RosettaNet Solutions for the High Technologies Industry

Enabling the Participation of Small and Mid-Size Businesses

Case Study: Intel Order-to-Invoice Solution

A Traxian White Paper

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Abstract

Large businesses like Intel are unable to fully realize the benefits of their electronic business initiatives because their Small and Mid-sized Business (SMB) trading partners have been unable to participate. Large trading partners are able to trade electronically as high business volumes demand the efficiency inherent in electronic trading. Given their size, sophistication and relationships, these trading partners can be expected to adopt solutions like RosettaNet. On the other hand, the SMB resists, as old paper-based processes are both flexible and uniform across all business partners. Low trading volumes dilute the impetus for change and willingness to accept RosettaNet as an exception process. Current SMB solutions are costly, and require technical infrastructure, integration, and scarce technical resources. Traxian Mail uniquely helps to drive SMB change to electronic trading by easily integrating into the day-to-day business workflow of the SMB, thereby reducing exception processes and handling all transaction types, even paper.

The business issue in question is the lack of adoption of Intel's RosettaNet architecture by their SMB trading partners. The vision of this project is to drive a very high level of electronic trading adoption by enabling SMB's to participate. Traxian and,Global eXchange Services (GXS), a leading provider of B2B information exchange services, deployed a solution that enabled a small printing supplier and a Thermal Tool manufacturer to exchange order-to-invoice RosettaNet messages with Intel. The supplier utilizes QuickBooks, an accounting package that is typical of the type of software utilized by most small and some mid-sized companies.

Fundamentally, Intel initiates a purchase order from their order management process, which is delivered directly into the suppliers QuickBooks application. The interaction with Intel's order management system is managed by GXS, as is the RosettaNet mapping and message delivery. The automated receipt of the message into the QuickBooks application is managed by Traxian Mail. At the other end of the order-to-invoice process, the supplier creates an invoice in their QuickBooks application, which Traxian Mail automatically pulls and converts to RosettaNet, and delivers to GXS, who ensures delivery to Intel.

This solution enables the SMB to automate its interaction with large trading partners without taking on additional work, or maintaining exception processes. Intel benefits by eliminating the administrative work associated with the manual nature of SMB interaction. The SMB benefits by eliminating manual processes and avoiding the creation of exception processes to support adoption of their customers B2B initiatives.

The Business Problem

Business-to-Business (B2B) processes support interactions with trading partners (i.e., Suppliers, Customers, Channel Partners), and represent the most complex and expensive processes within and across companies. When these processes are manual, they can be very costly.

A large percentage of SMB firms have not automated business-to-business interaction due to their unique situation. They operate with limited IT resources, continuous cost pressures, and limited discretionary capital for long-term IT investments. These firms require quickly deployed solutions that are cost-effective and adaptable to meet the needs of a growing business. Solutions that automate customer and supplier interactions are outside the reach of most small businesses. When mandated, these solutions actually create work and add complexity to their processes. Some of the issues that small businesses face with such solutions are:

- More work – Lack of integration means additional data entry for the small business. Instead of just printing and faxing an invoice for example, they are expected to re-enter it on a website or other non-integrated EDI system.

- No consistency – Partners often have different systems, making each one a different exception process. Paper is presently the preferred solution for the SMB, as it is the only common denominator.
- Tools are difficult and costly – Many tools are hard to use, requiring training and IT resources. Additional IT effort is required to integrate these tools with existing systems.

These issues cause the SMB to resist difficult and costly automation initiatives. In most cases, these solutions are not cost-effective for SMB relationships, as demonstrated by the lack of EDI adoption in the SMB community. This lack of software adoption among smaller value chain members prevents the large firm from realizing further cost reductions and operational efficiencies. This is significant, given that small and mid-size businesses account for typically 20-50% of transactions, and the higher costs of handling these transactions means that small and mid-size trading partners can drive 70-90% or more of total processing costs.

Solution Overview

Traxian Mail is a lightweight client that transparently configures a trading relationship for the SMB. The provisioning and configuration component of the solution manages the complexity of setting up trading partner relationships behind the scenes. This aspect of the solution represents a significant piece of the solution's value. In addition, the solution automates the trading partner interaction and orchestrates those SMB business processes addressed by the solution. This is an important piece of the value equation as understanding these business processes from the SMB's perspective is critical to solution adoption. The solution automates the interactive public processes while allowing the SMB to continue to manage their private processes as they have before. This feature minimizes the impact on the SMB and provides one vehicle for supporting all trading partner interaction. As an example, the PDF generation and viewing capabilities of the Traxian Mail solution enable an SMB to continue to operate with paper, if doing so minimizes the impact to their internal business process.

The solution therefore delivers packaged integration for the SMB, much like Enterprise Application Integration (EAI) solutions do for the large enterprise. The overview in figure 1 describes an end-to-end solution enabling SMB connectivity to service networks, and/or large enterprise trading partners. This solution facilitates the transmission and receipt of documents such as purchase orders, invoices and remittance / payment information, enabling communication with QuickBooks, Excel, and other SMB applications.
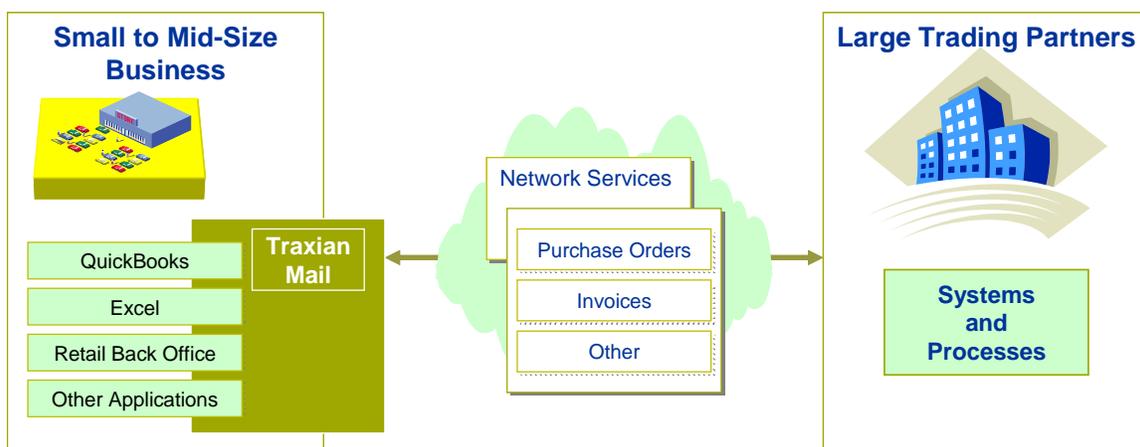

Figure 1: Solution Overview

The solution architecture at the SMB involves two types of connectors. The internal connectors enable automation with the business processes of the SMB. The service connectors enable communication with external service providers, or directly to a large enterprise. This aspect of the solution hides the complexity of the external environment from the SMB. They do not need to concern themselves with the trading partner's method of integration. As depicted in figure 2 the solution handles the format and protocol required to automate the processes, and manages the linkage to the trading partner's method of integration.
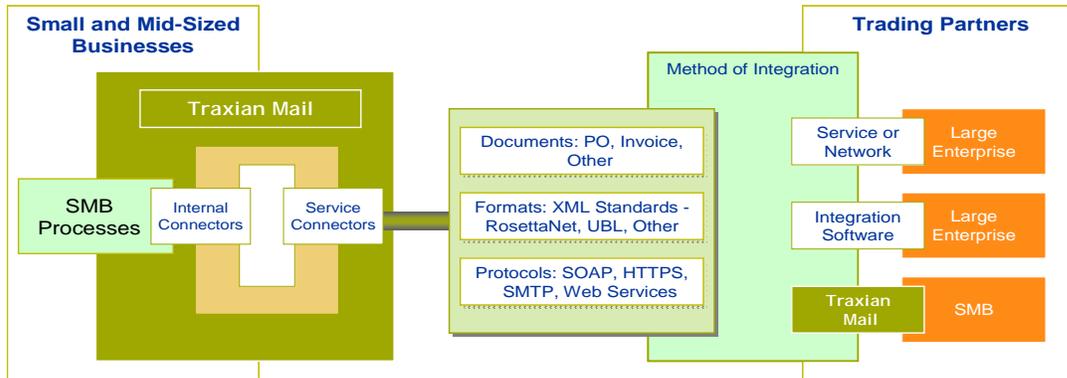
Figure 2: Solution Architecture

Solution Details

In this solution scenario, QuickBooks is the SMB application. The business process addressed by the solution is the purchase order to invoice process, leveraging the RosettaNet standard adopted by Intel. The supplier in this scenario interacts with Intel directly to exchange purchase orders, purchase order changes, invoices, and invoice rejects. The supplier works in their environment and receives notification on the desktop when a document has arrived. Traxian then facilitates the flow of documents into and out of QuickBooks. Once deployed, the supplier no longer needs to log into the Intel Supplier Portal to facilitate these business processes.

Communication with Intel is facilitated by the GXS integration service. The management of the order-to-invoice process is handled by the process orchestration service. In this solution example, Traxian handles the orchestration of private SMB processes (the steps required to move data between a company's partner-facing public processes and it's internal IT systems). Intel handles their own private processes, and GXS handles the public processes (those processes that describe the steps required to exchange information or transactions with a trading partner).

Figure 3 shows an end-to-end view of the solution that supports the trading relationship between Intel and House of Printing, one of the two suppliers enabled in this pilot.
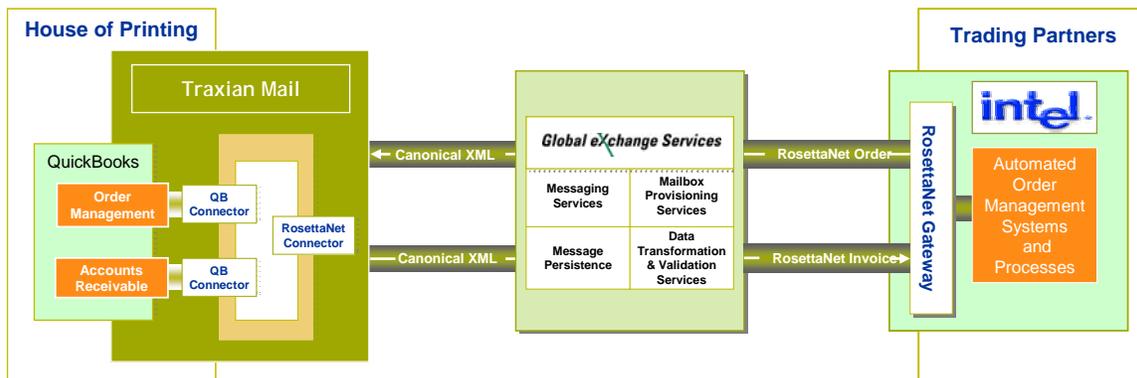
Figure 3: Order-to-Invoice Solution Diagram

The SMB order-to-invoice process flow, as depicted in figure 4, is filled with manual tasks. The introduction of an Intel supplier portal, while on the surface speaks to automation actually creates more manual work for the SMB. This time consuming process flow illustrates why there are barriers to B2B solution adoption for the SMB.
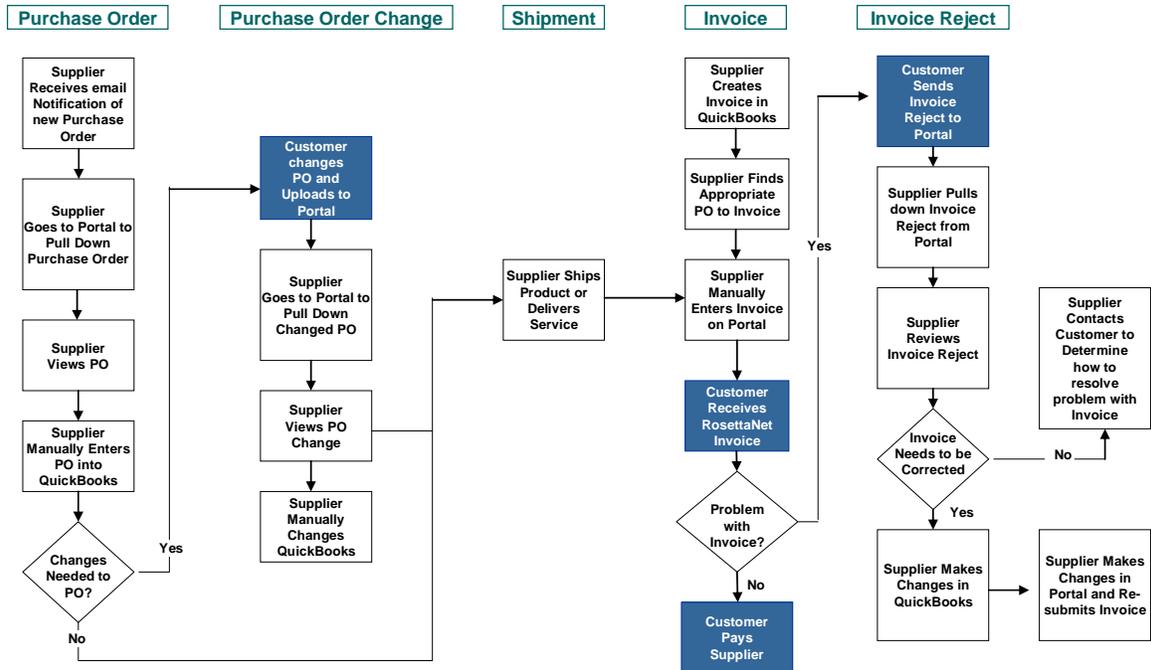

Figure 4: Order-to-Invoice Process Flow

Each aspect of the order-to-invoice process requires some degree of manual intervention. The SMB must access the Intel supplier portal to print the purchase order. That PO is then manually entered into QuickBooks. The process is repeated if the PO has errors. From an invoicing perspective, the SMB must enter the invoice information into the Intel Supplier portal and then repeat the process if errors exist. Aside from the time and labor impacts of the process, all the data re-entry leads to errors that have a very large impact on operations as discussed earlier.

The deployed solution automates the process by eliminating the manual interaction with the Intel supplier portal and automating manual tasks associated with the supplier's internal process. The highlighted boxes in figure 5 represent the tasks in the process flow that are no longer manual. As mentioned earlier, the solution respects the existing internal processes of the SMB and allows them to continue to operate as they have in the past. The PDF portion of the solution enables internal paper-based processes to continue as before. This seemingly small aspect of the solution becomes more critical when you are dealing with the small company end of the SMB community. As an example, one of the suppliers has a folder of paperwork that follows the job through the shop to completion. The solution allows that paper-based process to remain intact while enabling electronic exchange with Intel.

Working with the old process, the supplier took 4 minutes to retrieve one purchase order from the web portal and 6 minutes to post an Invoice to the web portal. Both steps now occur in seconds.

From an Intel perspective, the solution enables Intel to achieve greater value chain optimization. The inclusion of the SMB community in their value chain initiatives will ensure that they move towards one hundred percent adoption of RosettaNet-based trading partner interaction. The success of the pilot deployment makes realizing that vision a reality. The implementation process is streamlined in that Intel can develop this once and deploy the solution to many; only one connection from the enterprise to service

all SMB's. The simplicity associated with connecting all of Intel's small and mid-sized businesses accrues enormous benefits to the enterprise.
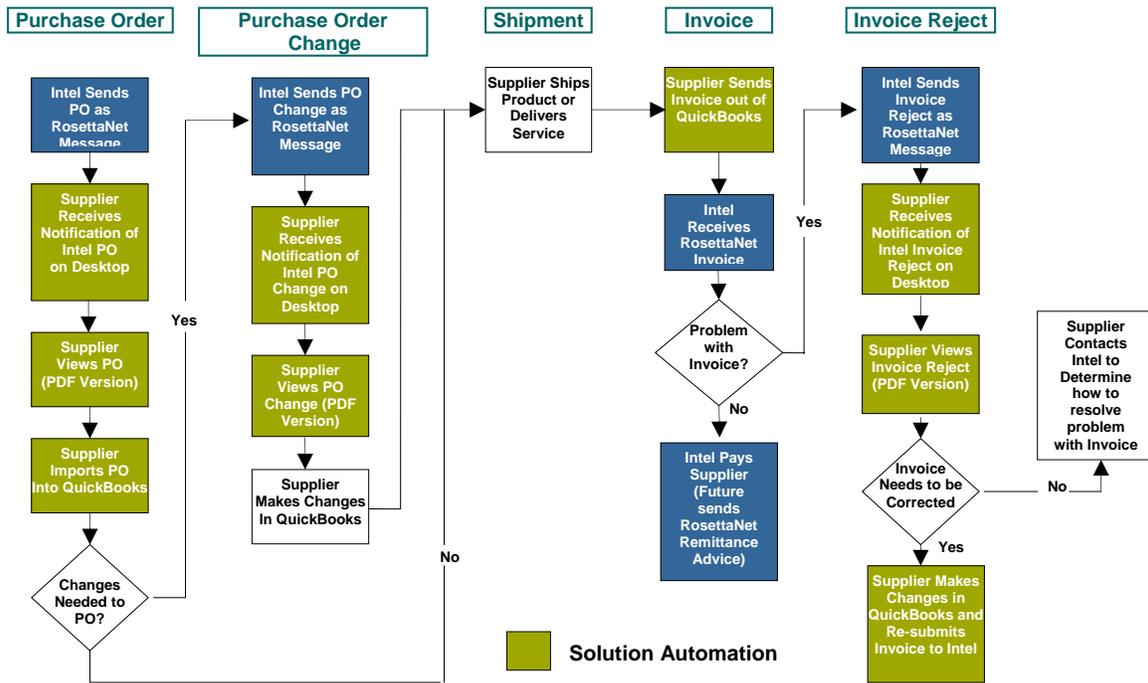

Figure 5: Automated Order-to-Invoice Process Flow

Solution Benefits

From an Intel Perspective

- Drive broad adoption of Corporate B2B initiatives into the SMB Trading Community enabling a greater realization of initiative objectives

- SMB resistance to adoption of electronic business is eliminated by enabling seamless and cost effective interaction with trading partners.

- Through broader adoption, paper-based processes and the time and cost impact of these processes are eliminated

- Optimization of the value chain can now include all members of the trading community

- Developing one connection/pipeline provides access to all SMB's that use the Traxian Mail solution.

<u>From the Small and Mid-sized Suppliers Perspective</u>

- Eliminate the cost and complexity that inhibits adoption of electronic business solutions

- Enables cost effective and seamless compliance with mandates from larger trading partners

- Leverage a wealth of network-based services that until now have been unreachable

- Streamlines business process while maintaining existing processes

- Cost savings from reduced errors and streamlined process, removing what were exception processes

Conclusion

Standards such as RosettaNet can facilitate the seamless interaction between Trading Partners, but even the best standards are meaningless unless broad adoption can be realized. The barriers to adoption can be eliminated with solutions that enable the SMB to cost effectively and seamlessly participate. Until now, solutions have not taken a view of business process from an SMB's perspective. This lack of appreciation for the day to day operations of this community has contributed to the low levels of solution adoption.

By leveraging standards, value chains can be optimized from the largest participant to the smallest. The combination of RosettaNet, GXS and Traxian has delivered an example of how even the smallest player can realize the benefits of automation. In so doing, Intel can move towards the broader realization of their value chain objectives.