ISSUE:

The WS-I Basic Profile 1.1 introduces features and abstraction over version 1.0, most notably:
- MESSAGE conformance target - Some requirements that had a MESSAGE conformance target in BP1.0 now use a new target, ENVELOPE. This facilitates alternate serializations of the message, such as that described in the Attachments Profile.
- SOAP Binding - Requirements relating to the SOAP binding's serialization of the message have been moved to the Simple SOAP Binding Profile to facilitate other serializations.
The Simple SOAP Binding Profile governs the use of the SOAP 1.1 messaging envelope, which is the XML structure for transmitting messages. SOAP Messages with Attachments defines a Multipurpose Internet Mail Extensions (MIME) mechanism for packaging attachments with SOAP messages.
Web services that use attachments can be tested for WS-I conformance with a combination of Basic Profile 1.1 and Attachments Profile 1.0, while Web services that do not use attachments can be tested for conformance with a combination of Basic Profile 1.1 and Simple SOAP Binding Profile 1.0.
What impact does supporting the Basic Profile 1.1, along with the companion Simple SOAP Binding Profile 1,0 and Attachments Profile 1.0 have on CDL?

ANALYSIS:

The main impact to CDL is that:
1) Basic Profile 1.1 opens web services to being decoupled from their transport, most notably, SOAP.
The schema for CDL is not impacted, as there are no specific references to SOAP constructs. The level of abstraction represented by CDL makes the choice of transport transparent to the language. The CDL specification as it currently stands does not bind the use of web services in a choreography to SOAP, referring to SOAP as the basic transport available to a web service. However, language could be added to the specification to better identify transport-neutrality, such as identifying SOAP as the 'lowest common denominator' transport available to a web service by definition.
Adjunct to this is the tightening of requirements surrounding SOAP in the SSBP 1.0 to ensure that non-standard usage – e.g. using SOAP headers to convey security context or attachment metadata – is prohibited. This lends further support to the adoption of SOAP 1.2 and wsdl 2.0.
Legacy encoding styles were deprecated with the Basic Profile 1.0, so this should not impact the use of 1.1.
2) Basic Profile 1.1 provides a standard approach to addressing messages with attachments.
The schema for CDL is not impacted, as the Attachments Profile 1.0 enables the use of MIME types in Message and Binding Input Parts in wsdl 1.1. Although no Attachments Profile has been drafted to address the issue in wsdl 2.0, there is no conceivable reason that such a mechanism could not be used in XSD (for Messages) or in wsdl 2.0 (for Binding Input). As it is defined in wsdl this is transparent to CDL. However, this further

highlights the usefulness of a wsdl version element in CDL to enable a parser to hook in different facilities to support attachments in wsdl 1.1 per the AP 1.0, or in wsdl 2.0 per an emerging standard.

3) Basic Profile 1.1 is based on SOAP 1.1 and wsdl 1.1.

However, the strictures placed by SSBP 1.0 and AP 1.0 facilitate a smooth transition to SOAP 1.2 and wsdl 2.0, by prohibiting non-standard usage which would render support of both SOAP 1.1/wsdl 1.1 and SOAP 1.2/wsdl 2.0 difficult.

4) Basic Profile 1.1 restricts the use of wsdl 1.1 MEPs to One-way and Request-response. This is the current level of support in CDL and adhering to this does not impact CDL as it currently stands. It has been accepted that CDL be limited to supporting BP 1.1 MEPs as far as wsdl 1.1 is concerned. However, if CDL is restricted to BP 1.1 MEPs, then wsdl 2.0 MEP support will exclude the better-defined Out-only and Out-in MEPs, along with the Robust-In-only, Robust-Out-only, In-optional-out and Out-optional-in. More analysis is needed to understand the impact of supporting these wsdl 2.0 MEPs in CDL and whether we can support our examples of TWIST and FIX with or without these.

PROPOSAL:

The CDL language is not adversely impacted by support of BP 1.1 along with SSBP 1.0 and AP 1.0. Yet, the following should be considered:

1) The Editors should consider adding language to the specification to better identify transport-neutrality, such as identifying SOAP as the 'lowest common denominator' transport available to a web service by definition.

PROPOSED ACTIONS:

1) We should examine the impact of supporting the wsdl 2.0 MEPs in CDL – how much work will it require to provide such support in our interactions?

2) We should examine how TWIST and FIX can be supported using BP 1.1 restrictions, and whether wsdl 2.0 MEPs beyond BP 1.1 are required.