

BIC

Breakfasts 2016

Welcome to November's BIC Breakfast:
BIC Realtime – Standards for
Instant Business Message Exchange

#BICBreakfast

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BIC Breakfast?**

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(March 2017)

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Over to Jack...

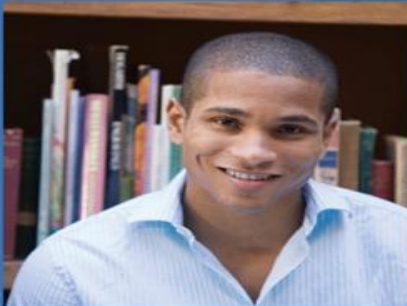


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BIC Breakfast
Thursday 24th November 2016
Jack Tipping – Bowker UK

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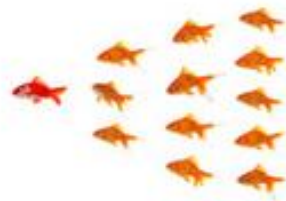
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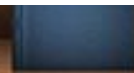
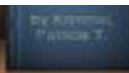
Jack Tipping
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Shelf | List



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BIC Breakfast

November 24th 2016

BIC Realtime

Standard API's for the book industry

John Garrould Connect Books

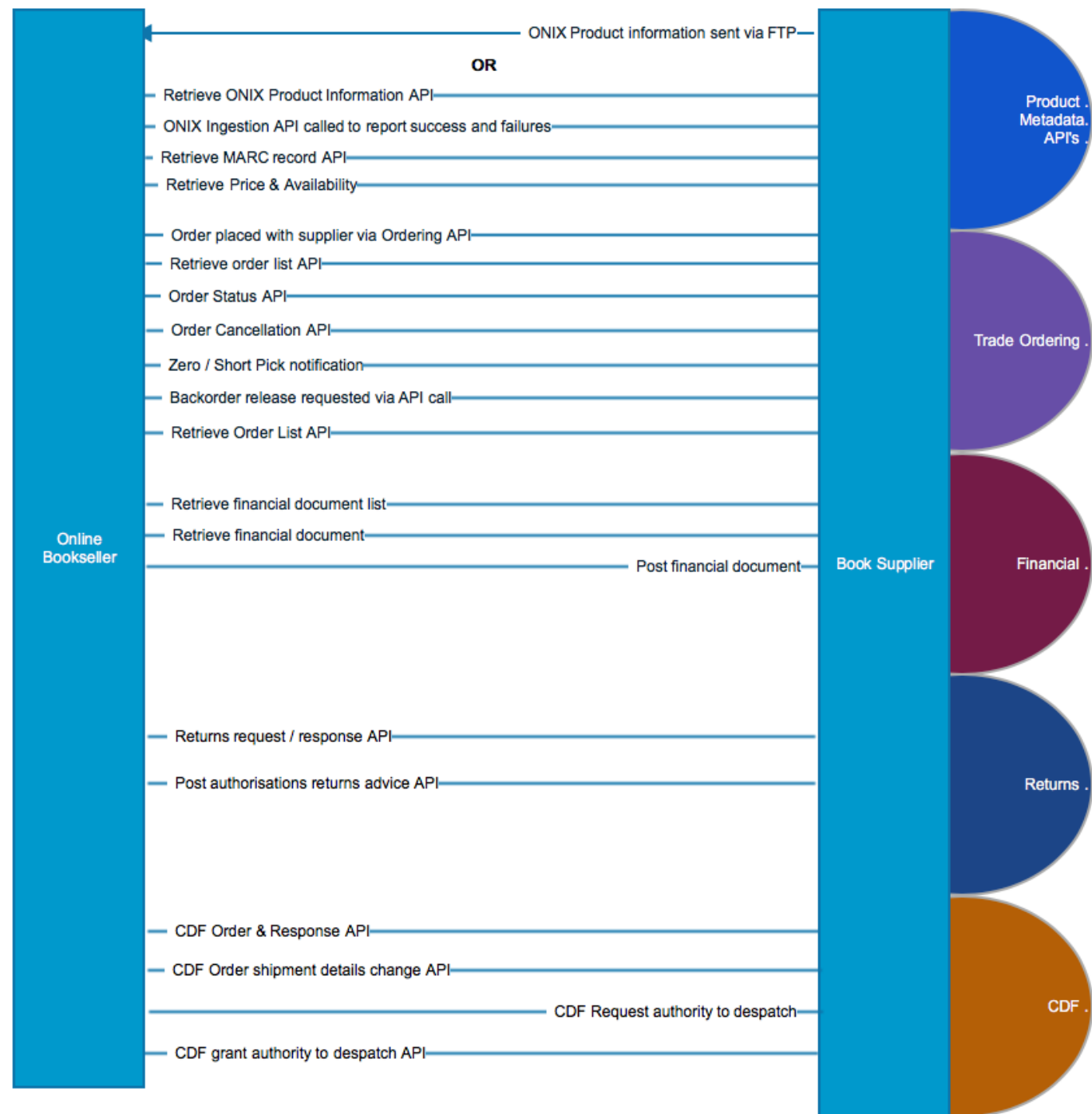
Chair BIC Web Services Working Group

In the next 10 minutes we'll cover:

1. *An introduction to BIC Realtime*
2. *A brief overview of Standards based API's*
3. *Deep dive into the Order Cancellation API*
4. *Where to find more information & getting involved*

What is *BIC Realtime*?

1. *BIC Realtime is a suite of 19 API's designed by and for the book industry covering a range of business requirements.*
2. *It refreshes and extends the previous set of Web Service standards that BIC has developed, adding features, new messages and provides a platform for growth.*
3. *Companies can use BIC Realtime to give trading partners secure, controlled access to their databases in real-time via standard API calls.*
4. *The new API's fill gaps in the EDI message set and will help reduce costs by reducing the number of calls, emails and other manual interventions.*
5. *Giving customers access to this data in real time eliminates issues and costs caused by daily or weekly batch updates which are out of date as soon as they are produced.*






What is an API?

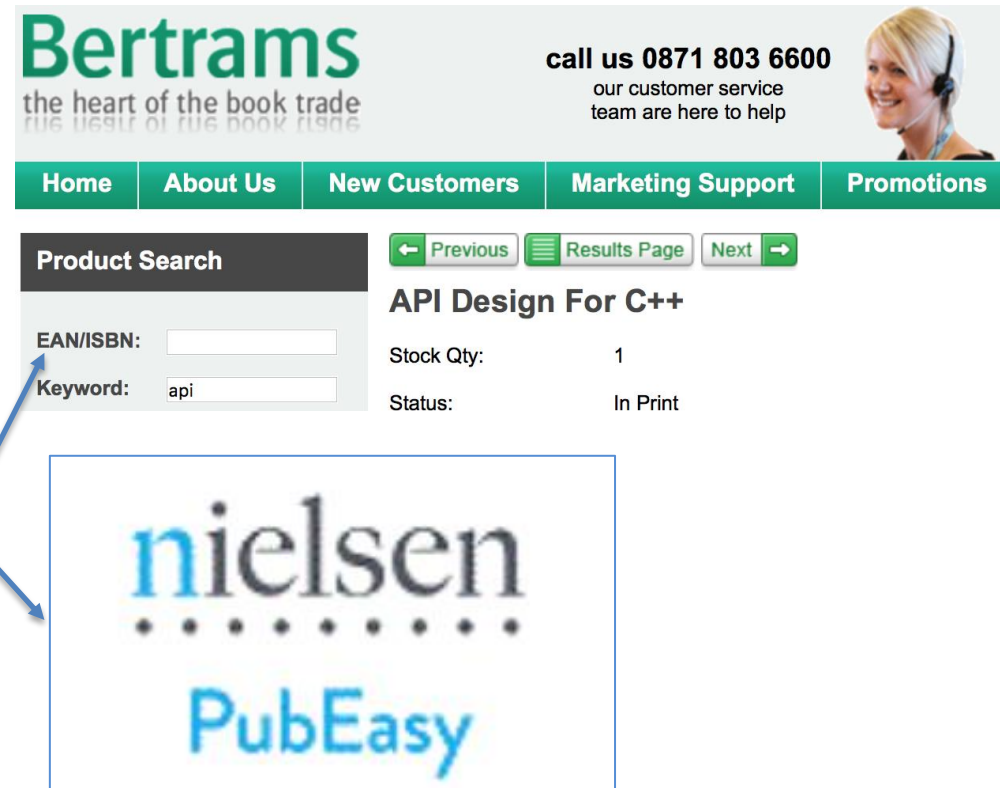
What is a standards based API?

Scenario:

“We want to create an iPhone App that lets a bookseller scan an ISBN barcode and display its price and availability at their supplier.”



 BIC Price & Availability API standard



Bertrams
the heart of the book trade

call us 0871 803 6600
our customer service team are here to help

Home About Us New Customers Marketing Support Promotions

Product Search

← Previous Results Page Next →

EAN/ISBN:

Keyword:

API Design For C++

Stock Qty: 1

Status: In Print

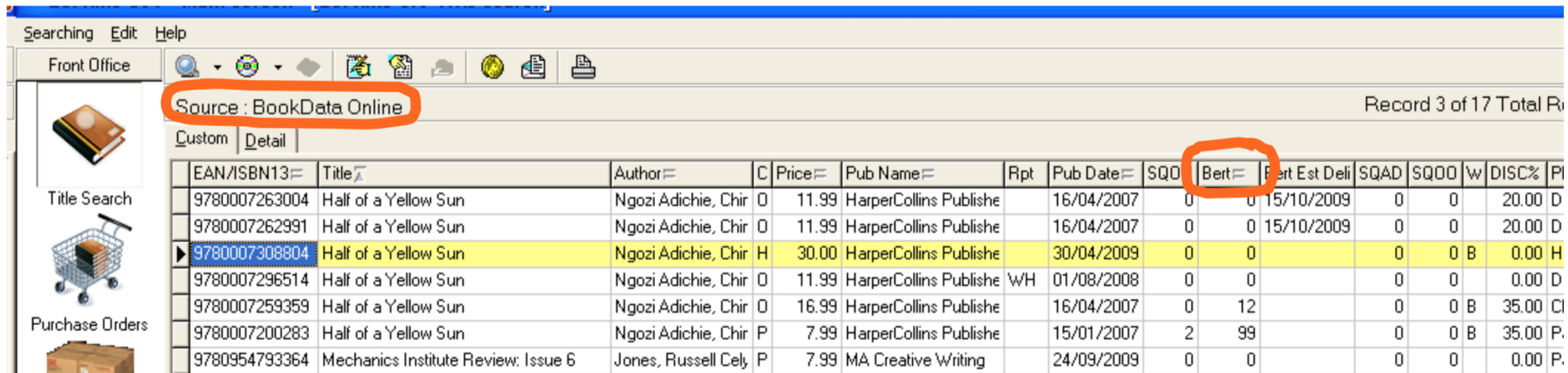
nielsen
PubEasy

The API provides **secure, controlled access** via a **standard interface** to the suppliers systems.

The App can be used to access **any** supplier who implements the **standard API**, by adding the URL and credentials issues by the supplier.

What is an API?

API's can be integrated into anything connected to the Internet and used as building blocks to create complex applications:



Source : BookData Online

EAN/ISBN13	Title	Author	C	Price	Pub Name	Rpt	Pub Date	SQD	Bert	Part Est Deli	SQAD	SQDD	W	DISC%	PI
9780007263004	Half of a Yellow Sun	Ngozi Adichie, Chir	O	11.99	HarperCollins Publishe		16/04/2007	0	0	15/10/2009	0	0		20.00	D
9780007262991	Half of a Yellow Sun	Ngozi Adichie, Chir	O	11.99	HarperCollins Publishe		16/04/2007	0	0	15/10/2009	0	0		20.00	D
9780007308804	Half of a Yellow Sun	Ngozi Adichie, Chir	H	30.00	HarperCollins Publishe		30/04/2009	0	0		0	0	B	0.00	H
9780007296514	Half of a Yellow Sun	Ngozi Adichie, Chir	O	11.99	HarperCollins Publishe	WH	01/08/2008	0	0		0	0		0.00	D
9780007259359	Half of a Yellow Sun	Ngozi Adichie, Chir	O	16.99	HarperCollins Publishe		16/04/2007	0	12		0	0	B	35.00	CI
9780007200283	Half of a Yellow Sun	Ngozi Adichie, Chir	P	7.99	HarperCollins Publishe		15/01/2007	2	99		0	0	B	35.00	P
9780954793364	Mechanics Institute Review: Issue 6	Jones, Russell Cely	P	7.99	MA Creative Writing		24/09/2009	0	0		0	0		0.00	P

This example shows Bertrams Bertline system displaying search results from Nielsen Bookdata Online API's, merging together real time stock holding information at Bertrams using the BIC Price & Availability API.



BIC Realtime Order Cancellation API:

Consumer Contracts Regulations - came into force on 13 June 2014 and implemented the Consumer Rights Directive....giving consumers the right to cancel.

BUT There is no standard EDI / Automatic means in the book industry for sending a cancellation to a supplier.

This causes phone calls, emails, manual use of web sites, unwanted deliveries that then cause returns = unnecessary COST in supply chain.

The BIC Order Cancellation API is easy to implement and solves this problem.

Gives
confidence to
backorder

BIC Realtime Order Cancellation API:

[Customers](#) | [Marketing Support](#) | [Promotions](#) | [IBG](#) | [Help](#) | [Bertline](#) | [Publishers](#)

Current backorders report as of 22:16:50 on 14-Nov-2016

Retail value of dues ready to ship: £0.00
Total number of open dues: 8

Title ▾ Ascend ▾ [Sort](#)

[Download to CSV](#) | [Download to Excel](#) | [Show All](#) | [Show "Ready"](#) | [Show "On Order"](#) | [Release "Ready"](#)

Bad Call	ISBN: 9780262035392 Qty: 1 PO Number/Line Ref: GS28678 / ST160927-374151 Order Date: 27-Sep-2016 Status: NYP	Stock Item RRP £19.95 Cancel Ask Question
Case Of Beasts Film Wizardry Fantastic	ISBN: 9780008204600 Qty: 1 IBG NOV / IBG NOV Sep-2016	Stock Item RRP £20.00 Cancel Ask Question
	ISBN: 9780008204666	Stock Item

The Bertrams website backorder report includes a 'Cancel' button, this calls the Order Cancellation API. This is an example of how modern websites are assembled from reusable building blocks.



BIC Realtime Order Cancellation API:

Live:

WSDL: http://www.bertrams.com/BICWSOrderCancellationv1_0/services/portRequest?wsdl

SOAP: http://www.bertrams.com/BICWSOrderCancellationv1_0/services/portSOAP

REST: http://www.bertrams.com/BICWSOrderCancellationv1_0/OrderCancellationHTTP

Test:

WSDL: http://beta.bertrams.com/BICWSOrderCancellationv1_0/services/portRequest?wsdl

SOAP: http://beta.bertrams.com/BICWSOrderCancellationv1_0/services/portRequest

REST: http://beta.bertrams.com/BICWSOrderCancellationv1_0/OrderCancellationHTTP

This API gives the user the ability to cancel order lines or the whole order, however order lines/order cannot be cancelled in the following circumstances:

- They are in the process of being picked.
- They are in the process of being supplied.
- They have been cancelled. (some lines will get cancelled at the time of order)
- They are a special order and the order has been placed with the supplier

The website is great for adhoc cancellations but customers want tight integration into their automated workflows.

The cancellation API allows customers to script and fully automate the process.

BIC Realtime Order Cancellation API:

Example REST API Call:

https://www.bertrams.com/BICWSOrderCancellationv1_0/OrderCancellationHTTP?ClientID=bertrams&ClientPassword=test3&AccountIDType=02&AccountIDValue=308959&BuyersOrderNumber=123012197&RequestType=02&BuyersOrderLineNumber=4785447-008&EAN13=9780471485681

AccountIDType - input "02" if you are sending your account number, which means the value below is from a proprietary scheme. If you are sending SAN instead use "07".

AccountIDValue - input your account/San number e.g. 12345. You can find this information on a Bertrams sales invoice or the account details section on Bertrams.com

RequestType - '02' this is the only type bertrams support currently, which is to cancel one line of an order.

BuyersOrderNumber - order header reference (known as Customer Ref/Your PO Ref when in the order tracker on bertrams.com).

BuyersOrderLineNumber - the line reference for the line to be cancelled (known as Order Ref when in the order tracker on bertrams.com).

ProductIDValue - is the id for the item to be cancelled, for example for EAN13 "9781844212828".

BIC Realtime Order Cancellation API:

Example REST API Response:

```
<?xml version='1.0' encoding='UTF-8' ?>
<OrderCancellationResponse>
  <Header>
    <AccountIdentifier>
      <IDValue>123456</IDValue>
      <AccountIDType>02</AccountIDType>
    </AccountIdentifier>
    <IssueDateTime>20120120</IssueDateTime>
    <ReferenceCoded>
      <ReferenceDateTime>20120120</ReferenceDateTime>
      <ReferenceTypeCode>01</ReferenceTypeCode>
    </ReferenceCoded>
    <ReferenceCoded>
      <ReferenceNumber>Seven35876</ReferenceNumber>
      <ReferenceTypeCode>11</ReferenceTypeCode>
    </ReferenceCoded>
    <ResponseNumber>6678806</ResponseNumber>
    <SenderIdentifier>
      <IDTypeName>Company Name</IDTypeName>
      <IDValue>Bertram</IDValue>
      <SenderIDType>02</SenderIDType>
    </SenderIdentifier>
  </Header>
```

```
<ItemDetail>
  <EAN13>9781906332099</EAN13>
  <CancelledQuantity>1</CancelledQuantity>
  <LineNumber>1</LineNumber>
  <ReferenceCoded>
    <ReferenceNumber>Seven35876</ReferenceNumber>
    <ReferenceTypeCode>11</ReferenceTypeCode>
  </ReferenceCoded>
  <ReferenceCoded>
    <ReferenceNumber>MURRAY120120-329626</ReferenceNumber>
    <ReferenceTypeCode>12</ReferenceTypeCode>
  </ReferenceCoded>
  <ReferenceCoded>
    <ReferenceNumber>1</ReferenceNumber>
    <ReferenceTypeCode>02</ReferenceTypeCode>
  </ReferenceCoded>
  <ResponseCoded>
    <ResponseType>21</ResponseType>
  </ResponseCoded>
</ItemDetail>
</OrderCancellationResponse>
```



Where can I find out more?

To find out more visit the BIC Website



The screenshot shows a web browser window with the URL www.bic.org.uk/152/BIC-Realtime/. The page features the BIC logo on the left and a blue header with the text "Book Industry Communication" and "the book industry's supply chain organisation". A red button labeled "FIND YOUR LOCAL BOOKSHOP" is on the right. A left sidebar contains a list of navigation links: "About BIC", "Why become a member?", "Committees - Groups - Clinics", "Projects tracker", "BIC Training Courses", "BIC BATTLES (Debates)", "BIC Open Days", and "BIC Breakfasts". The main content area has a breadcrumb trail "Home > EDI/E-commerce > BIC Realtime" and the title "BIC Realtime". Below this, it states "Page last updated 5th April 2016" and "Welcome to **BIC Realtime** Standards for Instant Business Message Exchange". A section titled "About BIC Realtime - Executive Summary" follows, with a sub-header "(For business leaders and non-technical staff)". The text describes BIC Realtime as a set of standard messages for real-time communication between book businesses.

About BIC

Why become a member?

Committees - Groups - Clinics

Projects tracker

BIC Training Courses

BIC BATTLES (Debates)

BIC Open Days

BIC Breakfasts

Home > EDI/E-commerce > BIC Realtime

BIC Realtime

Page last updated 5th April 2016

Welcome to **BIC Realtime**

Standards for Instant Business Message Exchange

About BIC Realtime - Executive Summary





(For business leaders and non-technical staff)

BIC Realtime establishes a set of standard messages to enable computers to communicate with each other via the internet in real time requesting information and receiving an immediate response. This is for virtually all book businesses which hold databases of

Register to receive the BIC Realtime User Guide that will be published later this year.







Product Metadata API's

Product Metadata APIs

1.  [Retrieve ONIX Product Information](#)
2.  [ONIX Product Information Acknowledgement](#) (*acknowledges an ONIX feed and reports the result*)
3.  [Retrieve MARC Product Information](#) (*requests a MARC metadata record*)
4.  [Retrieve Price & Availability](#) (*requests price and availability information*)




Order Related API's

Ordering APIs

5.  [Trade Order Request and Response](#) (*places a trade purchase order*)
6.  [Retrieve Order List](#) (*obtains a list of orders, e.g. dues*)
7.  [Order Status Request and Report](#) (*requests status of an order*)
8.  [Request Order Cancellation](#) (*cancels an order, e.g. from backorders/dues*)
9.  [Request Backorder Release](#) (*asks for backorders to be released for supply*)
10.  [Short Pick Notification](#) (*notifies recipient of a shortage/zero pick*)

Financial document related API's

Financial documents APIs





11.  [Retrieve Financial Document List](#) (*requests a list of financial documents, e.g. invoices*)
12.  [Retrieve Financial Document](#) (*requests a copy of a specific financial document*)
13.  [Post Financial Document](#) (*sends a financial document, e.g. invoice*)

Returns APIs

14.  [Returns Authorisation and Despatch](#) (*requests permission to return books*)
15.  [Returns Despatch Advice](#) (*states what is actually being returned*)

Consumer direct fulfilment (CDF) API's

Consumer Direct Fulfilment APIs

16.  [CDF Order Request and Response](#) *(an order for a direct delivery to a customer)*
17.  [Order Shipment Details Change](#) *(enables changes to a CDF order, e.g. customer delivery address)*
18.  [CDF Request Authorisation to Despatch Order](#) *(asks if order can be despatched)*
19.  [CDF Grant Authorisation to despatch](#) order *(asks for order to be despatched)*

Quotes:

We welcome BIC's latest industry standards initiative for data exchange and live messaging and we are pleased to confirm that in the future our applications will include functionality that enables integration with many book standards, like Web Services and BIC Realtime. Ingenta is committed to providing world-class products that make for a smarter and more efficient supply chain and we will be looking to work closely with our customers and BIC to guarantee we achieve this effectively

Emily Taylor Gregory
Head of Marketing and Communications Ingenta

Nielsen Book are strong proponents of Web Services and strong promoters of Standards..... BIC Realtime provides an important framework for supporting and simplifying communication and efficiency in particular applications for the book trade and for promoting the development of innovative solutions to specific problems or opportunities.

Jon Windus
Head of Product Leadership Nielsen Book

Quotes:

Three years ago we integrated with Bertrams using the BIC Realtime compatible APIs they provide. Over those three years we have grown Wordery turnover to over £40m and built an outstanding brand and reputation with our customers. Real time APIs are important to us. As other suppliers adopt BIC Realtime APIs we will leverage them to further innovate and grow our business.

Will Jones

Wordery Founder

BIC Realtime API's have allowed us to create Bertline the leading Book Shop Management System, installed in 220 stores and still growing. This enables real-time access to our stock, pricing, ordering, returns and backorders with seamless integration with our website and customer services. The latest update extends this work to integrate the Above the Tree Line Service in real-time giving booksellers great insight into their data.

Marc Dubery

Executive Director Bertram Books



Quotes:

Dawson have made extensive use of BIC Realtime API's to integrate with Bertrams. We look forward to seeing this innovation extend further into the Library sector and we will work with BIC and all the leading Library Systems vendors to develop new real-time workflows supporting both print and digital.

Jane Johnson

Executive Director Dawson Books



Will there be a
BIC Realtime PlugFest?

BIC Realtime PlugFest

We need more publishers / distributors and systems vendors implementing the core P&A, Ordering and Cancellations API's.

If BIC organised a one day event for software developers would you send people?

What challenges would you like to see set?

It would be a great opportunity to develop and test code to make and receive BIC Realtime API calls while key developers from the industry are together in one place.



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BIC Realtime

a bird's-eye view

Francis Cave, Consultant to BIC

Context...EDI



The book trade has been trading digitally for twenty years

“The TRADACOMS standard has been obsolescent since development ceased in 1995 ... Despite this, it has proved durable and the majority of the retail EDI traffic in the UK still uses it.”

Wikipedia

- EDIFACT was first standardised internationally in 1987 (ISO 9735)
- EDItEUR was established as a standards organisation in 1994, with the development of EDIFACT for the book trade as one of its main aims
- X12 3060 Version 1 was published by BISG in 1997
 - but development of X12 started much earlier (1979)
- Version 1.1 of EDItEUR's EDIFACT implementation guidelines were published in March 1998

Context...web services

- 1991: invention of the World Wide Web and HTML
- 1993: release of *Mosaic*, the first web browser
- 1994: World Wide Web Consortium (W3C) founded by Tim Berners-Lee
- 1997: Extensible Markup Language (XML) 1.0 published
 - This is still the basic XML standard used today for practically all XML applications
- 1998–2007: Development of the SOAP web service protocol
 - Current W3C standard is SOAP Version 1.2
- 2000–2007: Development of Web Services Description Language (WSDL)
 - Current W3C standard is WSDL 2.0
- 2000: Representational State Transfer (REST) first described
 - Doctoral thesis by Roy Fielding, who subsequently co-ordinated work on a number of significant improvements to web protocols (HTTP 1.1, URI schemes)

Context...XML in the book trade



- 2000: ONIX 1.0 published jointly by EDItEUR, BIC and BISG
 - ONIX developed rapidly: ONIX 2.1 published in 2001; ONIX 3.0 published in 2009
- Early 2000s: BISG and EDItEUR started to work on an XML version of EDI for the book trade; their purpose was two-fold:
 - Low-cost development to meet new messaging requirements
 - Low-cost implementation for new players in the market
- The result was EDItEUR's XML/EDI standard: EDItX
 - XML message formats that mainly correspond to existing book trade TRADACOMS and EDIFACT message formats
 - A small number of adoptions worldwide – why?
 - EDItX defined the payload format, but not the transport mechanism
 - No incentive to switch from major investment in traditional EDI – which works!
 - Recent renewed interest in EDItX, but mainly for sales reporting

Origins of *BIC Realtime*



- The idea of a set of book trade standards based upon web services emerged out of the BIC *e4books* initiative in 2005.
- The first *e4books* Web Services standard was published in June 2006: Price & Availability Request and Response
- BIC published a range of Web Services standards between 2006 and 2012, but with minimal up-take
- Following a review of the existing Web Services standards by a new Working Group, chartered in 2014, a revised and extended set of standard web service APIs were published in April 2016 under the ***BIC Realtime*** banner.

Web services v. EDI: the benefits



- Developing non-XML EDI services from scratch is hard!
 - Dependency upon specialist EDI tools and developers (cost!)
- EDI is batch-oriented; web services are *real-time*
 - EDI transactions can take hours to complete
 - web services give an immediate response
- Web services delivering XML are easier to develop and test
 - Large developer ecosystem = more competitive market
 - Computer science graduates know about XML and web services, but not EDI
 - Off-the-shelf web service development frameworks
 - WSDLs and XML schemas make development and testing easier
 - WSDLs speed up web service client development in particular
 - XML schemas make it easy to validate payload XML
 - Lots of XML development tools, many of which are free/open source

EDI works for what it does, but the list of transactions not supported by EDI is growing all the time, as business models change

The *BIC Realtime* APIs

- Some have evolved from the earlier *e4books* Web Service standards, which were based upon EDItEUR's EDItX standards, most of which correspond quite closely to traditional EDI formats
 - Trade Order Request and Response
 - Order Status Enquiry and Report
 - Order Cancellation
 - Retrieve Financial Document (invoices and credit notes)
 - Post Financial Document
 - Returns Request and Authorization
 - CDF Order Request and Response

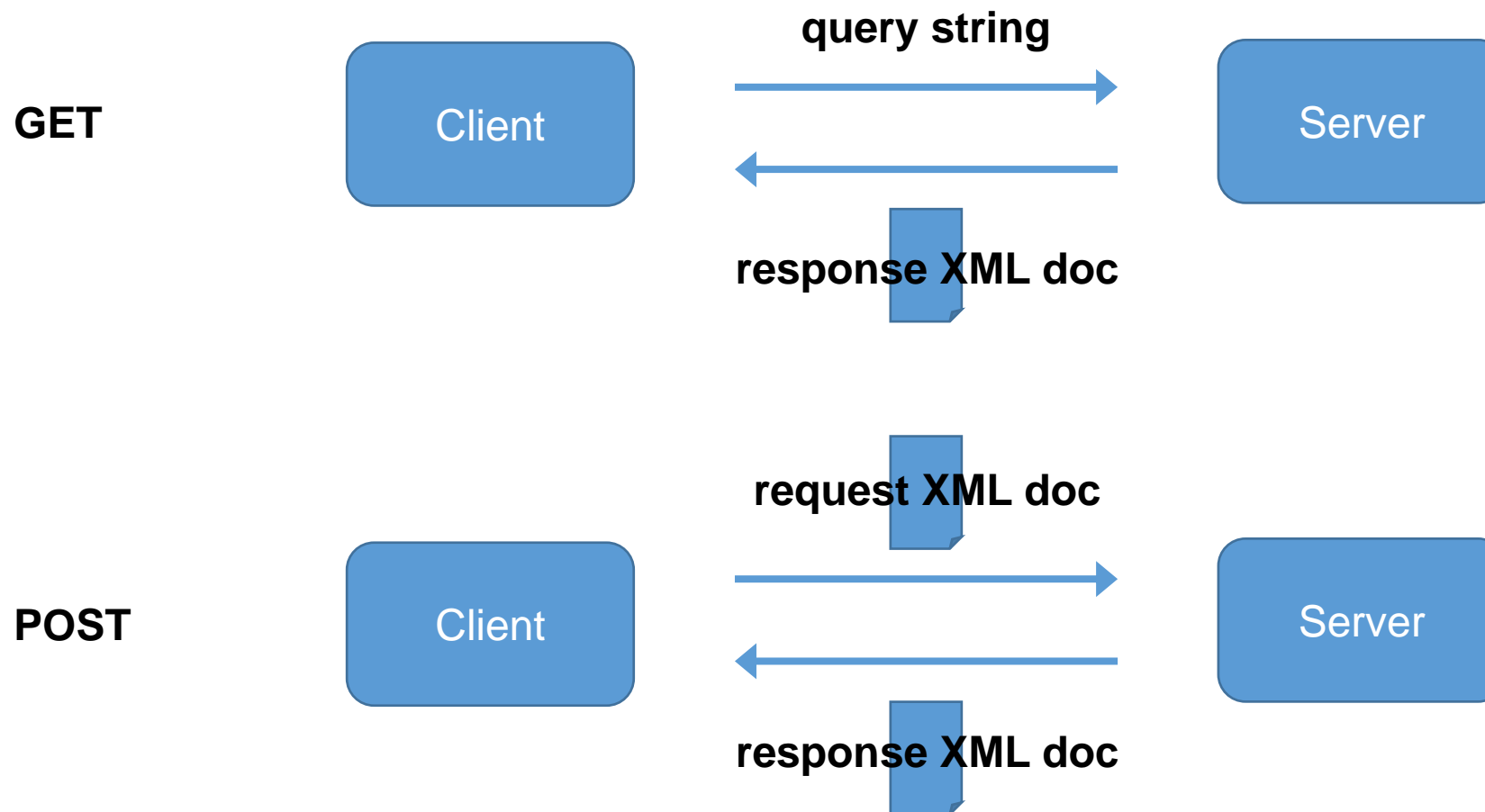
The *BIC Realtime* APIs

- Some APIs were developed *de novo* as *e4books* standards:
 - Price & Availability Request and Response
 - Retrieve ONIX Product Information
 - Retrieve MARC Product Information
- Many new APIs have been developed especially for *BIC Realtime*
 - ONIX Product Information Acknowledgement
 - Request Backorder Release
 - Short Pick Notification
 - Post Authorised Returns Advice
 - Order Shipment Details Change
 - Request Authorisation to Despatch CDF Order
 - Grant Authorisation to Despatch CDF Order

BIC Realtime in two flavours

- *BIC Realtime* APIs can be implemented in two “flavours”
 - EITHER*** Web service client uses the simple HTTP GET method to request a specific resource from the web service server
 - following similar principles to REST (Representational State Transfer)
 - *particularly* easy to implement on the client side
 - OR*** Web service client uses the HTTP POST method to upload an XML request message to the web service server, which immediately responds by returning an XML response message
 - This flavour is what is formally described in a WSDL signature
- Responses always contain XML message payloads

BIC Realtime in two flavours



BIC Realtime in two flavours

- The simple (GET) approach is suited to simple requests:
 - I wish to place an order for book x
 - I wish to cancel order y
 - Please give me price & availability for book z

XML processing required for the response only
- The POST approach can handle larger, more complex, requests:
 - I wish to place an order as contained in attached order document

XML processing required both to generate the request and to handle the response
- Either way, the response is in XML

Check with your business partners before deciding which path to follow

BIC Realtime resources

Available now, for each *BIC Realtime* API:

- Specification documents (in PDF format) are available now from the [BIC website](#) for each *BIC Realtime* web service API
- Each specification document contains links to:
 - An XML schema for the corresponding pair of request and response payload message formats
 - A WSDL “signature”, a machine-readable definition of the complete API, to facilitate the development of interoperable implementations of the web service
- *An implementation guide is due to be published soon (2016)*

Have your say on *BIC Realtime*



- All *BIC Realtime* implementation issues and queries will be handled by the BIC Technical Implementation Clinic
 - Under the oversight of the BIC Physical Supply Chain Committee
- The *BIC Realtime* Task & Finish Working Group is responsible for maintenance of the published APIs and for development of new APIs.
- All published *BIC Realtime* APIs will be subject to review no later than February 2018

If you wish to get involved, contact Karina or Alaina-Marie at BIC



Thank you for your attention!

<http://www.bic.org.uk/152/BIC-Realtime/>



BOOK INDUSTRY COMMUNICATION LTD

Over to Simon...

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BIC Realtime Price & Availability Web Service

Simon Pallant

Digital & I.T. Services Manager

Gardners Books Ltd

Realities

- Physical Books: 7 million titles
 - 500k physical in-stock
 - 1.5 million GXC
 - 5 million POD
 - 18k Publishers
- Digital Products : 1.5 million
- Entertainment Products:
 - 70,000 Films
 - 250,000 Music
- 15,000 Customers Globally

Realities

- Physical Books: 7 million titles
 - 500k physical stock
 - 1.5 million GXC
 - 5 million POD
 - 65k Publishers

• Digital Products : 1.5 million

- Entertainment Products:
 - 70,000 Films
 - 250,000 Music

- 12,500 Customers Globally

- Gardners Daily Stock Activity
 - 75k Daily Availability Changes
 - 2500 Price Changes
 - 1100 New Titles
 - 1000 Deletions

- Twice Daily P&A Files
 - 500k – 7 million Records

- Hourly Inventory (Delta) Files

Realities

- Physical Books: 7 million titles
 - 500k physical stock
 - 1.5 million GXC
 - 5 million POD
 - 65k Publishers
- Digital Products: 2.5 million
- Entertainment Products:
 - 70,000 Films
 - 250,000 Music
- 12,500 Customers Globally
- Gardners Stock Activity
 - 75k Daily Availability Changes
 - 25k Price Changes
 - 1000 New Titles
 - 1000 Deletions
- Twice Daily P&A Files
 - 500k – 7 million Records
- Hourly Inventory (Delta) Files

BIC Realtime P&A Web Service

Where is it?

Storefront Web Sites

Gardners.com

Retailer Web Sites

BIC Realtime P&A Web Service

Gardlink

Data Aggregators

Hive.co.uk

Other Epos Systems

Realities

- Physical Books: 7 million titles

- 500k physical stock
- 1.5 million GXC
- 5 million POD
- 18k Publishers

- Digital Products : 1.5 million

- Entertainment Products:

- 70,000 Films
- 250,000 Music

- 12,500 Customers Globally

- Publisher Availability Activity

- 5000 Daily Availability Changes
- 2500 Price Changes
- 1100 New Titles
- 1000 Deletions

- Daily/Weekly/Monthly P&A Files

- 250 feeds per day

Retailer

- Commercial Priorities
- Discount
- Handling Costs
- Availability / Lead time
- Returnability

Retailer

- Commercial Priorities
 - Discount
 - Handling Costs
 - Availability / Lead time
 - Returnability
- Consumer Derived Priorities
 - Price as promised
 - Availability as promised
 - Delivered on time as promised

Retailer

- Commercial Priorities

- Discount

Retailer requirements of Supplier?

- Handling Costs

- Availability / Lead time

- Returnability

Accuracy, Reliability &

- Consumer Derived Priorities

- Price as promised

- Availability as promised

- Delivered on time as promised

Retailer

- Commercial Priorities

- Discount

- Handling Costs

- Availability / Lead time

- Returnability

- Consumer Derived Priorities

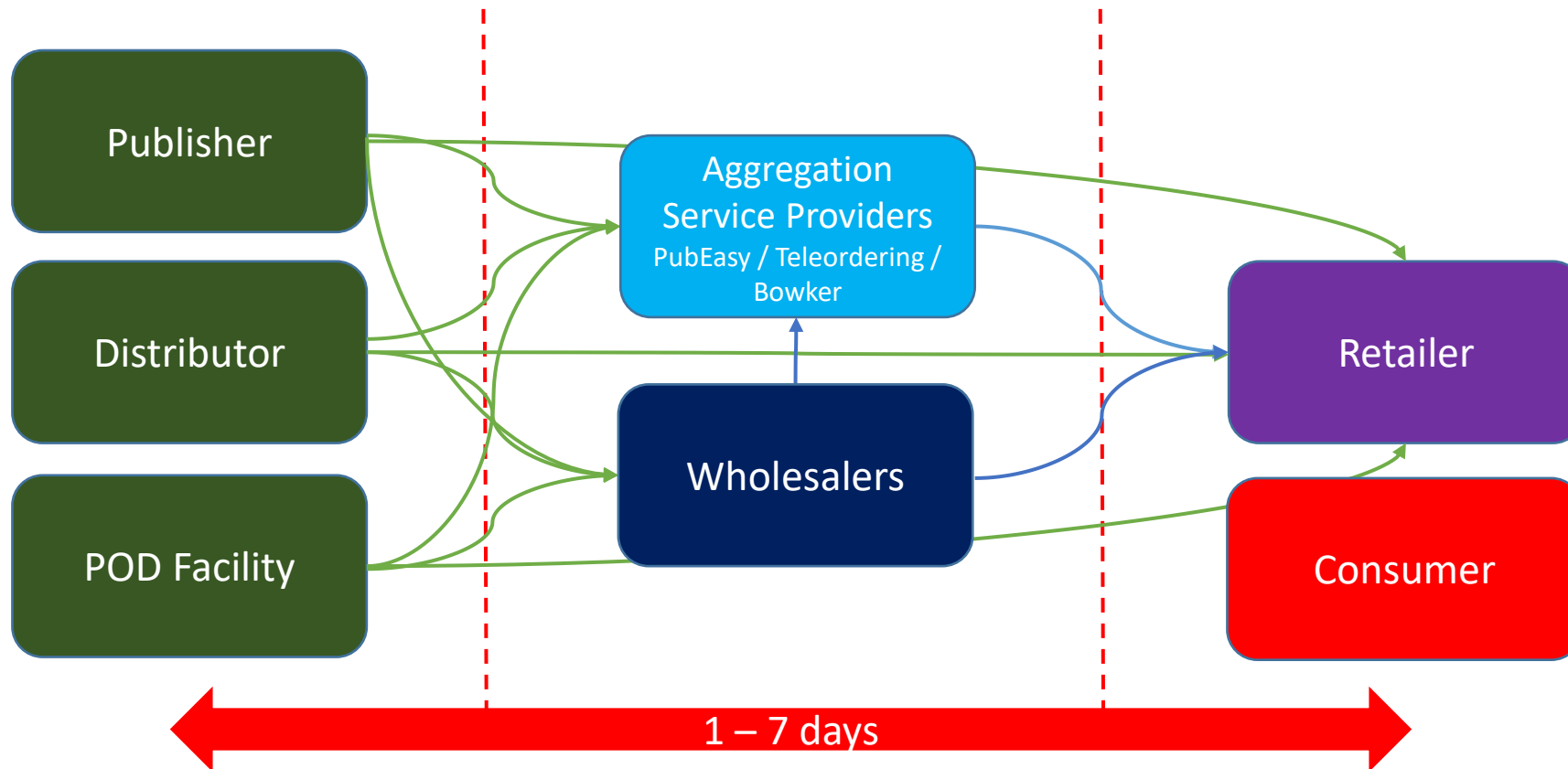
- Price as promised

- Availability as promised

- Delivered on time as promised

Confidence!

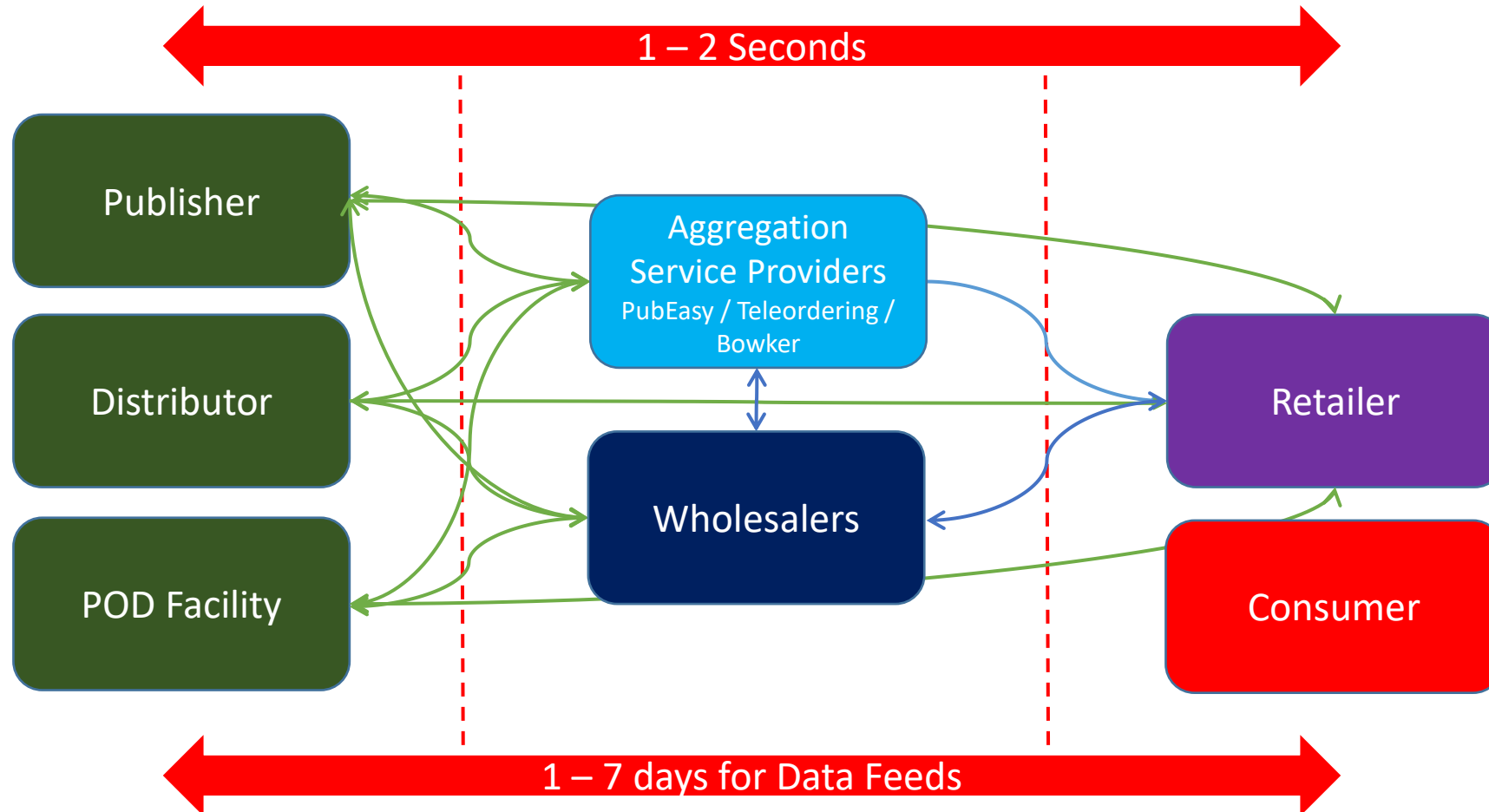
Supply Chain P&A Data Feed Flow



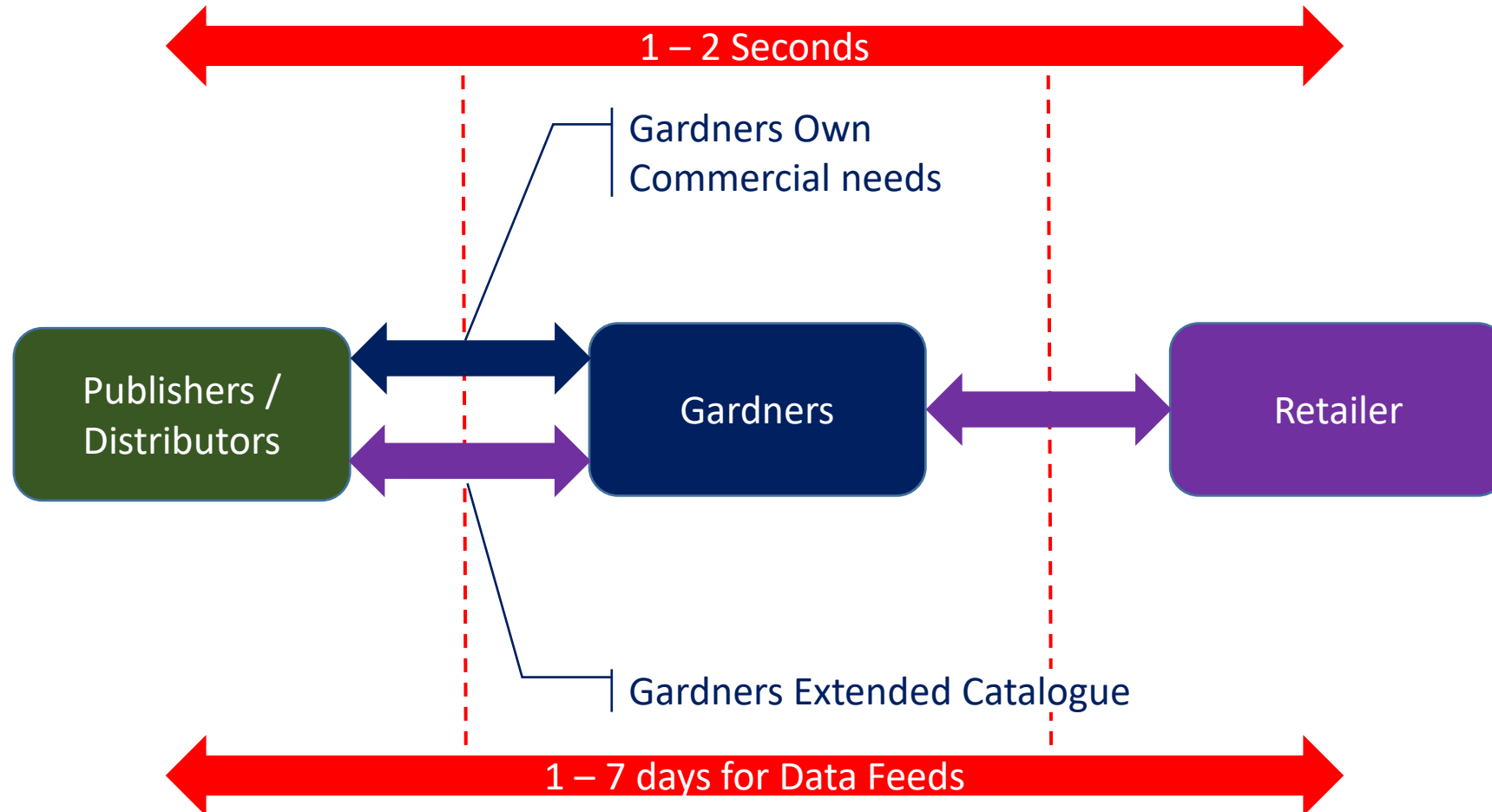
Considerations - P&A Data Feed Only Flow

- Disadvantages of Feed Data Only
 - In-accurate/out of date
 - Availability information
 - Lead times
 - Pricing information
 - Hesitant to List
 - Products may not be listed at all
 - Reduced and/or Lost sales...?

Supply Chain With P&A Web Service Flow



Gardners Objectives



Summary

- Disadvantages of using Feed Data Only

- In-accurate/out of date
 - Availability information
 - Lead times
 - Pricing information
- Reluctance to List
- Products may not be listed at all
- Reduced and/or Lost sales...?

- Advantages of using BIC Realtime P&A Web Service

- Real-time
 - Availability information
 - Lead times
 - Pricing information
- Accuracy & Reliability
- Very Likely to List
- Increased Consumer Confidence
- Increased Retailer Confidence
- Increased Sales...?



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Any questions?

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BOOK INDUSTRY COMMUNICATION LTD

**Thank you for attending November's
BIC Breakfast:
BIC Realtime – Standards for
Instant Business Message Exchange**

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