Book Industry Communication

BIC Realtime

Standards for Instant Business Message Exchange

ONIX Product Information Acknowledgement

Version 2.0, 3 April 2020

This document: https://www.bic.org.uk/files/pdfs/API/Trade/BICWSONIXProductInfoAck-V2.0.pdf
XML schema: https://www.bic.org.uk/files/xml/BICWSONIXProductInfoAck_V2.0.xsd
WSDL file: https://www.bic.org.uk/files/xml/BICWSONIXProductInfoAckSOAP_V2.0.wsdl
XML namespace: https://www.bic.org.uk/webservices/onixProductInfoAck
Next review date: 26 February 2021

This document specifies the *BIC Realtime* web service ONIX Product Information Acknowledgement format and the corresponding response format.

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* ONIX Product Information Acknowledgement 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 versions of the *BIC Realtime* web service

- an XML Schema for Request and Response payloads in XML format.

It is strongly recommended that SOAP client implementations of these *BIC Realtime* web services 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.

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[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

The Acknowledgement *BIC Realtime* web service enables the recipient of product information in ONIX format to report upon their success or otherwise in processing the information and any issues that are encountered.

This *BIC Realtime* web service may be used in conjunction with the *BIC Realtime* Retrieve ONIX Product Information web service, or may be used as a stand-alone web service to acknowledge ONIX product information feeds delivered by other means.

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.

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 16: 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 header lines 1 and 2: Elements ClientID and ClientPassword made non-mandatory. It is recommended that HTTPS header-based authentication be used where possible.

Request header line 7: 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 payload line 6: 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.

POST ONIX PRODUCT INFORMATION ACKNOWLEDGEMENT REQUEST

Requests using the basic HTTPS protocol and the GET method

Requests using the basic HTTPS protocol and the GET method should include in the URL 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[4].	D	ClientID	
2	A password to further authenticate the sender of the request[4].	D	ClientPassword	

3	A code value from a BIC-controlled codelist for the scheme used for the account identifier (see ONIX codelist 44). Mandatory if including an account identifier. Permitted values are:
	    01 Proprietary
	    06 EAN-UCC GLN
	    07 SAN
	    11 PubEasy PIN
		D	AccountIDType	

4	Account identifier for this request, using the specified scheme	D	AccountIDValue	
5	Identification number of this request	D	RequestNumber	
6	A date/time reference for this request	D	IssueDateTime	
7	Number of original ONIX Product Information request	D	RequestReference	
8	Date or date-time of original request	D	RequestDateTime	
9	Number of ONIX Product Information response to original request	D	ResponseReference	
10	Date or date-time of response to original request	D	ResponseDateTime	
11	EAN-13 product number (mandatory unless trading partners have agreed to use an alternative product identifier)	D	EAN13	
12	A code value from a BIC-controlled codelist for the type of an alternative identifier of the product (see ONIX codelist 5 - code value '02' excluded).	D	ProductIDType	
13	An alternative product identifier of the specified type. Only one alternative type of identifier may be carried in a Request using the HTTPS protocol.	D	ProductIDValue	
14	ONIX product record status. The status of the product record received in response to an ONIX product information request. Permitted values are specified by ONIX code list 226.	M	RecordStatus	
15	Record status note. Contains warnings or descriptions of errors found. Mandatory if reporting that the record contains errors.	D	RecordStatusNote	
16	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 GET method:

https://www.booksupplier.co.uk/ONIXProductInformationAcknowledgementService
?ProductIDType=03&ProductIDValue=9781234567890&RecordStatus=00

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[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

Post ONIX Product information acknowledgement Version 2.0	<PostONIXProductInfoAckRequest version="2.0">	
	{ "PostONIXProductInfoAckRequest": { "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 for this request	D	AccountIdentifier.	

	A code value from a BIC-controlled codelist for the scheme used for the account identifier (see ONIX codelist 44). Mandatory if including an account identifier. Permitted values are:
	    01 Proprietary
	    06 EAN-UCC GLN
	    07 SAN
	    11 PubEasy PIN
		M	AccountIDType	

	Account identifier for this request, using the specified scheme	M	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	References to original product information request and response, if product information received using the *BIC Realtime* ONIX Product Information web service.	D	ReferenceCoded	R
	Reference type *27* Product information request number or date/time *28* Product information response number or date/time	M	ReferenceTypeCode	
	Reference number / string	M	ReferenceNumber	
	Reference date-time (for format options see line 5)	D	ReferenceDateTime	
7	Language in which the requester would prefer free-text descriptions to be expressed – use ONIX code list 74.	D	DescriptionLanguageCode	

Request detail

	Product	M	Product.	R
1	EAN-13 product number (mandatory unless either there was no product identifier in the product information record or trading partners have agreed to use an alternative product identifier)	D	EAN13	

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[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 detail (continued)

	Product	M	Product.	
2	Alternative product identifier	D	ProductIdentifier.	R
	Product ID type - see ONIX codelist 5, code value '02' excluded	M	ProductIDType	
	ID type name, only if ID type = proprietary	D	IDTypeName	
	Product number	M	Identifier	
3	Product record status. The status of the product record received in response to an ONIX product information request. Permitted values are specified by ONIX code list 226.	M	RecordStatus	
4	Record status note. Contains warnings or descriptions of errors found. Either RecordStatusNote or RecordStatusDetail is mandatory if the record status has any value other than '00' or '09'.	D	RecordStatusNote	
5	Record status detail	D	RecordStatusDetail	R
	Status detail code type. Permitted values are defined by ONIX code list 223	M	StatusDetailCodeType	
	Name of proprietary status detail code type	D	StatusDetailCodeTypeName	
	Status detail type severity. Permitted values are defined by ONIX code list 224	M	StatusDetailType	
	Status detail code. Depends upon the status detail code type. If the code type is 'ONIX status detail code' the permitted values are defined by ONIX code list 225.	D	StatusDetailCode	
	Status detail text	D	StatusDetailText	
	Status detail XPath locator	D	StatusDetailXPath	R

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

```
<PostONIXProductInfoAckRequest version="2.0"
      xmlns="http://www.bic.org.uk/webservices/onixProductInfoAck">
  <Header>
    <AccountIdentifier>
      <AccountIDType>01</AccountIDType>
      <IDValue>12345</IDValue>
    </AccountIdentifier>
    <RequestNumber>001</RequestNumber>
    <IssueDateTime>20190423T152500</IssueDateTime>
    <ReferenceCoded>
      <ReferenceTypeCode>27</ReferenceTypeCode>
      <ReferenceNumber>001</ReferenceNumber>
    </ReferenceCoded>
    <ReferenceCoded>
      <ReferenceTypeCode>28</ReferenceTypeCode>
      <ReferenceDateTime>20190421T091500</ReferenceDateTime>
    </ReferenceCoded>
  </Header>
  <Product>
    <ProductIdentifier>
      <ProductIDType>03</ProductIDType>
      <IDValue>9781234567890</IDValue>
    </ProductIdentifier>
    <RecordStatus>00</RecordStatus>
  </Product>
</PostONIXProductInfoAckRequest>
```

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

```
{
    "PostONIXProductInfoAckRequest": {
        "version": "2.0",
        "xmlns": "http://www.bic.org.uk/webservices/onixProductInfoAck",
        "Header": {
            "AccountIdentifier": {
                "AccountIDType": "01",
                "IDValue": "12345"
            },
            "RequestNumber": "001",
            "IssueDateTime": "20190423T152500",
            "ReferenceCoded": [
                {
                    "ReferenceTypeCode": "27",
                    "ReferenceNumber": "001"
                },
                {
                    "ReferenceTypeCode": "28",
                    "ReferenceDateTime": "20190421T091500"
                }
            ]
        },
        "Product": {
            "ProductIdentifier": [
                {
                    "ProductIDType": "03",
                    "IDValue": "9781234567890"
                }
            ],
            "RecordStatus": "00"
        }
    }
}
```

POST ONIX PRODUCT INFORMATION ACKNOWLEDGEMENT 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

Post ONIX product information acknowledgement response Version 2.0	**<PostONIXProductInfoAckResponse version="2.0">** **{ "PostONIXProductInfoAckResponse" { "version": ...**	

Response body

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)	M	SenderIdentifier.	
	Sender ID type - see ONIX codelist 92	M	SenderIDType	
	ID type name, only if ID type = proprietary	D	IDTypeName	
	Identifier	M	IDValue	
3	Identification number / string of this response	D	ResponseNumber	
4	Account identifier. Mandatory in all responses.	M	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
		M	AccountIDType	

	Account identifier for this request, using the specified scheme	M	IDValue	
5	References: request number and/or date/time of request must be quoted if included in the request.	D	ReferenceCoded	
	Reference type *01* Number or date/time of associated post ONIX product information acknowledgement request	M	ReferenceTypeCode	
	Reference number / string	D	ReferenceNumber	
	Reference date or date and time. Mandatory if an IssueDateTime is included in the request.	D	ReferenceDateTime	
6	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 identifier	M	ResponseType	
	Free text description / reason for response	D	ResponseTypeDescription	
	Language of description. Mandatory if included in the request. See request header line 16.	D	DescriptionLanguageCode	

Example of a Post ONIX Production Information Acknowledgement Response XML payload using either the SOAP or the HTTPS protocol and the POST method:

```xml
<PostONIXProductInfoAckResponse version="2.0"
      xmlns="http://www.bic.org.uk/webservices/onixProductInfoAck">
  <IssueDateTime>20191120T1526</IssueDateTime>
  <SenderIdentifier>
    <SenderIDType>01</SenderIDType>
    <IDValue>XYZ</IDValue>
  </SenderIdentifier>
  <AccountIdentifier>
    <AccountIDType>01</AccountIDType>
    <IDValue>12345</IDValue>
  </AccountIdentifier>
  <ReferenceCoded>
    <ReferenceTypeCode>01</ReferenceTypeCode>
    <ReferenceNumber>001</ReferenceNumber>
    <ReferenceDateTime>20190421T091500</ReferenceDateTime>
  </ReferenceCoded>
</PostONIXProductInfoAckResponse>
```

Example of a Post ONIX Production Information Acknowledgement Response JSON payload using the HTTPS protocol and the POST method:

```json
{
    "PostONIXProductInfoAckResponse": {
        "version": "2.0",
        "xmlns": "http://www.bic.org.uk/webservices/onixProductInfoAck",
        "IssueDateTime": "20191120T1526",
        "SenderIdentifier": {
            "SenderIDType": "01",
            "IDValue": "XYZ"
        },
        "AccountIdentifier": {
            "AccountIDType": "01",
            "IDValue": 12345
        },
        "ReferenceCoded": {
            "ReferenceTypeCode": "01",
            "ReferenceNumber": "001",
            "ReferenceDateTime": "20190421T091500"
        }
    }
}
```