

PROGRAMME & DEVELOPMENT SERVICES

XML Services

Ver. R3.4.0

Reference Document – Shipment Preparation Guide

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Revision History

XML Services version	Release Date	Comments
R3.4.0	11th Oct 2026	Update to use ExportDeclarations array instead of ExportDeclaration.

1 Introduction

This document explains how to prepare the shipment request for specific scenarios that customers may encounter.
The ones highlighted in this document are:

Paperless Trade (PLT)
Label Utility
Break-Bulk Express (BBX)
Label-Free (QR code)
Dangerous Goods
Link Labels by Pieces

2 Paperless Trade (PLT) Functionality

2.1 Types of Shipment

PLT only applies to customs declarable shipments, so for domestic shipping or intra-EU shipping the PLT concept doesn't apply.

There are two ways to prepare customs declarable shipments:

i. Non-Paperless Trade (non-PLT) shipments
ii. Paperless Trade (PLT) shipments

Non-PLT shipments require a physical hardcopy of the commercial invoice and waybill document to accompany the physical shipment. Typically this requirement is to satisfy regulatory compliance at origin or destination.

PLT shipments permit an electronic copy of the commercial invoice and waybill document to accompany the shipment, thus avoiding the need for the shipper to print a commercial invoice and waybill doc and handover with the physical shipment. DHL Express staff or third parties accepting the shipment refer to the PLT indicator on the transport label to determine whether or not to require the printed paperwork from the shipper.

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Please refer to the following Reference documents in Toolkit\documents\ReferenceDocuments directory for global schema of the XML Services Shipment Validation service:

- XMLServices10.0.15_ShipmentValidationService.pdf

2.3 How to prepare a PLT Shipment

To indicate a shipment is PLT, include the WY special service code in the shipment request.

Element located in SpecialService segment at /req:ShipmentValidateRequest/SpecialService/SpecialServiceType.

Example:
<SpecialService>
<SpecialServiceType>WY</SpecialServiceType>
</SpecialService>

Shipment Request characteristics for using PLT are:

1. Commercial Invoice image available with the shipment request, either:
    a. Use the DHL generated commercial invoice image where the data provided in the ExportDeclarations element will be used to render the commercial invoice on a DHL managed template, or <UseDHLInvoice>Y</UseDHLInvoice>

    b. Include a shipper provided commercial invoice image in the shipment request where <DocImages> element contains the commercial invoice or other supporting document images required for Customs clearance. The images must be base64 encoded (not as an embedded image file of some kind). The image file type which has been encoded must also be defined here.
    Element located at /req:ShipmentRequest/DocImages.

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Example:
<DocImages>
<DocImage>
<Type>CIN</Type>
<Image>IG9iago8PC9MZW5ndGggNiAwIFIvRmlsdGVyICF</Image>
<ImageFormat>PDF</ImageFormat>
</DocImage>
</DocImages>

2. The shipment is customs declarable, indicated with the Dutiable flag:

   Element located at
   /req:ShipmentValidateRequest/ShipmentDetails/IsDutiable

   Example:
   <IsDutiable>Y</IsDutiable>

3. <GlobalProductCode> element must contain value of global product code which is dutiable (non-doc) product and supported PLT capability

The customer must include functionality in their application which creates the XML Services Shipment Validation Requests to encode the image files submitted in base64. There is no encoding functionality provided in the XML Services Tool Kit.

The customer submits the Shipment Validation Request to DHL in the same way as for a regular shipment and will receive a response in the same way.
If a success response is received with an element <PLTStatus> populated with A then the response can be used to create the Air Waybill shipment label. The resulting Air Waybill label will include PLT in reverse video on the Services section.

2.4 Optional features to prepare a PLT Shipment

In the scenario where customs paperwork is not available at the time of shipment processing a shipment still can be indicated as Paperless Trade.
For this to indicate the customer must include the 'PK' special service code in the shipment request.

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Element located in SpecialService segment at
/req:ShipmentValidateRequest/SpecialService/SpecialServiceType.

Example:
<SpecialService>
<SpecialServiceType>PK</SpecialServiceType>
</SpecialService>

The shipment can then be processed without the DocImages element.
This obliges the customer to provide the digital commercial invoice image in as separate transmission.

Note: Approval to use the PK service code must be obtained from DHL Representative

In case the origin or destination country does not support paperless trade, an error message is returned, and the shipment will not be created. The shipment request then must be performed without the 'WY' special service code in the shipment request. For customers with high volume automated shipping warehouse processes, it is possible to bypass the error message and still get a successful response for the shipment request. This can be done by adding <BypassPLTError>Y</BypassPLTError> to the shipment request.
For non-PLT lanes a warning message will be returned:

<ConditionData>Please note on printing the hardcopy of all the shipment paperwork and affix it to the package.</ConditionData>

The resulting Air Waybill label will include ADI (Automated Digital Imaging) in reverse video on the Services section.
Customs paperwork must be printed and affixed to the package for these shipments.
Note: Approval to use the ByPassPLTError option must be obtained from DHL Representative

3 BBX Functionality

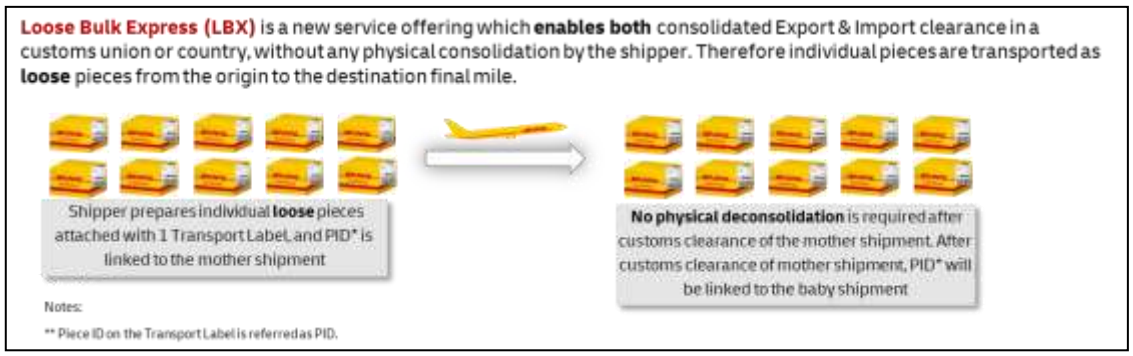
3.1 Definition

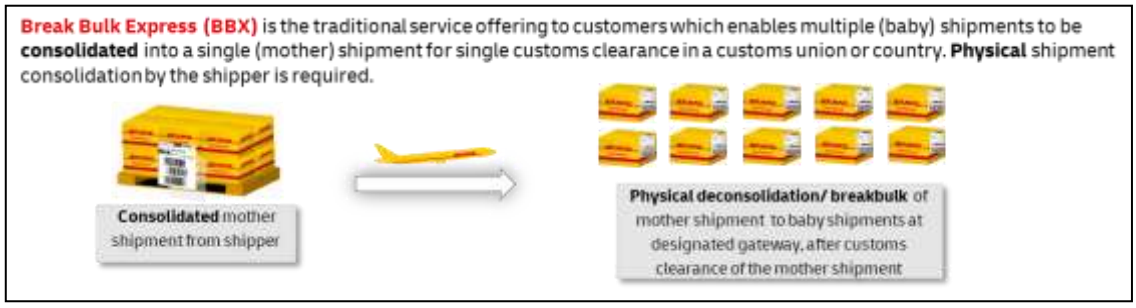
BBX consists of a 'Mother' shipment which is cleared as one single shipment on entry to the nominated country/region of import. The mother will contain multiple 'Baby' shipments consigned to different receivers belonging to the same customs zone.

BBX can be either a physical consolidation (palletized BBX) or logical consolidation only (loose BBX). Both styles have the same consolidation of the mother level for export/import clearance and use the same products but different service codes.

The same logical process should be followed for Loose BBX and Palletized BBX however there are few minor differences, namely:

a. Transport label templates
b. Special services codes
c. Mother pieces (only used for palletized)





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Both BBX and LBX service require approval from relevant DHL teams before they can be deployed. Ask your DHL representative to confirm that approvals have been obtained before commencing development.

3.2 How to prepare a Traditional/Palletized BBX shipment

The overall process for Palletized BBX is as follows:

1. Start Consolidation- you'll need a mother AWB assigned at this point and store it locally so it can be applied to all baby shipments
    a. Obtain a Parent ShipmentID/Mother AWB (SID) by calling MyDHL API requestIdentifier service
    b. Fetch a Parent Piece Identifier(s) (PID) by calling MyDHL API requestIdentifier service
    c. Note both SID and PID can be fetched in the same message request/response
    d. Each destination customs zone represents a single consolidation
        i. To prepare multiple consolidations (i.e. destination EU, destination UK), each consolidation will have its own mother AWB.
2. Create baby shipments
    a. <Shipper> and <Consignee> section must contain the Baby Shipment's details
    b. <GlobalProductCode> must contain value of 'B'
    c. <ParentShipmentGlobalProductCode> must contain the Parent Shipment's Global product code (typically 'P')
    d. If <ParentShipmentGlobalProductCode> is H for ESI, then <SpecialServiceType> element must contain value of 'YX'
    e. References to the mother shipment
        i. <ReferenceType> must contain value of 'ACL'
        ii. <ReferenceID> must contain the Parent Shipment ID/ mother AWB (this is required for the Parent AWB number to print on the baby shipment transport label and waybill doc)
        iii. <ParentShipmentIdentificationNumber> must contain the Parent Shipment ID/ mother AWB obtained from Step 1
    f. References to the mother piece
        i. <ReferenceType> element must contain value of 'ACL'
        ii. <ReferenceID> element must contain the corresponding Parent Piece ID/ mother PieceID
        iii. <ParentPieceIdentificationNumber> element must contain the corresponding Parent Piece ID/ mother PieceID
3. Calculate totals of all baby shipments in the consolidation

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4. Create Mother Shipment (Close Consolidation)
    a. <GlobalProductCode>P</GlobalProductCode>
    b. <SpecialServiceType> must contain value of 'YW'
    c. Consignee Address is DHL's deconsolidation address. It will be the DHL Destination Gateway facility and required details can be obtained from DHL Representative.
    d. <ShipmentIdentificationNumber> populated with mother AWB number/ShipmentID
    e. <UseOwnShipmentIdentificationNumber>Y</UseOwnShipmentIdentificationNumbe
    f. <PieceIdentificationNumber> populated with mother PieceID (this is required for the Parent PieceID number to print on the baby shipment transport label and waybill doc)
    g. <UseOwnPieceIdentificationNumber>Y</UseOwnPieceIdentificationNumber>

3.3 How to prepare a Loose BBX shipment

The overall process for Loose BBX (LBX) is as follows:

1. Start Consolidation- you'll need a mother AWB assigned at this point and store it locally so it can be applied to all baby shipments
    a. Obtain a Parent ShipmentID/Mother AWB (SID) by calling MyDHL API requestIdentifier service
    b. Fetch a Parent Piece Identifier(s) (PID) by calling MyDHL API requestIdentifier service
    c. Note both SID and PID can be fetched in the same message request/response
    d. Each destination customs zone represents a single consolidation
        i. To prepare multiple consolidations (i.e. destination EU, destination UK), each consolidation will have its own mother AWB.
2. Create baby shipments
    a. <Shipper> and <Consignee> section must contain the Baby Shipment's details
    b. <GlobalProductCode> must contain value of 'B'
    c. <ParentShipmentGlobalProductCode> must contain the Parent Shipment's Global product code (typically 'P')
    d. <Importer Element> must contain the importer of the shipment. This information is the same as the consignee element of the mother shipment.
    e. <SpecialServiceType> element must contain value of 'YZ'

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f. <LabelTemplate> element must contain **one** of the following values: -
   i. '8X4_LBBX_PDF' (PDF output format)
   ii. '8X4_LBBX_thermal' (thermal output format)
   iii. 'ECOM26_64_LBBX_001' (PDF or thermal output format)
g. References to the mother shipment
   i. <ReferenceType> must contain value of 'ACL'
   ii. <ReferenceID> must contain the Parent Shipment ID/ mother AWB (this is required for the Parent AWB number to print on the baby shipment transport label and waybill doc)
   iii. <ParentShipmentIdentificationNumber> must contain the Parent Shipment ID/ mother AWB obtained from Step 1

3. Calculate totals of all baby shipments in the consolidation
4. Create Mother Shipment (Close Consolidation)
   a. <GlobalProductCode>P</GlobalProductCode>
   b. <Piece> element of the mother shipment will be the same as the piece ids against LBX (baby) shipments
   c. <SpecialServiceType> must contain value of 'YM' and 'WY'
   d. <Shipper> element section must contain the Baby Shipment's details
   e. <Consignee> element for the mother shipment is also known as the DHL Import Point of Entry. It will be the DHL Destination Gateway facility and required details can be obtained from DHL Representative.
   f. <ShipmentIdentificationNumber> populated with mother AWB number/ShipmentID
   g. <UseOwnShipmentIdentificationNumber>Y</UseOwnShipmentIdentificationNumbe
   h. <ParentShipmentPackagesCount> element must contain the Parent Shipment's total number of pieces
   i. Request for DHL Customs Invoice by indicating <RequestDHLCustomsInvoice> with value 'Y' and setting <CustomsInvoiceTemplate> with new template name 'COMMERCIAL_INVOICE_04'.

4 Label-Free Functionality

4.1 Definition

Label-Free functionality is to allow pick-up of shipments without a multi-ply or a printed transport label and waybill being available.

A QR Code will be provided to the shipper which can be scanned directly from their mobile devices as a replacement of hardcopy shipment transport label.

The QR Code will be used as a digital representative of shipment details, with information to facilitate customer contact points for drop-off or courier pick-up of shipment.

There are two ways to utilize the Label-Free functionality – 1) to receive a QR Code in response.

4.2 How to prepare a Label-Free shipment to receive QR Code

Customer may prepare a Label-Free shipment and receive a QR Code for scanning upon pick-up or dropoff.

1. Customer sends the ShipmentRequest message with mandatory fields
    a. The <RequestQRCode> and <RequestTransportLabel> elements must contain value 'Y'
    b. <SpecialService/SpecialServiceType> element must contain value of 'PZ'
    c. <SpecialService/SpecialServiceType> element must contain any one advance shipment special service type PT / PU / PV / PW. Providing more than one advance shipment special service code will result to error in response.
    d. <ShipmentRequest/SpecialService/**SpecialServiceType**> element must contain the Paperless Trade service value of 'WY'.
    Note: Paperless Trade service may not be available everywhere).

    Refer to section 2.3 for PLT shipment preparation guide.

2. <QRCodeImageFormat> element must contain value 'PNG'.

3. <QRCodeTemplate> element must contain value 'QR_1_00_LL_PNG_001'.

4. Customer receives ShipmentResponse message containing QR Code image in ShipmentRespose/Pieces/Piece/QRCode/Image element. Customer may use the QR Code to be scanned upon courier pick-up or dropoff at a Service Center.

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5 Dangerous Good shipment

5.1 How to prepare a Dangerous Goods shipment

The <ShipmentRequest/DGs> section indicates if there is dangerous good content within the shipment.
The <DG_ContentID> node contains the Content ID for Dangerous Good classification.

It is required to provide the dangerous good Content ID for every dangerous good special service provided, and vice versa.

For the complete list of dangerous goods Content IDs and dangerous goods special services combinations, refer to Reference_Data.xlsx - <DangerousGoods> tab sheet.
Note: Please contact your DHL Express IT representative if additional assistance is required.

For dangerous goods shipment with Dry Ice example: UN1845 (Content ID – 901), additional node must be populated <DG_NetWeight>.

For dangerous goods shipment with “Excepted Quantities”, “UNCodes” is optional to be provided in request message.

Few scenarios guideline to prepare a Dangerous Goods shipment for:
A) Dry Ice:

1. <SpecialService/SpecialServiceType> element must contain value of ‘HC’
2. <DG/DG_ContentID> element consists of ‘901’
3. <DG/DG_NetWeight> element consists of the total net weight of the dry ice in <DG/DG_UOM> unit of measurement

B) Lithium Battery:

1. <SpecialService/SpecialServiceType> element must contain value of ‘HD’, ‘HM’, ‘HV’
   or ‘HW’
2. <DG/DG_ContentID> element consists of ‘966’, ‘969’, ‘967’, ‘970’ respectively

C) Excepted Quantities:

1. <SpecialService/SpecialServiceType> element must contain value of ‘HH’
2. <DG/DG_ContentID> element consists of ‘E01’

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3. Optional field: <DG/DG_UNCodes/DG_UNCode> element consists of the UN code associate with it.

New optional field <PackagesCount> indicates the total number of packages that contain the specified Dangerous Goods type.

The <CustomDescription> node contains the customized Dangerous Goods statement to declare contents accurately. The <CustomDescription> node value will be displayed in the Transport Label and Waybill Document, replacing the default IATA Dangerous Goods statement constructed based on <ContentID > node.

Multiple <CustomDescription> nodes from multiple <DangerousGoods> Content nodes will be concatenated using comma separator with combined maximum limit of 1000 characters.

It is recommended to use <CustomDescription> for entire shipment for each DangerousGoods Content to fully utilize <CustomDescription> printout in Transport Label and Waybill Document.

Notes:
For <CustomDescription> usage, ensure all <Content> segments are including the <CustomDescription> field value.

Any of the DangerousGoods Content does not provide with <CustomDescription> field value will be ignored from printing in Transport Label and Waybill Document.

6 Link Labels by Pieces

5.1 How to have request additional piece of information in Label Image level

Shipment Validation response is returned with Transport Label(s) image in base64 format. Customers are required to print and stick these images to the correct packages as declared in the Shipment Validation service request message.

To have shipment response return additional piece information in label image level which will help in matching the pieces and the respective label images: -

1. The <LinkLabelsByPieces> element must contain ‘Y’ AND
2. The <SinglePieceImage> element must contain ‘Y’ AND

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3. All </Pieces/Piece/PieceID> must have unique values from 1 to 999.

When all the above conditions are fulfilled, the new </MultiLabels/MultiLabel/PieceNumber> element will be returned.

Besides that, the existing </MultiLabels/MultiLabel/DocName> element will have values updated as well.
For Transport Label(s), it will have value ‘label’.
For Waybill Document, it will have value ‘waybillDoc’.

Additionally, the existing </Pieces/Piece/PieceNumber> element will have behavior changed as well.
PieceNumber element will return the same value as provided for Shipment Validation Service request </Pieces/Piece/PieceID> element.

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6 Appendix A: Glossary of Terms

Term	Definition
PLT	Paperless Trade: functionality to allow submission of paperwork for Customs clearance to be submitted to DHL electronically rather than printing and affixing it to the corresponding shipment. Only available where both shipment origin and destination Customs authorities do not mandate use of printed documentation PLT is not required if a shipment is not dutiable (i.e. does not need to be declared to Customs)
Non-Paperless Trade	Shipment where PLT is not used, either where it is dutiable and printed Customs documentation is attached to the shipment or where the shipment is not dutiable
BBX	BreakBulk Shipment
LBBX	Loose BreakBulk Shipment
DG	Dangerous Good

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