

Web Services as DC-Tool's infrastructure for DC-Developers.

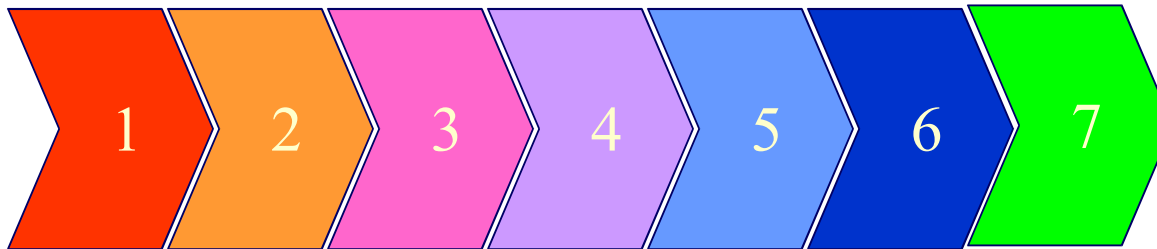
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- Problem Statement
- Different activities involved in providing services
- Web services
- SOAP-full web services
- Rest-full web services
- Architecture
- Web services for Dublin core
- Conclusion

- <http://dublincore.org/tools/> (around 45 tools).
- Description about the tools ?
- How to use ?
- Online outputs.
- Interoperability with open sources.


Activities involved in providing Service

Value chain (Michael Porter):



1:  Create

2:  Authorize

3:  Deploy

4:  Find

5:  Bind

6:  Interoperate

7:  Use

- One can describe a web service as an application component that:
 - Communicates via open protocols (HTTP, SMTP, etc.)
 - Processes XML messages
 - Describes its messages using XML Schema
 - Describes itself using WSDL
 - Find and bind using UDDI

- SOAP is XML based.
- It is a format for sending messages.
- SOAP is platform and language independent.
- example

SOAP Structure

```
<?xml version="1.0"?>
<soap:Envelope xmlns:soap="http://www.w3.org/2001/12/soap-
  envelope"
  soap:encodingStyle="http://www.w3.org/2001/12/soap-
  encoding">
<soap:Header> ... .. </soap:Header>

<soap:Body> ...
.
... <soap:Fault> ... .. </soap:Fault>

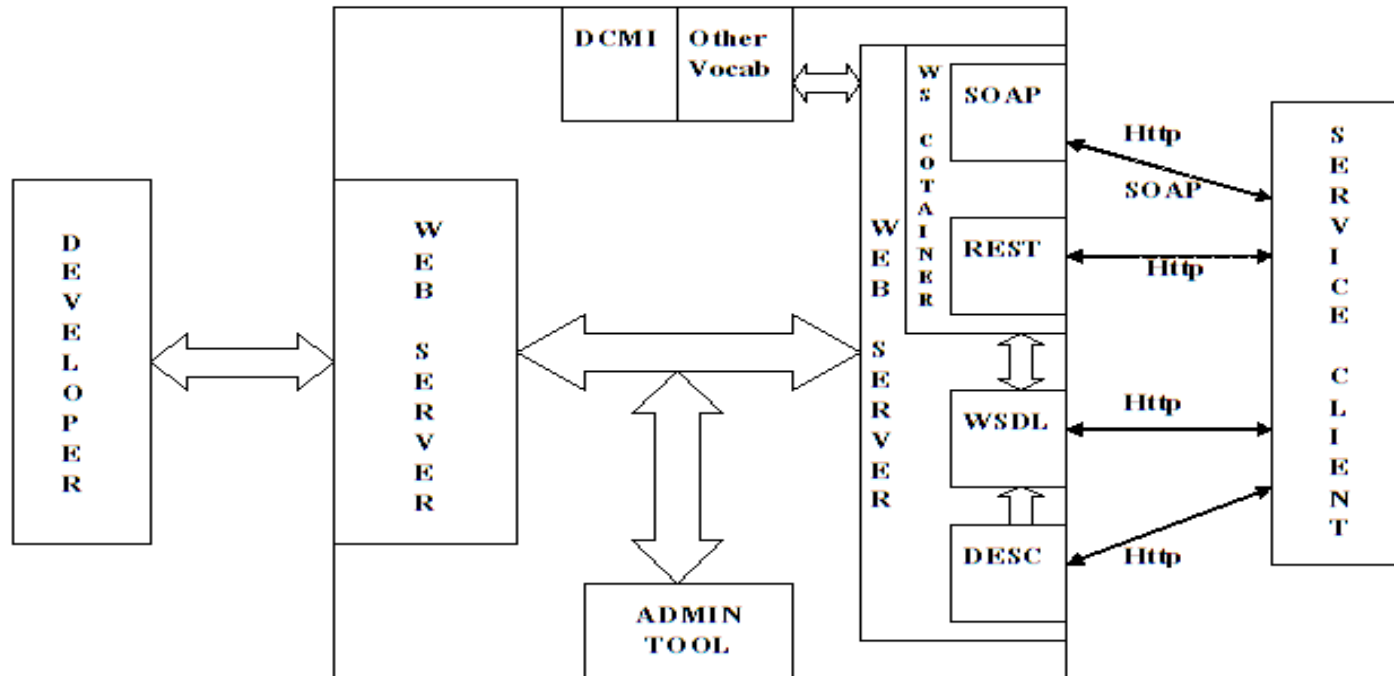
</soap:Body>

</soap:Envelope>
```

- WSDL stands for Web Services Description Language.
- WSDL is an XML document. The document describes a Web service. It specifies the location of the service and the operations (or methods) the service exposes.
- The **WSDL** defines the data type that are used by the web service.
- The **WSDL** also defines the message format and protocol details for each port.

- REST is an acronym standing for Representational State Transfer.
- REST is a term coined by Roy Fielding in his Ph.D. dissertation [1] to describe an **architecture style** of networked systems.
- REST an Architectural Style , not a standard.

DCMI SERVER



- WSDL

http://134.106.31.103:2689/axis/DC_Services.jws?wsdl

Services:

1.) get_Elements

2.) get_Elementrefs

3.) get_Elementdesc

- WSDL file:

http://134.106.31.103:2689/axis/DCMI_Services.jws?wsdl

Services:

- 1.) get DCElement
- 2.) get_DC_Alternatives
- 3.) get_DC4SOIF
- 4.) get_LeadtoDC

Lets add values to our tools by developing them as web services.

Questions and Discussion.

References:

- <http://www.dlib.org/dlib/january00/chandler/chandler-appendixB.html>
- http://www.ukoln.ac.uk/metadata/interoperability/soif_dc.html
- <http://www.schemaweb.info/webservices/RestServiceDetails.aspx#GetRDF>
- <http://www.fis.utoronto.ca/special/metadata/cmecr/DCcrosswalkNAME.html>

Thank You

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