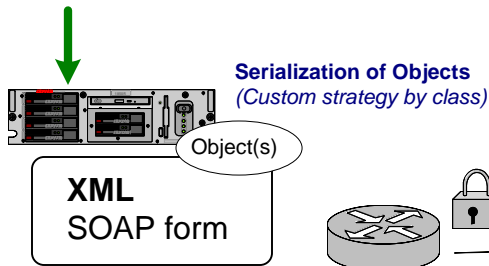
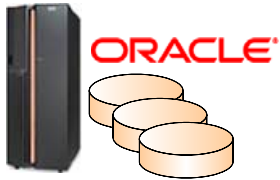


Web Services Topology - Proposal

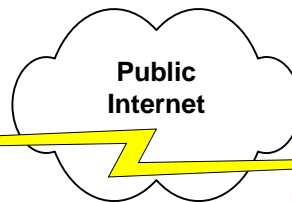
(Connecting distributed computation systems among vendor partner's heterogeneous platforms to query availability)

Provider of Availability information



Emerging web services standards such as SOAP, WSDL and UDDI will enable system-to-system integration that is easier than ever before.

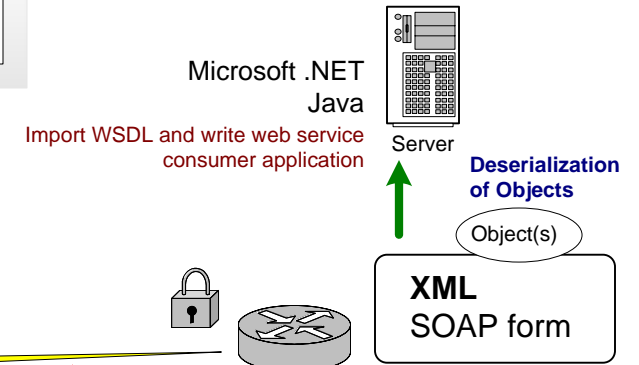
end-to-end encryption



SOAP Transport
HTTP over **SSL** (HTTPS)
TCP/IP

Simple Object Access Protocol (**SOAP**) is a XML based textual envelope protocol for exchanging messages, faults, and rules for encoding remote procedure calls (RPCs) over the Internet.

Consumer of Availability information (Registered Trading Partner)



Web Service Definition Language (WSDL)
<http://ws.xyz.com/availability.wsdl>

Request Parameter Schema:

```
<element name="ship_code" type="string" />
<element name="sail_date_from" type="string" />
<element name="sail_date_to" type="string" />
<element name="cabin_category" type="string" />
<element name="agency_type" type="string" />
<element name="product_type" type="string" />
```

Response Parameter Schema:

```
<element name="return" type="float" />
```

Encoding Style for both request and response:
<http://schemas.xmlsoap.org/soap/encoding>

Sample Response Envelope:

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsi="http://www.w3.org/1999/XMLSchema-instance"
  xmlns:xsd="http://www.w3.org/1999/XMLSchema">
  <SOAP-ENV:Body>
    <ns1:getShipAvailabilityResponse xmlns:ns1="urn:ncl-Availability"
      SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/">
      <return xsi:type="xsd:float">cabin data ... </return>
    </ns1:getShipAvailabilityResponse>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```

Sample Request envelope:

```
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/"
  xmlns:xsi="http://www.w3.org/1999/XMLSchema-instance"
  xmlns:xsd="http://www.w3.org/1999/XMLSchema">
  <SOAP-ENV:Body>
    <ns1:getShipAvailability xmlns:ns1="urn:ncl-Availability"
      SOAP-ENV:encodingStyle="http://schemas.xmlsoap.org/soap/encoding/">
      <ship_code xsi:type="xsd:string">10</ship_code>
      <sail_date_from xsi:type="xsd:string">08282004</sail_date_from>
      <sail_date_to xsi:type="xsd:string">09042004</sail_date_to>
      <cabin_category xsi:type="xsd:string"></cabin_category>
      <agency_type xsi:type="xsd:string">WHOLESALE N/D</agency_type>
      <product_type xsi:type="xsd:string">BAHAMAS-NYC</product_type>
    </ns1:getShipAvailability>
  </SOAP-ENV:Body>
</SOAP-ENV:Envelope>
```