Much has been written about the effect the Internet has had and will continue to have on the traditional supply chain business model. With its limitless connectivity, the Internet either poses the largest threat or offers the greatest opportunity. Which side of the ledger it falls on will be largely dependent upon how any one company or organization approaches the issue.

In their recent book, Electronic Commerce for Distribution Channels, Bruce Merrifield and Steve Epner write:

"The emerging IWC (Interactive Web Commerce) applications are also revolutionary. All of the information that flows through distribution channels is in the process of being captured, gathered, repurposed and made instantly available to all channel players through a variety of 'extranets'. Different types of extranets are already starting to fuse together to create a new digital networked economy (DNE) that will shadow and control the physical distribution channels that we all know. All of the traditional value-added activities that wholesaler-distributors have traditionally performed will become unbundled. Some will be significantly reduced or disintermediated, but there will also be entirely new 'infomediary' or 're-intermediation' opportunities for first movers."

Prevailing wisdom says that the traditional business model must be re-engineered to assure the distributor a viable chance for success. At the heart of the re-engineering process is a more aggressive stance on electronically communicating across the breadth of the supply chain. Even EDI, which has historically languished due to the cost and difficulty in building a trading partner community, is currently growing at a 20% annual growth rate. Clearly, distributors see the relationship between lowering transaction costs, becoming easier to work with, and long term corporate viability.

But the inflection point that we see on the near horizon is about more than simply processing transactions electronically. It is about a fundamental shift in the definition of a business and how it operates with its customers and trading partners. It is about leveraging the worldwide network to take your business to a new competitive level. It is about streamlining and integrating business processes at every point in the supply chain. It includes redefining sales and distribution channels and to enable customer value propositions never before seen.

AMR Research, a preeminent provider of research and analysis on e-business strategies and technologies for a variety of industries has coined a name for this new strategy: ECM - Enterprise Commerce Management.

AMR writes…

"CIOs are struggling with the vast array of new Business-to-Business (B2B) applications, Internet-based services, and exchanges that promise a huge payback and promise to address the shortcomings of the last must-do investment: Enterprise Resource Planning (ERP). However, even corporations that have already embarked on projects to install e-procurement or build a Private Trading Exchange (PTX) are at a loss to give a name to their grand plan. Unlike ERP, this new assembly of applications is not a single vendor package decision. It starts with ERP, perhaps includes e-procurement, with Customer Relationship Management (CRM), plus Supply Chain Management (SCM), plus a PTX with a Consortium Trading Exchange (CTX) thrown in for good measure."

ECM is the Blueprint for the Next Generation of Corporate Systems

AMR Research calls this new strategy Enterprise Commerce Management (ECM) and has developed a blueprint for this next-generation corporate-wide system (see Figure 1). ECM captures what many corporations have been building over the past several years as they supplemented ERP with other applications, such as Advanced Planning and Scheduling (APS) and CRM. ECM also describes the processes on which many of the new B2B commerce applications and services are based. ECM is not just another name for ERP;

Figure 1: Enterprise commerce management
Source: AMR Research, 2001
it’s a more accurate template for the systems that corporations are trying to build today, systems that encompass ERP but extend to trading partners, including suppliers, customers, and channel partners. More important, ECM provides the model for the next generation of business systems, comprising process-oriented applications and services tied together by the Internet to support intercompany commerce.

Clearly, this new Internet economy offers great promise in cutting expenses, offering new, innovative ways to sell products and services, and more tightly integrating the overall supply chain. Our goal at NxTrend is to provide the forward thinking wholesale distributor with tools to help them compete effectively in this rapidly changing business world.

Vision
As recently as five years ago, few distributors had heard of the Internet, and fewer still had ever used it for business. Today, the vast majority find themselves transacting some form of business over the Internet. Much of the supply chain is enhancing their bricks-and-mortar business with click-and-order. But, as outlined in AMR Research’s ECM model, there are many more facets to a fully realized e-business strategy than just taking orders over the web. The NxTrend supply chain strategy encompasses several key areas:

- ERP distribution and financial backoffice system integration
- Logistics integration
- Business-to-business storefronts
- Business community system-to-system integration
- Business to business portals or marketplaces
- Business intelligence

Our product and services offering is all about facilitating the free flow of information among cooperating members of the supply chain. Its basis is an ‘any to any’ transaction capability that allows for disparate systems to communicate using a variety of transaction processing techniques (email, fax, EDI, ASCII file, XML).

NxTrend’s solutions are designed to bring your business into much more than just the e-World. Our products and services focus on productivity gains, cost reduction and competitive advantage for your company and your network of customers, suppliers and partners.

NxTrend - Optimizing Your Supply Chain
Enabling today’s supply chain covers a wide variety of opportunities and components. Some horizontally (general solutions) focused and some very specific to the distribution industry. It all has to start with an open infrastructure that supports the integration of:

- Core ERP applications, such as NxTrend’s SX.enterprise, and SHIMS
- Warehouse logistics solutions
- E-commerce and E-business applications
- Third-party content and applications
- Trading partners, through shared business processes and information
- Private Trading Exchange applications designed to facilitate to build e-communities of two or more disparate backoffice systems

Backoffice Applications-the Backbone of the Supply Chain
NxTrend offers backoffice applications that are feature rich enough for Fortune 500 companies, yet intuitive enough to be deployed rapidly in smaller supply chains. The SX.enterprise suite of backoffice applications are architected to meet a spectrum of supply chain industry needs. These applications span from Order Entry to accounting to inventory are warehouse functionality.

Architectural features of the backoffice suite include
- Thin Client enabled for performance you need at a lower cost
- Scaleable from 5 to 5000 users
- Open-Systems architecture for application connectivity
- Fully configurable to meet a wide variety of business needs and sizes
- Extensive Information Analysis and reporting for management decision-making
- Integrated Data warehouse access between all applications improves information accuracy

As supply chains become more connected, it is important that your backoffice system be architected from the ground up to integrate into a variety of user interfaces. Rather than bolting on a web interface, the NxTrend suite of backoffice applications have been developed to integrate into a variety of e-business strategies.
It starts first with a "component driven architecture". SX.enterprise (as depicted in figure 1) has been developed as a series of components or business objectives that perform a function for the supply chain. Whether posting cash, entering an order, or shipping product, these business functions are containerized as separate business objects. These business objects can be utilized from a traditional internal user operating a character or graphical interface, or form an e-commerce web site.

Logistics Management: The Vital Link to Successful E-business

Unnecessary warehouse expenses and errors costs supply chains millions of dollars every day. Emerging technologies in Warehouse Management System (WMS) can turn that around so that proper logistics becomes a business asset. Efficient and well managed logistics operations are the vital link between backoffice applications and effective delivery of Business to Consumer and Business to Business solutions.

NxTrend SX.logistics is an integrated departmental solution integrated into the SX.enterprise backoffice applications to provide best of breed methodology for managing the movement of goods both inside and outside the organization. This suite of WMS solutions are designed to address the variety of issues in warehouse workflow including receiving, product movements, picking, packing, shipping, and counting. The SX.logistics approach allows you to optimize the productivity of your warehouse crew, improve inventory and order fulfillment accuracy, increase customer satisfaction, and achieve greater control over costs.

Utilizing RF and bar code technology, the SX.logistics solution offers a solution for the efficiency and accuracy challenges in the warehouse.

NxTrend bizLinx Family of Products & Services

NxTrend’s bizLinx suite is the first Enterprise Commerce Management (ECM) system designed specifically for the wholesale distribution industry. It meets the needs of any distributor or group of distributors looking to create their own trading community. Successful e-business requires open communication -- you need to trade information freely with your customers, vendors, and other partners, regardless of the file formats and systems they use in their own companies. Unfortunately, many so-called e-business solutions only speak one language.

The NxTrend bizLinx suite solves this dilemma by facilitating the seamless flow of information among members of a distributor’s trading community. With bizLinx, “Everybody Plays” regardless of the backoffice technology deployed.

The following sections describe the many tools and opportunities offered by NxTrend’s bizLinx solution.

bizLinx Communication Solutions

bizLinx offers three different solutions for communication with your trading partners and the transportation of documents:

- **eTrans** - offering basic EDI translation
- **Trading Network** - a step up from eTrans that can handle EDI, SML, flat file transfer, email and even fax. Trading Network does not require in-house EDI expertise.
- **Commerce Connect** - the ultimate communications solution that will drive your e-business. Commerce connect allows multiple connectivity and total communication regardless of the backoffice technology used by the trading partners involved.

The following sections elaborate on these solutions:

**bizLinx eTrans**

bizLinx eTrans is the EDI translation engine of bizLinx Commerce Connect, which can be purchased separately from Commerce Connect. If only EDI communication is required, eTrans can be implemented separately from Commerce Connect. Data is extracted from the SX.enterprise database using document maps and then translated into the formats agreed upon by the trading partners involved.
eTrans does not include XML translation. If you require a real-time XML solution, you should consider Commerce Connect.

**bizLinx Trading Network**

As an alternative to eTrans, the bizLinx Trading Network provides an e-commerce solution without the need for in-house EDI expertise. The bizLinx Trading Network is offered as a service utilizing the GE GXS (Global Exchange Services). This service is designed to lower many of the barriers to entry for implementation of EDI.

**bizLinx Commerce Connect**

bizLinx Commerce Connect is the engine that will drive your e-business by facilitating the seamless flow of information among members of your trading community. At a basic level, the transaction engine can begin the process of enabling your business to more easily transport EDI documents to your trading partners; however, this engine provides for much more. The goal of the bizLinx Commerce Connect is to create an environment where multiple connectivity and communications methods can be deployed, depending on the capabilities of the trading partner (i.e. EDI, XML, flat file transfer, email or fax). With bizLinx Commerce Connect, "Everybody Plays" regardless of the backoffice technology deployed.

bizLinx Commerce Connect is offered in the following configurations:

- **bizLinx Commerce Connect ECM** *(Electronic Commerce Management)*
- **bizLinx Commerce Connect PTX** *(Private Trading Exchange)*

**bizLinx Commerce Connect ECM** is designed for the single NxTrend backoffice system distributor requiring a connectivity solution to customer, supplier, partner or other marketplace systems.

**bizLinx Commerce Connect PTX** is designed to be the electronic transaction processing hub for a community of 2 or more e-commerce ERP systems. All of the ECM capabilities are included in the PTX version of Commerce Connect plus connectors for the members to communicate with the private trading exchange hub.

**bizLinx eSales Center**

The bizLinx eSales Center is a fully integrated, multi-channel sales and customer self-service portal solution. It will help your trading partners and customers place orders, manage and track their fulfillment, and provide them with the latest information you would like them to receive. Just some of the features of eSales Center include:

- Quick, secure customer logon and authorization
- Real-time product availability, order status, order detail checking and account status
- Order history review, searchable by date and other filters
- Express order entry and personalized shopping lists for repeat purchases
- Real-time order entry system with flexible pricing
- Email order confirmation

**bizLinx ECM**

**bizLinx PTX**

**SXENTERPRISE.**
The bizLinx eSales Center solution complements both the single company looking for an online web presence or multiple organizations tied together with the bizLinx PTX (private trading exchange) applications.

**bizLinx Mobile**
Imagine having access to your valuable company or eCommunity information everywhere that you go. Now, many of the bizLinx eSales Center capabilities available over the Internet are available via a "wireless device" using bizLinx Mobile.

bizLinx Mobile is a set of applications for the Palm OS® (both wireless and cradled) to deliver:

**bizLinx Mobile Wireless**
- Online Order Entry
- Product Information
- Customer Account Information
- Order Status and History

**bizLinx Mobile SX2GO - Cradled Applications**
- Cradled Order Entry
- Proof of Delivery

**bizLinx eCatalog**
The bizLinx eCatalog is a means for a distributor, or group of distributors, to offer their product information, pricing, and availability on a World Wide Web storefront

The bizLinx catalog addresses these primary requirements by providing:
- an **attribute based system** for searching for products. This system allows for assignment of a series of attributes to each product record, which could then be used in the search process. It goes beyond the normal free-form search mechanisms by providing lists of valid attributes for the user to choose from.
- **additional fields** of information for searching. This could include brand names, long descriptions, size, color, etc.
- **unlimited links** from the catalog records to images, specification documents, web page references, etc.
- **authorized to buy** capabilities, where a table of valid products and customers can be validated to a selected group of customers.
- **routing rules** based on the user or the product selected to send that user information to a specific distributor.

**bizLinx PTX Applications Toolset**
The bizLinx PTX Applications Toolset is a series of software and tools designed to facilitate the creation of a private trading exchange. This software suite includes the applications and tools to manage both the information and business rules associated with connecting two or more disparate systems into an eCommunity.

One of the most compelling visions for our new global community is the prospect of creating virtual organizations that more effectively manage and share their assets. From
distribution environment. Virtual Suppliers roots are found in the core NxTrend ERP applications but are optimized to be used as the central database and control center for the creation of a private distribution eCommunity.

**National Accounts and Integrated Supply:** In today's distribution world, many suppliers are beginning to form communities in partnerships, to offer "integrated supply" contracts to their customers for both regional and product line "one stop shop" purposes. Suppliers form an eCommunity, and the customer typically will have a contract with that eCommunity. The customer will have rules and limitations on what they can buy and whom they buy it from within the community and what price is paid by the customer globally. The customer will have additional business rules on how they buy from each of the appropriate buying sources within the community. The benefit to the customer comes in the form of consolidated services within these systems, such as consolidated billing and purchase analysis.

National Accounts and Integrated Supply allows a customer to:

- place orders globally and still receive the uniform pricing nationally, regardless of which participating supplier actually fills the order.
- place a single order with different participating suppliers, and receive a single invoice for all goods and services provided from those suppliers.

**Event Activity Monitor:** How does everyone in your company or your eCommunity get notified and react to meet customer’s expectations? Every task, every person and every piece of information is part of a work process that either supports or hinders the success of your individual organization or eCommunity. Successes are dependent on your ability to measure process effectiveness, control costs, and respond to business and market changes. Event Activity Monitor (EAM) takes a proactive approach to addressing these issues. EAM allows you to set up a series of monitors that will review specific processes within your NxTrend system, measure against user-defined criteria, and initiate user-defined actions.

**Surplus City:** Community surplus inventory visibility is key to reducing costs and creating competitive advantage for the private trading exchange members. Surplus City provides a three-tiered visibility to the community inventory asset.

1) **Dead Inventory**
2) **Surplus Inventory**
3) **Complete inventory visibility**

**R2R - Reseller to Reseller:** Trading partners within a private trading exchange eCommunity often have the need to transact business between companies. Facilitating this process electronically can save both time and money. R2R provides a set of business rules that establish how the trading partners will conduct commerce within the community. Rules for buying and selling between community members can be established to reduce costs and create a competitive advantage.

**Analytics:** Do you ever wish that you had access to key information about your business at the touch of a key? And, that by pressing one additional key you could compare your metrics to those of your peers? Wouldn't your suppliers love to have access to anonymous buying patterns and pricing metrics? With bizLinx Analytics, we can add a rich view of the information flow through the community. We can build dynamic comparisons of vital information that will enable your workforce to make better decisions, faster.
About NxTrend Technology, Inc.

NxTrend is a leading provider of enterprise-wide solutions designed to enable suppliers to better manage inventory, order processing, sales, warehouse logistics, and electronic commerce. NxTrend's supply chain solutions are targeted to the needs of suppliers of building materials, electrical, plumbing, HVAC, and industrial products. NxTrend's Strategic Exchange™ (SX) product line includes sophisticated back-office supply-chain information processing solutions; complete warehouse logistics offerings with Radio Frequency (RF) capability; and internet-enabling applications that build e-commerce capability into the supply-chain business model. SX operates in both UNIX and Windows NT environments.

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