

# **Book Industry Communication**

# BIC Realtime for Libraries Web Services API Standards Retrieve Quotes List

Version 1.0, 3 September 2019

This document: <a href="https://www.bic.org.uk/files/pdfs/API/BIC Realtime for Libraries - Retrieve Quotes">https://www.bic.org.uk/files/pdfs/API/BIC Realtime for Libraries - Retrieve Quotes</a>

List - Version 1.0.pdf

XML schema: https://www.bic.org.uk/files/pdfs/API/BICLWSQuotesList\_V1.0.xsd WSDL file: https://www.bic.org.uk/files/pdfs/API/BICLWSQuotesListSOAP\_V1.0.wsdl

XML namespace: http://www.bic.org.uk/librarywebservices/quotesList

Next review date: 1 October 2021

This document specifies in human-readable form the Request and Response formats for the *BIC Realtime for Libraries* Retrieve Quotes List API.

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A Retrieve Quotes List Request may be implemented using either SOAP or the basic HTTPS protocol<sup>1</sup> and POST method. The payload of a Retrieve Quotes List Request may be formatted either as an XML document or as an equivalent JSON document.

The same Response format options (payload in XML or JSON) will apply to both basic HTTPS and SOAP exchanges.

The complete specification of the Retrieve Quotes 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 web service
- an XML Schema for Requests and Response payloads in XML format.

A Request or Response payload expressed in JSON must be entirely translatable into an equivalent XML representation that conforms to the XML schema.

It is strongly recommended that SOAP client implementations of this 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.

<sup>&</sup>lt;sup>1</sup> Throughout the term 'HTTPS protocol' is to be interpreted as a secure internet protocol that is implemented either at the application layer (i.e. HTTPS) or 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 quotes prepared by a particular supplier. This web service enables a buyer to retrieve a list of quotes, selected by date-of-issue range or by quotation number pattern. Having retrieved such a list, a buyer may then retrieve individual quotes using the *BIC Realtime for Libraries* Retrieve Quotation API.

A typical use of the Retrieve Quotes List API might involve the following sequence:

- 1. The supplier prepares quotations in accordance with the library's instructions and uploads these to their web service.
- 2. The library uses the Retrieve Quotes List API to retrieve a list of quotations prepared by the supplier.
- 3. The library uses the Retrieve Quotation API one or more times to retrieve quotations from the supplier's web service.
- 4. The library processes each quotation and, if appropriate, uses the Order Request and Response API to confirm the order with the supplier.

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.

# **RETRIEVE QUOTES LIST - REQUEST**

Requests should include an XML or JSON document as specified below as the body of a request message.

### Request document name and version

Quotes list request Version 1.0	<quoteslistrequest version="1.0"></quoteslistrequest>	
	{ "QuotesListRequest": { "version": ,	

#### Request document content

	Request header	M <sup>2</sup>	Header.	3
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.	D	AccountIdentifier.	
	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 06 EAN-UCC GLN 07 SAN 11 PubEasy PIN	М	AccountIDType	
	Account identifier for this request, using the specified scheme	М	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, i.e. letter T	D	IssueDateTime	
6	References. If included, must contain a reference number or a reference date-time or both.	D	ReferenceCoded.	R
	Reference type 16 Contract reference 35 Library's supplier reference 36 Supplier's library customer reference	М	ReferenceTypeCode	
	Reference	D	ReferenceNumber	
	Reference date-time (for format options see line 5)	D	ReferenceDateTime	
7	Supplier to whom this request should be forwarded, if it is not addressed to the web service host (use only for requests sent to aggregation services).	D	SupplierIdentifier.	
	Supplier ID type - see ONIX codelist 92	М	SupplierIDType	
	ID type name, only if ID type = proprietary Identifier	D M	IDTypeName IDValue	
8	Start date of the period for which the list of quotations prepared in that period is requested. – YYYYMDD	D	PeriodStartDate	
9	End date of the period for which the list of quotations prepared in that period is requested. – YYYYMMDD	D	PeriodEndDate	
10	Quotation number pattern to be matched. Use a regular expression that conforms to Appendix G of W3C XML Schema Definition Language (XSD) 1.1 Part 2: Datatypes.	D	ReferenceNumberPattern	

 $<sup>^2</sup>$  In the third column "M" means mandatory and "D" means dependent upon the business or message context.  $^3$  An 'R' in the right-most column means that the element is repeatable.

Version 1.0 Page 3 of 9 3 September 2019 Example of a Retrieve Quotes List Request XML payload using either the SOAP or the HTTPS protocol and the POST method, in which the request is for all quotes issued from 1 April 2018 onwards:

```
<QuotesListRequest version="1.0"
xmlns="http://www.bic.org.uk/librarywebservices/quotesList">
  <AccountIdentifier>
    <AccountIDType>01</AccountIDType>
    <IDValue>12345</IDValue>
  </AccountIdentifier>
  <RequestNumber>001</RequestNumber>
  <IssueDateTime>20180422T1525/IssueDateTime>
  <PeriodStartDate>20180401</PeriodStartDate>
</QuotesListRequest>
JSON equivalent of the above payload:
{
    "QuotesListRequest": {
        "version": "1.0",
        "xmlns": "http://www.bic.org.uk/librarywebservices/quotesList",
        "AccountIdentifier": {
    "AccountIDType": "01",
            "IDValue": "12345"
        "RequestNumber": "001",
        "IssueDateTime": "20180422T1525",
        "PeriodStartDate": "20180401"
}
```

Example of a Retrieve Quotes List Request XML payload using either the SOAP or the HTTPS protocol and the POST method, in which the request is for all quotes with numbers that match the regular expression pattern '01020\d+' (i.e. numbers beginning '01020'):

```
<QuotesListRequest version="1.0"
xmlns="http://www.bic.org.uk/librarywebservices/quotesList">
  <AccountIdentifier>
    <AccountIDType>01</AccountIDType>
    <IDValue>12345</IDValue>
  </AccountIdentifier>
  <RequestNumber>001</RequestNumber>
  <IssueDateTime>20180422T1525/IssueDateTime>
  <ReferenceNumberPattern>01020\d+</ReferenceNumberPattern>
</QuotesListRequest>
JSON equivalent of the above payload:
{
    "QuotesListRequest": {
        "version": "1.0",
        "xmlns": "http://www.bic.org.uk/librarywebservices/quotesList",
        "AccountIdentifier": {
    "AccountIDType": "01",
            "IDValue": "12345"
        "RequestNumber": "001",
        "IssueDateTime": "20180422T1525",
        "ReferenceNumberPattern": "01020\\d+"
}
```

# **RETRIEVE QUOTES 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 or JSON document specified below.

#### Response document name and version

Retrieve quotes list response Version 1.0	<quoteslistresponse version="1.0"></quoteslistresponse>	
	{ "QuotesListResponse": { "version":	

#### Header

	Response payload header	М	Header.	
1	Document date/time: the date/time when the report was generated. Permitted formats are:	М	IssueDateTime	
2	Sender (web service host)	М	SenderIdentifier.	
	Sender ID type - see ONIX codelist 92	М	SenderIDType	
	ID type name, only if ID type = proprietary	D	IDTypeName	
	Identifier	М	IDValue	
3	Identification number / string of this response	D	ResponseNumber	
4	Account identifier.	D	AccountIdentifier.	
	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 06 EAN-UCC GLN 07 SAN 11 PubEasy PIN Account identifier for this request, using the specified scheme	M	AccountIDType  IDValue	
5	References: request number and/or date/time of request must be quoted if included in the request.	D	ReferenceCoded	R
	Reference type 01 Number or date/time of associated quotes list request 16 Contract reference 35 Library's supplier reference 36 Supplier's library customer reference	М	ReferenceTypeCode	
	Reference number / string	D	ReferenceNumber	
	Reference date or date and time. Mandatory if an IssueDateTime is included in the request. See Header line 1 for format options.	D	ReferenceDateTime	
6	Supplier identifier (only included if specified in the request; mandatory if the response type code is '19')	D	SupplierIdentifier.	
	Supplier ID type - see ONIX codelist 92	М	SupplierIDType	
	ID type name, only if Supplier ID type is proprietary	D	IDTypeName	
	Identifier	M	IDValue	1

# Response header (continued)

	Payload header	M	Header.	
7	Response code, if there are exception conditions.	D	ResponseCoded.	R
	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  16 Invalid or unknown account, supplier or ship-to party identifier  17 Invalid period start or end date  18 Server unable to process request - specified range too large  19 Server unable to process request – unable to contact supplier	M	ResponseType	
	Free text description / reason for response	D	ResponseTypeDescription	

### Response detail

	Details of all quotations that meet the selection criteria in the request. Mandatory unless the header reports a condition that prevents any response	D	ItemDetail.	R
1	Quotes list response item line number	D	LineNumber	
2	Document references. It is mandatory to include the supplier's quotation reference in all items. If the quotation has already resulted in orders, one or more buyer's order references must be included.	М	ReferenceCoded	R
	Reference type code 11 Buyer's order reference 29 Supplier's quotation reference		ReferenceTypeCode	
	Reference number / string	D	ReferenceNumber	
	Reference date or date and time. See Header line 1 for format options.	D	ReferenceDateTime	
3	Total number of lines on this quotation	М	NumberOfLines	

# Example of a Retrieve Quotes List Response XML payload using either the SOAP or the HTTPS protocol and the POST method:

```
<QuotesListResponse version="1.0"
xmlns="http://www.bic.org.uk/librarywebservices/quotesList">
   <IssueDateTime>20180422T1527</IssueDateTime>
   <SenderIdentifier>
     <SenderIDType>01
     <IDValue>XYZ</IDValue>
   </SenderIdentifier>
   <AccountIdentifier>
     <AccountIDType>01</AccountIDType>
     <IDValue>12345</IDValue>
   </AccountIdentifier>
  </Header>
  <ItemDetail>
   <ReferenceCoded>
     <ReferenceTypeCode>29</ReferenceTypeCode>
     <ReferenceNumber>Q12345</ReferenceNumber>
      <ReferenceDateTime>20180409</ReferenceDateTime>
   </ReferenceCoded>
   <ReferenceCoded>
     <ReferenceTypeCode>11</ReferenceTypeCode>
     <ReferenceNumber>01020304</ReferenceNumber>
   </ReferenceCoded>
    <ReferenceCoded>
     <ReferenceTypeCode>11</ReferenceTypeCode>
     <ReferenceNumber>01020305/ReferenceNumber>
   </ReferenceCoded>
   <NumberOfLines>10</NumberOfLines>
  </ItemDetail>
  <ItemDetail>
   <ReferenceCoded>
     <ReferenceTypeCode>29</ReferenceTypeCode>
     <ReferenceNumber>Q12346</ReferenceNumber>
     <ReferenceDateTime>20180419</ReferenceDateTime>
   </ReferenceCoded>
   <NumberOfLines>8</NumberOfLines>
  </ItemDetail>
</QuotesListResponse>
```

Example of a Retrieve Quotes List Response JSON payload using either the SOAP or the HTTPS protocol and the POST method:

```
{"QuotesListResponse": {
    "version": "1.0",
    "xmlns": "http://www.bic.org.uk/librarywebservices/quotesList",
"Header": {
        "IssueDateTime": "20180422T1527",
        "SenderIdentifier": {
            "SenderIDType": "01",
            "IDValue": "XYZ"
        "AccountIdentifier": {
            "AccountIDType": "01",
            "IDValue": "12345"
        }
    },
    "ItemDetail": [
        {
            "ReferenceCoded": [
                     "ReferenceTypeCode": "29",
                     "ReferenceNumber": "Q12345",
                     "ReferenceDateTime": "20180409"
                 },
                 {
                     "ReferenceTypeCode": "11",
                     "ReferenceNumber": "1020304"
                 },
                 {
                     "ReferenceTypeCode": "11",
                     "ReferenceNumber": "1020305"
            "NumberOfLines": 10
        },
            "ReferenceCoded": {
                 "ReferenceTypeCode": "29",
                 "ReferenceNumber": "Q12346",
                 "ReferenceDateTime": "20180419"
            "NumberOfLines": 8
        }
    1
} }
```