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BIC Realtime for Libraries – Standards for Instant Business Message Exchange

This BIC Bite is relevant to business leaders and sales, IT, finance and customer services departments in distributors, publishers, wholesalers, library suppliers and data providers.

Introduction

BIC Realtime for Libraries establishes a set of standard Application Programming Interfaces (APIs) for libraries, suppliers and data providers in the physical and digital supply chains. This newly created set of XML standards is designed to facilitate and improve business communication in the physical and digital library supply chains. Libraries and the book trade are very familiar with EDI (Electronic Data Interchange) and the advantages of exchanging business messages electronically. But EDI is usually a batch transaction rather than a real-time transaction. Now, using XML communication over the Internet, libraries and their suppliers can communicate much more quickly, obtaining real-time replies to their requests.

This standard is recommended by BIC as the best way to implement these new messages between libraries and their suppliers. BIC is not suggesting that longstanding and highly effective EDI implementations should be replaced by *BIC Realtime for Libraries*, but that existing capabilities can be significantly enhanced by implementing these additional messages. In addition, new implementations should consider using the *BIC Realtime for Libraries* API's as a modern, cost effective standards based alternative to EDI.

Background

EDI has benefited the library supply industry for many years with messages including purchase order, order response, invoice, credit note and returns, but libraries and their suppliers see increasing benefits in the ability to exchange additional information in real-time. Proprietary and bilateral XML Web Services were developed by some but these carried an increasing administrative overhead as they proliferated.

BIC has assembled a working group of industry experts who have reviewed *BIC Realtime*, a suite of standard web services already developed by BIC for trade book supply and adapted them for library supply. Now BIC can offer the library supply chain a single, free-to-use suite of APIs covering many of the key communication requirements of library book supply. These messages are called *BIC Realtime for Libraries*.

Why use *BIC Realtime for Libraries*?

BIC Realtime for Libraries is a suite of 8 standard business APIs which are easily understood and very quick to develop, install and test. Suppliers can deploy *BIC Realtime for Libraries* solutions far more quickly and cheaply than is the case with traditional EDI. Trading partners can also start to use these solutions far more quickly without weeks of testing.

Here is an example of *BIC Realtime for Libraries* in action:

This example describes a library placing an order for a title and using up to 4 *BIC Realtime for Libraries* message pairs*:

1. The library checks the price and availability of the title they want to order using the Request Price & Availability API.
2. An order is placed by the library using the Place Order API.
3. If the title cannot be supplied immediately, the library can check the status of the order using the Order Status Enquiry API.
4. A MARC record is required by the library for the title ordered, and this is acquired using the Retrieve MARC Production Information API.

***BIC Realtime for Libraries* – List of currently-available APIs**

Here is the full list of *BIC Realtime for Libraries* APIs. *Note that each API is always a pair of messages – a request message followed by a response message – which contains the requested information or a functional response to acknowledge the request.



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Product Metadata APIs

1. Retrieve MARC Product Information (*requests a MARC metadata record*)
2. Request Price & Availability (*requests price and availability information*)

Ordering APIs

3. Retrieve Quotes list (*retrieves a list of quotes prepared by a supplier*)
4. Retrieve Quotation (*retrieves details of a particular quotation*)
5. Place Order (*places a library purchase order*)
6. Retrieve Order List (*obtains a list of orders, e.g. dues*)
7. Order Status Enquiry (*requests status of an order*)
8. Order Cancellation (*Cancels an order, e.g. from backorders/dues*)

Libraries, LMS vendors, Reading List Management Systems, and Suppliers

The *BIC Realtime for Libraries* standard details the API formats and their data fields, and effectively provides a template for Libraries, LMS vendors, Reading Lists Management Systems, and Suppliers wishing to share this data. This data is returned in response to a *BIC Realtime for Libraries* request and this highlights an opportunity for all parties to speed up the acquisitions process, enhance their customer service and reduce their administration costs, for example by reducing the number of calls and emails requesting price and availability information or to check the status of an order – these functions are outsourced to the systems to deliver via a *BIC Realtime for Libraries* API. Using this data in real-time eliminates the issues caused by overnight or weekly EDI batch processes, ensuring that data is as accurate as possible, further eliminating cost, speeding up the acquisitions process and enhancing customer service.

BIC's role

BIC has been involved with establishing standards and promoting best practice in the book supply chain for over 20 years. BIC established the EDI standards which are in use in the book trade and *BIC Realtime for Libraries* is the latest contribution to improved communication leading to an improved book supply chain. The *BIC Realtime for Libraries* Review Group will manage future requests for changes / additions to the *BIC Realtime for Libraries* standard APIs. BIC recommends that business leaders consider investing in the necessary systems to host the exchange of *BIC Realtime for Libraries* messages.

More information on *BIC Realtime for Libraries*, use cases and message formats, XSD, WSDL, XML Schema, User Guide, and lists of Gold and Silver Level endorsers etc. are hosted on the BIC website at: <http://www.bic.org.uk/205/BIC-Realtime-for-Libraries/>

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the book industry's supply chain organisation