

# Aligning B2B Technology to Consumer Packaged Goods industry goals

For Food & Beverage and CPG manufacturers alike, exchanging vital supply chain information with retail customers can present a significant range of technical, business and strategic challenges. Suppliers need to be aware of the hidden costs and inherent dangers that exist in commonly used B2B systems and should look to the strategic and cost advantages that may be arrived at from taking a broader perspective of the issues at stake.

## A COMPLEX AND CONSTANTLY CHANGING TECHNICAL ENVIRONMENT

Firstly, there are technical considerations. Customer-facing EDI is notoriously difficult, expensive and time-consuming for in-house IT staff, with a vast array of different technologies presently in use for moving data about and with trading partners frequently making changes to their requirements. Multiple connectivity protocols such as AS2, FTP and SFTP, as well as 'legacy' protocols such as X25 and X400 create complexity and keeping up with this variety is a daunting prospect for even the most proficient of chief information officers.

Complexity exists, too, in selecting from the plethora of EDI VANs or web-based portals available, and the multiplicity of data formats that are commonly used only serve to confound – standards such as Tradacoms, EDIFACT, EANCOM, XML, along with all the proprietary formats.

What's more, these formats vary by customer and change occurs with irritating regularity. Even if a given customer uses a well-established standard, such as Tradacoms or EANCOM, these may well be interpreted or implemented in slightly different ways, which all adds to the anguish of the IT department. Add to this the rate at which VANS are acquired/ retired, connectivity preferences change (many retailers in the US, UK and Europe are moving from VANs to AS2), new document types are introduced (ASNs, proof of delivery), and even minor tweaks to documents, such as adding a new mandatory field, all present challenges on an ongoing basis that makes maintaining links with retail customers a hardship.

Managing all of this variety and change is expensive and time-consuming for the IT function and can hardly be described as value-added work.

## BUSINESS GROWTH CAN LEAD TO REDUNDANT AND OVERLAPPING B2B CAPABILITIES

However, these issues are purely the technical constraints. There are strategic considerations too. Unfortunately, suppliers often find themselves in a position where they are having to be reactive rather than proactive, more or less doing as asked, when asked, which makes planning difficult and budgeting problematic – especially when paying for B2B by volume of data or by the number of 'maps'. Worse still, delays or errors can have a significant impact on performance and, importantly, can affect the relationship a supplier has with its customers. This is as true for small and medium-sized suppliers, with perhaps only a small number of products and a handful of customers in one or two countries, as it is for a large multi-national Food & Beverage/CPG manufacturer.

Then of course, there are other wider business factors that greatly compound the problems of supply chain integration. Growth by acquisition introduces a number of issues. New brands often result in inherited duplicate EDI technologies, different in-house software and EDI VAN contracts create complications, and then there are often pressing requirements to support new customers or to rationalise connections to shared customers. With de-mergers there are the same problems, only in reverse.

Rapid organic growth, high brand success, growth into new territories and major new customer wins all put pressure on the B2B infrastructure. But some of the greatest challenges to successful supply chain integration come from the incessant roll-out of new ERP systems with the commensurate disruption this causes to B2B systems. Other IT projects such as outsourcing, consolidation and off-shoring are also sources of concern.

## LOW VISIBILITY WITHIN THE OVERALL IT BUDGET, DESPITE MISSION-CRITICAL NATURE

It goes without saying that the business processes in question are mission-critical, so any B2B solution must be extremely reliable. Receiving orders is, obviously, critical – late orders or missed order changes can result in poor delivery performance, missed revenue, fines, or excess cost in terms of shrinkage or expediting. Similarly when sending Advanced Shipping Notifications (ASNs) – increasingly common in UK retail – shipments can be turned away or suppliers fined if ASNs are late or inaccurate. Then there are invoices, errors or delays can result in delayed payment which can have a negative impact on the all important cash-flow.

Poor performance of both the physical supply chain and the B2B processes that support it can cause great damage to customer relationships and may impact business negotiations over such issues as price, volume commitments, promotions, new product introduction (NPI) etc. However, B2B systems are seen by most businesses as part of the core infrastructure, and for many are, relatively speaking, regarded as inexpensive when compared to ERP, CRM or office applications. This has the unfortunate consequence that when everything is working well there is no awareness of the risks to the business and consequently no investment, but when things go wrong the impact is immediate and very serious. This combination of low visibility and high potential impact is a considerable obstacle and often a source of great frustration for IT managers when trying to make a case for investment in such systems. But for many the risks are all too obvious, communicating the inherent dangers of a fragile and complex B2B infrastructure to the board is of critical importance.

## INTELLIGENCE AVAILABLE WITHIN THE B2B TRANSACTIONAL DATA

Not all aspects of B2B connectivity are outward facing, internal customers demand information from the system too. Business Intelligence continues to be a top priority for CIOs and they are under constant pressure from the business to provide real-time and easy access to important information.

B2B processes are an important part of this and most B2B solutions in use today are very poor when it comes to providing anything beyond rudimentary file tracking information. It is all very well having a sophisticated supply chain planning application that calculates demand or shipment quantities, but if this is based on inaccurate data or if gathering the data is so time-consuming as to make it uneconomical, then the results are worse than useless – they can be misleading or even damaging. Similarly, if your performance measurement data does not match your

customer's you may think you are doing a great job, where in fact you are falling short. It is not very easy to measure this from inside your own ERP or MRP systems.

## REAL-TIME DEMANDS PUT PRESSURE ON BATCH-ORIENTED LEGACY EDI SYSTEMS

Whereas B2B systems were originally put in place to deal with a fairly narrow function – namely managing a core set of documents with major customers – there is an increasing desire to apply the benefits of trading electronically to other scenarios, and in different ways. The problem is current systems just do not lend themselves to these new, wider applications. Take for instance:

**Real-time information** – even for the same set of data (such as orders, ASNs and invoices), changes in business practices are putting pressure on creaking EDI systems which operate using batch technology, or on EDI VANs, or on older technology platforms that can not handle the data volumes and modern processing requirements

**Lower volume customers** – most Food & Beverage/CPG manufacturers started doing EDI with their largest customers because they were required to. These same companies also serve many other smaller customers and these are often still paper, fax or email-based processes

**Supplier-facing initiatives** – all of the benefits the retailers enjoy are available to manufacturers dealing with their own upstream suppliers but few do much more than dabble with EDI with suppliers. Potential areas of benefit:

- E-invoicing is sometimes viewed as a good place to start because the returns are readily identified in terms of savings from reducing accounts payable staff
- Raw materials inventory can be reduced if supplier performance and visibility improves. A lack of confidence in a supplier's ability to deliver leads to excess safety stock, so the sharing of forecast data and visibility of supplier performance data not only increases buyer confidence and reduces inventory but also provides the mechanism for driving service enhancement

**Connectivity to logistics service providers** - particularly for those brands that also sell directly to consumers through B2C e-commerce sites where delivery performance to individual consumers is very important

**Connectivity to other sources of demand** - such as online retail sites (Amazon, Tesco.com etc) – these often follow different processes but volume demands and, potentially, reduced pricing

from selling online, require automation of the fulfilment process

**Support for other data types** – such as inventory information, point of sale and forecasts from customers. These are often very large files which can be prohibitively expensive to move via an EDI VAN that charges by the kilo-character (KC). So additional paths, perhaps using FTP, are used and these need managing. Other factors to consider are that EDI software may not be able to handle these data types; and that back office applications may also not be able to handle them leading to MS Excel becoming the default planning application, with spreadsheets multiplying across the business.

However, adding lots of different technical paths to support all of the above has implications, such as the cost of complexity for managing the different technologies and the staff required to support them. Then there are the security and compliance policies necessary to cover the various ways in which data can travel in and out of the business.

### **A SECURE, RELIABLE INFRASTRUCTURE HAS TO BE THE FOUNDATION FOR MISSION-CRITICAL B2B PROCESSES**

Having set out the daunting spectrum of technical, business and strategic challenges to managing a B2B structure, there are a number of important attributes and requirements that should be sought when considering a robust and versatile B2B solution.

Firstly, there is the crucial issue of reliability. B2B transactions are mission-critical – literally having the potential to impact the ability to meet customer service levels, for example if ASNs are delivered late or if purchase orders arrive after manufacturing cut-off deadlines. While many CPG manufacturers have IT infrastructure that rivals IT service providers themselves, maintaining this is expensive and requires continual investment in technology and skilled resources and all but the largest continually struggle to adequately fund this activity.

The infrastructure required must include:

- Guaranteed continuity of utilities and physical infrastructure (electricity, buildings, secure access etc.)
- Fully redundant hardware, software and networking components that span the full critical lifecycle of the data involved; in other words, it's no use the core software application being up and running if network access to the data is unavailable
- An alternative disaster recovery (DR) site that is regularly tested with full fail-over

simulation and with all of the necessary switch-over processes documented and associated staff available 24x7x365

### **SERVICE LEVEL GUARANTEES REQUIRED FOR ANY OUTSOURCED SOLUTION**

Service level agreements and commitments are also fundamental. In choosing to outsource the B2B e-commerce function IT professionals are to some extent betting their own reputations on a third party and service level agreements are every bit as important in this sphere as they are in other aspects of IT outsourcing. Critical measurements include longest time taken to recover ("Recovery Time Objective"), maximum data loss, expressed in time in the worst case ("Recovery Point Objective"), system availability, usually expressed as a percentage, for the service and all of its critical path components. Availability also includes scheduled maintenance work and vendors of outsourced solutions should be in a position to agree specific maintenance schedules with individual customers based on their own needs.

### **A MANAGED SERVICE DOESN'T JUST COVER THE TECHNOLOGY**

Many B2B providers take on responsibility for running the technical platform (hardware and software) and have teams of people that perform routine tasks as requested by the client, but a genuinely outsourced B2B service is one where the vendor is able to take full responsibility for the B2B project - and that involves:

- Project management
- An understanding of the client's business processes that are supported by the B2B programme
- An understanding of the market in which the client is operating and of the relationships the client has with its major players – principally, retail and wholesale customers. This is particularly important in the CPG and Food and Beverage sectors where retailer requirements are complex and ever-changing and in outsourcing the responsibility for compliance to a vendor, the CPG manufacturer needs reassurance that the vendor knows the sector, the people and the common practices
- An organisational structure and the supporting processes designed to provide customer support rather than product-focused support

### **SOFTWARE-AS-A-SERVICE MAY BE A BUZZWORD BUT SELECTING THE RIGHT DEPLOYMENT MODEL IS IMPORTANT**

To support the ongoing development of B2B technology, specialist expertise and a large pool of technical know-how are required to ensure that new capabilities come on stream immediately and are readily available to the client, so future proofing the performance of the system.

#### AN ALTERNATIVE APPROACH

*Many vendors have technology based on data transformation 'maps' which convert the CPG manufacturer's format to that of the retailer where one map per customer per document type is required. This lack of flexibility adds costs up-front and in an on-going basis and makes changes slower to implement.*

*An alternative model separates the two sides of the 'map' so that changes can be made to either side without impacting the other. This principle uses a common format to which all data is transformed, thus maximising opportunity for re-use and, therefore, reduced cost.*

The Software-as-a-Service model offers significant advantages in this space. Importantly, there is a single application code-base that is used by all customers. This means that any new enhancement – whether product 'roadmap' or requested by a specific customer – is immediately available to all other users of the system, without the need to go through a time-consuming upgrade process. This is in contrast to vendors that work on a 'hosted' model where individual instances of the application are installed for single or perhaps a handful of clients.

The SaaS model avoids multiple versions of software having to be managed by the vendor and upgrade paths planned and executed over many months. For the customer, the SaaS model means not being stuck on an old version while others in the queue get upgraded first and it means that new functionality is available more quickly and at significantly lower overall cost of ownership.

For security reasons, each individual customer may have its own database. This means that while the code-base is shared and uniform, there is no risk of customer data being accessed by unauthorised parties or other users of the system.

When looking at moving to an SaaS model it is also worth finding a vendor that has been developed as a multi-enterprise platform for business processes from inception – many EDI VANS have bolted on visibility and other functionality. A pure architecture designed intelligently and specifically for the purpose of delivering visibility across a network is far more

flexible and fit for the task. In particular, this means that all functionality – from the connectivity and data translation to the visibility and process logic – is based on the same core database and users experience a consistent look and feel and, more importantly, a logical relationship between each of the documents and the business processes of which they form part.

#### SUPPLY CHAIN VISIBILITY TOOLS CAN TRANSFORM EDI SYSTEMS INTO A COMPETITIVE ADVANTAGE THROUGH REAL-TIME DASHBOARDS

However, the single greatest area of differentiation among B2B outsourcing providers is 'visibility'. Real-time visibility into supply chain events enables rapid and improved decision-making by individuals in many different roles across an organisation – IT, supply chain and logistics, manufacturing, sales and finance. Most vendors of B2B outsourcing solutions operate purely on a transactional basis as a 'pipe' between a company and its trading partners. The 'pipe' may be very secure, fast and must obviously handle the transformation between data formats, but simply by acting as a delivery mechanism, these systems fail to provide anything beyond rudimentary visibility into the messages being exchanged. Vendors that store all data can provide customers with a wealth of information and functionality based on the content of any message.

Visibility enables customers to realise significant value from:

- Increased confidence in supplier performance leading to safety stock reductions
- Better visibility into downstream demand leading to optimised manufacturing and reduced raw material safety stock
- Real-time awareness of changes in demand or supply enables remedial action that prevents a drop in customer service

SaaS solutions in this space should provide on-demand access to a wide range of reports suited to different functional roles, for example:

#### Supporting IT:

- A core set of reports relating to use of the B2B service – documents sent, received, in error, by document type, by trading partner by time period etc.
- Service performance reports such as availability, throughput, response times
- Company usage, for example, number of users, logins, activity history
- EDI compliance reports – such as EDI acknowledgement performance, ASN compliance (timing and content, time taken to add new messages types etc.

**Supporting Finance:**

- Invoice related reports – failure/match rates, payment discount summaries, payment performance of customers
- Supplier-facing invoice reports – match rates, individual supplier performance etc.

**Supporting Sales:**

- Sales performance information – product/customer order history
- Price – price accuracy by customer, price change history, authorised discounts
- Forecast performance – compared to actual order history and point of sale history

**Supporting Supply Chain:**

- Forecast analysis such as lag analysis, accuracy, year-on-year comparison
- Carrier performance metrics based on despatch and receipt data
- Loading planning analysis

**About Wesupply**

Wesupply provides business-to-business integration and supply chain collaboration solutions. By sharing more data and collaborating on supply chain processes with more business partners, Wesupply customers can make better decisions and can reduce excess inventory, improve customer service and reduce operational inefficiencies. Wesupply was founded in 1999, is headquartered in the UK and provides a fully managed service via a “SaaS” delivery model. Companies in sectors such as retail, CPG, energy and manufacturing rely on Wesupply to manage information flows supporting business-critical supply chain processes.



**Wesupply Limited**  
7 Westwood House  
Westwood Business Park  
Coventry CV4 8HS  
United Kingdom

+44 (0)845 643 6600