



Using CA-IDMS as Web Service Provider

VX-IDMS/XML Processor Overview

VEGASOFT

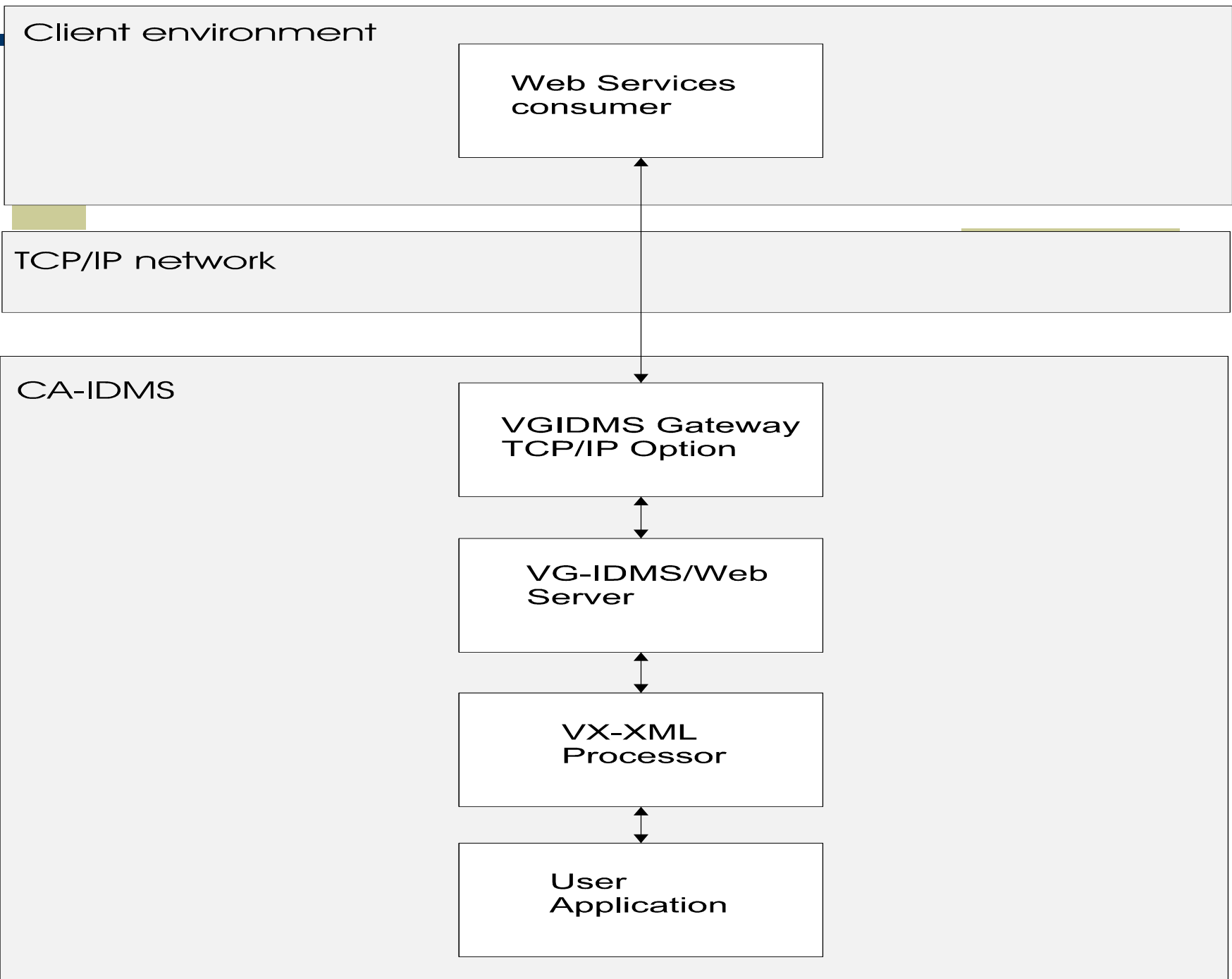


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Software Environment

- ◆ VG-IDMS Gateway TCP/IP Option
 - Accepts Web Service Consumer's requests
 - Writes the responses
- ◆ VG-IDMS/Web Server
 - Parses the HTTP request
 - Invokes XML Processor
 - Writes XML to a Consumer
- ◆ XML Processor
 - Translates between IDD records and SOAP
 - Invokes User program or dialog



Configuration

- ◆ IDD module(s)
 - language HTML
 - as MODULE SOURCE
- ◆ SOAP envelope format
- ◆ Used to generate WSDL
- ◆ Defines
 - IDD records
 - Application programs and/or dialogs

Example / 1

```
ADD MODULE TST1SERVICE VERSION IS 1  
LANGUAGE HTML  
MOD SOURCE
```

```
<??xml version="1.0" encoding="UTF 8"?>  
<Envelope><Body>  
<WWWWSCF><WWWWSCFInput>  
<Service>VEGATST1SERVICE</Service>  
<Servhost>PRODIDMS1:2001</Servhost>  
<Servtask>WWWSERV</Servtask>  
<Servdict>APPLDICT</Servdict>  
<Goptions>Y</Goptions>
```

Example / 2

<Operation>

<Recname>VEGATST1</Recname>

<Recver>1</Recver>

<Applpgm>MWWXTST</Applpgm>

<Appltyp>PGM</Appltyp>

<Options></Options>

</Operation>

<Operation>

<Recname>VEGATEST</Recname>

<Recver>1</Recver>

<Applpgm>DWWXTST</Applpgm>

<Appltyp>DIA</Appltyp>

<Options></Options>

</Operation>

Example / 3

```
</WWWWSCFInput></WWWWSCF>  
</Body></Envelope>  
MSEND
```

.

WSDL Generation

◆ URLs

- <http://host:port/wwserv/dictname/DWWWSDL.DIA?MOD=<module>>
- Basic authentication
 - <http://host:port/wwserv/dictname/DWWWSDS.DIA?MOD=<module>>

◆ WSDL2Java

- `java -cp C:\apache\wsdl2java.zip org.apache.axis.wsdl.WSDL2Java -p
vegatst1 -U idmsuser -P password
http://TESTIDMS:1692/wwservT/DICTVEGA/DWWWSDS.DIA?MOD=TST1SERVICE`

◆ WSDL.exe (.NET)

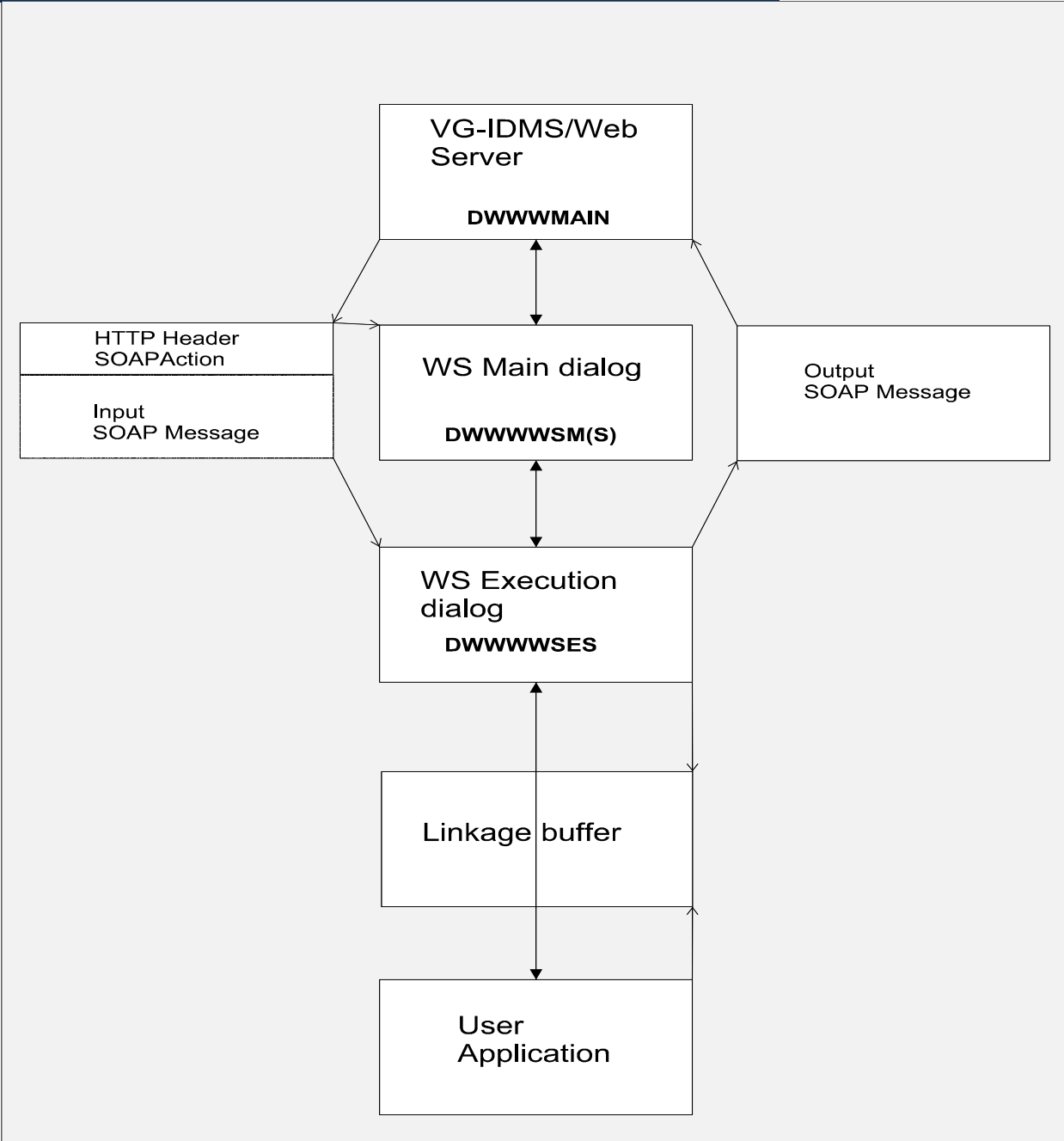
- `wsdl language:vb
http://TESTIDMS:1692/wwservT/DICTVEGA/DWWWSDS.DIA?MOD=TST1SERVICE`

Operations

- ◆ URL to invoke Web Service Provider
 - <http://host:port/taskcode/dictname/DWWWWS>
M.DIA
- ◆ URL Basic Authentication
 - <http://host:port/taskcode/dictname/DWWWWS>
MS.DIA
- ◆ SOAPAction
 - Application program or dialog

Operations

- ◆ Read application program/dialog from SOAPAction
- ◆ Read the IDD record definition in memory using IDD compiler
- ◆ Move the contents of input XML elements to the corresponding IDD record elements in the linkage buffer.
- ◆ Call the application program or dialog
- ◆ Translates the IDD record elements in the linkage buffer to the corresponding XML elements



Rules for XML to IDD Record

- ◆ For each non-occurring record element a matching XML element is required.
- ◆ For fixed occurring record element the equal number of matching XML elements are required.
- ◆ For OCCURS DEPENDING ON record element the number of matching XML elements must be equal to the DEPENDING ON field of the input SOAP message,
- ◆ XML elements for FILLER and REDEFINES record elements are not allowed.
- ◆ Empty XML element <element/> is allowed for a elementary or group level record element and causes binary zeroes in the linkage buffer.
- ◆ Any structural or data error causes a SOAP fault message.

Rules for IDD record to XML

- ◆ All non-occurring and fixed occurring record elements are translated to the corresponding XML elements
- ◆ The number of DEPENDING ON field record elements are translated to the corresponding XML elements
- ◆ Invalid packed decimal field value produces value “?” in the corresponding XML element.



Security

- ◆ Basic Authentication
 - IDMS Userid and Password required
 - IDMS Signon executed
- ◆ SSL
 - IBM AT-TLS
 - Application Transparent- Transport Layer Security
 - Encrypts communication



End of Presentation

See
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