

## ISSUE:

WS-Choreography is chartered to support WSDL 2.0. However, BPEL 1.1 and BPEL 2.0 support WSDL 1.1 and so far there are no plans to support WSDL 2.0. This presents an issue with respect to the requirement of WS-Choreography to support BPEL.

## PROPOSAL:

WS-Choreography should seriously consider chartering support for WSDL 1.1 and WSDL 2.0. The major contribution of WSDL 2.0 is the richer separation of abstract interface and concrete protocols. It appears that the other improvements in WSDL 2.0 can be transparently supported alongside WSDL 1.1.

To illustrate this, below we have a simple stock quote service is described using WSDL 1.1 and WSDL 2.0. Listing 1 shows the XML schema types that are used in the describing stock quote service. Listing 2 and 3 shows the stock quote service interface definition in WSDL 1.1 and WSDL 2.0 respectively. Listing 4 and 5 shows the stock quote service implementation definition in WSDL 1.1 and WSDL 2.0 respectively.

<http://example.com/stockquote/stockquoteV11.xsd>

```
<?xml version="1.0"?>
<schema targetNamespace="http://example.com/stockquote/schemas"
  xmlns="http://www.w3.org/2000/10/XMLSchema">
  <element name="TradePriceRequest">
    <complexType>
      <all>

<element name="tickerSymbol" type="string"/>
      </all>
    </complexType>
  </element>
  <element name="TradePrice">
    <complexType>
      <all>

<element name="price" type="float"/>
      </all>
    </complexType>
  </element>
</schema>
```

<http://example.com/stockquote/stockquoteV20.xsd>

```
<?xml version="1.0"?>
```

```

<schema targetNamespace="http://example.com/stockquote/schemas"
  xmlns="http://www.w3.org/2001/XMLSchema">
  <element name="TradePriceRequest">
    <complexType>
      <all>

<element name="tickerSymbol" type="string"/>
      </all>
    </complexType>
  </element>
  <element name="TradePrice">
    <complexType>
      <all>

<element name="price" type="float"/>
      </all>
    </complexType>
  </element>
</schema>

```

Listing 1: XML Schema definition for Stock Quote Service

```

http://example.com/stockquote/stockquoteV11.wsdl
<?xml version="1.0"?>
<definitions name="StockQuote"
targetNamespace="http://example.com/stockquote/definitions"
  xmlns:tns="http://example.com/stockquote/definitions"
  xmlns:xsd1="http://example.com/stockquote/schemas"
  xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
  xmlns="http://schemas.xmlsoap.org/wsdl/">

<import namespace="http://example.com/stockquote/schemas"

location="http://example.com/stockquote/stockquoteV11.xsd"/>

<message name="GetLastTradePriceInput">

<part name="body" element="xsd1:TradePriceRequest"/>
  </message>

<message name="GetLastTradePriceOutput">

<part name="body" element="xsd1:TradePrice"/>

```

```

    </message>

<portType name="StockQuotePortType">

<operation name="GetLastTradePrice">

<input message="tns:GetLastTradePriceInput"/>

<output message="tns:GetLastTradePriceOutput"/>
    </operation>
</portType>
</definitions>

```

Listing 2: WSDL 1.1 Interface definition for Stock Quote Service

```

http://example.com/stockquote/stockquoteV20.wsdl
<?xml version="1.0"?>
<definitions name="StockQuote"
targetNamespace="http://example.com/stockquote/definitions"
    xmlns:tns="http://example.com/stockquote/definitions"
    xmlns:xsd1="http://example.com/stockquote/schemas"
    xmlns:soap="http://www.w3.org/2003/11/wsdl/soap12"
    xmlns="http://www.w3.org/2003/11/wsdl">

<import namespace="http://example.com/stockquote/schemas"

location="http://example.com/stockquote/stockquoteV20.xsd"/>
    <types>
        <schema targetNamespace="http://example.com/stockquote/definitions">

<element name="GetLastTradePriceInput" type="xsd1:TradePriceRequest"/>

<element name="GetLastTradePriceOutput" type="xsd1:TradePrice"/>
        </schema>
    </types>

<interface name="StockQuoteInterface">

<operation name="GetLastTradePrice" pattern="http://www.w3.org/2003/11/wsdl/in-
out">

<input message="tns:GetLastTradePriceInput"/>

```

```
<output message="tns:GetLastTradePriceOutput"/>
  </operation>
</interface>
</definitions>
```

Listing 3: WSDL 2.0 Interface definition for Stock Quote Service

```
http://example.com/stockquote/stockquoteserviceV11.wsdl
<?xml version="1.0"?>
<definitions name="StockQuote"
targetNamespace="http://example.com/stockquote/service"
  xmlns:tns="http://example.com/stockquote/service"
  xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
  xmlns:defs="http://example.com/stockquote/definitions"
  xmlns="http://schemas.xmlsoap.org/wsdl/">

  <import namespace="http://example.com/stockquote/definitions"
location="http://example.com/stockquote/stockquoteV11.wsdl"/>

  <binding name="StockQuoteSoapBinding" type="defs:StockQuotePortType">
    <soap:binding style="document" transport="http://schemas.xmlsoap.org/soap/http"/>
    <operation name="GetLastTradePrice">
      <soap:operation soapAction="http://example.com/GetLastTradePrice"/>
      <input>
        <soap:body use="literal"/>
      </input>
      <output>
        <soap:body use="literal"/>
      </output>
    </operation>
  </binding>
  <service name="StockQuoteService">

    <documentation>My first service</documentation>

    <port name="StockQuotePort" binding="tns:StockQuoteBinding">
```

```
<soap:address location="http://example.com/stockquote"/>
  </port>
</service>
</definitions>
```

Listing 4: WSDL 1.1 Implementation definition for Stock Quote Service

```
http://example.com/stockquote/stockquoteserviceV20.wsdl
<?xml version="1.0"?>
<definitions name="StockQuote"
targetNamespace="http://example.com/stockquote/service"
  xmlns:tns="http://example.com/stockquote/service"
  xmlns:wsoap="http://www.w3.org/2003/11/wsd/soap12"
  xmlns:defs="http://example.com/stockquote/definitions"
  xmlns="http://www.w3.org/2003/11/wsd">

  <import namespace="http://example.com/stockquote/definitions"
location="http://example.com/stockquote/stockquoteV12.wsdl"/>

  <binding name="StockQuoteSoapBinding" interface="defs:StockQuoteInterface">

  <wsoap:binding protocol="http://www.w3.org/2003/11/wsd/http"/>

  <operation name="GetLastTradePrice">

  <wsoap:operation soapAction="http://example.com/GetLastTradePrice"/>
    <input>
      <wsoap:body/>
    </input>
    <output>
      <wsoap:body/>
    </output>
  </operation>
  </binding>
  <service name="StockQuoteService">

  <documentation>My stock quote service</documentation>

  <endpoint name="StockQuoteEndPoint" binding="tns:StockQuoteSoapBinding">

  <wsoap:address location="http://example.com/stockquote"/>
    </endpoint>
```

```
</service>  
</definitions>
```

Listing 5: WSDL 2.0 Implementation definition for Stock Quote Service