# *Book Industry Communication*

## *BIC Realtime*

*Standards for Instant Business Message Exchange*

## Retrieve Financial Document List Request and Response

Version 2.0, 3 April 2020

**This document:** https://www.bic.org.uk/files/pdfs/API/Trade/BICWSFinancialDocumentList-V2.0.pdf
**XML schema:** https://www.bic.org.uk/files/xml/BICWSFinancialDocumentList_V2.0.xsd
**WSDL file:** https://www.bic.org.uk/files/xml/BICWSFinancialDocumentListSOAP_V2.0.wsdl
**XML namespace:** https://www.bic.org.uk/webservices/financialDocumentList
**Next review date:** 26 February 2021

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

Three alternative formats are specified for Requests:

- an HTTPS query format for use with implementations that use the basic HTTPS protocol[1] and GET method – sometimes referred to as the REST approach
- an XML format for use with both implementations that use either SOAP or the basic HTTPS protocol and POST method.
- a JSON format for use with implementations that use the basic HTTPS protocol and POST method.

The Response payload format options (payload in XML or JSON) will both apply to basic HTTPS exchanges using the POST method, but XML is the only Response payload format supported for HTTPS requests using the GET method. A Request using the HTTPS GET method may be more limited than a Request using the HTTPS POST method, so the Response payload may use only a correspondingly limited subset of the content defined here. SOAP only supports XML as a Request or Response payload format.

The complete specification of the *BIC Realtime* Retrieve Financial Document List 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.

[1] Throughout the term 'HTTPS 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).

**Business requirements**

There is a need for buyers, including EDI users, to ensure that they are aware of all invoices and credit notes issued by a particular supplier. This *BIC Realtime* web service enables a buyer to retrieve a list of invoices and credit notes, selected by date-of-issue range, or by whether they are settled or not yet settled, or by document reference (e.g. delivery note – see below). Having retrieved such a list, a buyer may then wish to retrieve a copy of a specific invoice. The *BIC Realtime* Retrieve Financial Document List web service meets the first of these requirements. The *BIC Realtime* Retrieve Financial Document web service, specified separately, meets the second of these requirements, but 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.

Many large distributors now no longer provide paper copies of invoices in their deliveries; instead they provide a post-pick invoice (electronically) after the delivery has taken place; as such the invoice number is not always provided on the delivery note. This API may be used to retrieve a list of all the invoices (usually one invoice) relating to a specific delivery note.

This service will also enable an aggregation service to reconcile their system with those of their data suppliers, to check for missing documents and changes made outside their system.

**Correction and additions for Version 2.0 made January 2020**

| | |
|---|---|
| General | Version number updated from ‘1.1’ to ‘2.0’ in specification tables and examples. |
| | Support for JSON implementation added to specification tables and examples. |
| | Text corrected in various places to make it clear that the SOAP protocol only supports XML payloads and not JSON payloads. |
| | Deprecated elements and code values removed. |
| Page 2 | Business requirements updated to include the use case in which this API may be used to retrieve an invoice that relates to a specific delivery note or other reference document. |
| Page 3 | HTTPS Request lines 1 and 2: Parameters ClientID and ClientPassword made non-mandatory. It is recommended that HTTPS header-based authentication be used where possible. |
| | HTTPS Request line 12: Parameter DeliveryNoteReference added, to enable a request for a list of financial documents associated with a specific delivery note. |
| Page 4 | HTTPS Request line 15: Parameter DescriptionLanguageCode added to enable preferred language of descriptions to be specified. The value must be a three-letter language code from ONIX code list 74. |
| Page 5 | Request header lines 1 and 2: Elements ClientID and ClientPassword made non-mandatory. It is recommended that HTTPS header-based authentication be used where possible. |
| Page 6 | Request header line 9: Element ReferenceCoded added to enable a request for a list of financial documents associated with the referenced document(s), such as a delivery note. |
| Page 6 | Request header line 13: Element DescriptionLanguageCode added to enable preferred language of descriptions to be specified. The value must be a three-letter language code from ONIX code list 74. |
| Page 8 | Response header line 7: Element DescriptionLanguageCode added to enable language of description to be specified. The value must be a three-letter language code from ONIX code list 74. |
| Page 8 | Response detail line 3: Element ReferenceCoded made repeatable and the code list extended to enable the inclusion of associated document references when these have been given in the request. |

# RETRIEVE FINANCIAL DOCUMENT LIST – REQUEST

### Requests using the HTTPS protocol and the GET method

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

| [2] | **Parameter description** | **M[3]** | **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[4]. | D | ClientID | |
| 2 | A password to further authenticate the sender of the request[4]. | D | ClientPassword | |
| 3 | Identification number of this request | D | RequestNumber | |
| 4 | A code value from a BIC-controlled code list for the scheme used for the customer account identifier (see ONIX code list 44). Mandatory in all financial document list requests. Permitted values are:<br>*01* Proprietary<br>*06* EAN-UCC GLN<br>*07* SAN<br>*11* PubEasy PIN | M | AccountIDType | |
| 5 | Account identifier for this request, using the specified scheme. Mandatory in all financial document list requests All listed documents must relate to this account. | M | AccountIDValue | |
| 6 | A date/time reference for this request | D | IssueDateTime | |
| 7 | If and only if this parameter is supported by the *BIC Realtime* 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 code list for the type of identifier of the supplier - see ONIX code list 92 | D | SupplierIDType | |
| 8 | A unique supplier identifier of the specified type | D | SupplierIDValue | |
| 9 | A code value from a BIC-controlled code list for the scheme used to identify a ship-to party, if the customer has multiple delivery locations and wishes to select invoices relating to just one of them. Permitted values are:<br>*01* Proprietary<br>*06* EAN-UCC GLN<br>*07* SAN<br>*11* PubEasy PIN | D | ShipToPartyIDType | |
| 10 | Ship-to party identifier, using the specified scheme. All retrieved invoices and credit notes must relate to this ship-to party. | D | ShipToPartyIDValue | |
| 11 | Document type(s) to be listed. Permitted values:<br>*00* Invoice or credit note (default)<br>*01* Invoice<br>*02* Credit note<br>*03* Remittance advice note<br>*04* Account statement | D | DocumentType | |
| 12 | Delivery note number. If specified, elements in lines 13, 14 and 15 must be omitted. | D | DeliveryNoteReference | |

[2] The order of parameters in an HTTPS GET Request is insignificant.
[3] In the column headed “M”, “M” means mandatory, and “D” means dependent.
[4] It is recommended that HTTPS header-based authentication be used where possible.

**Requests using the HTTPS protocol and the GET method** *(continued)*

| | **Parameter description** | | **Name** | |
|---|---|---|---|---|
| 13 | Start date of the period for which a list of outstanding invoices and credit notes is requested – YYYYMMDD | D | PeriodStartDate | |
| 14 | End date of the period for which a list of outstanding invoices and credit notes is requested – YYYYMMDD | D | PeriodEndDate | |
| 15 | Selection type (for invoices and credit notes only).<br>*01* Not yet fully settled<br>*02* Fully settled | D | SelectionType | |
| 16 | Language in which the requester would prefer free-text descriptions to be expressed – use ONIX code list 74. | D | DescriptionLanguageCode | |

A valid request must contain at least one of a start date, an end date and a selection type. A valid request may also contain a ship-to party identifier, if the customer has multiple delivery locations. These are used to narrow the selection of the list of invoices and credit notes that is to be retrieved.

*Example of a Request using the HTTPS protocol and the GET method, in which the request is for all invoices and credit notes associated with a specific delivery note:*

https://www.booksupplier.co.uk/FinancialDocumentListService?AccountIDType=01&AccountIDValue=XYZ&DeliveryNoteReference=D56789

*Example of a Request using the HTTPS protocol and the GET method, in which the request is for all invoices and credit notes from 1 August 2019 onwards that have not yet been fully settled:*

https://www.booksupplier.co.uk/FinancialDocumentListService?AccountIDType=01&AccountIDValue=XYZ&PeriodStartDate=20190801&SelectionType=01

*Example of a Request using the HTTPS protocol and the GET method, in which the request is for all invoices and credit notes between 1 January 2019 and 1 August 2019, whether settled or not:*

https://www.booksupplier.co.uk/FinancialDocumentListService?AccountIDType=01&AccountIDValue=XYZ&PeriodStartDate=20190101&PeriodEndDate=20190801

### Requests using SOAP or non-SOAP protocols and using the HTTPS POST method

Requests using the HTTPS POST method should include an XML or JSON document as the body of a request message. Requests using the SOAP protocol must include an XML document. Multiple ship-to parties may be specified using this method.

### Request document name and version

| | | | | |
|---|---|---|---|---|
| | **Financial document list request Version 2.0** | | **<FinancialDocumentListRequest version="2.0">**<br>**{ "FinancialDocumentListRequest": { "version": ...** | |

### Request document content

| | **Request header** | **M** | **Header.** | [5] |
|---|---|---|---|---|
| 1 | A unique identifier for the sender of the request. An alphanumeric string not containing spaces or punctuation | D | ClientID | |
| 2 | A password to further authenticate the sender of the request | D | ClientPassword | |
| 3 | Account identifier. Mandatory in all financial document list requests.<br>A code value from a BIC-controlled code list for the scheme used for the account identifier (see ONIX code list 44). Permitted schemes are:<br>*01* Proprietary<br>*06* EAN-UCC GLN<br>*07* SAN<br>*11* PubEasy PIN<br>Account identifier for this request, using the specified scheme | M<br>M<br><br><br><br><br>M | AccountIdentifier.<br>AccountIDType<br><br><br><br><br>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:<br>YYYYMMDD<br>YYYYMMDDTHHMM<br>YYYYMMDDTHHMMZ (universal time)<br>YYYYMMDDTHHMM±HHMM (time zone)<br>where "T" represents itself, ie letter T | D | IssueDateTime | |
| 6 | Supplier to whom this request should be forwarded, if it is not addressed to the *BIC Realtime* web service host (use only for requests sent to aggregation services).<br>Supplier ID type - see ONIX code list 92<br>ID type name, only if ID type = proprietary<br>Identifier | D<br>M<br>D<br>M | SupplierIdentifier.<br>SupplierIDType<br>IDTypeName<br>IDValue | |
| 7 | Identifier of a party to whom the invoiced goods were shipped. Used to narrow the selection of invoices where the account relates to multiple delivery locations.<br>Ship-to party ID type - see ONIX code list 92<br>ID type name, only if ID type = proprietary<br>Identifier | D<br>M<br>D<br>M | ShipToPartyIdentifier.<br>PartyIDType<br>IDTypeName<br>IDValue | R |
| 8 | Document type(s) to be listed. Permitted values:<br>*00* Invoice or credit note (default)<br>*01* Invoice<br>*02* Credit note<br>*03* Remittance advice note<br>*04* Account statement | D | DocumentType | |

[5] An 'R' in the right-most column means that the element is repeatable. If implementing this API using the JSON format option, all repeatable elements must be represented by JSON array objects.

**Request document content** *(continued)*

| | **Request header** | **M** | **Header.** | |
|---|---|---|---|---|
| 9 | Associated document reference. If specified, elements in lines 10, 11 and 12 must be omitted. May be repeated if requesting a list of financial documents associated with several documents.<br>Reference type<br>*11* Buyer's order reference<br>*18* End customer order reference<br>*19* Delivery note reference<br>*23* Supplier's order reference<br>Reference number / string<br>Reference date or date and time | D<br><br><br><br><br><br>M<br>D | ReferenceCoded<br><br><br><br><br><br>ReferenceTypeCode<br>ReferenceNumber<br>ReferenceDateTime | R |
| 10 | Start date of the period for which the list is requested. | D | PeriodStartDate | |
| 11 | End date of the period for which the list is requested. | D | PeriodEndDate | |
| 12 | Selection type (for invoices and credit notes only).<br>*01* Not yet fully settled<br>*02* Fully settled | D | SelectionType | |
| 13 | Language in which the requester would prefer free-text descriptions to be expressed – use ONIX code list 74. | D | DescriptionLanguageCode | |

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

```
<FinancialDocumentListRequest version="2.0"
 xmlns="http://www.bic.org.uk/webservices/financialDocumentList">
  <AccountIdentifier>
    <AccountIDType>01</AccountIDType>
    <IDValue>12345</IDValue>
  </AccountIdentifier>
  <RequestNumber>001</RequestNumber>
  <IssueDateTime>20150818T1525</IssueDateTime>
  <PeriodStartDate>20150801</PeriodStartDate>
  <SelectionType>01</SelectionType>
</FinancialDocumentListRequest>
```

*Example of a Retrieve Financial Document List Request JSON payload using the HTTPS protocol and the POST method:*

```
{
    "FinancialDocumentListRequest": {
        "version": "2.0",
        "xmlns":
"http://www.bic.org.uk/webservices/financialDocumentList",
        "AccountIdentifier": {
            "AccountIDType": "01",
            "IDValue": "12345"
        },
        "RequestNumber": "001",
        "IssueDateTime": "20150818T1525",
        "PeriodStartDate": "20150801",
        "SelectionType": "01"
    }
}
```

# RETRIEVE FINANCIAL DOCUMENT LIST – RESPONSE

The Response will use the protocol corresponding to the Request. If the Request uses the basic HTTPS protocol, the Response will be an XML or JSON document as specified below attached to a normal HTTPS 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

| | | | |
|---|---|---|---|
| | **Retrieve financial document list response Version 2.0** | | **<FinancialDocumentListResponse version="2.0"> { "FinancialDocumentListResponse": { "version": ...** |

### Header

| | **Response payload header** | **M** | **Header.** | |
|---|---|---|---|---|
| 1 | Document date/time: the date/time when the report was generated. Permitted formats are:<br>YYYYMMDD<br>YYYYMMDDTHHMM<br>YYYYMMDDTHHMMZ (universal time)<br>YYYYMMDDTHHMM±HHMM (time zone)<br>where "T" represents itself, ie letter T | M | IssueDateTime | |
| 2 | Sender (*BIC Realtime* web service host)<br>Sender ID type - see ONIX code list 92<br>ID type name, only if ID type = proprietary<br>Identifier | M<br>M<br>D<br>M | SenderIdentifier.<br>SenderIDType<br>IDTypeName<br>IDValue | |
| 3 | Identification number / string of this response | D | ResponseNumber | |
| 4 | Account identifier. Mandatory in all responses.<br>A code value from a BIC-controlled code list for the scheme used for the account identifier (see ONIX code list 44). Must be specified if an account identifier is specified. Permitted schemes are:<br>*01* Proprietary<br>*06* EAN-UCC GLN<br>*07* SAN<br>*11* PubEasy PIN<br>Account identifier for this request, using the specified scheme | M<br>M<br><br><br><br><br>M | AccountIdentifier.<br>AccountIDType<br><br><br><br><br>IDValue | |
| 5 | References: request number and/or date/time of request must be quoted if included in the request.<br>Reference type<br>*01* Number or date/time of associated invoice list request<br>Reference number / string<br>Reference date or date and time. Mandatory if an IssueDateTime is included in the request. | D<br>M<br><br>M<br>D | ReferenceCoded<br>ReferenceTypeCode<br><br>ReferenceNumber<br>ReferenceDateTime | |
| 6 | Supplier identifier (only included if specified in the request; mandatory if the response type code is '19' or '20')<br>Supplier ID type - see ONIX code list 92<br>ID type name, only if ID type = proprietary<br>Identifier | D<br>M<br>D<br>M | SupplierIdentifier.<br>SupplierIDType<br>IDTypeName<br>IDValue | |

**Response header** *(continued)*

| | **Payload header** | **M** | **Header.** | |
|---|---|---|---|---|
| 7 | Response code, if there are exception conditions.<br>Response type code. Suggested code values:<br>*01* Service unavailable<br>*02* Invalid ClientID or ClientPassword<br>*03* Server unable to process request – a reason should normally be given as a free text description – see below<br>*16* Invalid or unknown account, supplier or ship-to party identifier<br>*17* Invalid period start or end date<br>*18* Server unable to process request - specified range too large<br>*19* Server unable to process request – unable to contact supplier<br>Free text description / reason for response<br>Language of description. Mandatory if included in the request. See request header line 13. | D<br>M<br><br><br><br><br><br><br><br><br><br><br>D | ResponseCoded.<br>ResponseType<br><br><br><br><br><br><br><br><br><br>ResponseTypeDescription<br>DescriptionLanguageCode | R |
| 8 | Default currency of values given in the response. If omitted, 'GBP' is assumed. | D | CurrencyCode | |

**Response detail**

| | **Details of all invoices and credit notes that meet the selection criteria in the request. Mandatory unless the header reports a condition that prevents any response** | **D** | **ItemDetail.** | **R** |
|---|---|---|---|---|
| 1 | Financial document list response item line number | D | LineNumber | |
| 2 | Identifier of the party or parties to whom the invoiced goods were shipped. In current UK trade practice there would not be more than one delivery location per invoice, so repeatable only if this format is used in other markets.<br>Ship-to party ID type - see ONIX code list 92<br>ID type name, only if ID type = proprietary<br>Identifier | D<br>M<br>D<br>M | ShipToPartyIdentifier.<br>PartyIDType<br>IDTypeName<br>IDValue | R |
| 3 | A financial document mandatory in all items. Any associated document reference(s) (e.g. delivery note number) must be included, if given in the request.<br>Reference type code<br>*14* Supplier's financial document reference<br>*11* Buyer's order reference<br>*18* End customer order reference<br>*19* Delivery note reference<br>*23* Supplier's order reference<br>Reference number / string<br>Reference date or date and time | M<br>M<br><br><br><br><br><br>D<br>D | ReferenceCoded<br>ReferenceTypeCode<br><br><br><br><br><br>ReferenceNumber<br>ReferenceDateTime | R |
| 4 | Document type. Permitted values are:<br>*01* Invoice<br>*02* Credit note<br>*03* Remittance advice note<br>*04* Account statement | M | DocumentType | |
| 5 | Settlement status of the invoice or credit note. Permitted code values are:<br>*01* Not yet fully settled<br>*02* Fully settled | M | SettlementStatus | |
| 6 | Settlement due date – YYYYMMDD | D | SettlementDueDate | |
| 7 | Gross value of invoice or credit note. If the document is a credit note, the value must be negative. | D | GrossValue | |
| 8 | Net value of invoice or credit note. If the document is a credit note, the value must be negative. | D | NetValue | |
| 9 | Currency of value(s) if not the default currency. | D | CurrencyCode | |

*Example of a Retrieve Financial Document List Response XML payload using either the SOAP or the HTTPS protocol and the POST method:*

```
<FinancialDocumentListResponse version="2.0"
 xmlns="http://www.bic.org.uk/webservices/financialDocumentList">
  <Header>
    <IssueDateTime>20190818T1527</IssueDateTime>
    <SenderIdentifier>
      <SenderIDType>01</SenderIDType>
      <IDValue>XYZ</IDValue>
    </SenderIdentifier>
    <AccountIdentifier>
      <AccountIDType>01</AccountIDType>
      <IDValue>12345</IDValue>
    </AccountIdentifier>
  </Header>
  <ItemDetail>
    <ReferenceCoded>
      <ReferenceTypeCode>14</ReferenceTypeCode>
      <ReferenceNumber>I1020304</ReferenceNumber>
      <ReferenceDateTime>20190809</ReferenceDateTime>
    </ReferenceCoded>
    <DocumentType>01</DocumentType>
    <SettlementStatus>01</SettlementStatus>
    <SettlementDueDate>20190909</SettlementDueDate>
    <GrossValue>100.00</GrossValue>
    <NetValue>100.00</NetValue>
  </ItemDetail>
  <ItemDetail>
    <ReferenceCoded>
      <ReferenceTypeCode>14</ReferenceTypeCode>
      <ReferenceNumber>I1020405</ReferenceNumber>
      <ReferenceDateTime>20190812</ReferenceDateTime>
    </ReferenceCoded>
    <DocumentType>01</DocumentType>
    <SettlementStatus>01</SettlementStatus>
    <SettlementDueDate>20190912</SettlementDueDate>
    <GrossValue>217.50</GrossValue>
    <NetValue>200.00</NetValue>
  </ItemDetail>
  <ItemDetail>
    <ReferenceCoded>
      <ReferenceTypeCode>14</ReferenceTypeCode>
      <ReferenceNumber>C9012345</ReferenceNumber>
      <ReferenceDateTime>20190815</ReferenceDateTime>
    </ReferenceCoded>
    <DocumentType>01</DocumentType>
    <SettlementStatus>01</SettlementStatus>
    <SettlementDueDate>20190915</SettlementDueDate>
    <GrossValue>300.00</GrossValue>
    <NetValue>300.00</NetValue>
  </ItemDetail>
</FinancialDocumentListResponse>
```

*Example of a Retrieve Financial Document List Response JSON payload using the HTTPS protocol and the POST method:*


```
{
    "FinancialDocumentListResponse": {
        "version": "2.0",
        "xmlns": "http://www.bic.org.uk/webservices/financialDocumentList",
        "Header": {
            "IssueDateTime": "20190818T1527",
            "SenderIdentifier": {
                "SenderIDType": "01",
                "IDValue": "XYZ"
            },
            "AccountIdentifier": {
                "AccountIDType": "01",
                "IDValue": "12345"
            }
        },
        "ItemDetail": [
            {
                "ReferenceCoded": [
                    {
                        "ReferenceTypeCode": "14",
                        "ReferenceNumber": "I1020304",
                        "ReferenceDateTime": "20190809"
                    }
                ],
                "DocumentType": "01",
                "SettlementStatus": "01",
                "SettlementDueDate": "20190909",
                "GrossValue": 100,
                "NetValue": 100
            },
            {
                "ReferenceCoded": [
                    {
                        "ReferenceTypeCode": "14",
                        "ReferenceNumber": "I1020405",
                        "ReferenceDateTime": "20190812"
                    }
                ],
                "DocumentType": "01",
                "SettlementStatus": "01",
                "SettlementDueDate": "20190912",
                "GrossValue": 217.5,
                "NetValue": 200
            },
            {
                "ReferenceCoded": [
                    {
                        "ReferenceTypeCode": "14",
                        "ReferenceNumber": "C9012345",
                        "ReferenceDateTime": "20190815"
                    }
                ],
                "DocumentType": "01",
                "SettlementStatus": "01",
                "SettlementDueDate": "20190915",
                "GrossValue": 300,
                "NetValue": 300
            }
        ]
    }
}
```