



## PROGRAMME & DEVELOPMENT SERVICES

---

# XML Services

**Ver. 10.0**

---

Unit Test Plan for Shipment Validation Service  
(Global schema)

---





## Table of Contents

1	TEST ENVIRONMENT.....	5
1.1	XML Service Gateway Installation.....	5
1.1.1	Hardware.....	5
1.1.2	Software.....	5
1.1.3	Special Test Needs.....	5
1.2	DHLClient Installation.....	5
1.2.1	Hardware.....	5
1.2.2	Software.....	5
1.2.3	Special Test Needs.....	5
2	UNIT TEST REPORT.....	5
3	TEST CASES.....	6
3.1	Shipment Validation Service (Valid XML message with correct data).....	6
3.2	Shipment Validation Service (Malformed XML Message).....	10
3.3	Shipment Validation Service (Invalid XML Message).....	11
3.4	Shipment Validation Service (Incorrect Data XML Message).....	12
4	Notes.....	12
4.1	Shipment Validation mandatory fields and field patterns.....	12
4.2	Warnings / Error messages returned in case of incorrect data.....	12
5	DEFINITIONS.....	12
5.1	Well Formed XML.....	13
5.2	Malformed XML.....	13
5.3	Valid XML.....	13
5.4	Invalid XML.....	13
5.5	Incorrect Data XML.....	13

This Document Contains 11 numbered pages.





# 1 TEST ENVIRONMENT

## 1.1 XML Service Gateway Installation

### 1.1.1 Hardware

- Linux v6.x 64 bits
- Terminal Emulator H/W e.g. IBM PC

### 1.1.2 Software

- WebLogic 12c
- JDK 1.7
- xerces1.4

### 1.1.3 Special Test Needs

- Access to Global Ecom Gateway backend for AM region
- X Windows server should be set up.

## 1.2 DHLClient Installation

### 1.2.1 Hardware

- Windows XP Desktop or above

### 1.2.2 Software

- JDK 1.5 or above
- xerces1.4

### 1.2.3 Special Test Needs

- Client side environment needs to be set for java execution.

# 2 UNIT TEST REPORT

<b>Author</b>	: Mary Ang, Kosani Banerjee
<b>Program Name</b>	: Shipment Validation services
<b>Functionality Tested</b>	: Shipment Validation services
<b>Test Execution Procedure</b>	<p>Once the application server is up and running, open a command prompt and run the 'runDHLClient.cmd' file. The runDHLClient software should follow correct URL and file names and directory path to read request XML messages and stored response</p> <p>The following URL</p> <p style="text-align: center;"><a href="https://xmlpitest-ea.dhl.com/XMLShippingServlet">https://xmlpitest-ea.dhl.com/XMLShippingServlet</a></p> <p>is an example used for testing purpose.</p>



<b>Test Results Checking Method</b>	: The results are stored in XML format in the directory specified in the runDHLClient.cmd file.
-------------------------------------	---

### 3 TEST CASES

#### 3.1 Shipment Validation Service (***Valid XML message with correct data***)

S.No.	Condition to be Tested	Expected Result
1.	Run the runDHLClient.cmd file to send a valid AP shipment validation request for international shipment with request of 2 pieces with piece segment defined and label image output.  <a href="#">01 ShipmentValidateRequest Global AP RegularShpmt.xml</a>	Shipment Validate response is received and stored in the specified directory.  <a href="#">01 ShipmentValidateResponse Global AP RegularShpmt.xml</a>
2.	Run the runDHLClient.cmd file to send a valid EU shipment validation request for international shipment with request of 2 pieces with piece segment defined and label image output.  <a href="#">02 ShipmentValidateRequest Global EU RegularShpmt.xml</a>	Shipment Validate response is received and stored in the specified directory.  <a href="#">02 ShipmentValidateResponse Global EU RegularShpmt.xml</a>
3.	Run the runDHLClient.cmd file to send a valid AP shipment validation request with Paperless shipment request  <a href="#">03 ShipmentValidationRequest Global AP PLTShipment.xml</a>	Shipment Validate response is received and stored in the specified directory.  <a href="#">03 ShipmentValidationResponse Global AP PLTShipment.xml</a>
4.	Run the runDHLClient.cmd file to send a valid EU shipment validation request with Paperless shipment request  <a href="#">04 ShipmentValidationRequest Global EU PLTShipment.xml</a>	Shipment Validate response is received and stored in the specified directory.  <a href="#">04 ShipmentValidationResponse Global EU PLTShipment.xml</a>
5.	Run the runDHLClient.cmd file to send a valid AM shipment validation request with Paperless shipment request  <a href="#">05 ShipmentValidationRequest Global AM PLTShipment.xml</a>	Shipment Validate response is received and stored in the specified directory.  <a href="#">05 ShipmentValidationResponse Global AM PLTShipment.xml</a>



S.No.	Condition to be Tested	Expected Result
6.	Run the runDHLClient.cmd file to send a valid AM shipment validation request with regular shipment request with selected label template and customer's logo image.  <a href="#">06_ShipmentValidationRequest_Global_AM_Shipment_LabelTemplateCustLogo.xml</a>	Shipment Validate response is received and stored in the specified directory.  <a href="#">06_ShipmentValidateResponse_Global_AM_Shipment_LabelTemplateCustLogo.xml</a>
7.	Run the runDHLClient.cmd file to send a valid AM shipment validation request with Advance Shipment request with selected label template and customer's logo image.  <a href="#">07_ShipmentValidateRequest_Global_AM_AdvanceShipment.xml</a>	Shipment Validate response is received and stored in the specified directory.  <a href="#">07_ShipmentValidateResponse_Global_AM_AdvanceShipment.xml</a>
8.	Run the runDHLClient.cmd file to send a valid AP shipment validation request with Advance Shipment request with selected label template and customer's logo image.  <a href="#">08_ShipmentValidateRequest_Global_AP_AdvanceShipment.xml</a>	Shipment Validate response is received and stored in the specified directory.  <a href="#">08_ShipmentValidateResponse_Global_AP_AdvanceShipment.xml</a>
9.	Run the runDHLClient.cmd file to send a valid EU shipment validation request with Advance Shipment request with selected label template and customer's logo image.  <a href="#">09_ShipmentValidateRequest_Global_EU_AdvanceShipment.xml</a>	Shipment Validate response is received and stored in the specified directory.  <a href="#">09_ShipmentValidateResponse_Global_EU_AdvanceShipment.xml</a>
10.	Run the runDHLClient.cmd file to send a valid AM shipment validation request with Paperless shipment request and require ODD Link option  <a href="#">10_ShipmentValidateRequest_Global_AM_PLTShipment_WithODDLinkReq.xml</a>	Shipment Validate response is received and stored in the specified directory.  <a href="#">10_ShipmentValidateResponse_Global_AM_WithODDLinkReq.xml</a>



S.No.	Condition to be Tested	Expected Result
11.	Run the runDHLClient.cmd file to send a valid AP shipment validation request with Paperless shipment request and require ODD Link option.  <a href="#">11 ShipmentValidateRequest Global AP PLTShipment WithODDLinkReq.xml</a>	Shipment Validate response is received and stored in the specified directory.  <a href="#">11 ShipmentValidateResponse Global AP WithODDLinkReq.xml</a>
12.	Run the runDHLClient.cmd file to send a valid EU shipment validation request with Paperless shipment request and require ODD Link option.  <a href="#">12 ShipmentValidateRequest Global EU PLTShipment WithODDLinkReq.xml</a>	Shipment Validate response is received and stored in the specified directory.  <a href="#">12 ShipmentValidateResponse Global EU WithODDLinkReq.xml</a>
13.	Run the runDHLClient.cmd file to send a valid EU shipment validation request with Customer Barcode Text and using Customer Barcode label template.  <a href="#">13 ShipmentValidateRequest Global EU CustomerBarcodeText.xml</a>	Shipment Validate response is received and stored in the specified directory.  <a href="#">13 ShipmentValidateResponse Global EU CustomerBarcodeText.xml</a>
14.	Run the runDHLClient.cmd file to send a valid EU shipment validation request with Dangerous Goods items.  <a href="#">14 ShipmentValidateRequest Global EU DangerousGoods.xml</a>	Shipment Validate response is received and stored in the specified directory.  <a href="#">14 ShipmentValidateResponse Global EU DangerousGoods.xml</a>
15	Run the runDHLClient.cmd file to send a valid regular request with Shipment Document Reference and Document Type Name.  <a href="#">15 ShipmentRequest EU WithShpDocRef DocTypeName.xml</a>	Shipment Validate response is received and stored in the specified directory.  <a href="#">15 ShipmentResponse EU WithShpDocRefDocTypeName.xml</a>
16	Run the runDHLClient.cmd file to send a valid request with estimated tariff returned.  <a href="#">16 ShipmentValidateRequest EU GetPrice Estimate Y.xml</a>	Shipment Validate response is received and stored in the specified directory.  <a href="#">16 ShipmentValidateResponse EU GetPriceEstimate Y.xml</a>





S.No.	Condition to be Tested	Expected Result
17	Run the runDHLClient.cmd file to send a valid request with no estimated tariff returned.  <a href="#">17 ShipmentValidateRequest EU GetPrice Estimate_N.xml</a>	Shipment Validate response is received and stored in the specified directory.  <a href="#">17 ShipmentValidateResponse EU GetPriceEstimate_N.xml</a>
18	Run the runDHLClient.cmd file to send a valid PLT shipment request with VAT22 related fields.  <a href="#">18 ShipmentValidation v10.0 US-DE request.xml</a>	Shipment Validate response is received and stored in the specified directory.  <a href="#">18 ShipmentValidation v10.0 US-DE response.xml</a>
19	Run the runDHLClient.cmd file to send a valid Labelless shipment request which request QR code.  <a href="#">19 ShipmentValidation v10.0 RequestQR Code request.xml</a>	Shipment Validate response is received and stored in the specified directory.  <a href="#">19 ShipmentValidation v10.0 RequestQR Code response.xml</a>
20	Run the runDHLClient.cmd file to send a valid Labelless shipment request which request QR code and accepts LID.  <a href="#">20 ShipmentValidation v10.0 RequestQR Code LID request.xml</a>	Shipment Validate response is received and stored in the specified directory.  <a href="#">20 ShipmentValidation v10.0 RequestQR Code response.xml</a>



### 3.2 Shipment Validation Service (**Malformed XML Message**)

Sl. No:	Condition to be Tested	Expected Result
1.	<p>Run the runDHLClient.cmd file to send a malformed AP Shipment validation Request for International (Dutiable). E.g. remove the end tag for 'Piece'</p> <p><a href="#">M1_ShipmentValidateRequest_Global_AP_MalFormed.xml</a></p>	<p>Error response is received and stored in the specified directory. The XML has error condition code and condition data. In this case the error message will be like <i>'Error in parsing request XML:The element type &amp;quot;Piece&amp;quot; must be terminated by the matching end-tag &amp;quot;&amp;lt;/Piece&amp;gt;&amp;quot;.'</i></p> <p><a href="#">M1_ErrorResponse_Global_AP_MalFormed.xml</a></p>
2.	<p>Run the runDHLClient.cmd file to send a malformed EU Shipment validation request. E.g. remove the end tag of the root element of request message</p> <p><a href="#">M2_ShipmentValidateRequest_Global_EU_MalFormed.xml</a></p>	<p>Error response is received and stored in the specified directory. The XML has error condition code and condition data. In this case the error message will be like. <i>'Error in parsing request XML:The element type &amp;quot;req:ShipmentRequest&amp;quot; must be terminated by the matching end-tag &amp;quot;&amp;lt;/req:ShipmentRequest&amp;gt;&amp;quot;.'</i></p> <p><a href="#">M2_ErrorResponse_Global_EU_MalFormed.xml</a></p>



### 3.3 Shipment Validation Service ([Invalid XML Message](#))

Sl. No.	Condition to be Tested	Expected Results
1	<p>Run the runDHLClient.cmd file to send an invalid Shipment validation request. Example:</p> <p>Provide invalid RegionCode element value.</p> <p><a href="#">Invalid1 Incorrect RegionCode Request.xml</a></p>	<p>Error response is received and stored in the specified directory. The XML has error condition code and data. In this case the error message will be like <i>'Error in parsing request XML:Error: Datatype error: In element 'RegionCode':</i></p> <p><i>Value 'US' must be one of [AP, EU, AM]. at line 15, column 30.</i></p> <p><a href="#">Invalid1 ErrorResponse .xml</a></p>
3	<p>Run the runDHLClient.cmd file to send an invalid regular request with Consignee's &lt;CompanyName&gt; element value with exceeded the maximum length allowed.</p> <p><a href="#">Invalid1 Exceed CompanyName Request.xml</a></p>	<p>Error response is received and stored in the specified directory. The XML has error condition code and E.g. data. In this case the error message will be like <i>'Error in parsing request XML:Error: Datatype error: In element 'CompanyName':Value 'IBM Malaysia Sdn Bhd IBM Malaysia Sdn Bhd IBM Malaysia Sdn Bhd IBM Malaysia Sdn Bhd' with length '83' exceeds maximum length facet of '60'.. at line 23, column 114</i></p> <p><a href="#">Invalid2 ErrorResponse .xml</a></p>



### 3.4 Shipment Validation Service ([Incorrect Data XML Message](#))

Sl. No:	Condition to be Tested	Expected Result
1.	Run the runDHLClient.cmd file to send a AP shipment validation request with valid service details and invalid global product code or local product code values.  <a href="#">Incorrect1_ShipmentValidateRequest_WithInvalidProductandValidServiceReq.xml</a>	Shipment validate error message is received and saved in specified directory. The XML has error condition code and condition data from DCT. In this case the condition code reads, as 'Error in parsing request XML:Error: Datatype error: In element 'GlobalProductCode': Value '@' does not match regular expression facet '([A-Z0-9])*..' at line 84, column 44.  <a href="#">ErrorResponse_ShipmentValidateResponse_WithInvalidProductandValidServiceRes.xml</a>
2.	Run the runDHLClient.cmd file to send a AP shipment validation request with Paperless Trade Request with invalid service details and valid product code values.  <a href="#">Incorrect2_ShipmentValidateRequest_WithValidProductandInvalidServiceReq.xml</a>	Shipment validate error message is received and saved in specified directory. The XML has error condition code and condition data from DCT. In this case the condition code reads, as 'The requested Special Service Codes @@ is not available. Please make sure data entered is valid before proceeding or contact our customer service.'  <a href="#">ErrorResponse_ShipmentValidateResponse_WithValidProductandInvalidServiceRes.xml</a>

## 4 Notes

### 4.1 Shipment Validation mandatory fields and field patterns

Please refer to section 'Shipment Validation Request' of [XMLServices10.0\\_ShipmentValidationService.pdf](#) for details of all mandatory fields and acceptable values for all Shipment Validation Request messages.

### 4.2 Warnings / Error messages returned in case of incorrect data

Please refer to section 'Shipment Validation' – region specific of [Reference\\_Data.xls](#) document - <Error Messages> tab sheet, for details of all warnings and error messages received in case of incorrect data.

## 5 DEFINITIONS



## **5.1 Well Formed XML**

A "Well Formed" XML document is a document that conforms to the XML syntax rules.

## **5.2 Malformed XML**

XML document, which does not conform to XML syntax rules, is called as "Malformed" XML.

## **5.3 Valid XML**

A "Valid" XML document is a "Well Formed" XML document, which also conforms to the rules of a Document Type Definition (DTD) or XML schema.

## **5.4 Invalid XML**

An "Invalid" XML document is a "Well Formed" XML document, which does not conform to the rules of a Document Type Definition (DTD) or XML schema specified for the same.

## **5.5 Incorrect Data XML**

An "Incorrect Data XML" is a valid XML document, which has data that does not conform to business rules of DHL backend services.

E.g. The acceptable shipment date range is from current date or date up to next ten days. If the shipment date does not fall into this date range, then an error message is received.

~0~