

Aberdeen Group

Profile

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dChain: Automating Multi-Tier Demand Chains

Preface

The early architects of the New Economy coined the term disintermediation—the disintegration or elimination of the middlemen in a trading chain—to label their conviction that the Web would fundamentally transform accepted commercial practices. The middleman was but a vestige of the industrial age. They prophesied that the digital age’s electronic marketplaces would eliminate the costs (100% or greater markups, distribution and communication bottlenecks, etc.) traditionally associated with a multi-tier distribution network of wholesalers, distributors, and retailers. This commercial evolution would enable manufacturers to cut out the middleman and sell directly at substantially reduced price points.

Aberdeen’s research shows that the widespread displacement of the middlemen in the trading chain has not yet materialized, at least not in the draconian manner once articulated. In fact, the emergence of new electronic middlemen, a.k.a. infomediaries, suggests that the value represented by the traditional middle tier of the supply chain will not easily be dispatched into the annals of economic history. Yet the Darwinian repercussions of being “Amazoned” the rapid displacement of a company’s core business value by nimble, well-financed, Web-based startups continue to resonate strongly with the middle market distributors that lay at the heart of multi-tier supply and distribution chains.

Executive Summary

Although manufacturers will continue to adopt e-Business strategies and e-Commerce solutions to accelerate the pace at which they sell direct to their customers, Aberdeen believes that the business layers that distribute and resell goods and services will not disappear. Traditional distributors, dealers, franchisees, and retailers can survive and in many cases thrive in the e-Business environment, especially as barriers to global trade yield to the ubiquitous nature of the Internet.

Yet, to maintain commercial viability and exploit new, global opportunities, these entities will have to leverage e-Commerce technologies to strengthen existing partnerships and create new dynamic relationships that utilize the Internet for real-time communication, collaboration, and data exchange.

Re-intermediation encapsulates the growing awareness that Web-based e-Commerce technologies must be deployed throughout the supply chain. These solutions will enable new electronic and traditional sales channel members to integrate operations with an end goal of supporting and adapting to the elevated expectations of their increasingly Web-savvy clientele: customers who demand more choices and new processes that support their desire for greater control. Aberdeen research shows that traditional, demand-facing channels that distribute and resell goods and services are being refined and optimized by the very same e-Commerce technologies that not long ago threatened to render middle-men obsolete.

Don't Eliminate Re-intermediate

Aberdeen's engagements with e-Commerce vendors consistently reveal that these solution providers are only now broadening their marketing focus from top-tier suppliers to include the second- and third-tier members of the supply chain. These information technology (IT) suppliers position their solutions as enabling technologies designed to help mid-market wholesalers, distributors, and resellers transform existing processes and workflow by leveraging the real-time, interactive nature of the Web.

This focus on the mid-market distribution network is not merely a growth strategy for building market share by penetrating new markets. The attention given to the traditional middlemen in the multi-tier supply chain by e-Commerce vendors underscores an important reality: the conventional value provided by distribution and dealer networks intricate knowledge of vertical-specific commercial processes and business cycles as well as long-established professional relationships is not easily displaced by an outside dot.com's graphically pleasing directory of vendor services and accompanying new media bells and whistles. e-Markets are emerging as the chosen setting for bringing together buyers and sellers in a digital commercial forum. Aberdeen believes that middle-tier distributors and resellers will increasingly partner with independent software vendors (ISVs) that provide and/or host a suite of technologies designed to enable trading partners through-out the supply chain to integrate business and trading systems and deliver a broader, more customized selection of products for their customers.

Multi-Tiered Networks: United We Stand, Divided We Fall

The traditional linear supply chain manufacturer produces, distributor disburses, dealer/franchisee/retailer sell to the end customer – is threatened by channel conflict whenever its upstream members individually seek to interact directly with the customer and, in doing so, upset an established commercial order. In a supply network, most participants are, at one point or another, buyers or sellers. By working together, they collectively leverage the expertise of each successive layer's domain. e-Markets, Net markets, and e-Hubs are variations on one similar theme the most efficient way to utilize e-Commerce technologies is to bring together the supply network so its members can access and exchange information and conduct business. The addition of new participants to the net-work or hub increases its value exponentially.

The concern among second- and third-tier members of the mid-market, multi-tier distribution network that disintermediation will undermine their positions in the value chain often casts a negative light on those manufacturers attempting to sell directly. Disintermediation rhetoric tends to depict the manufacturer as the disruptive player one whose desire to sell complete product lines directly (a selection most channel partners cannot match) encourages channel conflicts. Aberdeen suggests that such a portrayal, although accurate on occasions, clouds the reality that hegemony is dispersed throughout the distribution network.

ISVs seeking to disseminate their e-Commerce and e-Marketplace technologies among the ranks of manufacturers, wholesalers, distributors, and retailers should note that the entity that controls the selection of goods and services available to the end customer in a respective, multi-tiered distribution network usually has the most negotiating power. In the consumer electronics world, manufacturers like Sony traditionally have dictated the actions of the authorized wholesalers and retailers that populate its channels. In contrast, the multi-tier wine industry has witnessed the concentration of power at the wholesale/distribution level a consolidation that has recently allowed distributors to lobby successfully for legislation that sanctioned de facto oligarchies. The resulting distribution stranglehold subverts consumer choice and access. Wholesalers cannot sell — nor can their retail partners stock — all the wines collectively sought by their customer base.

Simply put, whichever tier has historically controlled the number and range of products and/or services potentially available to the customer has traditionally achieved the predominant role in the distribution chain. Although manufacturers and distributors have usually been considered the power brokers in the multi-tier network, authority also resides at the retail layer. The approval process and related hurdles that small manufacturers must overcome to reach the shelves of WalMart and its lucrative retail distribution grid underscore the theme that commercial viability exists throughout the value chain of a multi-tier distribution network. Traditional leaders within their own multi-tier networks face new challenges in the New Economy. Sony is fighting the rapid proliferation of unauthorized electronic resellers whose fly-by-night operations and poor customer service threaten to erode Sony's well-respected brand. Wineries throughout the nation are fighting back by questioning the lobbying practices that have resulted in the wine wholesalers' quasi-monopolistic business practices and advocating grassroots campaigns whereby consumers demand the opportunity to access a broader selection of wine through both offline and online channels. And Wal-Mart realizes all too well that its future lies in offering its customer base a larger selection of goods and services (available both online and offline) that complements its fabled customer service.

Competitive Advantage via Demand Chain Automation

Aberdeen research shows consistent evidence that a multi-tier network that works together by utilizing e-Commerce technologies that reduce selling and holding costs while expanding customer selection and service stays together. In a global e-Business environment, Aberdeen believes that the speed and agility with which entire supply chains can mobilize to meet ever-increasing customer expectations will define competitive advantage. Yet, one cannot overlook the reality that, no matter how large a selection of goods and services a commercial entity controls, success will be elusive without the appropriate level of customer service and support. Individual supply and demand chain members can "get big" much more quickly by leveraging e-Commerce and e-Marketplace technologies that allow them to work together to optimize their respective core competencies and to deliver coordinated customer service.

dChain, Inc. is one IT supplier focused on providing e-Selling solutions—as opposed to buy-side technologies that allow mid-market distribution and sales networks to “get big.” dChain offers small and midsize businesses a demand chain automation solution that adapts to the underlying supply chain processes characteristic of different vertical sectors. Members of multi-tier sales and distribution networks can expand their market reach by integrating back-office operations in real time and offering a broader selection of their existing suppliers’ product lines via electronic catalogues a customer-focused enhancement that also reduces physical inventory costs. A traditional dealer or retailer can tap new revenue streams by adding product lines from new suppliers providing customers with more product options without the additional costs associated with increased physical carrying capacity.

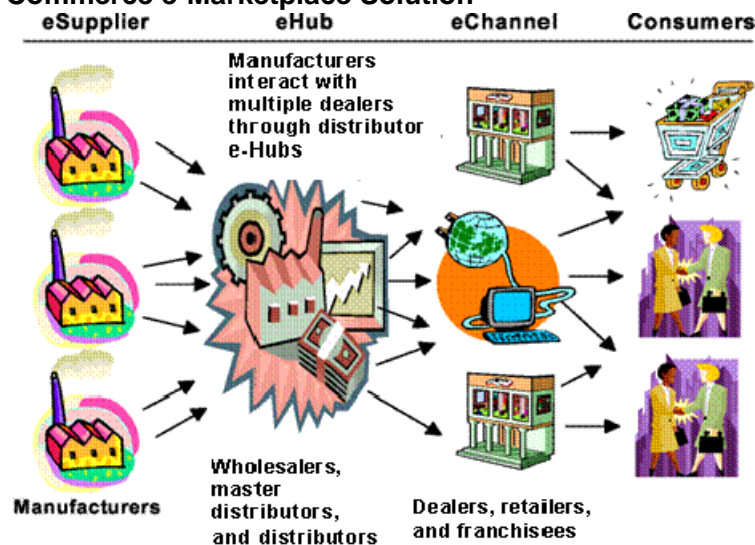
dChain: Product Overview

The dChain suite of applications, which includes eHub, eChannel, and eSupplier, acknowledges that the distributor, as the go-between for manufacturers/suppliers and dealers, has traditionally provided vital assistance centralized information aggregation, market trend analysis, customer service, etc. in mid-market, multi-tier distribution networks. dChain creates economies of scale that both reduce ordering and inventory costs and expand opportunities to generate revenue.

dChain integrates the dealer network and allows the customer-facing entity of the multi-tier network to sell entire product lines through an aggregated catalog an activity that enhances customer service and loyalty (Figure 1).

dChain supports the emerging sell-source-ship (S3) model being propagated by ISVs that develop and sell e-Marketplace technologies. In the traditional buy-holdsell (BHS) model, distributors, wholesalers, and retailers take title, inventory products, and then distribute or sell them via channel partners or their own retail stores or dealer showrooms. The dChain-supported S3 process focuses first on initiating the sale of a good or service through dealer portals and e-Commerce Web sites and then sources the product from the appropriate manufacturers and suppliers, which ship directly to the customer. The S3 model lowers the risk of taking title to product that doesn’t sell while also lowering inventory-holding costs — the model transforms the supply chain to a customer-centric demand chain.

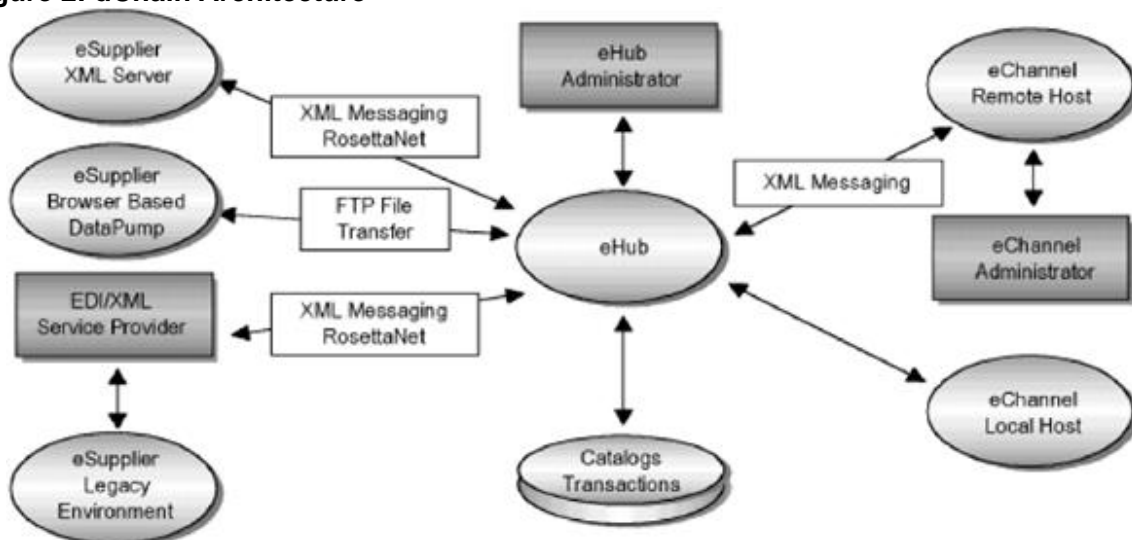
Figure 1: dChain Commerce e-Marketplace Solution



The dChain Commerce architecture offers e-Marketplace technology (Figure 2) that provides many-to-many functionality that connects with leading Enterprise Resource Planning (ERP) systems via the following three solutions:

- *dChain eHub (wholesaler, master distributor, distributor)*: The online e-Commerce system utilizes Microsoft SQL 7 and Oracle databases in addition to webMethods-hosted, RosettaNet Extensible Markup Language (XML). Messaging technologies to dynamically connect manufacturers and suppliers with members of their trading networks. The eHub uses aggregated catalog technology that combines the content of multiple supplier catalogs into an integrated presentation. The eHub supports shopping cart functionality, purchase order processing, order status updates, and catalog subscription management tools. Integration with legacy systems can be accomplished via three options: asynchronous integration via flat files; by building a proprietary data pump to the product catalog; or in real time via custom Application Programming Interfaces (APIs) with the legacy system.
- *dChain eSupplier (manufacturer)*: This solution integrates multiple supplier catalogs into a single interface in which assimilation with the eHub is accomplished via direct connection to legacy systems; flat file integration; and industry standard XML catalogs (Ariba, Commerce One, RosettaNet). Dealers and suppliers can leverage the eHub routing, tracking, and recording capabilities to manage information flow. Suppliers control pricing and product information while tracking product and dealer sales activity.
- *dChain eChannel (dealer, retailer, franchisee)*: Distributors and wholesalers can assist the consumer-facing, e-Commerce, click-and-mortar efforts of their dealer/franchisee/retailer channels by equipping those networks with portals, e-Commerce Web sites, and similar functionality available through the eHub solution. The intuitive drag-and-drop, template-enabled dChain eChannel administrator eases catalog creation from partner supplier databases and allows users to select content from the aggregated catalog at the eHub for subscription-based inclusion in selective eChannel partner Web sites. The Java Server Page (JSP) templated environment provides a rapid and flexible approach to site customization.

Figure 2: dChain Architecture



About the Company

dChain was founded in 1996 as CollaTech, Inc. dChain's original service focused on creating e-Commerce solutions for mid-market companies seeking to leverage the Web as a sales channel. Realizing that this target market could not afford the sophistication and customization requirements demanded by Fortune 1000 companies nor the price point of solutions that catered to the high-end market dChain Commerce has been delivering solutions to specific vertical markets since 1997. The company's solution incorporates all the requisite components and support without disrupting business systems and logic. dChain has implemented over 50 e-Commerce sites and has executed two multi-tier e-Marketplace contracts.

Cognizant that all players comprising the traditional multi-tier trading model sought to increase their direct interaction with customers, dChain decided to expand its core capabilities and introduced its flagship e-Marketplace solution, dChain Commerce. In keeping with its focus on the middle market, dChain has concentrated on suppliers and distribution companies within the agricultural, automotive, appliance, and construction markets.

dChain plans to enter a limited number of vertical markets and will continue to leverage its leadership in the mid-market segment. dChain is available through separate delivery models. The application can be licensed and managed by the company directly through standard licensing and implementation fees or hosted and delivered as an Application Service Provider (ASP) service through hosting and transaction fees that are expected to evolve into a recurring revenue stream.

Aberdeen Conclusions

For the customer whether business-to-business (B-to-B) or business-to-consumer (B-to-C) "always on" self-service access to a wide range of goods and services has become a fundamental "right" of the Internet Economy. Customers want selection, options, and control. Aberdeen has seen industrial concerns create market-making partnerships with e-Market and e-Procurement ISVs. As these market-makers capture the attention of Fortune 1000 companies in the race to secure first-to-market competitive advantage, the mid-market has been overlooked. Much as the leading interactive design firms ignored smaller concerns in the race to build early Web sites for well-known corporate brands, leading marketplace technology ISVs have left the often fragmented mid-market to fend for itself.

Therein lies dChain Commerce's opportunity. Companies that comprise the mid-market, multi-tier sales and distribution networks will not be easily disintermediated they have a place in the digital economy. Their process expertise and the long-term B-to-B relationships that have been honed over many years of hard work and hard-learned lessons are instrumental to the future of truly customer-centric demand chain management.

dCHAIN, Inc.

In discussions with dChain's initial e-Marketplace partners at the distribution layer, Aberdeen found several significant themes. First, these distributors have traditionally taken the market leadership role for upstream and downstream partners; suppliers need to focus on improving their manufacturing competencies, while dealers often lack the resources to develop a full-fledged e-Business strategy. Secondly, the mid-market distributor the scout, the storyteller, the risk-taker cannot afford the total cost of ownership associated with the marketplace technologies recently embraced by large industry leaders. These mid-tier players welcome the opportunity to leverage the dChain Commerce hosted model because working with dChain allows them to share the risk and the reward with a partner that possesses a proven e-Commerce track record in the mid-market.

But make no mistake. As much as we believe in the viability of re-intermediation and the enablement of multi-tier channels with e-Commerce technologies disintermediation happens. If traditional mid-market, multi-tier channel members sit still and wait, they will lose the advantages process and business cycle expertise as well as strong relationships they currently possess. Distributors remain in a sweet spot but they should move quickly and with confidence to embrace the promise of solutions like dChain. The only true failure lies in ignoring market dynamics.

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