

# GXS in High Tech

## The High Tech Industry Today

Today's high tech industry is having to adapt to continued global economic pressures by restructuring and consolidating their supply chains in order to remain competitive in the market place. The high tech industry requires a company to balance supply and demand through increasingly distributed supply chains, shrinking product lifecycles and shorter windows of opportunity for success. In addition, the advancement of technology into nearly all aspects of consumers' lives has given today's consumer an unprecedented level of influence across the high tech supply chain. The consumer-driven high tech sector is also having to embrace environmentally-friendly technologies for the design of next generation products. New laws governing corporate and social responsibility are driving high tech companies to develop more sustainable supply chains across their trading partner communities. Original Equipment Manufacturers (OEMs), contract manufacturers, semiconductor manufacturers, and component suppliers all are shifting their focus to respond to rapid changes in consumer demand. However, the majority of high tech supply chains have been outsourced across multiple tiers of manufacturing, distribution, and channel partners around the world. This has reduced visibility and responsiveness in high tech supply chains, limiting the ability to seize market opportunities.

As high tech companies analyze options for dealing with the globalization of supply and the localization of demand, many are realizing that a supply chain is only as good as its ability to move information as well as inventory. Therefore, a growing number of companies are seeking to selectively partner with IT service providers that can meet these challenges and improve their supply chain information flow. GXS provides business-to-business (B2B) integration solutions that can enhance customer service levels, streamline your supply chain, improve your products' time-to-market, and increase your B2B flexibility. GXS solutions enable you to integrate your customers and suppliers around the world with a broad range of B2B transaction capabilities, from direct system integration to web form interfaces.

GXS solutions give you a competitive edge in the high tech market:

- Enhanced Customer Service—No one ever wants to tell their customer “No,” but when it comes to B2B integration, it happens with troubling frequency. For example, customers may hear things like:
  - “I can't use this communications protocol.”
  - “We don't support that data format.”
  - “Our IT group can't get to that project for six to nine months.”

The challenge is compounded by the fact that customers' B2B requirements span a wide range of increasingly complex technologies and geographies. GXS's comprehensive B2B solutions can shield you from this complexity and increase your responsiveness to customer requirements. GXS makes your company easier to do business with, thereby increasing your customer service levels.



### HIGH TECH INDUSTRY ISSUES

- Continued consolidation and restructuring of key industry players
- Globalization of supply chains
- Requirement to develop greener and more sustainable supply chains
- Margin pressure as products and components are rapidly commoditized
- Transition to a consumer-driven value chain
- Convergence with supply chains in other industries, e.g. retail and automotive
- Growing trend for offshoring and outsourcing production work
- Increased competition from low cost producers in China and Eastern Europe

### SUPPLY CHAIN INFORMATION

**GXS can help you streamline integration of supply chain information:**

- Advanced Ship Notices
- Design Specifications
- Design Win Registrations
- Forecasts
- New Product Introductions
- Orders
- Order Acknowledgements
- Invoices
- Payment Remittances
- Product Catalog Information
- Product Change Notification
- Sales Reporting

- Retail-High Tech Supply Chain Convergence**—As consumer electronics continue to be the fastest growing category of high tech products, integration with retail supply chains has become critical. GXS has an extensive portfolio of retail B2B solutions and experience in the retail supply chain. GXS’s expertise and solutions can help you meet retail business process initiatives—such as collaborative planning, forecasting and replenishment (CPFR); global data synchronization (GDS); and vendor managed inventory (VMI).
- Improved Time-to-Market**—Shrinking product lifecycles make time-to-market increasingly critical to success. The ability to meet unpredictable shifts in consumer demand requires agile supply chains with the flexibility to respond to opportunities and mitigate risks. Often, moving products to market is slowed by lack of supply chain integration and poor product data quality. GXS, however, provides on-demand solutions that reduce your products’ time-to-market by making it easy to connect with your entire trading community and improving the efficiency and quality of information flow across your supply chain.
- Expanded Supply Chain Integration & Visibility**—The shift that has occurred in the high tech industry from vertical to horizontal business models, and the resulting adoption of outsourcing, has increased the number of companies in the supply chain. Therefore, the number of B2B interactions required to get a product to market has also increased. However, this has also increased complexity and reduced the visibility across high tech supply chains (see Figure 1). GXS can help you reach trading partners in any corner of the globe, no matter their location, size, or technical capabilities. GXS provides on-demand solutions that give you and your trading partners real-time visibility into the order-to-settlement business process, including shipment track-and-trace capabilities across multiple logistics modes.

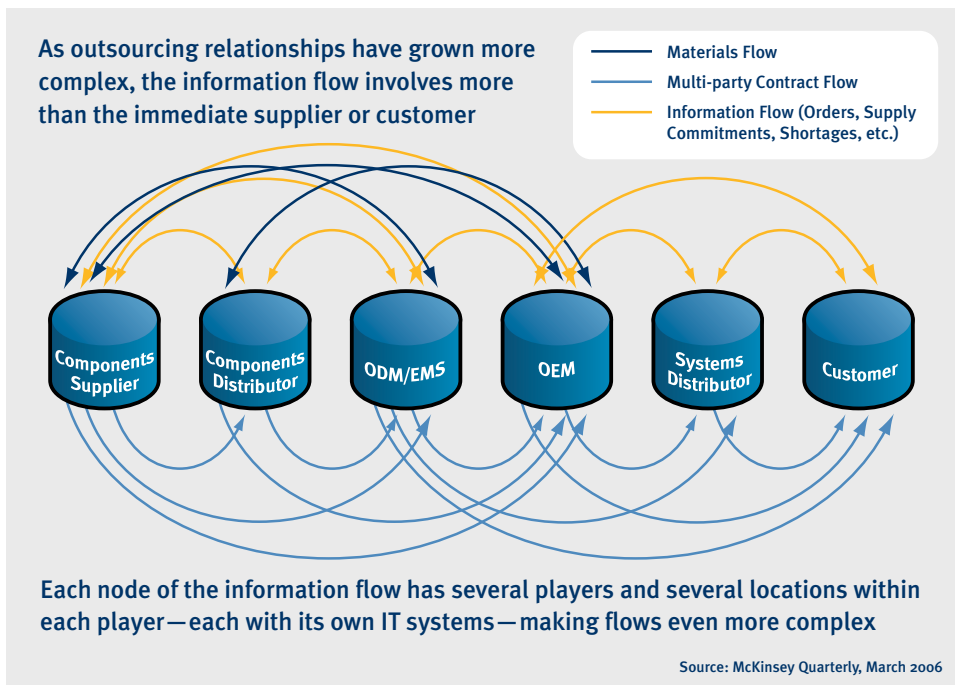


Figure 1

**GXS INDUSTRY LEADERSHIP**

**Largest high tech e-commerce community in the world**

- Top 15 Fortune 500 Electronics Companies
- Top 5 Fortune 500 Computer Manufacturers
- Top 5 Fortune 500 Communications Equipment Manufacturers
- 8 of Top 10 Semi-Conductor Manufacturers
- 6 of Top 10 Electronic Manufacturing Services Companies
- 8 of top 10 Distributors

- **Improved ERP to B2B Integration**—Many of today's high tech companies rely on Enterprise Resource Planning (ERP) systems for managing their internal business processes. These companies work with many external trading partners and there is often a need to integrate ERP and B2B systems together to improve the flow of enterprise-wide information. Many companies do not have the internal resources to manage ERP to B2B integration projects. Quite often information from external partners is not very accurate and requires extensive rework before it enters an ERP system. GXS provides a comprehensive B2B outsourcing service which can help companies keep their ERP projects on schedule and at the same time ensure that external information is clean and accurate before it enters an ERP system.

## Solutions for High Tech

GXS solutions for High Tech include:

- **Supply Chain Visibility**—GXS Active Orders and Active Logistics solutions give you the supply chain visibility needed to enhance your customer and supplier integration and collaboration. GXS provides a visibility solution to meet your business needs.
  - **GXS Active<sup>SM</sup> Orders**—Efficiently manage your complete forecast-to-settlement with your global supply chain, including component providers, contract manufacturers, logistics providers, financial institutions, and more. Through the GXS Trading Grid<sup>®</sup>, GXS provides on-demand applications that make it easy to quickly answer questions such as “Was my order accepted? Will the order ship on time? What is the status of my invoice?” Through role-based views, GXS allows you and your trading partners to view the same data, so you can have proactive collaboration and streamlined decision-making.
  - **GXS Active<sup>SM</sup> Logistics**—Provides actionable visibility into the status of all shipments in your supply chain. By connecting you to all your freight forwarders, fourth-party logistics (4PLs), third-party logistics (3PLs), ocean carriers, and more, GXS applies logistics-specific data quality rules, tools, and people to transform raw trading partner data into meaningful information. Dynamic ETA capabilities provide accurate, up-to-the-minute shipment tracking for a production schedule, arrival at a warehouse or distributor, or delivery to a customer. This also enables reverse pipeline functionality to calculate “must ship” dates for a desired ETA. Because 85% of the top ocean and air cargo shippers and 75% of the top logistics and transportation groups have already been integrated into the GXS Trading Grid, your time-to-value is nearly immediate.

### GXS TRADING GRID OVERVIEW

GXS Trading Grid is a global B2B e-commerce and integration platform that supports the creation and adoption of on-demand supply chain management solutions for companies of any size. GXS Trading Grid provides customers with visibility into daily e-commerce transactions, enabling dynamic, instant provisioning and manipulation of global trading partner networks. GXS Trading Grid also provides access to analytics, supplier performance reporting, and distributor/retailer response rates.

### Supply Chain Visibility Case Study

Facing narrow profit margins and rapid commoditization in home markets, Japanese consumer electronics companies are bringing new products to new markets in an effort to drive profitable growth efforts. However, expanding into new markets requires robust supply chain integration and visibility.

One of the largest consumer electronics companies in the world needed to support a significant move into North American and European markets for their most strategic

and profitable product line: plasma TVs. They chose GXS Active Logistics to track and trace shipments of plasma TVs from the manufacturing facilities in Japan and Eastern Europe to retailers and distributors in North America and other parts of Europe. The entire order-to-delivery process is tracked and traced, starting with the originating purchase order, through viewing shipment status updates as the order travels, to final delivery to the customer. This enables the company to improve its on-time order fill rates, solidify its customer relationships with timely and accurate information, and enhance overall visibility in their supply chain.

- **B2B Outsourcing**—Outsourcing has been a part of the high tech supply chain for many years, including contract manufacturing, product design services, and field service operations. However, a growing number of companies are adopting an outsourced B2B model to streamline and enhance global trading partner integration.

As supply chains have extended around the world and B2B requirements have become more diverse, many companies have turned to B2B outsourcing not only to reduce operating costs, but, more importantly, to enhance B2B capabilities, improve customer service and responsiveness, and increase focus on higher value business objectives.

- **GXS Expert<sup>SM</sup> Outsourcing**—GXS Expert Outsourcing provide the people, processes, and technology necessary to perform all day-to-day management of an organization's global B2B operations, including:
  - On-demand data translation service that provides any-to-any data format and protocol conversion
  - Daily global B2B operations conducted via world-class and geographically-dispersed data centers
  - A trading community on-boarding service that enables customers to reach 100% of their trading partners
  - B2B transaction visibility for document tracking and reporting
  - B2B process visibility that provides actionable information and capabilities for supply chain planning and execution
  - Integration services to allow B2B connectivity with ERP systems such as SAP, Oracle and Microsoft Dynamics AX

In addition, dedicated program managers execute customers' global B2B programs and bring the expertise and best practices, honed during GXS' more than 40 years in B2B e-commerce and 20 years in supporting full-service B2B outsourcing programs. GXS Expert Outsourcing enables you to trade electronically with more trading partners, improve your business visibility, and meet your current and future business requirements.

### B2B Outsourcing Case Study

A rapidly growing OEM communicates daily with hundreds of suppliers and customers around the world, including contract manufacturers in low-cost markets across the globe, technology distributors, and leading retailers. However, a comprehensive internal

### GXS CUSTOMER SURVEY RESULTS

GXS Expert<sup>SM</sup> Outsourcing customers have experienced significant return on investment (ROI) with GXS:

- 42% savings in operational costs
- 39% increase in customer satisfaction
- 38% improvement in B2B system uptime/availability
- 30% improvement in responsiveness to new trading partner requirements
- 24% increase in number of trading partners integrated via the outsourced systems

cost-to-serve review that examined the company's global B2B processes, infrastructure and service providers was unable to satisfy the OEM's current service level agreements or meet future growth needs on a global scale. This OEM experienced significant productivity losses when critical IT resources were forced to address B2B infrastructure issues instead of working on higher value business objectives.

To address these issues, the OEM sought a highly reliable solution that provided “one touch-point” for transactions between its customers and suppliers. GXS Expert Outsourcing answered the call with its comprehensive outsourced e-commerce solution. GXS now handles all of the OEM's B2B needs, from connecting new trading partners to integrating new supply chain processes. The OEM has experienced improved productivity, enhanced B2B capabilities, and critical business flexibility to meet new requirements.

- **Global Trading Partner Enablement**—The high tech supply chain is one of the most complicated and globally dispersed in the world. Nearly every participant in the high tech supply chain must collaborate and transact with component suppliers, contract manufacturers, distributors, and retailers in every part of the world. For example, the supply chain of an MP3 player may involve product design in the US, semiconductor fabrication in Taiwan, contract manufacturing and assembly in China, ocean carrier pick-up and delivery from Asia to Europe, customs documentation and approval in the country of destination, 3PL transport from port to distribution center, and final delivery to a retail location in central Europe. It is absolutely critical to electronically trade with customers and suppliers in all corners of the globe, no matter their location, size, or technical capabilities. However, manual B2B processes—phone, fax, and email—are still by far the most commonly used, despite the inherent inefficiencies and poor data quality involved.
  - **GXS Expert<sup>SM</sup> On-Boarding**—To address this issue, GXS created GXS Expert On-Boarding, best-in-class community management that provides global trading partner ramping, technical support, and change management. GXS Expert On-Boarding provides the proven tools and expertise to enable you to quickly launch nearly any e-commerce initiative—whether EDI, RosettaNet, AS2 or VAN migrations—and ensure its ongoing success. GXS Expert On-Boarding can get you trading electronically with your community, whether it is your suppliers in Asia who have always used fax to transmit shipping notices and invoices to you, or your small distributors in the US who have been emailing you spreadsheets of their purchase orders and sales data.
  - **Intelligent Web Forms**—A tool that is highly effective for eliminating manual B2B processes is GXS Intelligent Web Forms (IWF). IWF allows you to integrate trading partners with minimal IT capabilities by providing a fully configurable, easy to use, quick to implement, yet robust web form solution. Through IWF, you can send and receive business documents, record turnarounds with fields pre-populated based on the originating document, and upload and download files. All of this functionality is available through an interface that serves as a centralized dashboard for you and your trading partners—enabling search, personalization, and multilingual capabilities.

#### TRADING PARTNER INTEGRATION

**GXS can integrate all your trading partners, including:**

- Component Suppliers
- Semiconductor Manufacturers
- Contract Manufacturers
- Original Design Manufacturers
- 3rd and 4th-Party Logistics Providers
- Financial Institutions
- Distributors
- Resellers
- Retailers

- **Trading Grid for Excel**—This solution provides a simple way to allow even the smallest trading partner to be able to trade electronically via Microsoft Excel. Pre-built Excel templates can be used to submit invoices and purchase orders via a pre-configured menu within Excel. This allows the user to connect to GXS Trading Grid directly and send the document to the appropriate trading partner concerned. This solution is ideal for trading partners who may not have access to any other form of B2B platform. For example, in China Microsoft Excel is one of the most popular business tools in use today.

### Global Trading Partner Enablement Case Study

One particular European electronics manufacturer had a well-established B2B program in place but had not yet reached a critical mass of their trading community, particularly smaller trading partners with limited IT staffs. The company chose GXS Intelligent Web Forms to automate transactions with a total of 200 trading partners—50 customers and 150 suppliers—in all regions of the world. These customers and suppliers had previously been using a variety of manual trading processes, including spreadsheets, email, fax, and phone. With IWF, the company experienced streamlined process efficiencies since their limited IT resources were finally able to focus on more important business objectives. The manufacturer also realized significant data quality improvement as business rule enforcement within the web form increased the accuracy of data input.

## Standards Leadership

The RosettaNet standard is the leading B2B standard for the high tech industry and is used and endorsed by more than 500 companies around the world. RosettaNet allows trading partners of all sizes to connect electronically to process transactions and move information within their extended supply chains. GXS has been an active global participant and leader in RosettaNet since its founding in 1998. GXS provides a broad range of RosettaNet solutions in both on-demand and software delivery models. GXS is also an active member in the Open Applications Group (OAGi) and the European RosettaNet User Group (EDI-FICE), where GXS is represented on the board.

### RosettaNet Case Study

When the world's premier measurement company needed to integrate with its Asian supplier base using RosettaNet, the company looked to GXS for answers. GXS provided an outsourced global B2B solution that gave the company full RosettaNet and EDI integration capabilities to support the order-to-settlement business process. The solution enabled the company to streamline its supply chain, enhance visibility with key suppliers, and reduce product cycle time and inventory.

## Global Reach

GXS has the broadest global coverage of any B2B e-commerce provider, with direct operations in 20 countries and local support in 21 languages. GXS has presence in each of the major high tech design and manufacturing centers around the world, including the US, Canada, France, Germany, the Netherlands, China, Korea, Singapore, Taiwan, and Japan.

**Leadership in Europe**—GXS is the leading provider of B2B e-commerce services to the European high tech industry. With Central and Eastern Europe becoming a high tech manufacturing center serving the Western European markets, GXS provides supply chain integration services to enable OEMs and contract manufacturers to transact with Eastern and Western European trading partners.

**Leadership in Asia**—The Asia Pacific is critical to success in the high tech industry and GXS has an established presence and extensive customer base in the region. With over 1,000 customers in China, including some of the leading high tech companies in the world, GXS powers China's ECnet e-Hub connecting Chinese electronics OEMs with other China-based manufacturers as well as international customers and suppliers. GXS maintains offices in Japan, Australia, Singapore, and the Philippines, and has a world-class data center in Hong Kong.

## Operations, Security and Business Continuity

GXS has over 40 years of experience providing B2B services for global high tech supply chains. Many of its operational processes are based upon Six Sigma quality principles. Additionally, GXS's operations are regularly audited by an independent firm for adherence to the American Institute of Certified Public Accountants (AICPA) Statement of Auditing Standards No. 70 Level 2 (SAS 70 Level 2) review.

GXS's technical architecture is resilient by design. Multiple tiers of redundancy have been integrated into the data center, network, servers, and application design to minimize the impact of outage to any one component. In the event of a catastrophe, applications and processes automatically failover from the GXS US data center to an equivalent center in Western Europe.

GXS data centers feature multi-tiered physical security measures including hand geometry authentication and closed-circuit television monitoring. All employees undergo background screening and substance abuse testing prior being hired. Network and host security is managed through firewalls, intrusion monitoring, and aggressive patching.



### About GXS

GXS is a leading global provider of B2B e-commerce solutions that simplify and enhance business process integration and collaboration among trading partners. Organizations worldwide, including more than 70 percent of the Fortune 500, leverage the on-demand services on GXS Trading Grid® to extend supply chain networks, optimize product launches, automate warehouse receiving, manage electronic payments and gain supply chain visibility. GXS Managed Services, GXS' B2B outsourcing solution, empowers customers with the expertise, technical infrastructure and program support to conduct B2B e-commerce with trading partners globally. Based in Gaithersburg, Md., GXS has an extensive global network and has local offices in the Americas, Europe and Asia-Pacific regions. GXS can be found on the Web at [www.gxs.com](http://www.gxs.com).

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