Case Study

Informed Magazine Supplies

Kim Prince

In mid 2009 a consortium of Australia's magazine distributors released their second generation EDI platform, XchangeIT *Link*, to the newsagent channel. It unlocked processing efficiencies for both retailers and distributors. And by providing high quality, timely sales data, the platform cleared the way for better alignment between supply and demand.

XchangeIT *Link* is available to all distributors in the newsagent channel and has important implications for Australia's small retailers in general.

Introduction

Australians consume over 200 million magazines each year.[1] The shareholders of XchangeIT distribute more than 90% of these and around 65% of all sales are made via the newsagent channel.

The supply of magazines to newsagents is push driven – that is, the distributor sets the quantities delivered to each outlet. It is a volatile market at the best of times and in the absence of timely, accurate sales data, magazine distributors are left to work in the dark.

For newsagents, a 'sell out' is a lost sales opportunity however the alternative – that is, holding additional stock – is similarly unattractive: there are significant cash flow impacts and, under the industry 'sale-or-return' arrangement, there is the administrative burden of stock returns and the financial risks of their mismanagement.

1st Generation EDI

By 2007 a first generation EDI platform, XchangeIT Classic, had been operating for seven years. It had reduced the retailers' labour costs significantly and was a cornerstone of the newsagent channel.

Half of Australia's 5,000 newsagents relied on XchangeIT for electronic updates to magazine products, pricing and inventory; and it transacted greater than 60% (by value) of all delivery invoices.

For distributors, however, the two key benefits of EDI were yet to materialise.

- **The quality and availability of sales data was tenuous, at best.** XchangeIT Classic supported sales data however there were many commercial, logistical and technical barriers to tapping into it at the point of sale. It was extremely difficult to maintain any kind of quality, and a quality analysis would later rate compliance at less than 5%.

- **Returns handling capabilities were limited.** There was support for transporting EDI returns forms and claims, however no complex processing or bi-directional communication. Integration with distributors' own business logic and returns processing systems was limited. (See sidebar).

  The quality of sales data further undermined confidence in overall returns processing capabilities. As a result the penetration of EDI returns was estimated at less than 20% of its potential.

These issues affected enterprises of all types throughout the supply chain. To find a solution as expeditiously as possible, shareholders of XchangeIT appointed a project team, led by an independent consultant.

Manual Returns

Prior to 2009 many returns were still processed manually. This involves re-keying at the point of sale, off shore processing, and other labour intensive activities.

Each distributor invested in custom on-line infrastructure and retailers were required to learn multiple different systems.

While some of these methods and systems will remain (to serve non-EDI enabled outlets), XchangeIT Link *is now the preferred method of handing all types of returns for all distributors.*

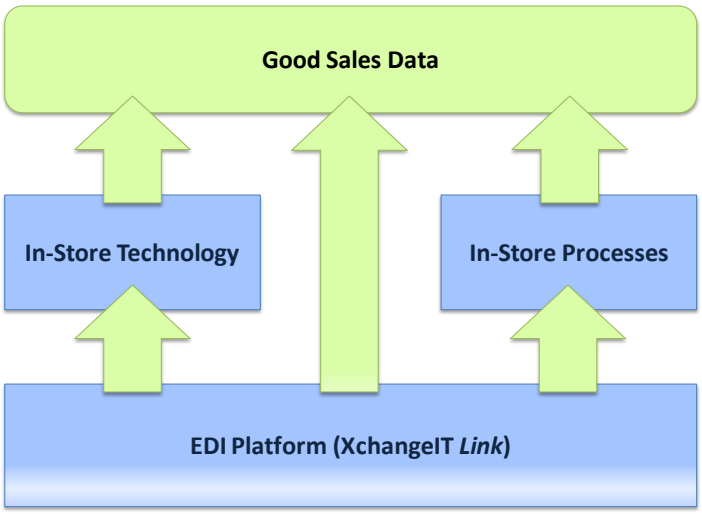
[1] 207 million in 2008 according to the Audit Bureau of Circulations.

The Prerequisites of Good Sales Data

By analysing the challenges and capabilities of each stakeholder group, and the motivation behind each group's participation in the network, the team uncovered the prerequisites of 'good sales data'. These include the right in-store technology, the right in-store processes, and most importantly the right EDI platform.

1. **In-store technology.** Handling inbound data comes naturally to POS systems.[2] Their customers are the newsagents themselves, and inbound data saves the newsagent time and money.

   Incentives for handling outbound data however, are less obvious. XchangeIT would need to provide POS system vendors with opportunities such as competitive differentiation, in return for a stronger technical focus on sales data compliance.



2. **In-store processes.** A store's sales data can only ever be as good as its in-store processes. This requires scanning all magazine sales and handling all sub-agent transfers accurately.

   Newsagencies are busy operations, each with its own staffing level and operating procedures. For a stronger procedural focus on sales data, XchangeIT would need to minimise barriers to compliance, provide a range of compliance incentives, and provide monitoring and reporting tools that put newsagents in control of data quality.

3. **The EDI platform.** XchangeIT would need a flexible, scalable platform to tap the full potential of EDI in the channel and make it available to subscribers. For newsagents the full potential of EDI includes access to a wider range of distributors and a richer range of increasingly real-time services. For distributors it includes good sales data from the maximum number of newsagents, and efficient data processing relationships with each.

   XchangeIT Classic was difficult to maintain and deploy and did not lend itself well to incremental development.[3] Its components were proprietary and highly interdependent, and the usefulness of the data it collected was limited by its outdated storage models.

Although all three elements are critical for successful EDI, the EDI platform is **the foundation** of successful EDI. It affects the quality of sales data directly by, for example, ensuring data is delivered to the distributor in a timely fashion. In addition it enables crucial improvements to the in-store technology and processes by making them more measurable and manageable, and by opening the way for compliance incentives.

[2] Point of Sale systems.
[3] XchangeIT Classic was developed using java.

The XchangeIT *Link* Platform

In July 2009, after 18 months of design, development and testing, the XchangeIT *Link* platform became available for general use.

At the time of launch the new EDI platform serviced four large distributors (three shareholders, and the greeting card supplier John Sands). The migration of retail outlets from the existing EDI network commenced immediately, and by the end of 2009 the new platform will service around 2,500 stores.

The new platform is based on a Microsoft architecture and has three core components.[4]

1. **XchangeIT Central.** A central web site for use by newsagents, distributors and the XchangeIT Helpdesk. This application provides all subscriber features including billing and membership management, service administration, gateway and client configuration, and reporting. In addition, it conducts all centralised performance management tasks.

2. **Distributor Gateway.** This is a distributor's primary connection to the network. It provides, amongst other things, a staging area for all inbound and outbound data. Newsagents' systems connect directly to Distributor Gateways to exchange EDI messages and download any pending 'File Notes'.

3. **The Newsagent Client.** Downloaded from the central web site, this component is installed on the retailer's POS PC/network. It polls distributors continuously to exchange EDI messages. File Notes are displayed prominently, along with 'Headlines' from the XchangeIT Helpdesk.

[4] The XchangeIT Central Site is based on the Kentico CMS with extensive custom functionality provided via 'Web Parts'. It uses ASP.NET 3.5, C#, Unity-based Windows and WCF Services, MS SQL Server 2008 with Reporting Services and Service Broker, and Eldos Blackbox PKI.

The Distributor Gateway is a .NET 3.5 application that supports SQL Server 2005 and 2008. It uses Unity-based Windows and WCF Services, and WS-AT, and is secured with Eldos Blackbox PKI.

The Newsagent Client is based on .NET 2.0 (for backward compatibility). It uses C#, MS Click Once and Eldos Blacbox PKI. It supports both dial-up and broadband users with on-line configuration.

XchangeIT *Link* Features

The broad feature set of XchangeIT *Link* builds on the solid foundation of XchangeIT Classic. The platform's flexible architecture ensures its ability to keep pace with future needs.

- **Comprehensive support for all EDI message types.** Existing messages (used by XchangeIT Classic) are fully supported.[5] These transfer delivery data, sales data, returns forms and returns claims. They are rich in business information, are both agent- and sub-agent-aware, and are suitable for a wide range of products including magazines, newspapers, greeting cards, stationery and confectionary.

  New message types may be added with ease and may include for example, monthly statements, product reorders, price adjustments or subscription data.

- **Continuous improvement of data.** Sales data quality is monitored and reported continuously. Results are consolidated in a monthly report card which determines the retailer's membership category.

  Each membership category comes with its own range of services (varied by distributor), retailer performance obligations and fee structure. Agents with consistently good sales data receive the greatest range of services from all distributors, and the lowest possible membership fees.

- **Industry- or distributor-level data tests.** A 'pluggable' data testing architecture means that sales data quality criteria may be implemented at the level of an industry, an enterprise, or both.

- **Direct, in-store communication.** Retail outlets receive returns confirmation and other critical messages directly from each distributor via electronic 'File Notes'. Such File Notes may include links to the distributor's own web based systems.

  Electronic 'Headlines' are generated either automatically or manually by the helpdesk and may target either individual stores or groups of stores. These are used, for example, to announce the availability of a newly subscribed distributor, or to draw a store's attention to a particular anomaly.

- **Real-time enterprise integration.** Upon receipt of a particular type of file the platform may trigger an event within the distributor's own infrastructure and report results back to the newsagent instantly.[6] For example, when a returns claim is submitted the platform may trigger the distributors own returns processing service. Within moments the newsagent knows which returned items have been accepted or rejected, and has web links to printable returns shipping labels.

- **Highly scalable.** The distributed infrastructure allows the platform to accommodate an unlimited number of distributor gateways, quickly and easily. Multi-distributor capabilities mean that smaller distributors can share in a hosted service provided by XchangeIT, and participate in rich EDI services at a reduced cost.

- **Highly secure.** Although encryption and other safeguards are in place, EDI is transacted directly between distributors and their outlets to further ensure the confidentiality of sensitive information. Data is neither transited via, nor stored at, a central location.

Distributors of any size may use XchangeIT *Link* to conduct EDI with their newsagent customers. For newsagents this means increased supplier diversity, lower handling costs, and other rewards that distributors – either jointly or by way of association – are likely to give for good sales data.

[5] This includes the most recent version of the XchangeIT EDI specifications, V 3.02c.
[6] This integration requires distributors to implement web services internally.

A New Era

In early 2009 XchangeIT appointed a General Manager to launch the new operation and focus on maximising the value of EDI in the newsagent channel. When the transition of outlets is complete sales data compliance statistics will be published at www.xchangeit.com.au.

Based on early indications it is reasonable to expect a ten-fold increase in the number of outlets providing timely, high quality sales data.

The improved returns handling capabilities are extremely popular with newsagents and some distributors are rationalising legacy returns processing methods already. When these efficiencies have been consolidated the consortium plan to review remaining sources of administrative costs, such as monthly statements, and replace them where possible with XchangeIT *Link* EDI services.

But the benefits of XchangeIT *Link* are not limited to the newsagent channel. Its underlying multi-channel architecture means that for distributors, the incremental costs of EDI-enabling additional channels, such as 'petrol and convenience' for example, are relatively low. And for Australia's small retailers in general – particularly channels with limited consolidation – XchangeIT *Link's* brand of 'accessible EDI' offers a path to lower costs and greater diversification of products and suppliers.

Thousands of businesses are set to benefit from this initiative now and into the future, and it is a win for the consumer and the environment too. It is an outstanding example of industry self-improvement, a case study in solving complex business problems with the right approach to technology.

About

Kim Prince is an e-business and technology consultant based in Sydney. He has worked with a large number of organisations throughout the Asia Pacific region using technology and business thinking to improve the way they operate.

In this initiative Kim managed the project, led the research and analysis effort, and was the primary designer of the XchangeIT Link *solution.*

Kim represented shareholders in industry forums, commercial negotiations and relationships with a wide range of industry partners. During the development of the platform he was co-located between the joint venture and the third party software development team.

www.kimprince.com, September 2009.