

DDO

# Technical Specification (XML)

12 NOVEMBER 2021

# Authorisation

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1.10	20 July 2007	Document rebranded following the launch of VocaLink
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1.30	12 November 2021	Baselined version.

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# 1 About this specification

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This specification provides information about the content of the DDO (Direct Debit Originators) extract provided through the DDO service.

The DDO contains details of all Direct Debit originators. The data on the extract can be used for the resolution of customer queries relating to Direct Debits.

This specification relates to the XML extract of the DDO that is available to customers for download from payment services.

The DDO extract is provided by Vocalink Limited under licence from Pay.UK Limited.

## 2 DDO contents

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This section describes the contents of the DDO XML extract. For details of the size and format of the data, see the XML schema: DDO\_Extract\_Schema; Global\_Schema. For copies of these schema contact the service desk. The schema version date is contained within the schema, and you should always ensure you are using the latest version.

The extract has about 58,000 records and the XML file will be approximately 50 MB. Note that when the extract is downloaded from the payment services website, it is compressed in a zip file that is approximately 3 MB. In the extract, all tags in the hierarchy display. In the case of an empty field, the data are shown with empty tags. Records are in user number order, with user number detail preceding that for account level.

XML tag		Details of contents
Service user		
LastAmendedDate		Date the record was last amended, in the format yyyy-mm-dd.
ServiceUserNumber		Originator identification number (service user number).
ServiceUserName		Service user name.
Originator – Scheme administrator details		
AddresseeName		Address of the scheme administrator.
PostalName		
AddressLine1		
AddressLine2		
CityOrTown		
AreaOrCounty		
PostCodeOutcode		
PostCodeIncode		
ZipCode		
Country		
InternationalPrefix		Telephone number of the scheme administrator.
Std		
Number		

XML tag	Details of contents
InternationalPrefix	Fax number of the scheme administrator.
Std	
Number	
Originator – User administrator details	
AddresseeName	Address of the user administrator.
PostalName	
AddressLine1	
AddressLine2	
CityOrTown	
AreaOrCounty	
PostCodeOutcode	
PostCodeIncode	
ZipCode	
Country	
SponsorsBankCode	The bank code of the service user's sponsor.
TelecomStatus	Processing status of the user (live or test). Will be either <b>L</b> (live) or <b>T</b> (test).
NonTelecomStatus	No longer used.
AUDDISStatus	AUDDIS status of the user: whether the service user uses AUDDIS to lodge DDIs. Will be either <b>L</b> (live), <b>M</b> (migrate), <b>T</b> (test) or <b>N</b> (no).
PriorNotificationPeriod	Prior notification period. The number of days notice required of changes to the amount of the Direct Debit or date of collection.
DormancyPeriod	Dormancy period. The number of months after which an inactive DDI should be dropped paying Payment Service Providers' (PSP) systems. 999 means the DDI is indefinite.
MarketSegment	No longer used.
AmalgamationFlag	Amalgamation flag. Whether the originator may amalgamate payment collections under the same reference number. Will be either <b>Y</b> (yes) or <b>N</b> (no).
Account	
LastAmendedDate	Date the record was last amended, in the format yyyy-mm-dd.

XML tag	Details of contents
SortCode	Sorting code
AccountType	Type of account. Will be either <b>I</b> (individual) or <b>X</b> (group individual).
AccountName	Account name



## 3 Converting XML to heritage

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This section details how to map fields to convert the XML extract to the heritage format. It also details what data transformation may be required.

For the purposes of this section "XML" refers to the DDO extract in XML format, and "heritage" refers to the DDO in the format it has previously been provided in; flat file as either comma delimited or fixed width.

### 3.1 *Field differences*

The following sections describe the fields that differ between the XML and heritage formats.

#### 3.1.1 **Record types**

In XML, there are no record type indicators; in heritage the start of an originator record is indicated by an "O" character, and the start of an account record is indicated by an "A" character.

#### 3.1.2 **Service user number**

In XML, the service user number is quoted once for; in heritage it is quoted in the originator record and in each account record.

#### 3.1.3 **Telephone differences**

In XML, telephone/fax number is made up of 3 fields; in heritage the telephone/fax number is 1 field. For details of how to use this field when creating a heritage format, see "Transformation details" on page 22.

#### 3.1.4 **Other differences**

The following are other differences between the two formats:

- In XML, the fields are not necessarily in the same order as those in heritage.
- In XML, record padder characters "^" are not used.
- In XML, "&" are not used to mark the end of a record.
- In XML, the dates are in the format yyyy-mm-dd; in heritage they are in the format DDMMYY.

## 3.2 Field mapping

In the following table:

- The element column specifies the XML element that encloses the relevant source tag. "n/a" indicates that there is no appropriate XML tag.
- The source tag column specifies the elements containing the relevant data; attributes are marked with an @. Note that some elements generate more than one field in heritage.
- The no. (len) column shows the field number and length (in brackets) in heritage. The length specifies the length to which the field should be padded or truncated following transformation.
- The field description columns shows the field description as used in heritage.
- The transformation column indicates how the data from XML must be transformed to create data in heritage format. For the key to entries in this column, see "Transformation details" on page 22.

### 3.2.1 Transformation details

Transformation	Description
<<blank>>	Do not transform the data. Pad or truncate the data to the length (len).
Spaces	There is no data for this field. Fill with spaces.
Date	If the date is null, set the field to spaces. Otherwise, reverse the date format and replace each hyphen with a slash. Change yyyy-mm-dd to ddmmyyyy
Insert space	Combine the two XML fields, inserting a space between.
Tel. algorithm 1 (to combine the international prefix and the STD)	<p>Output field as follows:</p> <hr/> <pre> If no InternationalPrefix   use Std else   if combined number of digits is less than 10     combine the trimmed InternationalPrefix, a space and Std   else     combine the trimmed InternationalPrefix and Std   end if end if </pre> <hr/> <p>Return the result padded to the right with blanks to 10 characters.</p> <p><b>NOTE:</b> "trimmed" means blanks on the right of the field are removed.</p> <p><b>NOTE:</b> There is a space between the international prefix and the area code if it will fit.</p>

Transformation	Description
Tel. algorithm 2 (to combine the international prefix, STD and number)	<p>Combine the InternationalPrefix and STD as above, and output field as follows:</p> <hr/> <pre> If no InternationalPrefix or Std   return the number padded to 20 characters else   trim the result of algorithm 1   append the number   return the result padded on the right to 20 characters end if </pre> <hr/> <p><b>NOTE:</b> "trimmed" means blanks on the right of the field are removed.</p>
lpad(tag,len,0)	Pad the value of the <b>tag</b> on the left with zeros (0) to a length of <b>len</b> characters.

### 3.2.2 Originator record

The following shows the transformation required to create heritage originator records:

XML extract		Heritage extract		
Element	Source tag	No. (len)	Field description	Transformation for output
OriginatorRecord	n/a	1 (1)	Record type	Insert "O"
OriginatorRecord	LastAmendmentDate	2 (6)	Amendment date	Date
ServiceUser	@ServiceUserNumber	3 (6)	Service user no. (OIN)	
ServiceUser	@ServiceUserName	4 (33)	Service user name	
Contact	AddresseeName	5 (33)	Addressee name	
Contact	PostalName	6 (33)	Postal name	
Contact	AddressLine1	7 (33)	Address line 1	
Contact	AddressLine2	8 (33)	Address line 2	
Contact	CityOrTown	9 (33)	Address line 3	
Contact	AreaOrCounty	10 (25)	Address line 4	

XML extract		Heritage extract		
Element	Source tag	No. (len)	Field description	Transformation for output
Contact	PostCodeOutcode	11 (8)	Post code	Insert space
Contact	PostCodeIncode			
ContactTelephone	InternationalPrefix	12 (20)	Telephone number	Tel. algorithm 1 Tel. algorithm 2
ContactTelephone	Std			
ContactTelephone	Number			
ContactFax	InternationalPrefix	13 (20)	Fax number	Tel. algorithm 1 Tel. algorithm 2
ContactFax	Std			
ContactFax	Number			
ServiceUser	AddresseeName	14 (33)	User name address line 1	
ServiceUser	PostalName	15 (33)	User name address line 2	
ServiceUser	AddressLine1	16 (33)	User name address line 3	
ServiceUser	AddressLine2	17 (33)	User name address line 4	
ServiceUser	CityOrTown	18 (33)	User name address line 5	
ServiceUser	AreaOrCounty	19 (33)	User name address line 6	
OriginatorRecord	SponsorsBankCode	20 (4)	Bank code of sponsor	
OriginatorRecord	OriginatorStatus	21 (1)	Originator status	
OriginatorRecord	AUDDISStatus	22 (1)	AUDDIS status	
OriginatorRecord	PriorNotificationPeriod	23 (2)	Prior notification period	lpad(PriorNotificationPeriod,2,0)
OriginatorRecord	DormancyPeriod	24 (3)	Dormancy period	lpad(DormancyPeriod,3,0)

XML extract		Heritage extract		
Element	Source tag	No. (len)	Field description	Transformation for output
OriginatorRecord	MarketSegment	25 (6)	Market segment	
OriginatorRecord	AmalgamationFlag	26 (1)	Amalgamation flag	
n/a	n/a	27 (10)	Reserved	Spaces
n/a	n/a	28 (1)	DDO record padder	Insert ^

### 3.2.3 Account record

The following shows the transformation required to create heritage account records:

XML extract		Heritage extract		
Element	Source tag	No. (len)	Field description	Transformation for output
AccountRecord	n/a	1 (1)	Record type	Insert "A"
AccountRecord	LastAmendmentDate	2 (6)	Account amendment date	Date
ServiceUser	@ServiceUserNumber	3 (6)	Service user no. (OIN)	
AccountRecord	Sortcode	4 (6)	Sorting code	
AccountRecord	AccountType	5 (1)	Account type	
AccountRecord	AccountName	6 (18)	Account name	
AccountRecord	n/a	7 (1)	Account record padder	Insert "^"