLink is not the same as the name of any of the partnerLink elements identified as an SCA service via static analysis of the process definition (see SBPEL2007 and SBPEL2008).</u>
Prescription Level	Mandatory
Tags	"sca bpel extensions"
Comment	

Assertion ID	SBL-TA-SP05-3
Source	[SBPEL3018]
Target	<u>partnerLink with sca-bpel:reference attribute</u>

<u>Prerequisites</u>	<u>Static analysis of the process definition identifies at least one partnerLink element (with no sca-bpel:reference attribute) local to a <scope> as SCA reference with name disambiguated as per SBPEL2019.</u>
<u>Predicate</u>	<u>The value of the sca-bpel:reference attribute of the target partnerLink is not the same as the disambiguated name (see SBPEL2019) of a partnerLink local to a <scope> identified as an SCA reference via static analysis of the process definition</u>
<u>Prescription Level</u>	<u>Mandatory</u>
<u>Tags</u>	<u>"sca bpel extensions"</u>
<u>Comment</u>	

Assertion ID	SBL-TA-SP06
Source	[SBPEL3019]
Target	partnerLink element
Prerequisites	<ul style="list-style-type: none"> •A partnerLink with sca-bpel:reference attribute •The partner link type of the partnerLink has only one role
Predicate	The myRole attribute of the partnerLink is not the only role of the partner link type.
Prescription Level	Mandatory
Tags	"sca bpel extensions"
Comment	

Assertion ID	SBL-TA-SP07
Source	[SBPEL3020]
Target	partnerLink element
Prerequisites	
Predicate	partnerLink element does not have both the sca-bpel:service and sca-bpel:reference attributes.
Prescription Level	Mandatory
Tags	"sca bpel extensions"
Comment	Although the target of the conformance statement is the WS-BPEL process definition, the test assertion targets the individual partnerLink elements.

Assertion ID	SBL-TA-SP08
Source	[SBPEL3022]

Target	WS-BPEL process definition
Prerequisites	sca-bpel:requires attribute of partnerLink element
Predicate	The value of sca-bpel:requires is valid as per the specification of the sca:requires attribute defined in the SCA Policy Framework (space separated list of SCA intent Qnames).
Prescription Level	Mandatory
Tags	"sca bpel extensions" "required intents"
Comment	Testing this SCA BPEL assertion should invoke (or borrow code from) a SCA Policy Framework test for validating the value of sca:requires attribute. Should SBPEL3021 use RFC2119 'MAY'?

Assertion ID	SBL-TA-SP09
Source	[SBPEL3023]
Target	Component type of a component that uses <implementation.bpel>
Prerequisites	partnerLink element(s) in the implementing WS-BPEL process definition has sca-bpel:requires attribute.
Predicate	The service or reference in the component type has an sca:requires attribute with the same value as that of the sca-bpel:requires attribute of the corresponding partnerLink in the WS-BPEL process definition.
Prescription Level	Mandatory
Tags	"sca bpel extensions" "required intents"
Comment	

Assertion ID	SBL-TA-XXXX
Source	[SBPELYYYY]
Target	
Prerequisites	
Predicate	
Prescription Level	
Tags	
Comment	

2.1 Cross Mapping of Conformance Statements to Assertions

Conformance statement	Test Assertion
SBPEL3011	SBL-TA-SP01
SBPEL3012	SBL-TA-SP02
SBPEL3013 (implicitly covered)	SBL-TA-SP03, SBL-TA-SP05
SBPEL3014 (implicitly covered)	SBL-TA-SP03
SBPEL3015	SBL-TA-SP03
SBPEL3016	SBL-TA-SP04
SBPEL3017 (implicitly covered)	SBL-TA-SP05
SBPEL3018	SBL-TA-SP05
SBPEL3019	SBL-TA-SP06
SBPEL3020	SBL-TA-SP07
SBPEL3021	
SBPEL3022	SBL-TA-SP08
SBPEL3023	SBL-TA-SP09

Conformance

The last numbered section in the specification must be the Conformance section. Conformance Statements/Clauses go here.

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]

Appendix A. Non-Normative Text

Appendix B. Revision History