

# Services

A service groups a set of related ports together.

The name attribute provides a unique name among all services defined in the enclosing WSDL document.

Ports within a service have the following relationships:

- None of the ports communicate with each other (e.g. the output of one port is not the input of another).
- If a service has several ports that share a port type, but employ different bindings or addresses, the ports are alternatives. Each port provides semantically equivalent behavior (within the transport and message format limitations imposed by each binding).
- By examining its ports, we can determine a service's port types. This allows a consumer of a WSDL document to determine if it wishes to communicate with a particular service based on whether or not it supports several port types.



## Example

Code:

```

<definitions name="StockQuote"
    targetNamespace="http://example.com/stockquote.wsdl"
    xmlns:tns="http://example.com/stockquote.wsdl"
    xmlns:xsd1="http://example.com/stockquote.xsd"
    xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
    xmlns="http://schemas.xmlsoap.org/wsdl/">

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

    <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>

    <binding name="StockQuoteSoapBinding" type="tns: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:StockQuoteSoapBinding">
            <soap:address location="http://example.com/stockquote"/>
        </port>
    </service>

</definitions>

```

Reversed UML model:

