



Book Industry Communication

BIC Realtime

Standards for Instant Business Message Exchange

Retrieve Financial Document Request and Response

Version 1.1, 8 February 2016

This document: <http://www.bic.org.uk/files/pdfs/BICWSFinancialDocument-V1.1.pdf>
XML schema: <http://www.bic.org.uk/files/xml/BICWSFinancialDocument-V1.1.xsd>
WSDL file: <http://www.bic.org.uk/files/xml/BICWSFinancialDocumentSOAP-V1.1.wsdl>
XML namespace: <http://www.bic.org.uk/webservices/financialDocument>
Next review date: 1 February 2018

This document specifies in human-readable form the *BIC Realtime* web services Retrieve Financial Document Request and Response formats.

Two separate formats are specified for Requests:

- an HTTP query format for use with implementations that use the basic HTTP protocol¹ and HTTP GET method – sometimes referred to as the REST approach
- an XML format for use with both implementations that use either SOAP or the basic HTTP protocol and HTTP POST method.

The same Response format will apply to both basic HTTP and SOAP exchanges.

The complete specification of the *BIC Realtime* Retrieve Financial Document Request/Response web service includes two machine-readable resources that are to be used by implementers in conjunction with this document:

- a WSDL Definition for the SOAP protocol version of the *BIC Realtime* web service
- an XML Schema for Requests and Response payloads in XML format.

It is strongly recommended that SOAP client implementations of this *BIC Realtime* web service be constructed using the BIC WSDL Definitions as a starting point, as this will promote interoperability between SOAP client and server implementations. In some development environments it may be easier to implement a SOAP server without using the BIC WSDL Definitions, but in this case care must be taken to ensure that the WSDL Definitions that describe the actual implementation is functionally equivalent to the BIC WSDL Definitions.

Business requirements

Where a suitable trading partner agreement exists, there is a need for a buyer to be able to retrieve financial documents as digital documents from a supplier, either directly or through an aggregation service. There is a need to be able to retrieve both original documents and, where documents are missing or are altered outside the system, copies of originals.

¹ Throughout the term 'HTTP protocol' is to be interpreted as including secure internet protocols that are implemented either at the application layer (e.g. HTTPS) or are implemented at the transport layer (e.g. SSL/TLS).

This *BIC Realtime* web service can be used in association with the *BIC Realtime* Retrieve Financial Document List web service, which would be used to retrieve a list of reference numbers for financial documents that meet a given set of criteria. This *BIC Realtime* Retrieve Financial Document web service can then be used to retrieve the individual documents by number. Implementers should also consider the *BIC Realtime* Post Financial Document web service, which may be a more appropriate means of transferring financial documents from a distributor or wholesaler to an aggregation service in real-time.

Financial documents may only be retrieved in real-time in XML format, and currently only if they are in one of the EDItX formats developed by EDItEUR. Documentation and XML schemas for the EDItX Trade Invoice and Credit Note formats are currently available from the EDItEUR website at the following web addresses:

EDItX Trade Invoice V1.2:

http://www.editeur.org/files/EDItX%20-%20trade%20book/EDItX_TradeInvoice_V1.2.pdf

EDItX Trade Credit Note V1.0:

[http://www.editeur.org/files/EDItX%20-%20trade%20book/EDItX_TradeCreditNote_V1.0\(corr\).pdf](http://www.editeur.org/files/EDItX%20-%20trade%20book/EDItX_TradeCreditNote_V1.0(corr).pdf)

Financial documents may be requested in PDF format, in which case the response will include a URI from which the PDF file can be retrieved.

Correction to Version 1.0 made July 2012

- Page 6 Request example: correction of XML errors.
- Page 10 Response example: correction of XML errors.

Corrections and additions for Version 1.1 made February 2016

- General Version number updated from '1.0' to '1.1' in specification tables and examples.
EDItX Trade Invoice and Credit Note specifications have been removed. Implementers are advised to obtain the specifications of the XML formats for the requested financial documents from EDItEUR, as detailed at the end of
- Page 4 HTTP Request line 4: Value '01' added to code list and value '02' marked as deprecated, for consistency with ONIX Code List 44 from which the code list is derived.
HTTP Request line 9: Values '03' and '04' added to code list, to enable additional types of financial document to be retrieved.
HTTP Request line 10: Description changed to allow for multiple space-separated document numbers.
- Page 5 Request Header line 3: Value '01' added to code list and value '02' marked as deprecated, for consistency with ONIX Code List 44 from which the code list is derived.
- Page 6 Request Detail line 3: Values '03' and '04' added to code list, to enable additional types of financial document to be retrieved.
Request example: Value in element <AccountIDType> changed from '02' (value deprecated) to '01'.
- Page 7 Response Header line 4: Value '01' added to code list and value '02' marked as deprecated, for consistency with ONIX Code List 44 from which the code list is derived.
Response Header line 5: Description of value '01' changed to indicate that it should be used if the Request Header contained <IssueDateTime> but no <RequestNumber>.
Response Header line 6: Description of element <SupplierIdentifier> modified to indicate that this is mandatory if the response code relates to the specific supplier.
- Page 8 Response Header line 7: Text added to description of value '03' and to description of element <ResponseTypeDescription> to indicate that a response of this kind should normally be accompanied by a reason in free text.

- Response Header line 8: New element <DocumentAttachmentType> added, to allow for multiple XML documents to be wrapped in a single EDItX XML Message instead of single XML document being embedded in each Response Detail line.
- Response Detail line 4: Values '03' and '04' added to code list, to enable additional types of financial document to be retrieved.
- Page 9 Response Detail line 12: Description revised to allow for additional choice of element added in line 12, and to allow for new financial document types other than invoices and credit notes.
- Response Detail lines 13 and 14: New elements <XMLMessageSequenceNumber> and <XMLDocumentSequenceNumber> added, to allow for each Response Detail line to refer to a specific document within an XML Message detail.
- Page 10 Response example 1: Explanatory text changed to indicate that the example shows how an XML document would be embedded in a Response Detail line.
- Response example 1: Values in elements <SenderIDType> and <AccountIDType> changed from '02' (value deprecated) to '01'.
- Page 11 Response example 2: New example added, showing use of EDItX XML Message wrapper element to hold embedded XML documents.

RETRIEVE FINANCIAL DOCUMENT – REQUEST

Requests using the HTTP protocol and the HTTP GET method

Requests using the HTTP protocol and the HTTP GET method should include a query string containing parameters as specified below.

	Parameter description	M ²	Name	
1	A unique identifier for the sender of the Request. An alphanumeric string not containing spaces or punctuation. The form of the identifier used must be agreed between the parties to an exchange.	M	ClientID	
2	A password to further authenticate the sender of the request	M	ClientPassword	
3	Identification number of this request	D	RequestNumber	
4	A code value from a BIC-controlled codelist for the scheme used for the customer account identifier (see ONIX codelist 44). Mandatory in all financial document requests. Permitted values are: 01 Proprietary 02 Proprietary (<i>DEPRECATED</i>) 06 EAN-UCC GLN 07 SAN 11 PubEasy PIN	M	AccountIDType	
5	Account identifier for this request, using the specified scheme. Mandatory in all financial document requests. All retrieved documents must relate to this account.	M	AccountIDValue	
6	A date/time reference for this request. Permitted formats are: YYYYMMDD YYYYMMDDTHHMM YYYYMMDDTHHMMZ (universal time) YYYYMMDDTHHMM±HHMM (time zone) where "T" represents itself, ie letter T	D	IssueDateTime	
7	If and only if this parameter is supported by the <i>BIC Realtime</i> web service implementation, a third party supplier may be specified where the web service host is not the invoicing supplier, in which case this parameter and the next must be included. This parameter contains a code value from a BIC-controlled codelist for the type of identifier of the supplier - see ONIX codelist 92. Permitted values are: 06 EAN-UCC GLN 07 SAN	D	SupplierIDType	
8	A unique supplier identifier of the specified type	D	SupplierIDValue	
9	Document type. Permitted values are: 01 Invoice 02 Credit note 03 Remittance advice note 04 Account statement	M	DocumentType	
10	Reference number(s) or string(s) for the requested document(s), space-separated if multiple	M	DocumentNumber	
11	Document format. Permitted values are: 01 XML (for invoices and credit notes only) 02 PDF	M	DocumentFormat	

A valid request must contain a reference number for the requested invoice.

Example of a Request using the HTTP protocol and the HTTP GET method:

[http://www.booksupplier.co.uk/FinancialDocumentRetrievalService?ClientID=12345
&ClientPassword=x9a44Ysj&DocumentType=01&DocumentNumber=0987654&DocumentFormat=01](http://www.booksupplier.co.uk/FinancialDocumentRetrievalService?ClientID=12345&ClientPassword=x9a44Ysj&DocumentType=01&DocumentNumber=0987654&DocumentFormat=01)

² In the column headed "M", "M" means mandatory, and "D" means dependent.

Requests using SOAP or non-SOAP protocols and using the HTTP POST method

Requests using the HTTP POST method should include a request document as the body of a request message. Multiple invoices may be specified using this method.

Request document name and version

	Financial document request Version 1.1		<FinancialDocumentRequest version="1.1">	
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Header

	Request header	M	Header.	
1	A unique identifier for the sender of the request. An alphanumeric string not containing spaces or punctuation	M	ClientID	
2	A password to further authenticate the sender of the request	M	ClientPassword	
3	Account identifier. Mandatory in all financial document requests. A code value from a BIC-controlled codelist for the scheme used for the account identifier (see ONIX codelist 44). Permitted schemes are: 01 Proprietary 02 Proprietary (<i>DEPRECATED</i>) 06 EAN-UCC GLN 07 SAN 11 PubEasy PIN Account identifier for this request, using the specified scheme	M M M	AccountIdentifier. AccountIDType IDValue	
4	Identification number / string of this request	D	RequestNumber	
5	Document date/time: the date/time when the request was generated. Permitted formats are: YYYYMMDD YYYYMMDDTHHMM YYYYMMDDTHHMMZ (universal time) YYYYMMDDTHHMM±HHMM (time zone) where "T" represents itself, ie letter T	D	IssueDateTime	
6	Supplier to whom this whole request should be forwarded, if it is not addressed to the <i>BIC Realtime</i> web service host (use only for requests sent to aggregators, and only at the header level if the request relates to a single supplier). Supplier ID type - see ONIX codelist 92 ID type name, only if ID type = proprietary Identifier	D M D M	SupplierIdentifier. SupplierIDType IDTypeName IDValue	
7	Document format. Permitted values are: 01 XML 02 PDF	M	DocumentFormat	

Request detail

	Item detail	D	ItemDetail.	R
1	Request line number	M	LineNumber	
2	Supplier to whom the request for this specific item should be forwarded, if it is not addressed to the <i>BIC Realtime</i> web service host (use only for requests sent to aggregators, and only at the item detail level if the request concerns multiple suppliers). Supplier ID type - see ONIX codelist 92 ID type name, only if ID type = proprietary Identifier	D M D M	SupplierIdentifier. SupplierIDType IDTypeName IDValue	
3	Document type. Permitted values are: 01 Invoice 02 Credit note 03 Remittance advice note 04 Account statement	M	DocumentType	
4	Document number. A document number must be included in each response line, matching the corresponding post request line.	M	DocumentNumber	

Example of a Retrieve Financial Document Request XML payload using either the SOAP or the HTTP protocol and the HTTP POST method:

```
<FinancialDocumentRequest version="1.1"
xmlns="http://www.bic.org.uk/webservices/financialDocument">
  <Header>
    <ClientID>12345</ClientID>
    <ClientPassword>x9a44Ysj</ClientPassword>
    <AccountIdentifier>
      <AccountIDType>01</AccountIDType>
      <IDValue>12345</IDValue>
    </AccountIdentifier>
    <RequestNumber>001</RequestNumber>
    <IssueDateTime>20150418T1525</IssueDateTime>
    <DocumentFormat>01</DocumentFormat>
  </Header>
  <ItemDetail>
    <LineNumber>1</LineNumber>
    <DocumentType>01</DocumentType>
    <DocumentNumber>0987654</DocumentNumber>
  </ItemDetail>
</FinancialDocumentRequest>
```

RETRIEVE FINANCIAL DOCUMENT – RESPONSE

The Response will use the protocol corresponding to the Request. If the Request uses the basic HTTP protocol, the Response will be an XML document as specified below attached to a normal HTTP header. If the Request uses the SOAP protocol, the Response will contain a SOAP response message whose body will contain the XML document specified below.

Response document name and version

Financial document response Version 1.1	<FinancialDocumentResponse version="1.1">
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Header

	Response payload header	M	Header.
1	Document date/time: the date/time when the report was generated. Permitted formats are: YYYYMMDD YYYYMMDDTHHMM YYYYMMDDTHHMMZ (universal time) YYYYMMDDTHHMM±HHMM (time zone) where "T" represents itself, ie letter T	M	IssueDateTime
2	Sender (<i>BIC Realtime</i> web service host) Sender ID type - see ONIX codelist 92 ID type name, only if ID type = proprietary Identifier	M M D M	SenderIdentifier. SenderIDType IDTypeName IDValue
3	Identification number / string of this response	D	ResponseNumber
4	Account identifier. Mandatory in all responses. A code value from a BIC-controlled codelist for the scheme used for the account identifier (see ONIX codelist 44). Must be specified if an account identifier is specified. Permitted schemes are: 01 Proprietary 02 Proprietary (<i>DEPRECATED</i>) 06 EAN-UCC GLN 07 SAN 11 PubEasy PIN Account identifier for this request, using the specified scheme	M M M	AccountIdentifier. AccountIDType IDValue
5	References: request number and/or date/time of request must be quoted if included in the request. Reference type 01 Number or date/time of associated financial document request Reference number / string Reference date or date and time. Mandatory if an IssueDateTime is included in the request.	D M M D	ReferenceCoded ReferenceTypeCode ReferenceNumber ReferenceDateTime
6	Supplier identifier (only included if specified in the request header; mandatory if the response type code is '19') Supplier ID type - see ONIX codelist 92 ID type name, only if ID type = proprietary Identifier	D M D M	SupplierIdentifier. SupplierIDType IDTypeName IDValue

Response header (continued)

	Element	M	Header.	
7	Response code, if there are exception conditions. Response type code. Suggested code values: 01 Service unavailable 02 Invalid ClientID or ClientPassword 03 Server unable to process request – a reason should normally be given as a free text description – see below 08 Unable to supply document in requested format 16 Invalid or unknown account or supplier identifier 19 Server unable to process request – unable to contact supplier Free text description / reason for response	D M D	ResponseCoded. ResponseType ResponseTypeDescription	R
8	Document attachment type. If not included, the default is that a single XML document or single URI link to a PDF document is embedded in each response detail. 01 Document or URI embedded in response detail 02 Documents in XML Message detail	D	DocumentAttachmentType	

Response detail

	Details of each financial document that has been requested. Mandatory unless the header reports a condition that prevents any response	D	ItemDetail.	R
1	Response item line number	D	LineNumber	
2	Request reference - request line number and reference date/time must be quoted if included in the request at the item detail level. Reference type code 02 Request line number Reference number / string Reference date or date and time	D M M D	ReferenceCoded ReferenceTypeCode ReferenceNumber ReferenceDateTime	
3	Supplier to whom the request for this specific item has been forwarded, if it is not addressed to the <i>BIC Realtime</i> web service host. Supplier ID type - see ONIX codelist 92 ID type name, only if ID type = proprietary Identifier	D M D M	SupplierIdentifier. SupplierIDType IDTypeName IDValue	
4	Document type. Permitted values are: 01 Invoice 02 Credit note 03 Remittance advice note 04 Account statement	M	DocumentType	
5	Document number	M	DocumentNumber	
6	Response code, if there are exception conditions. Response type code. Suggested code values: 11 Invalid or unknown document number 16 Invalid or unknown account or supplier identifier 19 Server unable to process request – unable to contact supplier Free text description	D M D	ResponseCoded. ResponseType ResponseTypeDescription	R
7	Settlement status of the invoice or credit note. Mandatory when retrieving invoices or credit notes. Permitted code values are: 01 Not yet fully settled 02 Fully settled	D	SettlementStatus	

Response detail (continued)

	Element NOTE – Unless the response code indicates an exception condition, every Item detail must contain just one of the following: a document of the specified type in XML format; the URI of a document of the specified type in PDF format.	D	ItemDetail.	R
8	Settlement due date – YYYYMMDD	D	SettlementDueDate	
9	Gross value of invoice or credit note. If the document is a credit note, the value must be negative.	D	GrossValue	
10	Net value of invoice or credit note. If the document is a credit note, the value must be negative.	D	NetValue	
11	Currency of value(s) if not the default currency.	D	CurrencyCode	
12	Document in XML format. Each item detail must contain either an XML document, or a pair of sequence numbers indicating the position of the XML document within the XML Message detail, or the URI from which the document may be retrieved in PDF format. This element must contain an XML document of the type specified in line 4.	D	XMLDocument	
13	XML message sequence number. Must be included if the document format is XML.	D	XMLMessageSequenceNumber	
14	XML document sequence number. Must be included if the document format is XML.	D	XMLDocumentSequenceNumber	
15	URI of document in PDF format	D	PDFDocumentURI	

XML Message detail

The XML Message detail must be one or more EDItX XML Messages that conform to the specification and XML schema available from EDItEUR. See <http://www.editeur.org/50/Trade-Book-Supply/>. Each EDItX XML Message will contain documents of a specific type (e.g. invoices). Only one EDItX XML Message may be included for each relevant document type (e.g. one for invoices, one for credit notes).

Example of a Retrieve Financial Document Response XML payload using either the SOAP or the HTTP protocol and the HTTP POST method, containing a single embedded XML document in each Response Detail line:

```
<FinancialDocumentResponse version="1.1"
xmlns="http://www.bic.org.uk/webservices/financialDocument">
<Header>
<IssueDateTime>20150418T1527</IssueDateTime>
<SenderIdentifier>
<SenderIDType>01</SenderIDType>
<IDValue>XYZ</IDValue>
</SenderIdentifier>
<AccountIdentifier>
<AccountIDType>01</AccountIDType>
<IDValue>12345</IDValue>
</AccountIdentifier>
<ReferenceCoded>
<ReferenceTypeCode>01</ReferenceTypeCode>
<ReferenceNumber>001</ReferenceNumber>
</ReferenceCoded>
</Header>
<ItemDetail>
<LineNumber>1</LineNumber>
<DocumentType>01</DocumentType>
<DocumentNumber>0987654</DocumentNumber>
<SettlementStatus>01</SettlementStatus>
<SettlementDueDate>20150725</SettlementDueDate>
<GrossValue>999.99</GrossValue>
<NetValue>999.99</NetValue>
<XMLDocument>
<!-- XML INVOICE HERE -->
</XMLDocument>
</ItemDetail>
</FinancialDocumentResponse>
```

Example of a Retrieve Financial Document Response XML payload using either the SOAP or the HTTP protocol and the HTTP POST method, containing multiple XML documents in an EDItX XML Message wrapper:

```
<FinancialDocumentResponse version="1.1"
xmlns="http://www.bic.org.uk/webservices/financialDocument">
<Header>
<IssueDateTime>20150418T1527</IssueDateTime>
<SenderIdentifier>
<SenderIDType>01</SenderIDType>
<IDValue>XYZ</IDValue>
</SenderIdentifier>
<AccountIdentifier>
<AccountIDType>01</AccountIDType>
<IDValue>12345</IDValue>
</AccountIdentifier>
<ReferenceCoded>
<ReferenceTypeCode>01</ReferenceTypeCode>
<ReferenceNumber>001</ReferenceNumber>
</ReferenceCoded>
</Header>
<ItemDetail>
<LineNumber>1</LineNumber>
<DocumentType>01</DocumentType>
<DocumentNumber>0987654</DocumentNumber>
<SettlementStatus>01</SettlementStatus>
<SettlementDueDate>20150725</SettlementDueDate>
<GrossValue>999.99</GrossValue>
<NetValue>999.99</NetValue>
<XMLDocumentSequenceNumber>1</XMLDocumentSequenceNumber>
</ItemDetail>
<!-- Second and subsequent Response Detail lines here -->
<EDItXMessage xmlns="" version="1.6">
<EDItXMessageHeader><!-- Header here --></EDItXMessageHeader>
<EDItXMessagePayload><!-- EDItX Invoices here --></EDItXMessagePayload>
</EDItXMessage>
<!-- Other EDItX XML message element for Credit Notes here, if required -->
</FinancialDocumentResponse>
```