



# *Book Industry Communication*

## **BIC Realtime**

*Standards for Instant Business Message Exchange*

### **Post Financial Document**

Version 1.0, 8 February 2016

**This document:** <http://www.bic.org.uk/files/pdfs/BICWSPostFinancialDocument-V1.0.pdf>  
**XML schema:** <http://www.bic.org.uk/files/xml/BICWSPostFinancialDocument-V1.0.xsd>  
**WSDL file:** <http://www.bic.org.uk/files/xml/BICWSPostFinancialDocumentSOAP-V1.0.wsdl>  
**XML namespace:** <http://www.bic.org.uk/webservices/postFinancialDocument>  
**Next review date:** 1 February 2018

This document specifies in human-readable form the *BIC Realtime* web services Post Financial Document Request and Response formats. One format is specified for Request, for use with implementations that use either SOAP or the basic HTTP protocol<sup>1</sup> and HTTP POST method. The same Response format will apply to both basic HTTP and SOAP exchanges.

The complete specification of the *BIC Realtime* Post 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 supplier to be able to post financial documents, currently invoices or credit notes, as digital documents to a buyer or to an aggregation service, both as original and as copy documents. There may in future be a need to post other financial documents, such as debit notes and statements.

Financial documents may only be posted in real-time in XML format. The XML formats for trade invoices and credit notes are the EDItX Trade Invoice and Trade Credit Note format developed by EDItEUR. All the financial documents posted in a single request must be of the same type – current either invoice or credit note – and all documents must be wrapped in a single EDItX XML Message wrapper.

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<sup>1</sup> 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).

NOTE – This document does not provide format details for posting invoices and credit notes in XML format. 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](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)

Invoices and credit notes may alternatively be posted in PDF format, in which case the request will include a URI from which the PDF file can be retrieved.

### **Example use case**

A supplier wishes to trickle invoices to a customer or aggregation service in real time as they are raised. As each invoice is raised the supplier generates an XML invoice and posts it onto the customer's system using a *BIC Realtime* Post Financial Document web service implementation.

## POST 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. Only a single document in PDF format, for which a URI for retrieval is specified, may be posted by this method.

	Parameter description	M <sup>2</sup>	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 post financial document requests. Permitted values are: 01 Proprietary 06 EAN-UCC GLN 07 SAN 11 PubEasy PIN	M	AccountIDType	
5	Account identifier for this request, using the specified scheme. Mandatory in all post financial document requests All retrieved financial documents must relate to this account.	M	AccountIDValue	
6	A date/time reference for this request	D	IssueDateTime	
7	Document type. Permitted values are: 01 Invoice 02 Credit note 03 Remittance advice note 04 Account statement	M	DocumentType	
8	Document number	M	DocumentNumber	
9	Settlement due date – YYYYMMDD	D	SettlementDueDate	
10	Gross value of invoice or credit note. If the document is a credit note, the value must be negative.	D	GrossValue	
11	Net value of invoice or credit note. If the document is a credit note, the value must be negative.	D	NetValue	
12	Currency of value(s) if not the default currency.	D	CurrencyCode	
13	URI of document in PDF format	D	PDFDocumentURI	

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

<http://www.bookbuyer.co.uk/FinancialDocumentReceivingService?ClientID=12345&ClientPassword=x9a44Ysj&AccountIDType=01&AccountIDValue=XYZ&DocumentType=01&DocumentNumber=01234567&PDFDocumentURI=ftp://ftp.supplier.co.uk/invoices/0987654.pdf>

<sup>2</sup> 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 documents may be posted using this method.

**Request document name and version**

	<b>Post Financial Document request Version 1.0</b>		<b>&lt;PostFinancialDocumentRequest version="1.0"&gt;</b>	
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**Request header**

	<b>Request header</b>	<b>M</b>	<b>Header.</b>	<b>3</b>
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 post 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 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	Document format. All posted documents must be in the same format. Permitted values are: 01 XML 02 PDF	M	DocumentFormat	

<sup>3</sup> An 'R' in the right-most column means that the element is repeatable.

**Request detail**

	<b>Item detail</b>	<b>D</b>	<b>ItemDetail.</b>	<b>R</b>
1	Post financial document line number	M	LineNumber	
2	Party to whom the document is to be sent Party identifier Party ID type 01 Proprietary 06 EAN-UCC GLN 07 SAN Identifier string Party name	M M M  M D	DocumentToParty. PartyID PartyIDType  IDValue PartyName	
3	Document type. Permitted values are: 01 Invoice 02 Credit note 03 Remittance advice note 04 Account statement	M	DocumentType	
4	Document number. If posting a document in XML format (see Header line 6), this number must correspond to a uniquely numbered document within the XML Message detail (see below).	M	DocumentNumber	
5	Settlement due date – YYYYMMDD	D	SettlementDueDate	
6	Gross value of invoice or credit note. If the document is a credit note, the value must be negative.	D	GrossValue	
7	Net value of invoice or credit note. If the document is a credit note, the value must be negative.	D	NetValue	
8	Currency of value(s) if not the default currency.	D	CurrencyCode	
9	XML message sequence number. Must be included if the document format is specified at the header level to be XML.	D	XMLMessageSequenceNumber	
10	XML document sequence number within the XML message specified in line 9. Must be included if the document format is specified at the header level to be XML.	D	XMLDocumentSequenceNumber	
11	URI of document in PDF format. Must be included if the document format is specified at the header level to be PDF (see Header line 6).	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 published by EDItEUR. Must be included if the document format is specified at the Header level to be XML (see Header line 6). 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). Each document in the XML Message detail must correspond to a distinct line in the Request detail.

For format details see See <http://www.editeur.org/50/Trade-Book-Supply/>.

	<b>EDItX Message version 1.6</b>	<b>D</b>	<b>EDItXMessage version="1.6"</b>	
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*Example of a Post Financial Document Request XML payload using either the SOAP or the HTTP protocol and the HTTP POST method, including a URI for an invoice in PDF format:*

```
<PostFinancialDocumentRequest version="1.0"
xmlns="http://www.bic.org.uk/webservices">
  <Header>
    <ClientID>12345</ClientID>
    <ClientPassword>x9a44Ysj</ClientPassword>
    <AccountIdentifier>
      <AccountIDType>01</AccountIDType>
      <IDValue>12345</IDValue>
    </AccountIdentifier>
    <RequestNumber>001</RequestNumber>
    <IssueDateTime>20150725T1525</IssueDateTime>
    <DocumentFormat>02</DocumentFormat>
  </Header>
  <ItemDetail>
    <LineNumber>1</LineNumber>
    <DocumentToParty>
      <PartyID>
        <PartyIDType>07</PartyIDType>
        <IDValue>99999</IDValue>
      </PartyID>
    </DocumentToParty>
    <DocumentType>01</DocumentType>
    <DocumentNumber>0987654</DocumentNumber>
    <SettlementDueDate>20150725</SettlementDueDate>
    <GrossValue>999.99</GrossValue>
    <NetValue>999.99</NetValue>
    <PDFDocumentURI>ftp://ftp.supplier.co.uk/invoices/0987654.pdf</PDFDocumentURI>
  </ItemDetail>
</PostFinancialDocumentRequest>
```

*Example of a Post Financial Document Request XML payload using either the SOAP or the HTTP protocol and the HTTP POST method, including an invoice in XML format:*

```
<PostFinancialDocumentRequest version="1.0"
  xmlns="http://www.bic.org.uk/webservices/postFinancialDocument">
  <Header>
    <ClientID>12345</ClientID>
    <ClientPassword>x9a44Ysj</ClientPassword>
    <AccountIdentifier>
      <AccountIDType>01</AccountIDType>
      <IDValue>12345</IDValue>
    </AccountIdentifier>
    <RequestNumber>001</RequestNumber>
    <IssueDateTime>20150725T0001</IssueDateTime>
    <DocumentFormat>01</DocumentFormat>
  </Header>
  <ItemDetail>
    <LineNumber>1</LineNumber>
    <DocumentToParty>
      <PartyID>
        <PartyIDType>07</PartyIDType>
        <IDValue>99999</IDValue>
      </PartyID>
    </DocumentToParty>
    <DocumentType>01</DocumentType>
    <DocumentNumber>0987654</DocumentNumber>
    <SettlementDueDate>20150725</SettlementDueDate>
    <GrossValue>999.99</GrossValue>
    <NetValue>999.99</NetValue>
  </ItemDetail>
  <EDItXMessage xmlns="" version="1.6">
    <Invoice>
      <Header>
        <InvoiceNumber>0987654</InvoiceNumber>
        ...
      </Header>
      <ItemDetail>
        ...
      </ItemDetail>
      ...
    </Invoice>
  </EDItXMessage>
</PostFinancialDocumentRequest>
```

## POST 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

<b>Post Financial Document response Version 1.0</b>	<b>&lt;PostFinancialDocumentResponse version="1.0"&gt;</b>
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### Response header

	Response header	M	Header.	4
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. 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 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 post 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	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 identifier 19 Server unable to process request – unable to contact party to whom the document is to be sent  Free text description / reason for response	D M D	ResponseCoded. ResponseType  ResponseTypeDescription	R

<sup>4</sup> An 'R' in the right-most column means that the element is repeatable.



## Response detail

	<b>Details of each financial document that has been received. Mandatory unless the header reports a condition that prevents any response</b>	<b>D</b>	<b>ItemDetail.</b>	<b>R</b>
1	Post Invoice 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	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	
5	Response code, if there are exception conditions. Response type code. Suggested code values: 03 Unable to process this item Free text description. Mandatory, as it will always be necessary to describe the exception condition in more detail.	D M D	ResponseCoded. ResponseType  ResponseTypeDescription	R

*Example of a Post Financial Document Request XML payload using either the SOAP or the HTTP protocol and the HTTP POST method, including a URI for an invoice in XML format:*

```
<PostFinancialDocumentResponse version="1.0"
xmlns="http://www.bic.org.uk/webservices/postFinancialDocument">
  <Header>
    <IssueDateTime>20150725T153000</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>20150725T152500</ReferenceDateTime>
    </ReferenceCoded>
  </Header>
  <ItemDetail>
    <ReferenceCoded>
      <ReferenceTypeCode>02</ReferenceTypeCode>
      <ReferenceNumber>1</ReferenceNumber>
    </ReferenceCoded>
    <DocumentType>01</DocumentType>
    <DocumentNumber>0987654</DocumentNumber>
  </ItemDetail>
</PostFinancialDocumentResponse>
```