



Book Industry Communication

BIC Realtime

Standards for Instant Business Message Exchange

Short Pick Notification Request and Response

Version 2.0, 3 April 2020

This document: <https://www.bic.org.uk/files/pdfs/API/Trade/BICWSShortPickNotification-V2.0.pdf>

XML schema: https://www.bic.org.uk/files/xml/BICWSShortPickNotification_V2.0.xsd

WSDL file: https://www.bic.org.uk/files/xml/BICWSShortPickNotificationSOAP_V2.0.wsdl

XML namespace: <https://www.bic.org.uk/webservices/shortPickNotification>

Next review date: 26 February 2021

This document specifies in human-readable form the *BIC Realtime* web services Short Pick Notification Request and Response formats.

Three alternative formats are specified for Requests:

- an HTTPS query format for use with implementations that use the basic HTTPS protocol¹ 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* Short Pick Notification 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 suppliers to notify a buyer when their stock of an item turns out to be short of the ordered quantity at the time when the item quantity is being picked for despatch.

Correction and additions for Version 2.0 made January 2020

- General Version number updated from '1.0C' 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 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 18: 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 4 Request payload lines 1 and 2: Elements ClientID and ClientPassword made non-mandatory. It is recommended that HTTPS header-based authentication be used where possible.
- Request payload line 6: 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 7 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 order detail line 2: 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.
- Response item detail line 5: 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.

SHORT PICK NOTIFICATION – 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 codelist for the scheme used for the customer account identifier (see ONIX codelist 44). Permitted values are: 01 Proprietary 06 EAN-UCC GLN 07 SAN 11 PubEasy PIN	D	AccountIDType	
5	Account identifier for this request, using the specified scheme.	D	AccountIDValue	
6	A date/time reference for this request	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 supplier fulfilling the order, 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	D	SupplierIDType	
8	A unique supplier identifier of the specified type.	D	SupplierIDValue	
9	Order to which this request relates. Mandatory.	M	OrderReferenceNumber	
10	Buyer's order line reference, if the request relates to a specific order line and not the whole order.	D	OrderLineReferenceNumber	
11	Supplier's order reference	D	SupplierOrderReferenceNumber	
12	End-customer order reference	D	ConsumerOrderReference	
13	EAN-13 product number (either parameter 13 or both parameters 14 and 15 must be included if parameter 10 is present)	D	EAN13	
14	A code value from a BIC-controlled codelist for the type of an alternative identifier of the product (see ONIX codelist 5).	D	ProductIDType	
15	An alternative product identifier of the specified type. Only one alternative type of identifier may be carried in a Request using the HTTPS GET method.	D	ProductIDValue	
16	Ordered quantity.	M	OrderedQuantity	
17	Quantity that the pick was short by.	M	ShortByQuantity	
18	Language in which the requester would prefer free-text descriptions to be expressed – use ONIX code list 74.	D	DescriptionLanguageCode	

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

<https://www.bookbuyer.co.uk/ShortPickNotificationService?AccountIDType=01&AccountIDValue=XYZ&IssueDateTime=20190518T152500&OrderReferenceNumber=1012345&OrderLineReferenceNumber=2&ProductIDType=03&ProductIDValue=9780123456789&OrderedQuantity=10&ShortByQuantity=2>

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 SOAP or basic HTTPS protocol and the POST method

Requests using the HTTPS POST method should include an XML or JSON request document as the body of a request message. Requests using the SOAP protocol must include an XML document.

Request document name and version

	Short pick notification request Version 2.0		<ShortPickNotificationRequest version="2.0"> { "ShortPickNotificationRequest": { "version": ...	
--	--------------------------------------------------------	--	------------------------------------------------------------------------------------------------------------------------------------	--

Header

	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. 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 Account identifier for this request, using the specified scheme	D 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	Language in which the requester would prefer free-text descriptions to be expressed – use ONIX code list 74.	D	DescriptionLanguageCode	

Request order detail

	Order detail. Mandatory, and repeatable picked items from multiple orders are short of the ordered quantity.	M	OrderDetail.	R
1	Order references. Must contain a reference number or a reference date or both for a single order. Reference type 11 Order number or date/time specified in the request 18 End-customer's order reference 23 Supplier's order reference 25 CDF invoice reference Reference Reference date or date and time. See Header line 5 for format options.	M M D D	ReferenceCoded. ReferenceTypeCode ReferenceNumber ReferenceDateTime	R
2	Detail of specific order lines for which authority to despatch is being granted. Mandatory unless the request applies to the whole order. See below.	D	ItemDetail	R

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 item detail

	Item detail. Mandatory in all short pick notification requests.	M	OrderDetail.ItemDetail.	R
1	Request line number	M	LineNumber	
2	EAN-13 product number (either this element or element 3 must be included)	D	EAN13	
3	Alternative product identifier Product ID type – use ONIX Code List 5 ID type name, only if ID type = '01' (proprietary) Product number	D M D M	ProductIdentifier. ProductIDType IDTypeName IDValue	R
4	Ordered quantity. Mandatory.	M	OrderedQuantity	
5	Quantity that the pick was short by. Mandatory	M	ShortByQuantity	
6	Order line references If included, must contain a reference number or a reference date/time or both. Reference type 12 Buyer's unique order line reference 18 End customer order reference 25 CDF invoice reference 26 CDF invoice line reference Reference number / string Reference date or date and time. See Header line 6 for format options.	D M D D	ReferenceCoded ReferenceTypeCode ReferenceNumber ReferenceDateTime	R

Example of a Short Pick Notification Request XML payload using either the SOAP or the HTTPS protocol and the POST method:

```
<ShortPickNotificationRequest version="2.0"
xmlns="http://www.bic.org.uk/webservices/shortPickNotification">
  <ClientID>12345</ClientID>
  <ClientPassword>x9a44Ysj</ClientPassword>
  <AccountIdentifier>
    <AccountIDType>01</AccountIDType>
    <IDValue>12345</IDValue>
  </AccountIdentifier>
  <RequestNumber>001</RequestNumber>
  <IssueDateTime>20190518T1525</IssueDateTime>
  <OrderDetail>
    <ReferenceCoded>
      <ReferenceTypeCode>11</ReferenceTypeCode>
      <ReferenceNumber>01020304</ReferenceNumber>
    </ReferenceCoded>
    <ItemDetail>
      <LineNumber>1</LineNumber>
      <ProductIdentifier>
        <ProductIDType>03</ProductIDType>
        <IDValue>9780123456789</IDValue>
      </ProductIdentifier>
      <OrderedQuantity>10</OrderedQuantity>
      <ShortByQuantity>2</ShortByQuantity>
      <ReferenceCoded>
        <ReferenceTypeCode>12</ReferenceTypeCode>
        <ReferenceNumber>2</ReferenceNumber>
      </ReferenceCoded>
    </ItemDetail>
  </OrderDetail>
</ShortPickNotificationRequest>
```

Example of a Short Pick Notification Request JSON payload using the HTTPS protocol and the POST method:

```
{
  "ShortPickNotificationRequest": {
    "version": "2.0",
    "xmlns": "http://www.bic.org.uk/webservices/shortPickNotification",
    "AccountIdentifier": {
      "AccountIDType": "01",
      "IDValue": "12345"
    },
    "RequestNumber": "001",
    "IssueDateTime": "20190518T1525",
    "OrderDetail": [
      {
        "ReferenceCoded": [
          {
            "ReferenceTypeCode": "11",
            "ReferenceNumber": "01020304"
          }
        ],
        "ItemDetail": [
          {
            "LineNumber": 1,
            "ProductIdentifier": [
              {
                "ProductIDType": "03",
                "IDValue": "9780123456789"
              }
            ],
            "OrderedQuantity": 10,
            "ShortByQuantity": 2,
            "ReferenceCoded": [
              {
                "ReferenceTypeCode": "12",
                "ReferenceNumber": 2
              }
            ]
          }
        ]
      }
    ]
  }
}
```

SHORT PICK NOTIFICATION – 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

	Short pick notification response Version 2.0	<ShortPickNotificationResponse version="2.0"> { "ShortPickNotificationResponse": { "version": ...	
--	---------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------	--

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 (BIC Realtime 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. 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	D 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 request Reference number / string Reference date or date and time. Mandatory if an IssueDateTime is included in the request. See Header line 1 for format options.	D M M D	ReferenceCoded ReferenceTypeCode ReferenceNumber ReferenceDateTime	
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 16 Invalid or unknown account, supplier or ship-to party identifier Free text description / reason for response Language of description. Mandatory if included in the request. See request payload line 6.	D M D D	ResponseCoded. ResponseType ResponseTypeDescription DescriptionLanguageCode	R

Order detail

	Responses for each order listed in the request. Mandatory unless an exception condition is indicated at the Header level.	D	OrderDetail.	R
1	References: the order number must be quoted. Reference type 11 Order number or date/time specified in the request 18 End-customer's order reference 23 Supplier's order reference 25 CDF invoice reference Reference number / string Reference date or date and time. Mandatory if an IssueDateTime is included in the request. See Report Header line 1 for format options.	M M D D	ReferenceCoded ReferenceTypeCode ReferenceNumber ReferenceDateTime	
2	Response code, if there are exception conditions, in which case this composite terminates the response. Response type code. Suggested code values: 11 Invalid order reference 24 Request does not reference a unique order Free text description Language of description. Mandatory if included in the request. See request payload line 6.	D M D D	ResponseCoded. ResponseType ResponseTypeDescription DescriptionLanguageCode	R
3	Item details – the lines within the order as listed in the request. For details see below.	M	ItemDetail	R

Item detail

Details of all order lines that were short when picked. Mandatory for each item included in the request, unless an exception condition is indicated at the Header level.

	Item detail	M	OrderDetail.ItemDetail.	R
1	Item line number in this response	D	LineNumber	
2	EAN-13 product number (mandatory unless trading partners have agreed to use an alternative product identifier)	D	EAN13	
3	Alternative product identifier. Product ID type – use ONIX Code List 5 ID type name, only if ID type = '01' (proprietary) Product number	D M D M	ProductIdentifier. ProductIDType IDTypeName IDValue	R
4	Order line references If included, must contain a reference number or a reference date/time or both. Reference type 12 Buyer's unique order line reference 18 End customer order reference 25 CDF invoice reference 26 CDF invoice line reference Reference number / string Reference date or date and time. See Header line 6 for format options.	D M D D	ReferenceCoded ReferenceTypeCode ReferenceNumber ReferenceDateTime	R
5	Response code Response type code. Suggested code values: 06 Invalid or unknown product ID 11 Invalid or unknown order reference 12 Invalid order line reference 14 Line already shipped – attempt to ship a line already marked as shipped 15 Line previously cancelled – attempt to ship a line that has previously been cancelled 21 Short pick notification processed 25 Order line reference and product identifier don't match 27 Quantity mismatch between the quantity ordered and the order quantity specified in the short pick notification request Free text description Language of description. Mandatory if included in the request. See request payload line 6.	M M D D	ResponseCoded ResponseType ResponseTypeDescription DescriptionLanguageCode	R

Example of a Short Pick Notification Response XML payload using either the SOAP or the HTTPS protocol and the POST method:

```
<ShortPickNotificationResponse version="2.0"
xmlns="http://www.bic.org.uk/webservices/shortPickNotification">
  <Header>
    <IssueDateTime>20190518T1527</IssueDateTime>
    <SenderIdentifier>
      <SenderIDType>01</SenderIDType>
      <IDValue>XYZ</IDValue>
    </SenderIdentifier>
    <AccountIdentifier>
      <AccountIDType>01</AccountIDType>
      <IDValue>12345</IDValue>
    </AccountIdentifier>
  </Header>
  <OrderDetail>
    <ReferenceCoded>
      <ReferenceTypeCode>11</ReferenceTypeCode>
      <ReferenceNumber>01020304</ReferenceNumber>
      <ReferenceDateTime>20190409</ReferenceDateTime>
    </ReferenceCoded>
    <ItemDetail>
      <ProductIdentifier>
        <ProductIDType>03</ProductIDType>
        <IDValue>9780123456789</IDValue>
      </ProductIdentifier>
      <ReferenceCoded>
        <ReferenceTypeCode>12</ReferenceTypeCode>
        <ReferenceNumber>2</ReferenceNumber>
      </ReferenceCoded>
      <ResponseCoded>
        <ResponseType>21</ResponseType>
      </ResponseCoded>
    </ItemDetail>
  </OrderDetail>
</ShortPickNotificationResponse>
```

Example of a Short Pick Notification Response XML payload using the HTTPS protocol and the POST method:

```
{
  "ShortPickNotificationResponse": {
    "version": "2.0",
    "xmlns": "http://www.bic.org.uk/webservices/shortPickNotification",
    "Header": {
      "IssueDateTime": "20190518T1527",
      "SenderIdIdentifier": {
        "SenderIDType": "01",
        "IDValue": "XYZ"
      },
      "AccountIdentifier": {
        "AccountIDType": "01",
        "IDValue": "12345"
      }
    },
    "OrderDetail": [
      {
        "ReferenceCoded": [
          {
            "ReferenceTypeCode": "11",
            "ReferenceNumber": "01020304",
            "ReferenceDateTime": "20190409"
          }
        ],
        "ItemDetail": [
          {
            "ProductIdentifier": [
              {
                "ProductIDType": "03",
                "IDValue": "9780123456789"
              }
            ],
            "ReferenceCoded": [
              {
                "ReferenceTypeCode": "12",
                "ReferenceNumber": 2
              }
            ],
            "ResponseCoded": [ {"ResponseType": "21"} ]
          }
        ]
      }
    ]
  }
}
```