

Aberdeen Group

**Strategic e-Sourcing:
A Framework
for Competitive
Advantage**

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Aberdeen Group, Inc.

Aberdeen Group is a Boston-based computer and communications consulting and market-research organization.

Aberdeen Group performs specific projects for a select group of domestic and international clients. Each project requires a combination of strategic advice and pragmatic, experience-based action plans. Assignments range from corporate and product positioning and organizational planning to in-depth market segment research. Aberdeen consults on mergers and acquisitions, corporate positioning and investor relations, and transaction-processing benchmarks; in addition, it offers special expertise in software and midrange computer markets.

In carrying out assignments, Aberdeen uses a proprietary, comprehensive, analytical framework providing fresh insight into the complex future of computing and communications, both from technological and market-dynamics perspectives. Aberdeen also offers retainer-fee programs to a group of continuing clients.

Aberdeen principals and staff are recognized industry figures with hundreds of years of combined high-tech industry, research, and financial community experience among them. They are quoted extensively in industry trade and business publications. Each staff member is a frequent conference and seminar speaker.

In addition to client-related research and consulting, Aberdeen publishes several periodicals, Aberdeen Viewpoints, and Profiles, which summarize its analysis and research findings.

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Preface

Aberdeen Group is a recognized leader for its research and analysis of Internet-based technologies that automate, streamline, and improve procurement and Supply Chain Management (SCM) processes. Aberdeen was one of the first market-research firms to analyze e-Procurement solutions and quantify the benefits and pitfalls of these technologies.

In its continued research of emerging procurement automation technologies, Aberdeen has identified Internet-based sourcing (e-Sourcing) as one of the most direct and effective ways that an organization can use the Internet to control costs, improve profits, and enhance overall responsiveness to changing market dynamics.

This research report defines a framework for strategic e-Sourcing, quantifies the benefits of such technologies, and discusses the emerging e-Sourcing market as well as related trends, technologies, and challenges. The targets of this report are the following business and information technology (IT) executives:

- Chief procurement officers (CPOs) that are responsible for building and managing their organizations' supply chains;
- Chief executive officers (CEOs) charged with improving their companies' profits, responsiveness, and standing in the market;
- Chief financial officers (CFOs) focused on controlling costs and optimizing their organizations' resources;
- Chief information officers (CIOs) involved in selecting and implementing electronic commerce (e-Commerce) solutions;
- Management consultants and systems integrators (SIs) tasked with identifying emerging technologies; and
- Current and future e-Sourcing, procurement, SCM, dynamic trading, and marketplace solution providers looking for a product roadmap for e-Sourcing as well as an analysis of competitors and potential partners.

Additional Resources

To assist readers, this Aberdeen research report includes two appendices: Appendix A offers a glossary of e-Sourcing-related acronyms and abbreviations; Appendix B provides a list of relevant Aberdeen research for further reading.

Chapter One

Executive Summary

This report is intended to help procurement executives, corporate executives, and business and IT managers do the following:

- Quantify the benefits and challenges of strategic sourcing;
- Define a framework for strategic e-Sourcing; and
- Identify and profile the Web-based technologies and services that can be used to support this strategic e-Sourcing framework.

Definition of Strategic e-Sourcing

Strategic e-Sourcing is the process of using Web-based technologies to support the identification, evaluation, negotiation, and configuration of optimal groupings of trading partners into a supply chain network that can efficiently respond to changing market demands. It is during the sourcing cycle that an organization defines the overall cost and structure of its products and its supply network.

The goal of any sourcing event should be to select the mix of products, services, and suppliers that offers the lowest total cost, which is the sum of price and non-price factors such as quality, delivery, brand, and warranty terms, etc.; and to ensure that each sourcing decision supports business structures, objectives, and constraints. Companies should also identify successful sourcing strategies that they can deploy across the enterprise.

The Trouble with Traditional Sourcing Practices

Despite its critical nature, sourcing remains a complex, labor-intensive, and lengthy process for most companies. Aberdeen research indicates that even the largest organizations continue to use a mix of outdated technologies and processes that increase the cost of sourcing, limit the number of suppliers that can be included in negotiations, and reduce the efficiency and effectiveness of the negotiation and decision-making processes.

Business Benefits of Strategic e-Sourcing

Effectively deploying and using a strategic e-Sourcing framework can streamline the sourcing cycle, improve negotiations, and provide enhanced access to supplier intelligence and decision support for more in-

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formed purchase decisions. Specifically, organizations using Web-based sourcing technologies have been able to do the following:

- Identify and negotiate with a broad range of qualified suppliers;
- Reduce process costs for sourcing engagements;
- Shorten sourcing cycles by 25% to 30%;
- Reduce time-to-market cycles by 10% to 15%;
- Negotiate an average of 5% to 20% unit price reductions;
- Extend strategic sourcing to a wider range of products and services; and
- Enhance collaboration and knowledge sharing.

On a global basis, businesses could save approximately \$1.7 trillion by deploying effective e-Sourcing strategies.

Elements of an Effective e-Sourcing Framework

A strategic e-Sourcing framework should do the following:

- Identify enterprisewide spending patterns and requirements for the product or service being sourced;
- Evaluate external market dynamics and other factors that could impact negotiations and the overall effectiveness of the product or service being sourced;
- Negotiate in multistage and multi-threaded scenarios that support evaluations on multiple price and non-price factors; and
- Configure each sourcing decision to support supply chain constraints, purchasing policies, and business objectives.

Profiling the e-Sourcing Market

The e-Sourcing market comprises a diverse range of Web-based technologies and services, including “pure-play” e-Sourcing solutions, reverse auction/dynamic trading technologies, supplier intelligence services and tools, online marketplaces (e-Markets), and procurement service providers (PSPs).

The market for these e-Sourcing technologies is currently growing at a 98% compound annual growth rate (CAGR) from a 2000 base of \$382 million. Such projected growth has spurred private and venture capital (VC) firms, to date, to invest more than \$250 million in e-Sourcing tech-

nologies. The cost-saving focus of e-Sourcing should make this sector less vulnerable to the current economic downturn than other segments of the technology market.

Determining the Right e-Sourcing Strategy

Determining the appropriate mix of e-Sourcing technologies a company will need to design and support its strategic sourcing initiatives depends largely on that company's size, financial and technological resources, and level of domain and sourcing expertise.

These variables determine whether an organization should purchase an e-Sourcing solution or a dynamic trading platform that it can integrate into its own sourcing framework, outsource sourcing to a third-party, or leverage the capabilities of e-Markets and exchanges.

Chapter Two

Summary of Findings

In this section, Aberdeen highlights its key findings on the strategic e-Sourcing marketplace. Aberdeen based these findings on research it conducted among e-Sourcing technology providers and their users. These findings also reflect Aberdeen's research of procurement and sourcing practices of leading manufacturing and service companies. This report provides many in-depth discussions of these topics.

Market Drivers

Strategic Sourcing Is Key to Competitive Advantage

Under increasing pressures to operate more efficiently, companies in all industries are quickly coming to the realization that procurement provides a tremendous lever to improve processes, increase productivity, and reduce costs in the supply chain. The reason: Purchased products and services are the single largest expense at most organizations, accounting for 50 cents to 55 cents of every dollar earned in revenue. Reductions in procurement costs translate into a dollar-for-dollar increase in profits.

With as much as 80% of the total cost and structure of products being determined by the end of the design and sourcing cycles, the greatest impact a company can have on the cost, quality, and structure of a product or assembly occurs during the initial sourcing process.

Sourcing Is Inefficient, Labor Intensive, and Costly for Most

Despite its critical nature, sourcing remains a complex, labor-intensive, and lengthy process for most companies, with the typical sourcing cycle ranging from 3.3 months to 4.2 months, depending on the item sourced.

Aberdeen research indicates that most buying organizations continue to do the following:

- Identify and qualify products and suppliers using widely dispersed and incomplete sources;
- Negotiate with suppliers using a mix of phone calls, faxes, electronic data interchange (EDI), and mailings; and
- Evaluate supplier proposals using manual, paper-based procedures or basic spreadsheet software applications.

Such challenges restrict the number of suppliers that companies can include in negotiations, cause buyers to make purchase decisions with incomplete information, and limit the ability of buyers to evaluate suppliers on the complete range of factors required for effective sourcing decisions.

The Benefits of Strategic e-Sourcing Are Overwhelmingly Compelling

The Internet provides high market transparency and reduced transaction costs, enabling highly efficient and collaborative online negotiation environments. By leveraging the Internet to automate key sourcing activities, companies have been able to realize improved pricing terms, reduced sourcing cycles and costs, and improved supply chain structures. (Specific findings are detailed later in this report.) On a global basis, strategic e-Sourcing could save businesses more than \$1.7 trillion.

Early e-Procurement Automation Solutions Fall Short

Initial attempts to transition procurement to the Internet were limited in their ability to support strategic sourcing activities. e-Procurement solutions automated the procure-to-pay cycle for non-strategic goods and services that were on contract and that adhered to static prices. And, although reverse auctions automated aspects of the sourcing cycle, early versions of these technologies focused largely on determining the lowest price for a single item.

By contrast, effective sourcing requires the negotiation of multiple parameters beyond just price. In addition, buying organizations often simultaneously source multiple items, including a complete bill of materials (BOM). Buyers also tend to spread business across multiple suppliers to hedge risks and attain cost and service benefits by having sources in close geographic proximity to where a product or service will be consumed.

Despite these limitations, e-Procurement and reverse auction technologies serve a critical role in the overall strategic e-Sourcing framework.

Technology

Strategic e-Sourcing Relies on a Mix of Technologies

Strategic e-Sourcing incorporates a wide range of Web-based technologies and services, including pure-play e-Sourcing solutions, reverse auction/dynamic trading technologies, supplier intelligence services and tools, and procurement service providers. These technologies automate and streamline supplier identification, requirements development, negotiations, and analysis. Online marketplaces also serve a role in the overall e-Sourcing framework.

Maturity of e-Sourcing Varies by Technologies Used

Most e-Sourcing technologies are in the early stages of development, particularly among the pure-play e-Sourcing solutions, some of which have only emerged within the past 24 months. Other technologies, such as supplier intelligence and dynamic trading platforms, are more mature and have been proven in the marketplace. However, even these technologies have only recently been tailored to support the unique and complex requirements of strategic sourcing.

Decision Support and Optimization Will Prove to Be Key Differentiators

The more advanced e-Sourcing and dynamic trading solutions have begun employing sophisticated decision support tools —such as online analytical processing (OLAP) —and optimization engines to enable the analysis of multiple price and non-price variables within the constraints of an organization's supply chain structure, business objectives, and purchasing policies.

Implementation Cycles Vary Widely, But Returns Are Rapid

Deployment cycles for strategic e-Sourcing vary greatly, depending on the breadth of the processes being automated and the size and structure of the user organization: Companies can deploy a reverse auction event in days. Deployment for full-scale e-Sourcing solutions can take as long as 10 months, depending on the breadth of the solution and the size and structure of the enterprise. However, all e-Sourcing technologies can deliver immediate returns, identifying areas for spending control and aggregation and delivering unit cost reductions to the bottom line.

Pricing and Models Vary by Solution

Prices for e-Sourcing solutions range from \$100,000 to more than \$1 million, depending on the technology, the size of the implementation, and the delivery method. However, smaller organizations can access e-Sourcing capabilities of certain e-Markets, which typically charge a percentage of the value of the transaction.

Independent software vendors (ISVs) use a wide range of models for pricing their e-Sourcing solutions including standard software licensing agreements, subscription-based pricing, and “value-based pricing,” in which the ISV takes a portion of the savings generated through use of its solution.

e-Sourcing Market Slated for Significant Growth

Aberdeen research projects that the market for strategic e-Sourcing solutions will grow from \$382 million in 2000 to more than \$3.3 billion in revenues by 2004, representing a 98% compound annual growth rate (CAGR).

Vcs Are Investing Heavily in e-Sourcing Technologies

Based on the aggressive growth projected for the e-Sourcing market, VC firms and private investors have invested more than \$250 million in e-Sourcing technologies over the past 36 months.

Suppliers with Related Technologies Are Moving into the Market

The e-Sourcing market was created primarily by new companies specializing in spending analysis, requirements development, and/or complex decision support. However, suppliers with affiliated technologies such as e-Procurement automation, advanced planning and scheduling (APS), content management, and management consulting services are entering the market to capitalize on its high growth rate.

The Right e-Sourcing Solution Depends on the Enterprise Using It

Organizations of all sizes are deploying strategic e-Sourcing. However, the e-Sourcing framework varies greatly among organizations. Determining the appropriate technology or group of technologies to effectively deploy strategic e-Sourcing depends on the types of goods being sourced and the user organization's level of product and sourcing expertise, financial and professional resources, and IT infrastructure.

Market Consolidation Likely

The strategic e-Sourcing market is highly fragmented; there is not one supplier that commands the space. The current slowdown in financial markets will likely drive consolidation over the next three years.

Chapter Three

Market Definition and Dynamics

Strategic e-Sourcing Definition

Aberdeen Group defines strategic e-Sourcing as the use of Web-based technologies to automate and streamline the identification, evaluation, negotiation, and configuration of the optimal mix of suppliers, products, and services into a supply chain network that can rapidly respond to changing market demands.

It is during the sourcing cycle that an organization defines the overall cost and structure of its products and its supply network. Proof: Between 70% and 80% of the cost of a product is built-in during the design and sourcing phase. As a result, the greatest impact a company can have on the cost, quality, and structure of a product or an assembly occurs during the initial sourcing cycle. This finding is supported by Aberdeen research of the procurement practices of leading organizations across a wide range of industries including automotive; computer equipment; government; telecommunications; and utilities. The research finds that 75% of companies rate their ability to affect or reduce the cost of a product or service after the initial sourcing process as only “fair” or “poor.”

Decisions companies make during sourcing also have a tremendous impact on the ongoing efficiency, responsiveness, and value of the supply chain. In fact, it is estimated that a 2% cost reduction during the initial sourcing cycle can yield a 14% reduction in the end-cost of a new product or service. On the other hand, a poor sourcing decision can have a negative and sometimes irrevocable impact on an organization and its supply chain, reducing a company’s ability to control costs, manage product quality, speed time-to-market, and respond to changes in customer demand or market dynamics.

As a result of these factors, Aberdeen concludes that sourcing offers the single largest opportunity for an organization to reduce costs, improve productivity, and enhance overall performance. This finding is supported by industry research that indicates that sourcing represents nearly 75% of the total opportunity for procurement savings (Figure 1).

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Strategic e-Sourcing uses the relatively low cost and ubiquity of the Internet to deliver the connectivity, intelligence, functionality, and decision support buying organizations require to efficiently identify and negotiate with potential supply partners and make more informed purchase decisions.

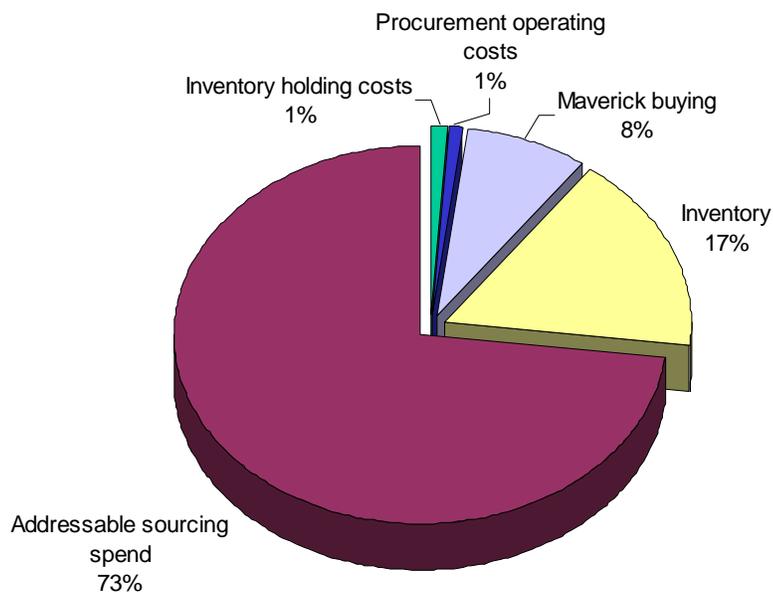
Market Drivers

The realization that sourcing has a direct and dramatic impact on an organization's overall cost structure and competitiveness is driving the adoption of Web-based e-Sourcing technologies.

Effective sourcing requires companies to select the combination of products, services, and suppliers that offers the lowest total cost—the sum of price and non-price factors such as quality, delivery, brand, and warranty terms—as well as ensure that each sourcing decision supports business structures, objectives, and constraints.

To ensure continual success, organizations will also need to identify their more successful sourcing strategies and promote these as “best practices” that can be reused and standardized across the enterprise.

Figure 1: Sourcing as Percentage of Total Procurement Savings Opportunity



Source: A.T. Kearney and Center for Advanced Purchasing Studies, 2001

Unfortunately, most organizations continue to rely on a diverse mix of manual processes and outdated technologies that limit their ability to establish competitive negotiation environments, make optimal purchase decisions, or apply strategic sourcing to a significant portion of expenditures.

The demand drivers for the adoption of strategic e-Sourcing include the following:

- Increased competition and customer expectations;
- Lengthy sourcing cycles;
- Constraints of current sourcing “technologies;” and
- Limited knowledge transfer and collaboration.

Increased Competition and Customer Expectations

Companies in all industries are facing increasing pressures to reduce costs, improve productivity, and enhance responsiveness to elevated customer expectations. The Internet has dramatically accelerated such pressures by enabling global product and price comparisons, around-the-clock self-service, and demands for products and services tailored to the unique requirements of an individual consumer.

As a result, it is becoming of paramount importance for a company to rapidly identify and organize the appropriate products and supply partners to more quickly bring new products to market at a lower cost than ever before. This situation is particularly true in high-tech sectors in which product lifecycles have shrunk to 6 to 18 months, and the price of some products is decreasing approximately 20% per quarter. In such a hyper-competitive business environment, companies that are late to market or that deliver product or services that do not accurately reflect the needs of the market will face limited pricing flexibility, narrow profit margins, and reduced ability to compete.

Such pressures are prompting organizations in all industries to re-engineer business processes to reduce costs and improve time-to-market cycles. Research from the Center for Advanced Purchasing Studies (CAPS) identified the ability to quickly bring new products from concept to customer as one of the most critical goals of purchasing executives at leading U.S. firms.

Lengthy Sourcing Cycles

Despite the increased emphasis on speeding process cycles and reducing costs, sourcing remains a complex, labor-intensive, and lengthy process for most companies (Figure 2). Aberdeen research of procure-

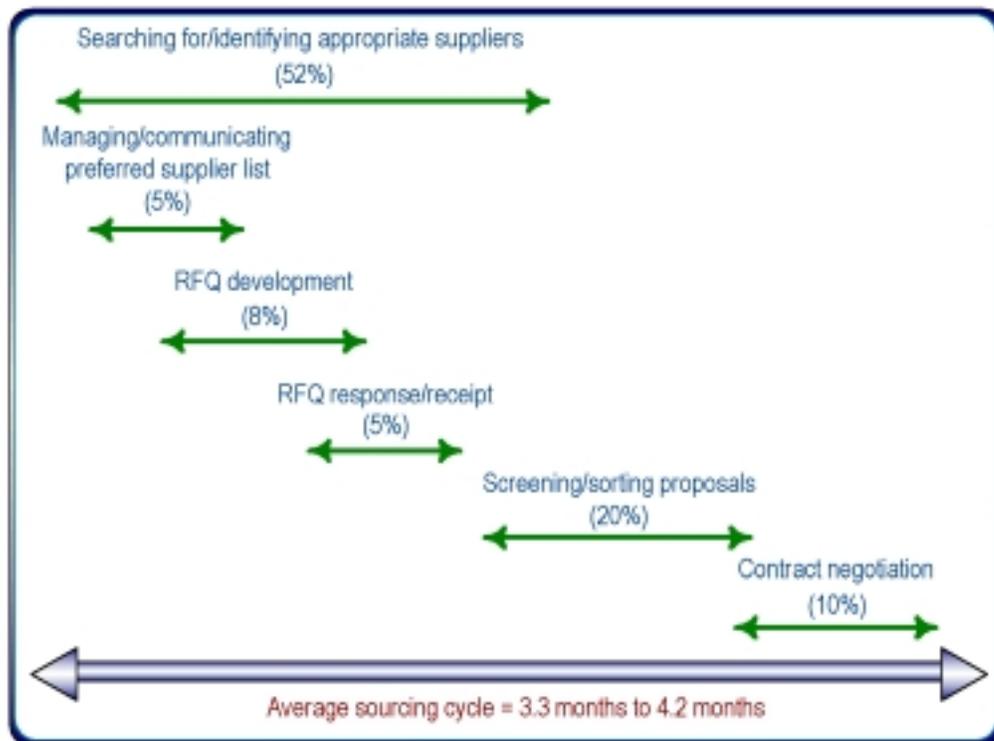
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ment practices across multiple industry sectors found that it takes an average of 4.2 months to source a new production material, part, assembly, or service.

Such lengthy sourcing cycles can hinder an organization's ability to efficiently bring new products to market. For example, Aberdeen research indicates that sourcing activities continue to account for more than one-third of the time-to-market cycle for most electronic equipment manufacturers. Reducing the time required to source production items could dramatically speed the introduction of products, which, in some industries, can mean the difference between being a market leader and an also-ran.

Aberdeen research indicates that companies are experiencing similar challenges when sourcing non-production ("indirect") goods and services, which include operating expenses ranging from office supplies; computer equipment; and maintenance, repair, and operating (MRO) items to such business services as printing, advertising, and temporary help. Buying organizations interviewed by Aberdeen indicated that sourcing new indirect items takes an average of 3.3 months.

Figure 2: The "Traditional" Sourcing Cycle



Source: Aberdeen Group, March 2001

Indirect purchases represent 30% to 35% of a typical manufacturer's expenditures and as much as 60% of total spending at service companies. Yet, because indirect supplies are generally considered non-strategic, few organizations have the time or inclination to develop the expertise required to effectively source and manage these items. Instead, most companies focus their attention on building expertise and methodologies for sourcing strategic production goods and services. As a result of this longstanding oversight, the sourcing of indirect goods and services presents a significant opportunity for dramatic and immediate cost reductions at most companies.

As a result, even companies with advanced product and sourcing expertise are able to apply strategic sourcing management to only a small portion of their overall expenditures, relying on simplified price-based negotiations for the remainder of their purchases.

Constraints of Current Sourcing “Technologies”

Most organizations continue to use a convoluted mix of paper- and technology-based processes to execute sourcing activities. This patchwork of tasks and technologies presents certain logistical, functional, and economic constraints that limit an organization's ability to effectively identify, negotiate, and evaluate suppliers. These limitations occur during supplier identification, request for proposal (RFP) and request for quote (RFQ) development and exchange, and proposal/bid evaluation.

Supplier Identification

Representing more than half of the sourcing cycle at most companies, identifying and qualifying products and suppliers requires buyers to gather information from widely dispersed and incomplete sources including paper catalogs, compact-disc-read-only-memory (CD-ROM) directories, preferred supplier lists, and the Web. Such media are limited in their ability to represent the complete supply base or product lines available and, with the exception of the Web, are often outdated soon after publication, making it difficult for buyers to gather information on new product lines, discontinued products, and pricing changes. These factors often force buyers to make purchasing decisions with incomplete and incongruent information.

RFP/RFQ Development

The adoption of word-processing software and other automated office productivity tools in recent years has reduced the time and effort required to develop RFQ and RFP documents. However, RFP and RFQ development becomes particularly complex in production environments in

which companies often source an entire BOM, which can contain hundreds or thousands of items and item sets. In addition, many organizations continue to print hard copies of these documents for delivery to at least some of their prospective suppliers.

RFP/RFQ Exchange

Most companies continue to support document exchange and negotiations with suppliers through a mix of phone calls, faxes, e-mails, and “snail mail.” Some enterprises have automated the exchange of RFP/RFQ documentation via EDI. However, high costs and burdens make EDI effective for negotiating only with a limited number of large, well-heeled suppliers. Using such an assorted mix of communication mechanisms limits buyer-supplier collaboration, increases the potential for errors due to data rekeying, and requires significant effort on the part of buyers to collate supplier records and proposals into a form that supports cross-supplier analysis.

Evaluation

Screening, sorting, and reviewing supplier proposals represents the second most time-consuming activity for most buying organizations, accounting for 20% of the total sourcing cycle. Most organizations continue to evaluate supplier proposals using manual, paper-based procedures or basic spreadsheet software applications. The use of such rudimentary tools lengthens evaluation cycles and limits a buyer’s ability both to evaluate suppliers on all price and non-price factors and to test all possible sourcing scenarios before selection.

These issues increase the cycle time and transaction costs to a level that does the following:

- *Restricts the number of suppliers that can companies can include in negotiations:* Negotiating with a limited number of suppliers presents uncompetitive bidding environments that can result in buyers settling for questionable product quality and service and increased product costs. National Association of Purchasing Managers (NAPM) research indicates that awarding a contract without a competitive bidding process can result in prices as much as 30% higher than prices achieved via competitive bidding.
- *Reduces the range of products and services that a company can effectively source:* Due to lengthy, labor-intensive sourcing cycles and limited resources, most buying organizations can apply strategic sourcing to only 10% to 20% of the overall product and service categories. The upshot of these limitations is that most

companies cannot optimize purchase decisions for 80% of their overall expenditures, resulting in increased costs, reduced quality, and less efficient supply chain structures.

- *Lengthens time-to-market cycles:* Aberdeen research of corporate procurement practices reveals that sourcing comprises more than one-third of the time-to-market cycle for most manufacturers. Reducing the time required to conduct these activities could dramatically speed product introduction and provide significant competitive advantage.

Limited Knowledge Sharing and Collaboration

The reliance on a mix of online and offline technologies inhibits knowledge transfer and collaboration within and across enterprises.

Internally, the lack of such knowledge transfer hinders an organization's ability to understand its spending patterns and purchase requirements as well as its ability to identify and standardize the most effective sourcing strategies. Companies require enterprisewide collaboration to effectively calculate internal spending patterns, identify detailed requirements for the products being sourced, and share market intelligence and proven sourcing strategies across the enterprise.

Unfortunately, even some of the largest companies have taken a "silo" approach to sourcing, maintaining intelligence on purchase intentions, suppliers, and sourcing strategies within individual groups or divisions. As a result, buyers, engineers, and other functions involved in defining purchase requirements are forced to start each sourcing engagement from scratch.

Externally, the lack of information exchange and collaboration limits the ability of buyers to capture innovations and price and service improvements available in the supply chain.

The Transition to Strategic e-Sourcing

The Internet has several characteristics that make it a valuable channel for automating and managing aspects of the sourcing process. The World Wide Web puts a wealth of decision support information—including product catalogs and line cards, supplier profile and financial information, and continuous updates on changes market dynamics and technologies—at buyers' fingertips. In addition, the relative low cost and ubiquity of the Internet for the first time enables the real-time exchange of requirements and bid information among *all* trading partners, regardless of their size or technological sophistication.

The market transparency and reduced transaction costs that the Internet provides enables the creation of highly efficient and collaborative online negotiation environments that can have global reach. Aberdeen research finds that moving sourcing activities to the Internet can result in improved pricing terms, reduced sourcing cycles and costs, and improved supply chain structures. (These findings are detailed later in this report.)

However, early efforts to transition procurement activities to the Internet provided incomplete support for strategic sourcing. The progression to e-Sourcing has involved three primary waves of technology:

1. *e-Procurement*: The initial phase of Internet-based procurement automation focused on automating the tactical processes and workflow associated with non-strategic purchases that are already on contract. Using a highly intuitive Web-based interface, these systems have proven to be highly effective channels for communicating, monitoring, and executing contracts. However, e-Procurement solutions provided little, if any, support for strategic sourcing activities.
2. *Reverse auctions*: Dynamic trading or “reverse auction” technologies automate buyer-seller negotiations for strategic and non-strategic purchases. However, most of these solutions derive the lowest price, which is only a single factor in most sourcing decision. In addition, most reverse auction events support the negotiation of single product and result in a single “winner.” Yet, many sourcing events include multiple items and intentionally avoid awarding all business to one supplier. As a result, reverse auctions have proven to be most effective at matching buyers and sellers for highly perishable and highly standardized products for which supply and demand fluctuate frequently and for which product attributes are undifferentiated or fixed from one supplier to the next. Examples of such items include true commodities such as bandwidth, electricity, oil, gas, and surplus assets and inventories.
3. *e-Markets*: Online marketplaces enhanced the impact of dynamic trading solutions by providing a single Web-based hub in which multiple buyers and sellers can engage in highly competitive negotiations. However, prices are still the primary forces behind these negotiations, making most e-Markets ineffective for sourcing complex goods and services (Figure 3).

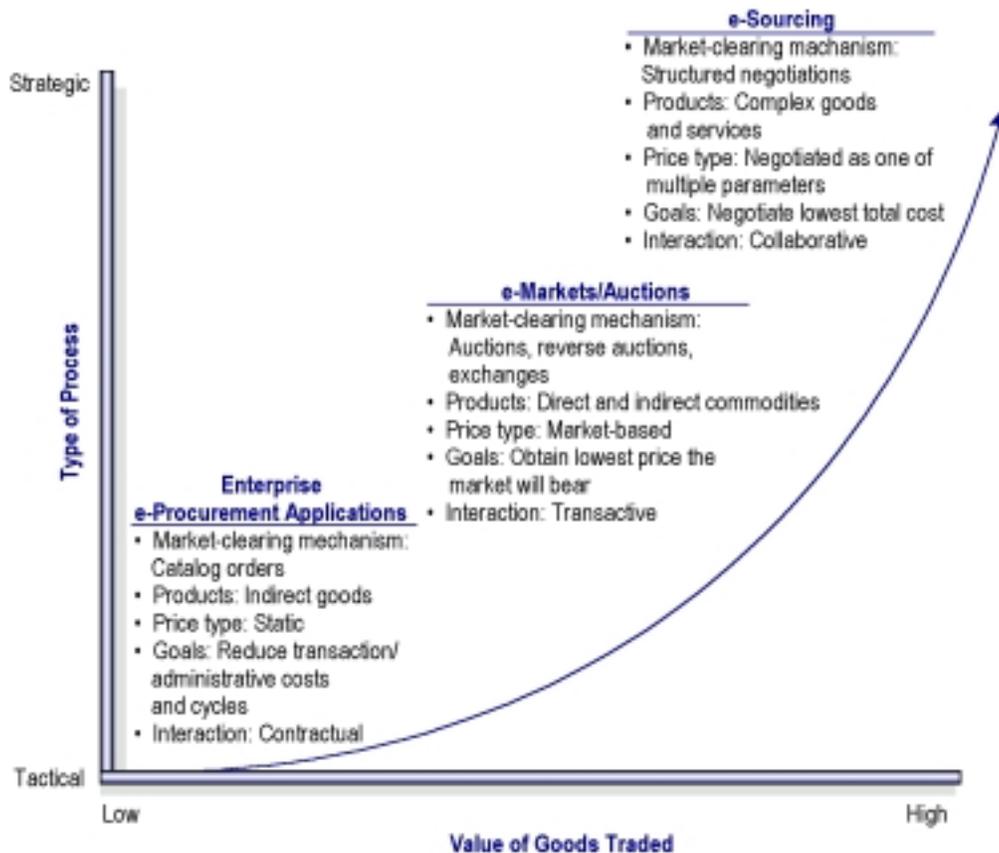
Although these technologies have limitations when enterprises deploy them alone, each plays a critical role in supporting the overall strategic

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e-Sourcing framework. For example, e-Procurement solutions drive the ongoing execution of trading agreements negotiated during sourcing. And, by capturing the ongoing stream of transactions, e-Procurement can also provide sourcing managers with valuable insight into their organizations' spending patterns and contract compliance, as well as how suppliers are performing their contractual commitments.

Reverse auction technologies will serve a key role in automating the negotiations between buyer and seller organizations. However, to be truly effective for supporting the sourcing of complex products and services, any negotiation platform needs to be integrated into a broader strategic e-Sourcing framework.

Figure 3: The Evolution of Online Procurement



Source: Aberdeen Group, March 2001

By providing insight into the supplier base and market dynamics for goods and services, e-Markets will also play a role in many e-Sourcing strategies, supporting the identification and evaluation of new sources of supply. In addition, smaller companies—as well as those testing the e-Sourcing waters—could benefit by leveraging an e-Market's supplier aggregation efforts as well as its investments in dynamic trading technologies.

Key Elements of a Strategic e-Sourcing Solution

Aberdeen has identified four key components that comprise an effective strategic e-Sourcing framework (Figure 4). Companies must do the following:

1. *Identify* enterprisewide spending patterns and requirements for the product or service being sourced;
2. *Evaluate* external market dynamics and other factors that could impact negotiations and the overall effectiveness of the product or service being sourced;
3. *Negotiate* in multi-stage and multi-threaded scenarios that support evaluations on multiple price and non-price factors; and
4. *Configure* each sourcing decision to support supply chain constraints, purchasing policies, and business objectives.

Identify

The first phase of any effective sourcing initiative requires the buying organization to take an introspective look at its own spending patterns, requirements, capabilities, and constraints. As a result, an e-Sourcing solution must do the following:

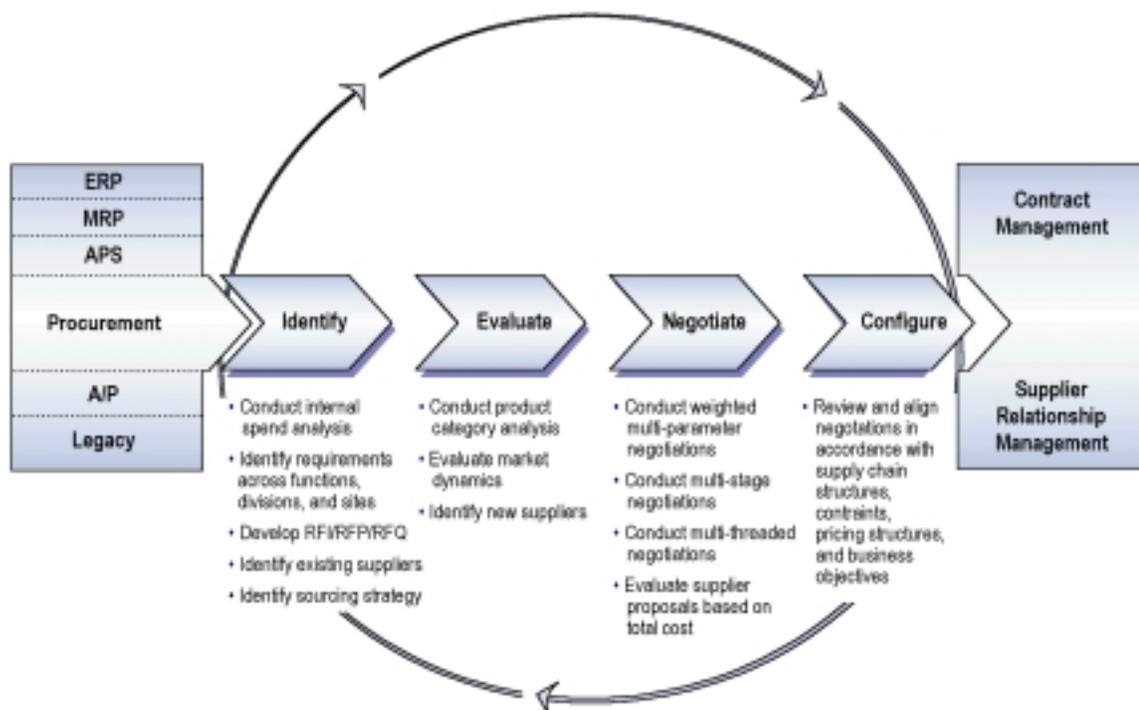
- *Conduct an internal spending analysis:* The first step of any sourcing event should include a companywide review of the expenditures and purchase trends for a category of products or services. Such analysis helps to identify opportunities for improvement in particular spending categories including the potential to use alternative products or to aggregate purchases across divisions. Such aggregation has been proven to deliver the necessary leverage for organizations to negotiate an average of an additional 5% to 15% in price reductions.
- *Define detailed requirements:* Effective sourcing requires companies to support collaboration across multiple functions to

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identify the precise requirements and criteria for selecting a product or service. Involving multiple functions in this process ensures that enterprises clearly articulate their product specifications, delivery requirements, cost targets, production forecasts, and other business requirements to suppliers. Such cross-functional analysis also ensures that purchase decisions are aligned with the company's business objectives and resources.

- *Develop RFP/RFQ document:* Enterprises must articulate their business requirements in a detailed request for information (RFI), RFP, or RFQ document. For complex items, companies will need to upload and share material lists, engineering drawings, and other information that can enhance a supplier's understanding of the buyer's requirements. In addition to communicating detailed requirements, the RFP/RFQ should help buyers to gather detailed information from suppliers right down to the line item cost level. Gathering such information enables buyers determine the veracity of a supplier's bid as well as where to press suppliers for improvement or price breaks.

Figure 4: The Strategic e-Sourcing Framework



Source: Aberdeen Group, March 2001

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- *Identify suppliers:* Effective sourcing requires that an organization match its internal requirements with the products and capabilities of available suppliers. The first phase of this supplier identification process should target existing or preferred suppliers that could potentially meet the terms of the RFP or RFQ.
- *Develop a sourcing strategy:* An organization also needs to design a plan of attack for each sourcing engagement. This process requires buyers to have an understanding of which sourcing strategies and negotiation tactics work best for which products or services. For example, a reverse auction can be highly effective for negotiating standard commodities, but a more collaborative RFP/RFQ process may be more appropriate for negotiating on more complex goods and services.

Evaluate

To engage in effective negotiations, companies must also have a deep understanding of the market, supplier, technology, cost, and other factors impacting the product or service they are attempting to source. As a result, the strategic e-Sourcing framework must support access to market intelligence and decision support tools that support the gathering and processing of information in the following areas:

- *Product category intelligence:* Buyers must understand the technologies, manufacturing capabilities, and quality and delivery performances of suppliers within product categories. Based on this knowledge, procurement professionals can identify the suppliers that are best positioned to meet their organizations' requirements.
- *Market dynamics:* Buyers must also have a grasp of supply and demand, cost factors, price trends, and technological innovations for a category of products. By understanding such market dynamics, an organization can identify supply shortages or gluts or technological innovations or obsolescence issues and adjust its negotiations accordingly.
- *Supplier intelligence:* By its nature, strategic e-Sourcing must also take advantage of the supplier intelligence and access that is available via the Web. Such access will require buyers to incorporate Web-based marketplaces and supplier information repositories into their overall strategic e-Sourcing framework.

The e-Sourcing framework must support the sharing of supplier and market knowledge to ensure that the appropriate suppliers are involved

in design and development, and that a company is using a supply base that can support its ongoing requirements. Failure to communicate this information to internal partners can lengthen sourcing cycles, result in sub-optimal purchase decisions, and negatively impact the cost and overall responsiveness of the entire supply chain.

Negotiate

The ultimate goal of any strategic sourcing initiative should be to determine the mix of products, suppliers, and services that can support internal requirements at the lowest total cost. Total cost is the sum of both price and non-price factors, including quality, delivery, warranty, brand, financing, and other elements that impact what a product will actually cost an organization.

For example, a manufacturer might negotiate a significant price reduction with an overseas supplier. However, the costs associated with using that offshore supplier —such as international shipping and duties, and requirements to carry safety stocks to protect against missed shipments —could cancel out the price savings. Such factors could increase the organization's total cost despite the appealing price-savings opportunity.

Calculating total cost requires organizations to have a clear understanding of the cost elements within and surrounding each supplier's bid. Such costs elements might include fixed costs, such as material and manufacturing setup costs, and variable costs, such as delivery and total "landed costs," which are a calculation of the total logistics costs including transportation, handling, and tariffs and duties. Total-cost analysis should also include an evaluation of any volume discounts, warranties, or marketing discounts that a supplier might offer.

Understanding the cost components of suppliers helps buying organizations make more informed decisions about which supplier might best meet their requirements. Such information can also help buyers identify the areas in which suppliers might be willing to negotiate. This information also enables buyers to determine the costs for switching from an incumbent supplier, which can often outweigh the price or service improvements that new suppliers offer. To achieve total cost calculations an e-Sourcing framework must support the following types of negotiations¹:

¹ TradeAccess, Inc., was awarded a patent on "System for Iterative, Multivariate Negotiations Over a Network" (US Patent Number 6,141,653). Although TradeAccess has not yet enforced this patent, providers and users of e-Sourcing and dynamic trading solutions should be aware of the potential of patent-infringement litigation.

- *Multi-parameter negotiations*—support the negotiation and evaluation of suppliers based on multiple elements—including price, delivery, quality, warranties, and financing. The most sophisticated solutions are those that enable buyers to apply weights to individual selection criteria and that automatically rate and rank supplier responses based on these weightings.
- *Multi-threaded negotiations*—enable buyers and sellers to conduct collaborative and iterative negotiations on a line item or selection criterion such as a delivery cycle. In this scenario, buyers refine their requirements, and suppliers adjust their offers until they arrive at the optimal terms for both parties.
- *Multi-round negotiations*—enable buyers to screen suppliers based on a standard criterion—such as production capacity—to determine which suppliers are qualified to move to the next stage of negotiations. Such multi-stage negotiations enable the identification of the lowest total cost supplier and allow buyers to gather intelligence on all participating suppliers for use in future sourcing events.

As companies continue to enter new markets and to outsource non-core functions, it is becoming increasingly important for e-Sourcing solutions to enable global negotiations. As a result, e-Sourcing technologies must provide support for multi-lingual and multi-currency translation as well as access to information and functionality that enables consideration of total landed costs, which includes the calculation of tariffs, taxes, and duties for international shipping.

Configure

Each organization must make every sourcing decision with consideration of how it impacts or will be impacted by the organization's overall supply chain structure, policies, and business objectives. This consideration requires the development of an e-Sourcing framework that supports the following:

- *Multi-parameter evaluations*, automatically rating and ranking supplier proposals based on selection criteria that the buyer has pre-defined and weighted. Such evaluations can assist buyers in making lowest total cost purchase decisions.
- *Constraint-based evaluations*, evaluating supplier parameters within the constraints of supply chain structures, purchasing policies, and corporate business objectives. Such constraints might include rules that require splitting business among mul-

multiple suppliers to hedge risks or that limit the number of suppliers that can be awarded a particular piece of business.

- *Complex pricing rules*, supporting the automated analysis of complex pricing options presented by suppliers, including bundled bids and volume price breaks. Incorporating such analysis can drive buyers to the optimal purchase scenarios.
- *Supply chain coordination* in which the system evaluates and schedules any services required to use the product being sourced. For example, when sourcing a part from overseas, a manufacturing organization will also need to evaluate, purchase, and schedule the necessary logistics and contract manufacturing services required for the sub-assembly and delivery of that part. Effectively integrating purchase decisions will require the support of multiple, simultaneous, and integrated sourcing events.

The Importance of Integration

Sourcing is a highly collaborative process, requiring continual communication and interaction between multiple parties both within and outside the enterprise. Consequently, to effectively support strategic sourcing activities and to ensure repetitive sourcing success, the strategic e-Sourcing framework must integrate with a diverse range of business applications.

To effectively aggregate and analyze internal spending patterns, cost structures, and business objectives, the e-Sourcing framework must integrate and interoperate with multiple business systems, including Enterprise Resource Planning (ERP), Material Requirements Planning (MRP), APS, product data management (PDM), procurement, accounts payable (AP), accounts receivable (AR), and any other legacy system that provides access to financial, production planning, capacity, and requirements information, including access to the BOM.

On the back-end, the e-Sourcing framework should support integration with systems that support contract management and Supplier Relationship Management (SRM).

Contract management solutions store and measure contract information against ongoing business transactions, ensuring that both an enterprise and its suppliers comply with the terms of their trading agreements. SRM solutions automate the information exchange and activities required to effectively collaborate and transact with suppliers on an ongoing basis.

ing basis. Some SRM providers have made strategic e-Sourcing functionality a key component of their solutions.

Sourcing information —specifically, the terms that buyers and suppliers agree on during negotiations —provide the foundation for activities and analyses supported by contract management and SRM systems. These systems are equally important to the e-Sourcing framework, providing information on contract compliance and supplier performance that can assist buyers in making more intelligence purchasing decisions.

Market Enablers

Due to the breadth and complexity of activities that comprise the sourcing process, the underlying market enablers for strategic e-Sourcing include a wide range of Web-based technologies and services, including pure-play e-Sourcing solutions, reverse auction/dynamic trading technologies, supplier intelligence services and tools, and procurement service providers. Online marketplaces also serve a role in the strategic e-Sourcing framework by providing access to supplier and market information and by delivering online negotiation and transaction capabilities.

Many e-Sourcing technologies are nascent in nature and are continually expanding to include new features to support increasingly complex sourcing activities. A few of these technologies —such as supplier intelligence and dynamic trading —are more mature, but have only recently been tailored to support the unique requirements of strategic sourcing.

Pure-Play e-Sourcing Solutions

Pure-play e-Sourcing solutions attempt to automate and streamline the complete sourcing cycle —from internal spending analysis through complex purchase configuration.

These comprehensive solutions often integrate the best practices and proven sourcing methodologies of leading management consulting and procurement organizations into survey templates for internal spending and requirements analysis and wizard-driven templates for industry- and/or product-specific RFP/RFQ development. Most e-Sourcing solutions also allow user organizations to establish their own best practices for sourcing across the enterprise. The more sophisticated solutions allow buyers to upload BOM lists, computer-aided design/computer-aided manufacturing (CAD/CAM) drawings, and other information directly into the RFQ.

e-Sourcing solutions also provide access to supplier and market intelligence either through internal domain experts or service partners.

Additionally, e-Sourcing solutions tend to support a wide range of negotiation formats—from price-based reverse auctions to more collaborative negotiations based on multiple price and non-price factors—enabling buyers to select the most appropriate online negotiation strategies, depending on the product being sourced, the supply base, and market dynamics. By managing all levels of negotiations, e-Sourcing solutions promote collaborative communications and exchanges within and across enterprises, enabling buyers to capture technological innovations and price and service improvements from the supply base.

The more advanced solutions use sophisticated decision support tools, such as OLAP, to synthesize and analyze large sets of information, such as comparing numerous multi-parameter supplier proposals.

Some e-Sourcing solutions incorporate optimization engines, which use mathematical algorithms to weigh a large number of interdependent objectives, variables, and constraints. Optimization technologies have been proven to enhance decision-making for logistics routing, passenger load balancing, and production planning. Applying optimization to sourcing can enable the simultaneous and fully automated evaluation of multi-parameter evaluations against supply chain constraints, purchasing policies, and business objectives. Optimization-based solutions can also enable buyers to conduct “what-if” analyses to test multiple sourcing scenarios to determine the best mix of products, services, and suppliers to design the lowest total cost product designs and supply chains. By some estimates, such optimization technologies can help companies realize an additional 10% in unit cost savings.

It is important to point out that some ISVs have expanded their e-Sourcing solutions to include contract management and supplier management activities. Other vendors have made e-Sourcing functionality key components of a broader SRM solution.

Dynamic Trading/Reverse Auction Solutions

Initially focused on creating online environments for highly competitive price-based negotiations, many reverse auction solutions have expanded to support more complex and collaborative buyer-seller interactions.

In basic terms, auction technologies automate the negotiation aspect of the sourcing cycle, including RFP/RFQ development and distribution, workflow, and basic proposal evaluations. Many reverse auction solutions now include functionality to support negotiations based on non-price as well as price factors, including support for complex pricing rules, such as volume discounts, bundled bids, or both.

The more sophisticated reverse auction solutions support the uploading of BOM lists and CAD/CAM drawings, enable buyers to weight individual

criteria, and provide functionality to automatically evaluate and rank supplier proposals based on these pre-defined weights. Advanced reverse auction solutions also support multi-line-item bidding and internationalization, including multi-currency and multi-lingual translation.

Supplier Intelligence Services and Technologies

Business intelligence solutions have emerged to assist buyers in the qualification and evaluation of suppliers. At the core of these supplier intelligence services is a database of information that offers insight into a diverse range of evaluative information on suppliers, including profiles, product listings, financial data, and performance ratings. Buyers can leverage this information to streamline the painstakingly tedious process of identifying and qualifying new sources of supply.

The more sophisticated supplier intelligence solutions include utilities that enable users to continually gather and monitor data on the areas of supplier performance that are most important to them, including delivery performance, quality, and overall responsiveness. They can then use this information to screen or rank suppliers in future negotiations.

Procurement Service Providers

A hybrid of technologies and services, a PSP combines reverse auctions and other technologies with deep product category expertise, sourcing methodologies, and supply management services. PSPs' goals are to provide highly customizable procurement and sourcing *solutions* that can be delivered as fully hosted, Web-based services. PSPs operate as extensions of organizations' procurement infrastructures, managing sourcing and ongoing procurement of the non-strategic product categories that the organization feels it has opportunities for improvement but lacks the internal expertise to manage effectively.

As supply base managers for multiple buying organizations, PSPs are positioned to aggregate spending to negotiate volume discounts and improved service terms. The most advanced PSPs can deliver such sourcing and procurement services on a global basis.

e-Markets

Online marketplaces have emerged to automate and enhance selected portions of the sourcing cycle. In the most elementary terms, e-Markets provide a single Web-based hub for brokering financial transactions and information across a large community of buyers and sellers.

Aberdeen research indicates that e-Markets can significantly increase market efficiencies, reduce transaction costs, and ease the initiation and management of trading relationships on a global scale—all without impacting the technological infrastructures of participants. In addition,

these multi-buyer, multi-seller e-Markets provide a highly competitive environment to support sourcing and negotiations—which can effectively match supply and demand based on actual market conditions at a given time. And, unlike buyer- or seller-centric e-Commerce models, e-Markets are equally beneficial to all participants

By providing insight into the supplier base and market dynamics for goods and services, e-Markets will serve a critical role in many e-Sourcing strategies, supporting the identification and evaluation of new sources of supply. In addition, smaller companies and those testing the e-Sourcing waters could benefit by leveraging the investment an e-Market has already made in dynamic trading technologies.

Selecting the Appropriate e-Sourcing Solution

Strategic sourcing involves a broad range of activities and participants. Selecting the appropriate solution to effectively automate and streamline sourcing depends on the following:

- Level of product and sourcing expertise within the enterprise;
- Financial and professional resources;
- Types of products or services being sourced; and
- Existing IT infrastructures and planned investments.

Price is a key factor in selecting the appropriate solution. Pricing for e-Sourcing technologies range from \$100,000 to more than \$1 million, depending on the solution an enterprise deploys, the size of the implementation, the number of seats, and the delivery method. The average price for an e-Sourcing solution is approximately \$300,000. However, smaller organizations can access the e-Sourcing capabilities of e-Markets, which typically charge a percentage of the value of the transaction.

ISVs typically use one of following three pricing models:

1. *Standard software licensing agreements* that include basic implementation services and first-year maintenance fees. License fees are determined using either role-based or seat-based pricing. ISVs typically use this pricing model for stand-alone reverse auction technologies and e-Sourcing solutions;
2. *Subscription-based pricing* in which the cost of the technology implementation is spread out over a long-term contract. Such subscription-based pricing is particularly popular for ISVs providing supplier intelligence. However, some reverse auction

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and pure-play e-Sourcing solution providers also offer a subscription based model, particularly in hosted or application service provider (ASP) deployments; and

3. “*Value-based pricing*” in which an ISV bases the solution price on either a portion of the overall spend that will be channeled through the solution or a portion of the savings that will be generated through use of the solution.

Using these assumptions, Aberdeen has broadly categorized e-Sourcing technologies into their most applicable market segments (Table 1).

Table 1: Which e-Sourcing Model Works for Your Company?

	e-Sourcing Solution or Negotiation Platform	Procurement Service Provider	e-Markets
Characteristics	Intranet-based or hosted/ASP-based	Full-service consulting and management	Many-to-many, competitive bidding environments
Target markets	Large enterprises	Mid-market firms	Small and midsize firms
Benefits	Streamlines/enhances sourcing processes Enterprise maintains knowledge and supply relationships Customized to company's unique needs No transaction fees paid to third-party exchange	Delivers needed sourcing and domain expertise May offer increased purchasing power through aggregation	Low barrier to entry Access to a wide range of suppliers and market information May offer increased purchase power through aggregation
Pricing model	Fixed license fee	Percentage of transaction volume or unit cost savings	Percentage of transaction volume or unit cost savings
Trade-offs	Requires internal process and domain expertise and sourcing framework	Transfers supply relationships and knowledge to a third party.	Largely price-based negotiations; a lack of supplier evaluation information

Source: Aberdeen Group, March 2001

Note that this segmentation is meant only as a guide and that certain technologies and solution sets will appeal to multiple market segments.

Deployment cycles for strategic e-Sourcing vary greatly, depending on breadth of processes being automated and the size and structure of the user organization. For example, enterprises can deploy a reverse auction event in days, whereas a full-scale e-Sourcing solution deployment can take up to 10 months, depending on the breadth of the solution and the size and structure of the enterprise.

However, it is important to note that e-Sourcing is unique in that it can deliver rapid returns, regardless of the technology used. For example, companies implementing a full-scale e-Sourcing solution have been able to realize immediate benefits from executing the detailed spending analysis involved in the implementation cycle. These organizations reported that this single implementation step helped them identify the product areas that were in most need of spending control, as well as those that provided opportunities for aggregation.

The Benefits of Strategic e-Sourcing

Effectively deploying and using a strategic e-Sourcing framework can streamline the sourcing cycle, improve negotiations, and provide enhanced access to supplier intelligence and decision support for more informed purchasing decisions. Specifically, organizations using Web-based sourcing technologies have been able to do the following:

- Identify, qualify, and negotiate with an increased number of suppliers, creating more competitive bidding environments;
- Negotiate an average of 5% to 20% unit price reductions;
- Shorten sourcing cycles by an average of 25% to 30%;
- Reduce time-to-market cycles by 10% to 15%;
- Reduce process costs for sourcing engagements;
- Improve quality levels for the goods and services being sourced;
- Increase access to technology and service innovations through improved collaboration;
- Apply strategic sourcing to a broader range of products and services; and

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- Promote knowledge sharing and standardization of sourcing best practices across the enterprise.

The financial impact of such benefits can be significant. Reductions in procurement costs typically translate into a dollar-for-dollar increase in profits. By contrast, improvements in other functional areas, such as sales, are diluted by external factors, such as overhead, cost-of-sale, and profit margins.

For example, a \$5 million cost reduction achieved through strategic sourcing would boost profits by a corresponding amount. However, a company with a 10% profit margin would have to increase sales by \$50 million to attain similar profit improvements.

On a global basis, businesses could realize approximately \$1.7 trillion in unit cost reductions alone through the deployment of an effective e-Sourcing strategy (Figure 5).

Examples of how particular companies have benefited from strategic e-Sourcing appear at the end of this chapter.

Figure 5: Global e-Sourcing Savings Opportunity



Source: Aberdeen Group, March 2001

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Aberdeen has also analyzed the potential unit cost savings that could be achieved through adoption of strategic e-Sourcing in select U.S. industry sectors (Table 2).

Industry Consolidation Imminent

While still in its infancy, the strategic e-Sourcing market is already highly fragmented, with agile upstarts battling for market share against industry goliaths that are attempting to leverage their brand equity in other software sectors, particularly SCM and e-Procurement—to compete in the e-Sourcing space.

Aberdeen anticipates that the current slowdown in financial markets will fuel consolidation within the marketplace over the next three years, with some of the larger e-Procurement and ERP vendors acquiring the more advanced e-Sourcing technology companies.

Table 2: e-Sourcing Potential Savings by Select U.S. Industry Sector

Industry sector	Direct goods and services (\$ million)	Indirect goods and services (\$ million)
Aircraft and aerospace	\$1,897	\$614
Automotive parts, assembly, and accessories	\$5,420	\$1,190
Chemicals and chemical products	\$15,223	\$8,522
Computers, storage devices, and office machines	\$4,190	\$2,221
Electric machinery	\$6,476	\$2,374
Electronic, electric, and computer products	\$4,806	\$7,424
Fabricated rubber and plastic products	\$6,361	\$3,561
Food and food product manufacturing	\$13,059	\$21,942
General industry machinery	\$12,275	\$4,499
Metal manufacturing and metal products	\$16,761	\$11,883
Petroleum refining and related products	\$1,852	\$997
Surgical and medical equipment	\$2,432	\$1,353
Testing, measuring, and controlling devices	\$3,329	\$1,852
Wood, paper, printing, and publishing	\$21,804	\$4,246

Source: Aberdeen Group, March 2001

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Case Study #1

Early in 2000, a Fortune 500 pharmaceuticals manufacturer with \$20 billion in revenues made the strategic decision to leverage Internet-based technologies to enhance its procurement and sourcing activities. After evaluating several reverse auction solutions, the company began using Ariba Dynamic Trade in the fall of 2000 to run reverse auctions for indirect goods and services. The company has since moved to Ariba Sourcing for more collaborative negotiation capabilities that can enhance its sourcing practices, knowledge, and suppliers.

To date, the company has held 12 reverse auction events for a variety of direct and indirect goods and services, including solvents, molded plastic components, packaging items, printed materials, chemicals, personal computers (PCs) and servers, toner, and business meetings. To date, the total value of goods the company has sourced through Ariba Sourcing is approximately \$60 million.

The pharmaceutical company has conducted reverse auctions with commodity price as the sole parameter. However, the company plans to use Ariba Sourcing's multi-parameter negotiation and evaluation capabilities in future engagements. The company has combined its traditional supplier RFP process and initial bid gathering with Ariba Sourcing's online negotiation and market-making functionality to create highly competitive trading environments that have resulted in an average savings of 7% to 15% on the price of goods sourced. The company has typically limited participation in individual negotiation events to no more than seven suppliers that the company's procurement experts have pre-qualified.

An example of the success the company has had using Ariba Sourcing involved the purchase of hotel accommodations for small business meetings. The pharmaceutical manufacturer annually hosts a large number of these meetings, typically costing \$30,000 per event. Using a reverse auction, the company has significantly cut its negotiating time and saved 7% to 10% on price per meeting. Reverse auctions allowed the company to take advantage of the excess capacity that hotels were willing to sell at a discount to avoid having the facilities go unused.

The company anticipates that such efficiencies will enable it to negotiate best value for all meetings based on the market dynamics of actual demand at the time of purchase, instead of awarding long-term contracts that do not take advantage of fluctuations in supply and demand.

The company is now involved in an aggressive internal marketing plan to rollout Ariba's reverse auction capability across the company. The company is also conducting detailed training for all sourcing professionals.

The company plans to use e-Sourcing to find new suppliers and to negotiate with suppliers on more parameters. The company also hopes to eventually cover 30% to 35% of its third-party spending using reverse auctions.

Case Study #2

A Global 2000 industrial gases manufacturer with \$3 billion in annual expenditures sought an e-Sourcing solution as part of an initiative to improve procurement practices. The manufacturer's goals were to shorten negotiation cycles, globalize sourcing best practices, create competitive advantage, and leverage the global reach of the Internet to increase savings and reduce the total cost of procurement.

In July 2000, the manufacturer selected B2eMarkets and its Strategic eSourcing Management™ (SeSM™) solution to achieve its goals. The key reasons that the manufacturer selected SeSM include the solution's ASP-delivery model and its multi-lingual and multi-currency support, making it ideal for use across the manufacturer's global enterprise and global supplier base. The manufacturer was also attracted to the knowledge sharing and collaboration aspects of SeSM, which provides wizard-based tools to guide both buyers and suppliers through the e-Sourcing process and which maintains all sourcing information, including a history of past events, online, enabling the sharing of proven sourcing strategies across the enterprise.

Two weeks after selecting B2eMarkets, the manufacturer ran an e-Sourcing event for select capital goods items on which it was spending \$10 million. The manufacturer had a well-defined strategy for using the SeSM solution: The event would include only prequalified suppliers and would cover both single- and dual-sourced items. The goal was to achieve a 10% reduction in total cost and to consolidate the capital goods supply base.

For the online negotiation, the manufacturer identified 10 suppliers in six time zones. The single-day negotiation event was conducted through multi-round, Private Offer™ negotiations and reverse auctions employing multi-variable RFQs. The result was that the manufacturer saved more than \$1 million on the capital goods being sourced, representing a cost reduction as great as 24%. In addition, the manufacturer cut the negotiation cycle from one month to one afternoon for the actual event and reduced the complete sourcing cycle from two months to two weeks. Based on the strength of these results, the manufacturer moved to deploy the B2eMarkets solution throughout the organization. To date, the manufacturer has sourced nearly \$20 million using the SeSM solution. It has deployed the solution in the U.S. and Latin America and is beginning to expand usage to its European operations.

According to the manufacturer, SeSM's ease-of-use and collaborative, parameter capabilities has increased supplier participation in negotiations, resulting in proportional increased savings to the manufacturer. Upshot: SeSM has become a major enabler of the manufacturer's drive to improve procurement processes across the organization while significantly reducing total cost of operations.

Case Study #3

In 1999, General Motors Corp., the world's largest automobile manufacturer, decided to use the Internet to streamline and enhance its global sourcing capabilities. The company, which spends \$86 billion annually with 3,000 direct suppliers worldwide, is known for its advanced procurement and supply chain management skills. As a result, GM had the internal product and sourcing expertise to effectively identify and negotiate with suppliers. The automaker was looking for a way to cost-effectively perform these activities in a manner that would enable automated, online negotiation with and evaluation of a large number of potential suppliers. GM identified reverse auctions as the appropriate technology solution to complement its expertise.

After a thorough examination of the reverse auction technology market, GM selected Commerce One Auction Services. From November 1999 to September 2000, the automaker conducted 64 reverse auctions on production and non-production goods with a total value of \$500 million. (It is interesting to note that \$10 million of these goods represented excess assets and inventories that GM sold off through forward auctions.) All told, these online negotiation events covered more than 25 commodities, most of which were low-engineered parts and included approximately 470 suppliers.

Across all the events, GM realized significant unit cost savings, depending on the product sourced and the market conditions at the time of the negotiation. Through use of Commerce One Auction Services, GM reduced the sourcing cycle for the products being sourced to an average of from three to four months to three to four weeks.

Going forward, the automaker wants to leverage more of Commerce One Auction Services functionality, including multi-variable RFQ evaluations and multiple currencies, to support the global sourcing of more complex goods and services.

Case Study #4

In August 2000, a Fortune 500 manufacturer began using eBreviate's e-Sourcing Negotiation and Electronic Survey Tools to support its sourcing processes. The driving force was not only to save money, but also to use Internet technology for faster and more consistent sourcing and decision-making across the enterprise.

To address concerns within the supply base and among procurement management, the manufacturer established several goals before implementation, including exposing the eBreviate technology and capabilities to appropriate internal parties, constant communication with all departments impacted by the auction events, and an aggressive time line with benchmarks for delivering results.

To date, the company has held five auctions using eBreviate, which the manufacturer selected after an evaluation of several reverse auction and e-Sourcing solution providers. To demonstrate the potential value proposition of e-Sourcing to corporate executives and front-line employees, the manufacturer's procurement organization initially used the eBreviate solution to source products that were expected to deliver the largest and most immediate results, including commodity parts, assemblies, and chemicals. The company used eBreviate's reverse auction and RFP functionality to engage in a multi-threaded negotiation with incumbent suppliers.

Benefits realized through the use of the eBreviate e-Sourcing solution include an average price reduction of 12%; improved sourcing discipline, thanks to self-imposed guidelines and electronic communications with suppliers; refinement in product quality levels through multi-parametric search functionalities; and reduced negotiation cycles by an average of six to eight weeks.

For a specific assembly, the manufacturer used a multi-parametric reverse auction to negotiate with suppliers on both unit costs and payment terms. The payment-term variable became an important element in attracting bid activity, resulting in extended payment terms that will enable the manufacturer to realize additional cost savings over the life of the contract. The company completed the event in the allotted time frame of two months, and the results were beyond pre-auction expectations.

The manufacturer also leveraged the eBreviate solution to stem the effect of an industrywide price increase in a commodity chemical. Despite rising market prices, the manufacturer held a reverse auction event with four suppliers and achieved a nominal decrease in the price it paid.

The company also used the eBreviate solution to run a reverse auction event that involved simultaneous negotiations with a handful of global leading suppliers. The company included incumbent suppliers from Europe and North America, and the event resulted in a double-digit price savings in percentage points. Additionally, the company identified one new North American supplier.

Chapter Four

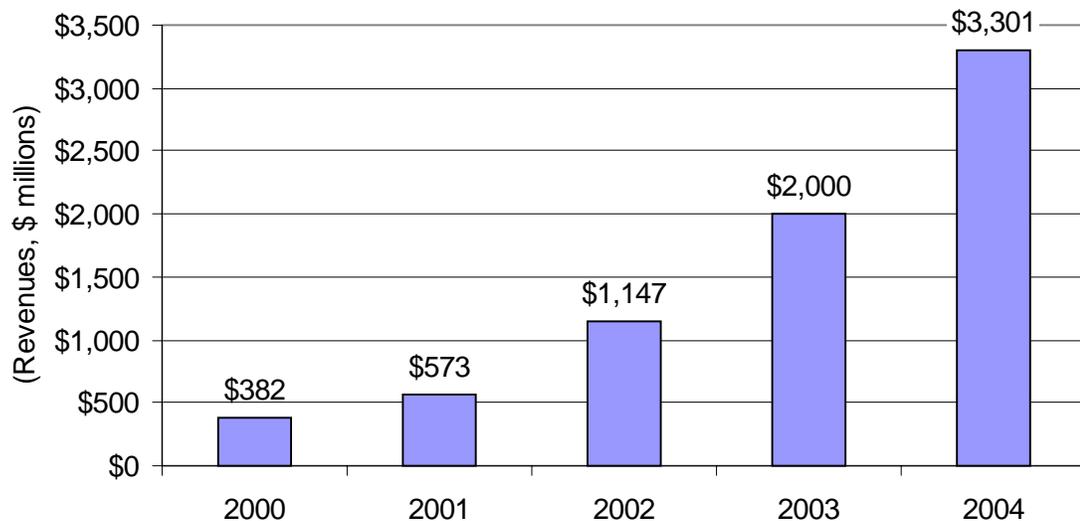
Market Forecast and Segmentation

e-Sourcing Market Revenues

In 2000, the total market for e-Sourcing technologies and services was \$382 million. Aberdeen predicts that the market to grow to \$573 million in 2001. This investment in e-Sourcing solutions represents a CAGR of approximately 98%. Aberdeen projects revenues for the e-Sourcing market to grow to more than \$3.3 billion in 2004 (Figure 6). The cost-saving focus of e-Sourcing should buffer this sector from the economic downturn that is slowing spending in other technology sectors.

These estimates reflect revenues only for ISVs and do not include revenues for services provided by management consulting companies or SIs. The management consulting market alone boasts revenues of more than \$5 billion for strategic sourcing services. Integration fees can account for 25% to 250% of application license fees, depending on the e-Sourcing technologies organizations are deploying, the number of users, and the level and complexity of user organizations' SI requirements.

Figure 6: Projected e-Sourcing Market Revenues (2000 to 2003)



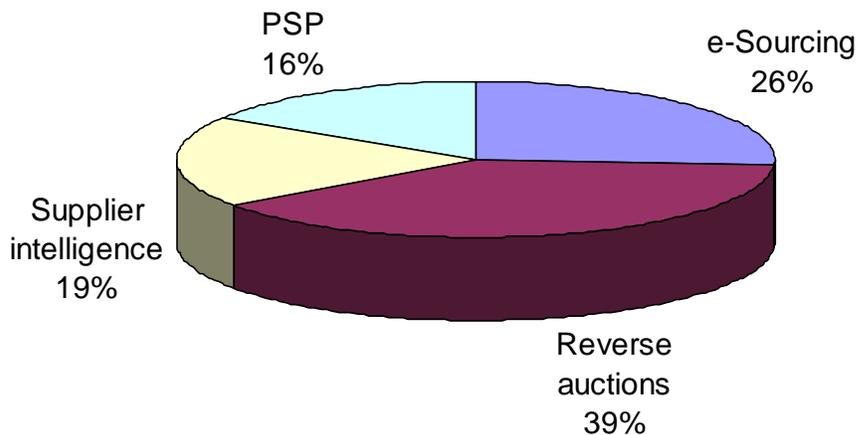
Source: Aberdeen Group, March 2001

e-Sourcing Market Revenues by Technology Segment

Most companies now deploying such e-Sourcing frameworks are large, Global 2000 companies, which have significant in-house product category expertise and sourcing experience. As a result, these companies are using reverse auction technologies to increase the efficiency and lower the transaction costs of supplier negotiations.

Not surprisingly, reverse auction technologies account for the lion's share of e-Sourcing market revenues, commanding nearly 40%, or \$148.9 million, of the market. Many large and midsize companies are also moving to leverage some of the emerging pure-play e-Sourcing solutions to improve internal analysis capabilities, increase access to market intelligence, and standardize best-practice sourcing strategies across the enterprise. As a result, e-Sourcing solutions represent more than one-fourth, or \$99.3 million, of the overall market. Of the remaining e-Sourcing market revenues, organizations spend 19%, or \$72.5 million, on supplier intelligence services and technologies and 16%, or \$61.1 million, on PSP offerings (Figure 7).

Figure 7: e-Sourcing Expenditures by Technology Segment

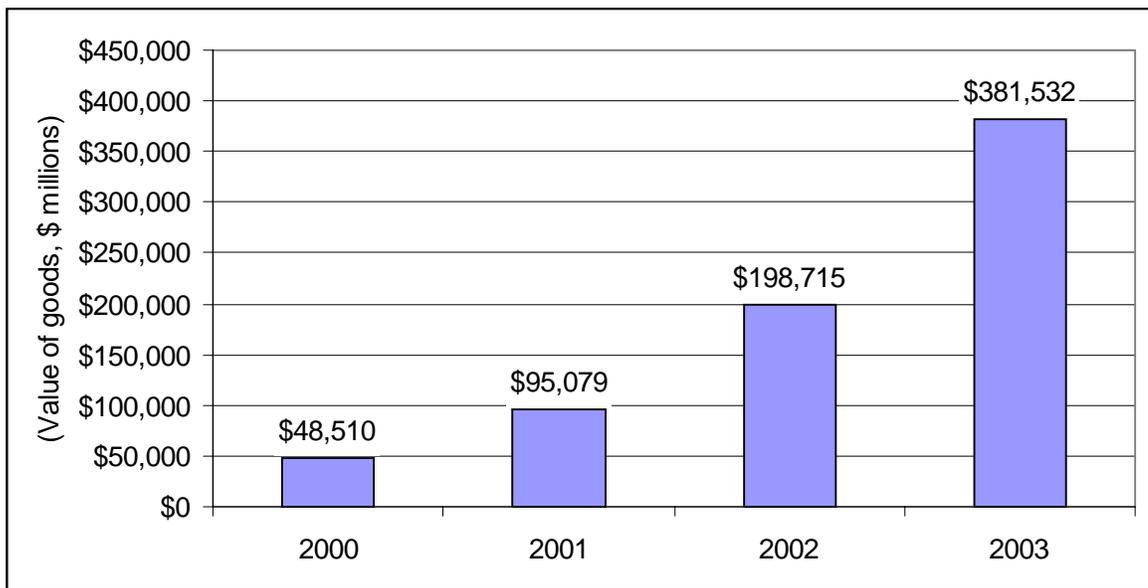


Source: Aberdeen Group, March 2001

Value of Goods and Services Sourced Through e-Sourcing

Aberdeen finds that the total volume of goods and services managed through e-Sourcing technologies totaled \$48.5 billion and expects a 100% CAGR over the next several years (Figure 8). Aberdeen projects that U.S. businesses will channel more than \$380 billion through e-sourcing technologies by 2003, representing approximately 4% of all U.S. business expenditures.

Figure 8: Value of Goods Managed Through e-Sourcing Technologies



Source: Aberdeen Group, March 2001

Chapter Five

Supplier Abstracts

Following are 32 profiles of companies across the four major e-Sourcing technology and service segments: pure-play e-Sourcing solution providers, dynamic trading/reverse auction platform providers, supplier intelligence technology and service providers, and PSPs.

Aberdeen omits profiles on e-Markets because these marketplaces are too great in number, totaling more than 2,000 at press time. In addition, e-Markets typically use technology and services from these other segments to support negotiation and strategic e-Sourcing activities.

Agile Software Corporation

**One Almaden Boulevard
San Jose, CA 95113-2253
(408) 975-3900
www.agilesoft.com**

Market Position

Founded in 1995, Agile is a collaborative manufacturing e-Commerce platform provider.

The company targets large vertical manufacturers and enables the creation of online supply networks of partners with outsourced supply chains. Agile platforms have tools for managing the lifecycle of products and direct materials involved in their production from product design content collaboration to sourcing, procurement and trading.

Agile's market includes selected manufacturing industries, such as computer and electronics, medical devices, primary and fabricated metal, machinery, and electrical equipment. The company has a large client base, including Agilent Technologies, Compaq, Dell, GE Medical Systems, Hewlett-Packard, Lucent Technologies, Nokia, and Texas Instruments.

Agile's partners include CyberCash, J.D. Edwards, Oracle, PartMiner, RSA Data Security, and SAP.

In January 2001, Ariba announced its intent to purchase Agile for \$2.55 billion in stock.

Financial Highlights

For the financial year ending April 2000, Agile's (Nasdaq: AGIL) revenues totaled \$32.2 million with a one-year growth of 91.7% and a net loss of \$35.2 million. For the first three quarters of the fiscal year starting in May 2000 Agile reported revenues of \$61 million and a net loss of \$41 million. Professional and training services account for about one-fourth of these revenues.

Organizational Structure

Agile has headquarters in San Jose, and international offices in the U.K., France, Germany, Japan, and Taiwan. Agile employs 450 people worldwide. Key executives include the following:

- Bryan D. Stolle, Chairman of the Board, President, and CEO;
- Thomas P. Shanahan, Executive Vice President and CFO;

- Kenneth D. Coulter, Senior Vice President of Worldwide Field Operations;
- Gregory G. Schott, Vice President of Business Development; and
- Carol Schrader, Vice president of Global Marketing.

Core Products and Services

Agile's modular solution suite targets building infrastructures for the support and execution of online collaborative product manufacturing. Agile's approach goes beyond single enterprise sourcing and supply chain management, providing functionality for supply chain networks of partner companies.

Agile Anywhere, the collaboration product, enables supply network participants to share design and development and to trace outlines and specifications' modifications, releases, temporary codes, and part numbers.

Agile Buyer, the company's sourcing product, allows manufacturers to strategically source materials while tailoring the design of the product and configuring other aspects of the supply chain toward lowering the total cost. Product Change Server provides automated routing of permissions and notifications associated with any product design or code change.

Agile supports multi-stage and multi-threaded complex negotiations, which are open to price and non-price parameters. Agile also automates BOM-based sourcing. Direct materials can be sourced through parametric searches and automatically screened to provide the best match.

Shared forecasting and planning activities tools, which enhance communication and trading among the supply network participants, complete Agile's offering.

Many of Agile's architecture features give evidence of Agile's infrastructure-oriented vision. These features include the ability to support as many as 15,000 concurrent users and to provide product security and intellectual property protection.

Aberdeen Conclusions

Agile holds a solid position in the marketplace technology space. The company shines thanks to extensive support for collaborative manufacturing and an advanced vision of private marketplaces as "infrastructures" for supply networks.

Agile's solution approaches strategic sourcing at the earliest state of the product lifecycle: design. Identifying the optimal materials and suppli-

ers at this stage can improve time-to-market, product quality, and total cost of production. Such improvement can ultimately lead to a high competitive advantage in the market.

Aberdeen's research suggests that joining forces with Ariba can greatly benefit firms from both the technological and the strategic perspectives. The overall offering will combine the collaborative manufacturing capabilities with trade-oriented functionality, making Agile e-Sourcing qualities available as part of the total solution.

Ariba, Inc.

**1565 Charleston Road
Mountain View, CA 94043
(650) 930-6200
www.ariba.com**

Market Position

Founded in 1996, Ariba has earned its stripes as one of the leading business-to-business (B-to-B) e-Commerce platform providers. The company provides collaborative commerce software and hosted solutions for sourcing, dynamic trade, procurement, and digital marketplaces. Ariba also runs one of the largest commerce networks, delivering content and transaction brokering as well as a wide range of Web-delivered business services.

Ariba targets its Ariba Sourcing solution toward enterprises, horizontal marketplaces, dynamic exchanges, and vertical markets for direct and indirect materials, capital assets, and services.

In 2000, the company closed acquisitions of Tradex, Trading Dynamics, and SupplierMarket.com. The acquisition of Tradex and Trading Dynamics enabled Ariba to source and negotiate direct materials. Additionally, in January 2001, Ariba agreed to buy Agile Software, a major collaborative commerce solution provider, which extends Ariba Sourcing capabilities to the BOM in new product design and development.

Financial Highlights

In fiscal year 2000, Ariba (Nasdaq: ARBA) pulled in \$279 million in revenue, which is a 515% increase from the previous year. On these revenues Ariba posted a net loss excluding non-operating charges of \$29.5 million. During the first fiscal quarter of 2001, the company generated \$170.2 million in revenue.

Organizational Structure

Ariba has more than 2,000 employees in more than 31 countries worldwide. Key executives include the following:

- Keith Krach, CEO and Chairman;
- Larry Mueller, President and Chief Operating Officer (COO);
and
- Robert M. Calderoni, Executive Vice President of Finance and Administration and CFO.

Core Products and Services

Ariba Sourcing is the fully hosted sourcing component of *Ariba's B2B Commerce Platform* for sourcing of direct and indirect goods, capital assets, and services. Offered in two versions, *Ariba Sourcing Enterprise Edition* and *Ariba Sourcing Marketplace Edition*, the Ariba Sourcing solution and services are targeted at midsize to large enterprises as well as e-Markets.

Ariba Sourcing can operate as a stand-alone e-Sourcing solution or interoperate with any e-Procurement—including Ariba Buyer—or ERP procurement application. After the buying organization has identified its corporate procurement requirements, it can use Ariba Sourcing's RFQBuilder tools to rapidly develop detailed RFQ documents that incorporate industry best practices for the product categories being sourced. RFQBuilder uses quality assurance (QA) tools to help buyers incorporate the needs of their organizations through weighing multiple attributes, such as product quality, manufacturing capacity, and technical specifications.

Once an organization defines the RFQ, Ariba's SmartMatch technology helps the buyer locate the most adequate suppliers from Ariba Sourcing's database of more than 14,000 pre-qualified suppliers as well as Ariba's Commerce Services Network, which includes more than 30,000 suppliers in 31 countries. The buyer can then negotiate contract terms with pre-qualified suppliers through real-time reverse auctions, multi-parametric, multi-stage, or multi-thread negotiations. The Ariba Sourcing solution automatically evaluates and ranks supplier proposals based on the buyer's requirements. However, buyers always retain the option to manually close the negotiations.

Aberdeen Conclusions

Ariba has built considerable mindshare within the B-to-B e-Commerce market. The company has an exceptional sales presence through its direct sales and through strong alliances with systems integrators and technology partners, including IBM Global Services, enabling Ariba to effectively market its solutions into leading enterprise and marketplace environments on a global scale. Ariba's revenue volume and growth clearly demonstrate the success of its strategy. Additionally, the company has achieved operating profit and positive cash flow, making it a financially stable solution provider.

Through an acquisition of Agile, Ariba has taken a major step into the direct procurement and supply chain space and into extending the capabilities of its sourcing solution to the product design stage.

For companies seeking an e-Sourcing solution, Ariba offers multiple solution options depending on the company's needs and capabilities. Those enterprises and marketplaces that have made significant investments in B-to-B e-Commerce technologies can select Ariba Sourcing on a stand-alone basis. However, companies without an e-Business infrastructure can select Ariba Sourcing as part of the overall solution combined with Ariba's marketplace or procurement applications.

Aberdeen research suggests that Ariba's strength in the e-Commerce market at large has enabled Ariba to assemble the vital components for a comprehensive e-Sourcing offering. The sheer strength of the company and the breadth of its sourcing and collaborative commerce offerings should enable Ariba to attain and retain a leading position in the e-Sourcing market.

Barlex, Inc.

**520 North Central Avenue
Glendale, CA 91203
(818) 547-2200
www.barlex.com**

Market Position

Initially focused on developing software solutions and services to maximize unused assets and inventory through B-to-B exchanges, Barlex recently refocused its efforts to deliver B-to-B e-Procurement and online market-making software solutions, including Web-based negotiations. Barlex's solutions emphasize speed of use and implementation, scalability, and the ability to integrate with existing systems to form a custom solution. In 2000, Barlex (previously known as BidOnAssets) refocused its solutions and marketing efforts to support the development and management of private exchanges.

Financial Highlights

Barlex is a privately held company that is gaining traction in the mid-market, Net market, and large enterprise markets.

Organizational Structure

Barlex is headquartered in Glendale, CA. Key executives include the following:

- R.J. Abnous, CEO;
- Robert Abnous, CTO; and
- Rick Schotts, Vice president of Business Development.

Core Products and Services

Barlex has leveraged its experience with creating and managing asset management marketplaces to develop field-tested e-Commerce solutions. The Barlex product family includes: e-Procurement, marketplaces/exchanges, and product listings.

- Procura facilitates moving ERP and legacy system data to the Web for use as part of a private procurement platform, which supports the automation of the procure-to-pay cycle for indirect goods as well as mission-critical direct purchases. This solution includes a proprietary workflow management engine and utilities for complex catalog development, management, and search.

- MarketX is Barlex's exchange platform for developing and managing private and public online marketplaces. MarketX supports basic procurement functionality as well as more advanced dynamic trading functionality, including forward and reverse auctions as well as more collaborative RFP and RFQ negotiations.
- A-List is Barlex's product listing solution. A-list handles high-volume product lists with complex pricing rules and includes advanced sorting and search functionality.

Barlex's procurement and marketplace solutions can be delivered as an integrated e-Commerce suite or as stand-alone offerings. All Barlex products are available as highly affordable and rapidly deployable out-of-the-box solutions. Barlex also customizes the solutions for additional fees.

Barlex recently released the Small Business Procurement Center (SBPC), a procurement solution targeted at small businesses that want to set up their own private exchanges. Available for less than \$20,000, the SBPC allows buyers to engage in strategic sourcing with their own list of suppliers. The SBPC supports RFPs, RFQs, reverse auctions, and product listings—all tools Barlex has made available to larger clients through its other product offerings. Buyers using the SBPC can construct complex bid structures for use throughout the process. Buyers can set up and brand the entire operation in 30 days or less.

Barlex builds its solutions on a highly scalable, Web-centric J2EE architecture that adheres to open industry standards for communications, transactions, and integration. Barlex's solutions are platform- and database-independent, making them highly compatible with an organization's ERP, e-Commerce, and legacy systems. Such an open architecture enables Barlex to deploy its solutions in as little as a month and to easily customize functionality to meet the unique requirements of individual enterprises.

Aberdeen Conclusions

Barlex has developed competitive e-Procurement, marketplace, and reverse auction offerings to support key components of the sourcing cycle. The open and advanced technology architecture its solutions use has enabled Barlex to gain traction among both enterprise and e-Market customers. Through continued penetration of these markets and ongoing expansion of its negotiation and decision support functionality, Barlex is effectively carving itself a niche in the competitive strategic e-Sourcing market.

B2eMarkets

**3202 Tower Oaks Boulevard
Rockville, MD 20852
(301) 230-2236
www.b2emarkets.com**

Market Position

Founded by former GE and TPN Register procurement executives, B2eMarkets provides strategic sourcing solutions to clients with a fully hosted Web-based product. B2eMarkets' Strategic eSourcing Management (SeSM)[™] system encapsulates proven sourcing methodologies in a highly intuitive solution that guides buyers through the entire sourcing process and delivers the decision support and collaboration tools necessary for organizations to institutionalize strategic sourcing as a core competency. The SeSM solution embeds sourcing expertise from industry leaders, such as Cap Gemini Ernst & Young (CGEY) and Accenture (formerly, Andersen Consulting). Both CGEY and Accenture are B2eMarkets partners and are offering the SeSM solution as a key component of their overall sourcing capabilities.

Financial Highlights

B2eMarkets is a privately held company that announced its first round of venture capital funding, totaling \$13.5 million, in February 2000. Leading contributors included FBR Technology Venture Partners, Accenture Technology Ventures, Syndicated Communications, Carthage Partners, and Ascend Venture Group. B2eMarkets is currently closing another round of venture capital funding.

Organizational Structure

B2eMarkets is headquartered in Rockville, MD, with additional offices in Southfield, MI; Lake Oswego, OR; and The Netherlands. The company has more than 100 employees. Key executives include the following:

- Orville Bailey, Co-Founder, President, and CEO;
- Richard Waugh, Co-Founder, Executive Vice President;
- Ronald Holtz, CFO;
- Andrew McCasker, Vice President of Product Development;
- Pat Murzyn, Vice President of Strategy;

- David Schultz, Vice President of Sales; and
- Shirish Pareek, Vice President of Business Development.

Core Products and Services

B2eMarkets' core product, SeSM, includes Category Management and eNegotiation Management™.

The Category Management portion of the solution allows buyers to research and assess suppliers and supply markets by collaborating with internal stakeholders and external sourcing partners to develop a sourcing strategy. The eNegotiation Management phase of the process uses template-enabled wizards to aid buyers in developing total-cost-based RFQs and setting up negotiation events.

Throughout both sections of the solution, context-specific help, or “coaching,” with definitions and strategy suggestions to support sourcing is available to users. This coaching content is the product of the deep domain expertise of B2eMarkets and their consulting partners. This feature is helpful to buyers who are making the transition to strategic sourcing, covering both the basics of sourcing as well as the nuances of e-Sourcing. The B2eMarkets staff is constantly updating and modifying the coaching feature, which represents a significant advantage over other competitors in the space.

B2eMarkets also offers a self-paced multimedia “course” to support strategic sourcing concepts, methodologies, and tools. The course covers 14 modules, including a strategic sourcing overview and segments on industry research, cost modeling, and supplier qualification. B2eMarkets delivers these e-Learning tools as part of the solution or as stand-alone CD or Web-based tools to support continuing education and speed training.

Category Management

SeSM allows buyers to use and combine sourcing requirements from all internal divisions. In Category Management, buyers can model their own sourcing strategy using a variety of tools from B2eMarkets. These tools address a variety of topics, including spending reports, supplier identification and qualification, structured RFI templates, market research, and cost modeling to develop conclusions that feed the overall sourcing strategy for a specific category. Information from both internal colleagues and external partners and Web-based sources can also aid in the evaluation of potential suppliers and markets based on a number of criteria, including shipping time, quality of manufacture, and supplier history, etc. rather than focusing exclusively on price.

The SeSM solution also contains a comprehensive listing of more than 100 e-Marketplaces and hundreds of research and directory sites. The directory of e-Marketplaces includes profiles with specific information regarding each marketplace including cost modules, fee structures, partners, and customers and features, allowing SeSM users to compare and contrast them based on their capabilities. A buyer can view the e-Marketplaces by industry with a feature breakdown to quickly identify which marketplace in which industry best suits the buyer's needs. The purpose of the directory is to allow buyers access to industry news and trends and to connect them with an even larger supplier base. Thus, a buyer has more information with which to make sourcing decisions, including new suppliers to invite to submit bids. B2eMarkets does not connect buyers directly to e-Marketplaces for procurement purposes; B2eMarkets handles all negotiation events.

SeSM collects and stores all information gathered and collected in the Category Management phase. Buyers can easily share this information with their management and colleagues for approval, reporting, and collaboration. They can then compare, analyze, and edit responses to create complete strategies to carry into negotiation activities. The value of Category Management lies in its emphasis on strategy versus administration. Simplifying, automating, and storing these strategies improves knowledge transfer and collaboration and supports a strategic sourcing process across an enterprise.

eNegotiation Management

B2eMarkets has created more than 50 industry-specific templates for buyers to use and continues to add more. In addition, buyers can easily create new templates from scratch or modify an existing template. Buyers can also manipulate all the various criteria and information generated during the Category Management section of the solution to highlight key features of the production process as the buyer determines. The goal is to focus the sourcing process on total cost rather than specific item cost and to negotiate the best possible purchase agreement.

A wizard-based process steps buyers through describing the items they need, the variables required to make a decision, identifying and scheduling groups to support supplier rationalization strategies, and inviting suppliers to bid. Once an RFQ has been created, SeSM helps buyers set up and manage a negotiation event which can take the form of a reverse auction, a Private Offer™, or a combination of both executed through multiple rounds, again with variables that a buyer can manipulate with regard to price transparency and supplier access.

B2eMarkets' SeSM solution supports kitting and interval buying to leverage advanced sourcing strategies and maximize the value of long-term supply partnerships. Additionally, the interface is available in five languages and supports multiple currencies for cross-enterprise global sourcing.

Aberdeen Conclusions

B2eMarkets has developed a highly competitive and comprehensive e-Sourcing solution that comprises some of the industry's leading technologies and content. It is intuitive and can support the rapid addition of customers and suppliers. The company focuses on creating software that will provide strategic sourcing solutions for its clients, supporting a repeatable process that an enterprise can use. SeSM, the result of these efforts, meets all the needs and challenges of the e-Sourcing market and does so in such a way as to encourage repeated sourcing success.

Clarus Corporation

**3970 Johns Creek Court, Suite 100
Suwanee, GA 30024-1265
(770) 291-3900
www.claruscorp.com**

Market Position

Founded in 1991 and formerly known as SQL Financials, Clarus Corporation provides solutions that ease buying and selling on the Internet. The solutions follow the complete cycle from sourcing to procurement through settlement. The company entered this space in November 1998 through the acquisition of Elekom, an e-Procurement solutions vendor.

Currently, Clarus targets its products to midsize to large enterprises and financial markets. The company has more than 200 customers for its applications for buyers, suppliers, and market-makers. These applications include Clarus eProcurement, Clarus eMarket, Clarus Settlement, and Clarus Auctions. Clarus has more than 65 e-Procurement clients.

Clarus has formed a strategic partnership with Microsoft and builds its suite of applications exclusively on the Microsoft.Net framework. Clarus also has partnerships with Atlas Commerce, i2, and Manugistics for SCM; eCredit and eCredible for financial settlement; and Requisite and TPN Register for content management.

Financial Highlights

Clarus is a publicly traded company (Nasdaq: CLRS). In 1999, Clarus posted revenues to \$38.1 million with a net loss of \$5.4 million, which represents an 8.4% decrease in revenue over the previous year. The company attributes much of that loss to a one-time charge for divesting its ERP assets in a move to focus entirely on B-to-B e-Commerce.

Similarly, revenues for the full year 2000 were \$34.0 million, a 197% increase over 1999 pro-forma revenues of \$11.5 million. Net loss for the year, excluding non-cash charges, was \$41.8 million. This decrease is largely the result of a major shift in how Clarus prices its products and recognizes revenue. In 2000, Clarus shed its traditional upfront license fee structure in which all revenue is recognized at the point of sale in favor of a ratably recognized revenue model in which revenue recognition is spread over a multi-year period. This new accounting model creates more visibility and predictability to Clarus' financial performance by building deferred revenue and backlog with each new customer. How-

ever, the transition makes year-to-year revenue comparisons less meaningful.

Organizational Structure

Clarus Corp. has headquarters in Suwanee, GA, and an international office in the United Kingdom. Clarus employs more than 425 people worldwide. Key executives include the following:

- Stephen P. Jeffery, Chairman, President, and CEO;
- Jim McDevitt, CFO;
- Alan MacLamroc, CTO;
- Steven M. Hornyak, Executive Vice President and General Manager, Americas;
- Julie Smith, Chief Marketing Officer; and
- Mike Mattox, Senior Vice President of Operations and Legal.

Core Products and Services

Clarus' offering consists of *Clarus eProcurementTM* and *Clarus eMarket*, *Clarus Auctions*, and *Clarus Settlement*, as well as *Clarus Content*, *Clarus View*, and *Clarus Fusion*—catalog management, analysis, and integration solutions, respectively—and a set of shared services through ClarusNet.

eProcurement is Clarus' solution for automating corporate purchasing. The solution supports multiple local languages and currencies, as well as currency conversion with Euro triangulation capabilities.

Procurement products interoperate and can be packaged with the following value-added applications:

- Clarus Auctions, which allows marketplaces and corporate entities to run fully configurable auctions, such as forward, reverse, sealed-bid, and weighted attribute RFQs. Additionally, the solution provides proactive notification of relevant auctions based on a participant's profile and complete wireless capabilities to view and bid on any auction.
- Clarus Fusion, an application integration framework for connecting the e-Sourcing platform with suppliers and buyers' enterprise systems, as well as third-party applications.

- Clarus View, the business analytics solution for marketplaces, enabling tracking of key performance indicators (KPIs), such as spending by products, suppliers, and historical market trends.
- Clarus offers its solutions on a license plus maintenance basis, subscription basis, and a hybrid “lease-to-own” approach. Clarus charges no transaction fees and does not adopt a revenue share model with its customers.

Aberdeen Conclusions

Clarus solutions’ rich offering of decision support and business analytics tools, auction, and RFQ technologies, make the company a good choice for clients willing to migrate the portions of their evaluation and negotiation processes to the Internet.

Functional strength and exclusive design for the Microsoft.Net framework have earned Clarus a prominent position in the procurement and marketplace.

Aberdeen views Clarus’ Sourcing offerings as an extension of the company’s early procurement automation solutions. Aberdeen expects that Clarus will find the most success within its installed base and its key verticals.

Commerce One, Inc.

**4440 Rosewood Drive
Pleasanton, CA 94588-3050
(925) 520-6000
www.commerceone.com**

Market Position

Commerce One is one of the leading global Net markets, e-Procurement, and auction solution providers.

The company successfully targets Global 1000 corporations and mega-consortia in key industries such as computer, automotive, and aerospace manufacturers. Commerce One is beginning to approach other industries, such as government and healthcare, and to place a focus on mid-size companies with targeted solutions.

In June 2000, Commerce One announced a partnership with SAPMarkets. The two companies together developed the MarketSet e-Marketplace suite and Enterprise Buyer, which expands Commerce One's ability to support direct procurement, supply chain, and the sourcing cycle.

Commerce One has partners in virtually every vertical or technology-specific segment of the Net Markets platform providers' space. A professional services unit dedicated to integration and consulting completes and supports the company's offering. To provide these services, Commerce One acquired AppNet, a consulting firm with more than 1,300 employees specializing in e-Business infrastructure implementation, integration, and communication solutions.

Financial Highlights

Commerce One is publicly held (Nasdaq: CMRC). In 2000, the company posted revenues of \$401.8 million, which represent a 1,097% increase from the previous year. The company had a net loss of \$345 million on these revenues.

Organizational Structure

Commerce One has more than 3,700 employees worldwide. Key executives include the following:

- Mark B. Hoffman, CEO and Chairman;
- Robert M. Kimmitt, President, COO, and Vice Chairman;

- Thomas J. Gonzales, Senior Vice President, CTO, Co-Founder, and Director;
- Charles J. Donchess, Executive Vice President and Chief Strategy Officer;
- Peter F. Pervere, Senior Vice President and CFO; and
- Dr. Jay M. Tenenbaum, Senior Vice President, Chief Scientist, and Director.

Core Products and Services

Commerce One Auction Services is a hosted, multi-lingual, multi-currency dynamic trading solution, which offers e-Sourcing functionality for evaluating suppliers and products and executing complex negotiations.

Commerce One Auction Services include tools for complex negotiation as well as a wide range of online RFQ/RFP typologies, enabling multi-stage and multi-threaded negotiations of a variety of weighted price and non-price product's parameters. Its collaboration capability encourages supplier interaction on RFQ/RFP documents by allowing users to attach graphics, multimedia, and document files as specifications or drawings at any level of the electronic RFP/RFQ package.

Several auction types and multivariable-bidding tools allow users to conduct complex, multi-threaded negotiations of both direct and indirect materials. Through CommerceOne.net, Auction Services has access to more than 100 syndicated business services from payment terms to shipment arrangement and optimization, enabling concurrent negotiations of price, quantity, shipment, and other arrangement terms. Within this infrastructure, simultaneous bidding events can occur, yielding the lowest total cost and maximum supply chain efficiency.

Commerce One Auction Services is available either as a stand-alone service or as a part of the CommerceOne.net marketplace or as a licensed product, for Commerce One's partners that are looking to become part of the Global Trading Web.

Commerce One has complemented its auction services with Enterprise Buyer Professional Edition, which supports identifying enterprise requirements and suppliers and reviewing and aligning negotiations across the supply chain. Developed jointly with SAPMarkets, Enterprise Buyer manages suppliers' collaboration, enabling joint development of components and products.

Buyers can identify and qualify vendors before collaboration and bundle smaller suppliers. Enterprise Buyer enables creation and management of catalog content from multiple suppliers and allows managing, integrating, and communicating contract terms to key players throughout the supply chain.

Aberdeen Conclusions

Commerce One is one of the dominant Net market platform providers. The company has gained a prominent position by offering global, built-to-order solutions characterized by a wide range of accessory functionalities provided by a broad network of partners.

With the double offering of Online Auctions and Enterprise Buyer, Commerce One delivers a solution that supports the sourcing cycle. At press time, there more than 60 deployments of Commerce One Auction Services in operation.

Aberdeen research suggests that, through the success of the alliance with SAP, Commerce One has laid the foundation for the joint building of Internet-based infrastructures that conjugates collaborative commerce, e-Sourcing, e-Procurement, and the range of enterprise software applications.

Dun & Bradstreet

**One Diamond Hill Road
Murray Hill, NJ 07974
(908) 665-5000
www.dnb.com**

Market Position

Dun and Bradstreet (D&B), is a well-known research firm that is leveraging its brand-name status to grow its online business. A recent split from Moody's Corporation has given D&B the freedom and the inclination to reposition its business and its information solution offerings for the Web. Toward that end, D&B has begun offering a group of online services that revolve around its extensive database of market research, financial reports, and supplier performance records. The D&B database contains information on more than 62 million companies worldwide and is categorized by the internationally recognized D&B D-U-N-S[®] Number. D&B aggregates, normalizes, and transforms data into intelligent information so that businesses can make the most informed and knowledgeable decisions. All D&B strategic sourcing products and services leverage the power and functionality of the D&B D-U-N-S Number.

Financial Highlights

D&B is publicly traded on the NYSE (DNB). In 1999, D&B generated \$1971.8 million in revenue and \$256 million in profits. The totals represent a one-year sales growth rate of 1.9% and net income growth of 8.6%. In 2000, D&B spun off Moody's Corp.

In 2000, D&B recorded sales of \$1417.6 million, a one-year growth rate of 0.7%. D&B took home \$206.6 million in profits, up 19.3% from a year ago. Results excluded one-time costs incurred in connection with the separation of D&B and Moody's.

Organizational Structure

D&B is headquartered in Murray Hill, NJ, and has offices around the world. Key executives include the following:

- Allan Z. Loren, Chairman and CEO;
- Steve Alesio, Senior Vice President of Marketing, Technology, Communications, and Strategy Implementation;
- Deborah Prutzman, Senior Vice President and General Counsel;
and

- Tim Murphy, Senior Vice President, D&B Corp., and President D&B North America.

Core Products and Services

D&B's Data Rationalization service is a process that aggregates, standardizes, normalizes, and enriches the content of files to identify sourcing/commodity redundancies, resulting in economies of scale, significant cost savings, and operational efficiencies. This service performs this process by matching disparate and legacy customer and supplier files against a master D&B reference file that automatically appends the D&B D-U-N-S Number and other value-added information to each record. This process quickly pinpoints areas of high interest, such as number of suppliers for specific commodities, which suppliers are related to each other within the supply base, duplicate supplier records, financial risk scores on all suppliers, and number and dollars spent with minority- or women-owned firms or other socio-economic designations.

D&B SourcingNet, a Web-delivered service accessible from D&B's Web site, allows companies in any stage of the sourcing process to search the database of 12 million U.S. businesses using variables such as product category, location, size, and certification status with the International Standards Organization (ISO) or by other registrar certifications. SourcingNet makes a valuable first step toward a buyer's goal of identifying appropriate suppliers with which to negotiate.

D&B Supplier Assessment Manager (SAM) is procurement-decision-support software that integrates and consolidates customers' supplier information with dynamic D&B data, offering powerful segmenting, profiling, analytical and drill-down capabilities. SAM helps companies determine what they are buying, whom they are buying from, and who is buying enterprisewide. SAM helps firms address their objective of lowering costs.

D&B Spend Analysis™ is a service that provides a macro analysis of a customer's supply base, teaming D&B professionals with a customer's procurement and sourcing staff to identify and manage the risk and opportunity in a supplier base. D&B provides an in-depth evaluation of a customer's supplier base, profiling by industry, geography, dependency, socio-economics, and risk. This process can help to find what providers the customers purchase from and the dollar volume, identify opportunities for consolidation, gain a clearer understanding of the strengths and weaknesses in their supplier base, and identify duplicate suppliers and those who are highly dependent on their business.

The D&B Supplier Evaluation Report (SER) is a predictive tool designed to assess the relative risk of inviting a business into a company's supply

chain. The SER contains information about a requested company (when available) on risk assessment, risk commentary, financial profile/ratios (with industry norms), payment trends and analysis (with industry norms), public filings, special events, socio-economic indicators, minority- and women-owned status, small business status, and an operations narrative with expanded Standard Industrial Classification (SIC) presentation and ISO 9000 status.

D&B Minority and Women Owned Business (MWOB) Classification Solution is a database listing more than 1.9 million businesses—the most extensive file of business information on minority- and women-owned businesses in the United States. MWOB Classification Solution reveals sources and certification dates to help purchasing departments ensure that they are meeting external needs as they relate to tracking and reporting requirements for federal sub-contracting plans—such as 1099—and to identify new sources of suppliers and diversify the supplier base.

Recognizing the value and knowledge that information brings to sourcing and decision support systems, several leading solution providers have partnered with D&B to offer D&B Data Rationalization and access to D&B market and business data.

Aberdeen Conclusions

D&B's suite of sourcing products effectively leverages the company's long history of financial research and supplier performance records for use online. D&B is an information brand name, and that status in the business world at large is likely to have a positive effect on D&B's line of sourcing solutions.

eBreviate

**2125 Oak Grove Road
Walnut Creek, CA 94598
(925)-287-6300
www.ebreviate.com**

Market Position

eBreviate is a leading provider of B-to-B e-Sourcing solutions and dynamic trading technology. To differentiate itself from its competitors, the company places its core focus on automating and streamlining the Internet negotiation aspect of online sourcing that includes RFPs and online auctions. Toward that end, eBreviate has brought to market both forward and reverse auction software solutions. In particular, the reverse auction system permits users to bid in a self-administered manner on a recurring basis, controlling for multiple parameters, in multiple languages and currencies, and with the option for a full-service event run by an eBreviate e-Sourcing manager. eBreviate complements its core technology solutions with significant product category and domain expertise and a proven sourcing methodology.

To date, eBreviate reports that nearly 1,400 suppliers have taken part in one or more of the company's online negotiation events. eBreviate has more than 60 clients, including leaders in major industries such as automotive, manufacturing, services, and consumer goods. They include Avon, Becton-Dickinson, Bosch, Delta Airlines, Entergy, Visteon, Marks & Spencer, Proctor & Gamble, Rohm & Haas, RVI, TRW, Unilever, Volkswagen, (Renault), and Whirlpool. eBreviate's suite of e-Sourcing tools and technologies also includes electronic RFPs, spending- and deal-management technology, and sourcing team tools.

Financial Highlights

Founded in 1999 as part of A.T. Kearney's procurement consulting services, eBreviate, in 2000, became a wholly owned subsidiary of publicly held \$19.2 billion EDS (NYSE: EDS).

Organizational Structure

eBreviate has its corporate headquarters in Walnut Creek, CA. By the end of 2001, the number of employees will total approximately 200. Key executives include the following:

- Niul Burton, President and Co-Founder;
- Sarah A. Pfaff, Executive Vice President of Sales, Marketing, and Strategy and Co-founder;

- Luke Saban, Vice President and CFO;
- Ken Berger, Vice President of Business Development;
- Carrie Ericson, Vice President of Global Operations;
- Aaron Graham, Vice President of Strategy and Net Markets;
- Kimberly Blake-Dotson, Vice President of North American Sales;
- Chris Moyer, Vice President of Product Development and CTO;
and
- Tom Slaight, Co-Founder and Emeritus Executive Chairman.

Core Products and Services

The key differentiating aspect of eBreviate's solution rests in the "total-cost functionality" feature, which allows clients to enter prices that take into account multiple non-price variables such as delivery time, hourly rates, and markup. This functionality provides buyers with both more flexibility and control during the bidding process and enables them to determine the actual and total cost of doing business with a supplier. Such total cost information allows a buyer to understand the cost structure of individual suppliers and to make more informed sourcing decisions and allows the supplier to be more aggressive in those bidding parameters in which they have strength instead of relying strictly on price.

The software is used on a hosted ASP basis, incorporates secure sockets layer (SSL) encryption, and requires secure user registration. Users can pause negotiation events midway through the bidding process to facilitate evaluation and major decision-making. Moreover, a supplier can bid on multiple categories with multiple parameters in a single auction. To date, transaction sizes using eBreviate's reverse auctioning solution have ranged from \$1 million to \$200 million. Clients for eBreviate's services can choose from the following capacities:

- A hosted full-service option in which eBreviate e-Sourcing managers train buyers and suppliers on a per-auction basis;
- A self-service package in which eBreviate offers training, hosts the software, and provides technical support; and
- A recurring service in which buyers use either full- or self-service models to save on products they buy regularly.

In the near future, eBreviate plans to launch a comprehensive set of Web-based strategic procurement solutions, including supplier search engines, scorecards, and intellectual capital.

Aberdeen Conclusions

Aberdeen research indicates that eBreviate is well-positioned to emerge as a major player in the online auction procurement space. The company's solutions provide key functionality to support the broader e-Sourcing framework. Through its non-exclusive channel relationship with A.T. Kearney, proven technology, and a strong list of established clients, the company has strong potential for further growth and innovation as e-Sourcing tools increase in popularity.

Elcom International, Inc.

**10 Oceana Way
Norwood, MA 02062
(800) 713-3993
www.elcom.com**

Market Position

Founded in 1992 as a pioneer in electronic catalog technology with the introduction of the Personal Electronic Catalog Ordering System (PECOS), Elcom International comprises Elcom, Inc., a subsidiary that provides e-Procurement and e-Marketplace solutions, and Elcom Services Group, a subsidiary that specializes in enterprise level business services.

By providing every component of its solutions including, hardware, software, integration, hosting, and administration, Elcom takes most of the “heavy lifting” of the B-to-B online platforms out of its clients’ IT infrastructures.

Elcom’s direct sales force targets companies of all sizes in vertical markets characterized by a high concentration of spending in indirect materials and services. Such verticals include broadcast and news media, high tech, and financial services. The company relies on strategic partnerships with i2 and Infinium Software to reach less familiar vertical markets and ERP and supply chain providers.

Elcom has formed partnerships with industry2industry for the solution’s trading engine and with i2, OpenRatings, and several other specific-functionality providers to offer modular solutions.

Financial Highlights

For the fiscal year ending December 31, 2000, Elcom (Nasdaq: ELCO) recorded net revenues of \$318 million and a net loss of \$19.8 million. In 1999, Elcom recorded net revenues of \$485.8 million with a negative growth of 36% over the previous year. Net loss in 1999 was \$42.5 million. The CEO, Robert J. Crowell, owns approximately 17% of the company.

Organizational Structure

Elcom has headquarters in Norwood, MA, and offices in the U.K., Brazil, South Africa, Saudi Arabia, India, and Singapore. Elcom employs 250 people. Key executives include the following:

- Robert J. Crowell, Chairman and CEO;

- John E. Halnen, President;
- Peter A. Rendall, CFO and Secretary;
- Timothy Lindner, Senior Vice President of Media Channels; and
- Paul J. Mueller, Vice President of Finance and Treasurer.

Core Products and Services

PECOS is a modular online B-to-B platform that is available in the PECOS.ipm (Internet Procurement Manager) version for e-Procurement and the PECOS.iem (Internet Exchange Manager) version for Net markets.

The Supplier Discovery module facilitates the search for suppliers through the connection with an online industry repository. Buyers can search for new suppliers on an industry-code basis.

The Dynamic Commerce module includes forward, reverse, and sealed-bid auctions technologies as well as multi-parameter and multi-threaded negotiation support. Product order aggregation gives a user the ability to bundle several products in a single order for an auction. Users can restrict auctions to a specific group of suppliers through control over trade access and invitation tools.

Elcom solution enables international sourcing and trading by supporting several languages, such as English, French, Portuguese, and Spanish as well as offering currency-conversion tools.

Elcom's professional business service team completes the company's e-Procurement and e-Sourcing support. The team performs customization, installation, implementation, training, and content management.

Aberdeen Conclusions

Elcom has differentiated itself by adopting an ASP model and freeing its clients from any technical issues related to their online sourcing solutions.

The company has targeted selected vertical markets and focused narrowly on industries more willing to accept the outsourcing of strategic applications management.

Elcom has also invested resources promoting its ASP model and fighting the users' initial unwillingness to delegate management and administration of their e-Commerce infrastructures. It is now time for Elcom to show the consolidation of its business model by gaining significant sale momentum.

Elcom's plans for the future include equipping its applications with additional cross-border commerce capabilities such as tools for international tax and regulation processing and international letters of credit. If able to execute the plan, Elcom will gain a competitive edge by offering a solution among the less expensive in the market, which additionally enables clients to overcome conceptual barriers of cross-border trading.

Emptoris

**200 Wheeler Road
Burlington, MA 01803
(781) 993-9212
www.emptoris.com**

Market Position

Founded in 1999, Emptoris is a provider of e-Procurement and marketplace applications focused on e-Sourcing and complex negotiation of direct and indirect materials and high-value services.

The platform couples automated workflow with optimization-based decision support and complex negotiation and trading capabilities.

Emptoris ePASS™ (Electronic Procurement Application for Strategic Sourcing) targets a broad range of industries in which sourcing involves the evaluation of multiple price and non-price factors within the business constraints set by the buying organization. ePASS is particularly suitable for sourcing complex goods in industries such as automotive, electronics, utilities, oil and gas, semiconductors, metals, chemicals, and aerospace.

Emptoris employs a sales force with vertical expertise in several industries, channel partners, and a consulting team dedicated to customization and implementation.

Emptoris strengthens its sourcing capabilities by integrating with internal or external rating databases, such as those provided by OpenRatings, allowing buyers to select suppliers by history of execution. Other Emptoris technology partners include Breakaway Solutions, CommerceQuest, Demantra, diCarta, E.piphany, Sapiens, VerticalNet, and Xporta. Additionally, Calico and RightWorks have integrated Emptoris' RFQ and reverse auction technology, packaging it with their solutions.

Financial Highlights

Emptoris is privately held and backed by Internet Capital Group (ICG). ICG has invested \$20 million into Emptoris and owns 53% of the firm.

Organizational Structure

Emptoris has headquarters in Burlington, MA, and has offices in California, Atlanta, Chicago, and Dallas. The firm has more than 120 employees including a direct sales force and a technology consulting division. Key executives include the following:

- Avner Schneur, President and CEO;

- Gary Li, CTO;
- James Noschese, Senior Vice President of Sales;
- Pat Burke, Vice President of Finance and Administration;
- Steven Ricketts, Vice President of Marketing; and
- Alex Wang, Vice President of Business Development.

Core Products and Services

Emptoris' ePASS is an optimization-based application for sourcing direct and indirect goods and services.

ePASS enhances buying/selling processes through automatic screening of sellers' offers on the basis of price and non-price factors. ePASS weights each product's attribute on the basis of users' preferences and requirements. Examples include price, warranty period, quality, delivery methods, supplier pricing structures, supplier ratings, product attributes, and purchasing policies.

ePASS handles the RFQ process through both stand-alone items and bundled bids. The core of ePASS is an optimization-based decision support engine that concurrently screens all bids across all suppliers, taking into consideration non-price factors and multiple pricing structures. ePASS evaluates these multi-attribute and complex pricing bids within the constraints of the buying organization's purchasing policies and business objectives. This holistic process leads to an automatic selection of the mix of suppliers that can deliver the lowest total cost purchase across the RFQ.

ePASS' management of multiple product attributes and complex bids allows suppliers to differentiate themselves by introducing product-specific parameters in the negotiation. This capability eliminates the price deflation and commoditization that has become associated with price-only online negotiations.

Aberdeen Conclusions

Emptoris has gained recognition as a pioneer in applying optimization technologies to the sourcing process.

Emptoris has integrated ePASS with Ariba and Commerce One solutions, giving the company the option of marketing ePASS as a stand-alone solution or a complementary tool for enhancing complex item transaction capabilities in existing e-Procurement platforms.

Aberdeen's research shows that Emptoris is well positioned to succeed among strategic sourcing solutions providers. Emptoris has alliances

with the most prominent e-Commerce platform providers, backing its leadership in complex negotiation and optimization technology. Thus, the company's ePASS solution appeals to enterprises and e-Markets that wish to manage complex sourcing and negotiation activities online.

ExpertCommerce

**6 East 32nd Street, 4th Floor
New York, NY 10016
(212) 404-1720
www.expertcommerce.com**

Market Position

ExpertCommerce is a provider of online decision optimization software that empowers end-users with the ability to evaluate suppliers, products, and services based on all of the relevant information required for an effective sourcing decision. Designed to complement the negotiation technologies of Net markets, online retailers, and buy-side sourcing platforms, the ExpertCommerce eValEngine™ enables buyers to extend the value of their e-Commerce investments to enable more complex, weighted, multi-parameter negotiations.

Financial Highlights

Founded in June 1999, ExpertCommerce is a privately held firm. The company has raised approximately \$7 million in funding. However, ExpertCommerce has not disclosed its total venture funding. ExpertCommerce began generating revenues in Q3 2000.

Organizational Structure

ExpertCommerce is headquartered in New York City and has 10 full-time employees. Key executives include the following:

- Steven Hochberg, Co-Founder, Chairman, and CEO;
- Jon Fisse, President and COO; and
- Victoria Feder, Executive Vice President of Operations.

Core Products and Services

The underpinnings of the ExpertCommerce eValEngine are based on a unique blend of theory and experience. At the core of the eValEngine lies a powerful decision theory known as the Analytic Hierarchy Process (AHP), which was once used for analyzing weapons tradeoffs and other complex decisions. AHP's decision-making methodology has since been adapted to facilitate the making of complex, multi-variable decisions containing both qualitative and quantitative aspects. By reducing complex decisions to a series of simple comparisons and rankings and then synthesizing the results, AHP guides organizations to optimal decisions.

AHP was originally incorporated into a PC-based software solution, Expert Choice, which has been used for over a decade, leading corporations, consultants, and governments to make informed decisions on purchasing, strategic sourcing, resource allocation, product development, and other complex issues. Through an exclusive, worldwide, and perpetual license, the core of the Expert Choice software has been deployed as the foundation of the Internet-enabled ExpertCommerce eValEngine. All ExpertCommerce products are built on this sophisticated engine.

ExpertCommerce product offerings fall into two general categories: the eCRM Engine™ and the RFX Engine™.

The RFX Engine facilitates the creation and evaluation of responses to dynamically generated request for proposals and request for quotes RFQs. Suppliers' responses to RFPs/RFQs serve as a customized database from which the RFX Engine culls a "best fit" product or service based on a buying organization's profile.

The eCRM Engine is built for an individual organization utilizing catalog- or ratings-based data provided by the organization or a third party source. The eCRM Engine can be deployed by an organization to train its sales force in the nuances of new products, services, or configurations as well as to reduce the time and resources dedicated to e-mail and phone bank-based customer service.

The eValEngine's Web-based interface leads the buyer through a series of tradeoff decisions, thus establishing a buyer's weighted criteria or "priorities" on a given potential product, service, or sourcing decision. The engine culls the suitable products or services from either existing or customized supplier databases to find all the suitable matches based on the priorities listed by the buyer. Buyers can then use the engine to toggle the relative weights attached to each stated priority. With each new variation, a new set of products or services is provided and ranked to most closely match the buyer's preferences.

Back-end analytical tools, such as gap analysis and head-to-head product comparisons, are also available to provide buyers with a better understanding of the rationale underlying the ranking. Thus, the process allows the buyer to learn and develop better sourcing practices at the same time.

ExpertCommerce maintains data from each engagement, enabling suppliers and Net markets to analyze buyer preferences and priorities. ExpertCommerce uses this feature to market its product as both a valuable e-Sourcing application, as well as a rich source of data-mining informa-

tion that will enable suppliers to enhance product development, better-target marketing messages, and improve supply chain efficiencies.

ExpertCommerce has partnered with e-Commerce solution providers, including Asera, Hologix, Moai Technologies, Rapt, VerticalNet Solutions, and Vignette to extend its ability to support strategic sourcing activities.

Aberdeen Conclusions

ExpertCommerce has leveraged the experience and proven technology behind Expert Choice to create a sourcing decision optimization tool that can extend existing Net market, negotiation, and e-Sourcing platforms to support the automated evaluation of more complex, weighted, multi-parameter purchases. The company's eValEngine is a powerful decision-support application that allows buyers to determine their sourcing criteria and priorities, and to use this knowledge to determine the optimal suppliers, products, and services to meet these needs. In short, ExpertCommerce's solutions can guide buyers to optimal purchase decisions and generate maximum return from their investments in e-Sourcing technology.

FreeMarkets, Inc.

**One Oliver Plaza, 22nd Floor
Pittsburgh, PA 15222
(412) 434-0500
www.freemarkets.com**

Market Position

The grandfather of online sourcing, FreeMarkets has been conducting reverse auctions for industrial suppliers since 1995. Since it began operations, FreeMarkets has held more than 9,200 auctions with more than 9,300 participating suppliers in more than 30 languages around the world. The results have been impressive: To date, FreeMarkets has sourced \$14 billion worth of goods, generating more than \$2.7 billion in savings to enterprise buying organizations. All told, FreeMarkets has delivered an average ROI of 19-to-1. FreeMarkets delivers a unique mix of technologies and services to support the entire sourcing cycle—from spending analysis and RFQ development through supplier evaluation and online reverse auctions.

Financial Highlights

FreeMarkets is publicly traded (Nasdaq: FMKT). In 1999, it had sales of \$20.9 million, a one-year growth rate of 167.9%, and a net income of \$21.8 million. Revenues for the year ended December 31, 2000, were \$91.3 million, compared with \$20.9 million in 1999, an increase of 337%. Market volumes grew to \$9.9 billion, an increase of 264% over the \$2.7 billion reported in 1999. Gross margins increased to 46% in 2000 from 42% in the prior year.

Organizational Structure

FreeMarkets employs 960 people, is headquartered in Pittsburgh, PA, and has 10 other offices across the U.S., Europe, and Asia. Key executives include the following:

- Glen Meakem, Chairman, President and CEO;
- David Becker, Executive Vice President and COO;
- Joan Hooper, Vice President and CFO; and
- Scott Grimes, Executive Vice President.

Core Products and Services

FreeMarkets provides a unique mix of Web-based technologies and services to deliver e-Sourcing solutions that can address the entire sourcing cycle and that can create highly competitive negotiation environments that meet the needs of individual buying organizations. Boasting an extensive group of global sourcing and procurement experts, FreeMarkets guides buying organizations through spending and requirements analysis for the purpose of drafting a detailed RFP/RFQ document and developing the appropriate sourcing strategy. With a database of more than 30,000 detailed supplier profiles containing information on specific capabilities and capacity and more than 150,000 listed suppliers, FreeMarkets also provides the necessary intelligence and services to rapidly identify and screen suppliers. Finally, FreeMarkets can establish and manage a real-time, Web-based negotiation event, using its own BidWare™ auction software.

FreeMarkets has developed FullSource, DirectSource, and QuickSource sourcing products to meet the differing needs of its customers.

- FullSource is FreeMarkets' flagship offering combining FreeMarkets' comprehensive sourcing services and technologies into a full-service e-Sourcing solution that can guide buyers from requirements analysis and strategy development through supplier qualification and online negotiation and evaluation of multiple price and non-price factors. FullSource customers gain access to all of FreeMarkets' resources. FreeMarkets acts to create a highly customized market for whatever a buyer requires, leveraging all of its considerable experience and market intelligence. FreeMarkets actively runs the market, ensuring fair play and significant savings.
- DirectSource delivers FreeMarkets' core technology and a subset of its services to deliver an e-Sourcing solution that is best suited for a buying organization with internal domain and procurement expertise and a desire to manage more of the sourcing process internally. Buyers gain access to a market-making help desk and manage the RFQ/RFP process on their own with the use of the BidWare solution. The sourcing events are still run using the FreeMarkets global supplier network and market operations center.
- QuickSource is FreeMarkets' newest product offering and is aimed directly at mid-market, enterprise-level customers that want to run their own private Net marketplaces and leverage FreeMarkets' sourcing technology without the associated ser-

vices. Marketplaces created with QuickSource are branded as customer marketplaces, not FreeMarkets. Buyers upload their own supplier lists, create RFQs, and work to create their own markets using an auction wizard. QuickSource helps buyers query their own supplier database and determine appropriate suppliers for a certain sourcing event. QuickSource supports advanced auction management, including multiple line-item bids, multi-currency capability, dynamic lot closings, and bid removal. Buyers host their own sourcing events when using QuickSource. The product is delivered through an ASP service model. Time to deployment is days to weeks, depending on the amount of integration and customization required.

DirectSource and FullSource are priced as a percentage of the expenditures that are channeled and negotiated through FreeMarkets. QuickSource customers are charged on a subscription basis based on the number of users.

Aberdeen Conclusions

FreeMarkets combines proven, intuitive software with strategic sourcing and commodity expertise to assist buyers in devising and executing optimal sourcing strategies. FreeMarkets is driven not by a need to license its software and then move on, but to ensure that its auctions are successful and engage in long-term service relationships with its customers. Despite the emergence of copycat competitors, FreeMarkets has earned a solid place in the e-Sourcing market.

The rollout of QuickSource and the development of the eSourcingSuite mark a significant move by FreeMarkets to capture a larger market share and provide solutions for companies that may have previously felt that e-Sourcing was not available in a package they could afford or implement. In addition, FreeMarkets has recently announced its acquisition of Adexa, giving it extended reach into broader SCM applications. FreeMarkets has often been characterized as relying too heavily on its staff to deliver savings to clients. FreeMarkets has begun to embed its vast sourcing process experience in the technology it delivers to buyers. FreeMarkets has created a flexible product line that meets the requirements (and constraints) of a wide range of enterprise and Net Market organizations.

Frictionless Commerce

**400 Technology Square, 9th Floor
Cambridge, MA 02139
(617) 495-0180
www.frictionless.com**

Market Position

Founded in June 1998, Frictionless Commerce is a provider of strategic e-Commerce solutions, specializing in strategic sourcing software. Frictionless positions itself as an enterprise software vendor whose solution automates the complete sourcing cycle and is particularly effective at providing optimized processes for all categories of spend and a high degree of knowledge creation on expenditure analysis and vendor analysis and management. Frictionless' value proposition includes deployment of sourcing resources to the areas of greatest opportunity, increased quality of supply base, sustainable savings, and a captured base of sourcing knowledge that is retained within the enterprise.

Frictionless targets its solution to Global 2500 companies with significant expenditures, large supplier bases, and large and widely distributed purchasing organizations. To date, global buyers of the Frictionless Sourcing solution have included the U.S. Army, Hasbro, the U.S. Air Force, and John Hancock Financial Services. Vertical portals implementing Frictionless have included Prudential, BankOne, the General Services Administration, and Sabre. e-Marketplaces such as Oxygen and LycoShop have also used the solution. Frictionless partners include Open Ratings and XUMA.

Financial Highlights

Frictionless Commerce is privately owned. In November 2000, the company announced a \$30 million round of funding from venture partners such as RPE Ventures, Intel, Polaris Venture Partners, Chevron, and Olympus Partners.

Organizational Structure

Frictionless Commerce has 140 employees. Its headquarters are in Cambridge, MA, and the company has plans to add regional offices. Key executives include the following:

- Kent Godfrey, Chairman and CEO;
- Alexander F. Kleiner, III, President;
- Robert Guttman, CTO;

- Mike Ehrenberg, Vice President of Development;
- Marc Osofsky, Vice President of Business Development and Product Management;
- Eric Levin, Vice President of Marketing; and
- Steve Leahy, Vice President of Sales.

Core Products and Services

Frictionless Sourcing seeks to address and automate the entire strategic sourcing cycle from expenditure analysis and supplier negotiations to vendor management and compliance. The solution delivers benefits in operational efficiency and automation, a complete integrated solution for all sourcing needs, continuous intelligent sourcing, and visibility of the procurement process. Frictionless e-Sourcing software includes the following modules:

- The Sourcing Workbench creates a unified desktop workspace that displays all relevant purchasing data for contract managers. The Sourcing Workbench includes calendar tracking tasks due, relevant market data and news, status of process flow, and analyses of spend versus goal and spend by product.
- The RFP/RFQ module offers collaborative, automated, and parameter-weighted evaluation and scoring of supplier proposals for negotiations.
- The sourcing strategy module includes a complete portfolio of fully integrated auction formats and features.
- The project tracking module ensures a consistent buying discipline across the entire organization with information for audits and future negotiations.
- The vendor management module features a centralized database of contract and supplier performance information, enabling organizations to effectively monitor and manage their supply bases.
- The entire solution is backed by sophisticated analytics for benchmarking and visibility into the organization's expenditures, process, and suppliers.

Key technical strengths offered in the Frictionless e-Sourcing solution include multi-attribute decision support, data aggregation and normali-

zation, Web application architecture, and large-scale enterprise application architecture.

Aberdeen Conclusions

Frictionless Sourcing provides a highly competitive and comprehensive solution that supports activities across the sourcing cycle. Several large organizations have successfully deployed Frictionless Sourcing, and all have seen improvements in their sourcing processes. The size and distributed nature of these early implementations suggest that Frictionless Sourcing can scale to support large enterprise and Net market environments. Additionally, as a start-up company, Frictionless boasts an impressive executive team, which brings strong technology research and ERP backgrounds to charter the company through the nascent e-Sourcing marketplace. The broad-reaching functionality of Frictionless Sourcing should make Frictionless Commerce appeal to large enterprises that want to develop and apply strategic sourcing methodologies to a broad range of expenditures.

Healy Hudson Corporation

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www.healy-hudson.com**

Market Position

A new entrant in the U.S. market, Germany-based Healy Hudson is global software and services company that delivers Internet-based collaborative SRM solutions, including sourcing and ordering, that help Fortune 1000 companies manage and control suppliers and supplier knowledge. Through its Impact™ SRM solution suite, Healy Hudson has positioned itself to significantly improve the management of supplier relationships, including collaborative, Internet-based sourcing and ordering. The Healy Hudson sourcing solution gathers enterprisewide demand, automates the RFP/RFQ process, evaluates quotes, and manages supplier relationships. The Healy Hudson ordering solution includes a Web-based catalog with complete supplier and product search, online order approval, order tracking, and analysis and reporting. Rounding out the solution suite is the capability to monitor supplier and internal demand to determine how the supplier performance matches the terms and conditions of the contract. Together, the Healy Hudson solutions for sourcing, ordering, and monitoring enable companies to standardize internal product demand throughout the enterprise, improve supplier management and relationships, facilitate the ordering process, and monitor actual supplier performance according to contractual terms.

European roots have enabled Healey Hudson to come to market with advanced internationalization functionality including multi-lingual and multi-currency conversion, giving it an edge in targeting its core audience of multinational corporations and marketplaces. Part of Healy Hudson's Impact SRM Solution Suite —which also includes an indirect procurement automation solution —the company's sourcing solution comprises two software components that focus on sourcing processes that suppliers and vendors share. Both these solutions support open application programming interfaces (APIs) to ERP and other business systems.

To date, Healy Hudson has partnered with a number of companies, including PriceWaterhouseCoopers, KPMG, Boston Consulting Group, Netfish, Dresdner bank, and Visa. Healy Hudson has more than 40 global clients with a focus in the chemical, automotive, and financial

services industries, including Dresdner Bank, Mannesmann, Daimler-Chrysler, Siemens, Höchst, Texas Instruments, ABB, and Smartmission. Additionally, Healy Hudson currently has more than 4,000 registered users for its ImpactSRM software.

Financial Highlights

Founded in 1998, Healy Hudson was started with the help of angel investors. The company received its first two rounds of funding in 1999 with investments from TFG, FGN, and AvW Invest. In July 1999, the company acquired ISPD, an e-Procurement software company. In April 2000, the company obtained a third round of financing that amounted to U.S.\$19 million (DM 42 million) from Apex Partners, PRICOA Capital Group, and the Boston Consulting Group. The company posted losses of U.S.\$197,000 (DM 431,000) in 1999 and U.S.\$3.3 million (DM 7.261 million) in 2000, primarily due to higher levels of investment. Executives expect turnovers to more than quadruple in the first three quarters of 2001. The company and has plans to go public in the near future and become profitable by 2002.

Organizational Structure

Healy Hudson is headquartered in Munich, Germany, with the U.S. headquarters based in Westboro, MA. Healy Hudson Corporation has been operating in the U.S. since August 2000. Total employees number approximately 100 worldwide. Key executives include the following:

- Dr. Rainer Frölich, Managing Board Member and Co-Founder;
- Heinz Weiler, Managing Board Member and Co-Founder;
- Reimar Scholz, CFO;
- Piet Buyck, COO; and
- Susan Stevenson, President of Healy Hudson Corporation, United States.

Core Products and Services

Healy Hudson has packaged its solutions into the Impact SRM Solution Suite. The Healy Hudson's Impact SRM is more than just a set of integrated solutions; it is a strategy for providing incremental value as the customer implements each additional component within the suite. Impact SRM currently includes three components.

At the heart of the Healy Hudson Impact SRM strategy is the Impact Knowledge Center, which provides a methodology for collecting supplier information, transactions, and knowledge and for providing cus-

tomers with a complete understanding of all tiers of suppliers. The Impact Knowledge Center is the basis for all Healy Hudson solutions, providing the platform for analysis, planning, and forecasting of suppliers and spending for functions such as finance, operations management, and product lifecycle management.

Impact Sourcing provides collaborative, Internet-based sourcing from internal demand specification, through RFP/RFI automation, supplier quote analysis, and supplier selection, to the population of the online catalog. Impact Sourcing supports weighted multi-parameter negotiations, evaluations, and rankings. The solution enables the evaluation of such factors within constraints and purchase policies established by the buying organization, further assisting buyers to determine the lowest total cost purchase strategy.

Impact Ordering delivers the capabilities to implement supplier selection throughout the enterprise with an Internet-based online ordering system. Capabilities include a Web-based catalog with complete supplier and product search, online order approval, order tracking, and analysis and reporting.

ImpactMonitoring monitors internal demand requirements compared with anticipated demand. If orders are higher or lower than expected, it is important to identify this change as earlier as possible so that organizations can adjust contracts or sourcing decisions.

Together, Healy Hudson's Impact SRM solution suite enables companies to standardize internal product demand throughout the enterprise, improve supplier management and relationships, facilitate the ordering process, and monitor actual supplier performance according to contractual terms.

The primary differentiators for Healy Hudson's Impact SRM solutions are the ability to create visibility and support collaboration deep into the multi-tier supply chain and the ability to centralize and use supplier knowledge to continuously improve operational efficiency, avoid supplier production delays, reduce costs, and increase quality.

Other current or planned Impact SRM components include: Impact Mapping, which that includes visualizing and mapping of the entire supplier network, and Impact Analysis, which leverages powerful analytic capabilities to understand and mine the Impact Knowledge Center to further optimize supplier relationships, reduce costs, standardize product components, and improve product lifecycle management.

Aberdeen Conclusions

Healy Hudson promotes a solution footprint that ranks it among the select few pure-play SRM and e-Sourcing vendors. The Impact Sourcing solution's multi-parameter Decision Matrix, focus on complex goods and services, and post-negotiation contract- and supplier-management functionality is one of the broadest offerings in the e-Sourcing marketplace. International roots give Healy Hudson an advantage in its ability to support global sourcing activities as well as its ability to market directly to the European market. Aggressive plans for U.S. expansion in 2001 should make Healy Hudson a strong contender in the e-Sourcing space.

i2 Technologies, Inc.

**One i2 Place
11701 Luna Road
Dallas, TX 75234
(800) 800-3288
www.i2.com**

Market Position

Founded in 1988, i2 started as an ERP provider, building core competencies in supply chain management. i2 has leveraged this expertise to create a broad suite of e-Business products for Net Markets, strategic sourcing, selling, CRM, SRM, fulfillment, collaborative product development, and planning. The recent acquisition of RightWorks Corporation adds a sophisticated collaborative e-Procurement platform to i2's product suite. Additionally, i2 provides a set of business services for marketplaces and a number of vertical exchanges.

i2 has gained product development-stage materials sourcing capabilities through the acquisition in 2000 of Aspect Development, a collaborative product manufacturing firm. Additionally, in January 2001, the company formed an alliance with A.T. Kearney, a management-consulting firm with expertise in sourcing processes. This alliance will offer 2Source, a solution combining A.T. Kearney's consulting services for developing sourcing strategies in enterprises and i2's technology for execution of these strategies.

To help Net end-users deploy i2's products, the company has relationships with system integration firms, such as Andersen Consulting, Deloitte & Touche, Ernst & Young, KPMG, and PricewaterhouseCoopers.

Financial Highlights

In 2000, i2 (Nasdaq: ITWO) reported revenues of \$1.1 billion, which represents an increase of 97% over the previous year. On these revenues, the company generated a pro-forma profit of \$108 million.

Organizational Structure

i2 has 2,800 employees worldwide. Key executives include the following:

- Sanjiv Sidhu, Chairman and CEO;
- Gregory A. Brady, President;
- William M. Beecher, Executive Vice President and CFO;

- Reagan Lancaster, Executive Vice President of Sales;
- A. Katrina Roche, Senior Vice President and Chief Marketing Officer (CMO); and
- Hiten D. Varia, Executive Vice President of Global Business Solutions, Platforms, and Solutions Delivery.

Core Products and Services

i2's core products for enterprises to conduct e-Sourcing are Strategic Sourcing and Negotiate. Additionally, in conjunction with A.T. Kearney, i2 offers a software/consulting solution, 2Source, which helps an organization to develop and then implement an overall sourcing strategy.

Strategic Sourcing allows enterprises to aggregate and analyze their corporate spending, demand, and supply chain performance information to identify saving and process improvement opportunities. The solution has cross-referencing capabilities that allow effective aggregation of products, which have disparate product, supplier, and commodity numbers across enterprise divisions and systems. It allows buyers to enter the sourcing at the product design stage. This approach enables an organization to engineer the product, taking into account the sourcing, manufacturing, and supply chain constraints for specific components, materials, and suppliers, ensuring that products are designed to supply before release to manufacturing.

To help identify the most adequate suppliers, Strategic Sourcing tracks supplier performance by factors such as technology, cost, delivery, product quality, and e-Business enablement. Additionally, it tracks financial and demographic info on suppliers, allowing for factors such as shipping time and financial risk and pre-qualification of suppliers. It further stresses risk reduction involved in manufacturing outsourcing by helping to proactively seek alternative sources of supply.

After a client has signed a contract with a supplier, Strategic Sourcing maintains the terms and conditions and consistently compares them with performance on the contract. It allows identifying instances, such as when contractual arrangements are underutilized, a supplier does not perform on the agreement, or projected production involves larger amounts of materials that were initially negotiated. This approach enables a buyer to renegotiate terms of the contract or find additional or alternative suppliers, and it also reduces disruptions in production.

Negotiate is a solution for helping to negotiate contract terms through auctions and RFQs. Negotiate supports commodity-, BOM-, and custom part-RFQs, which can be negotiated in multi-stage, multi-threaded,

multi-parametric discussions. Furthermore, the solution enhances buyers' evaluation of RFQ responses across multiple categories for selection of the optimal contract terms.

Aberdeen Conclusions

With more than a decade of experience delivering SCM and procurement solutions, i2 boasts an exceptionally broad knowledge base of the business processes involved in all stages of planning, trading, and managing direct and indirect goods and materials.

By partnering with A.T. Kearney, i2 now provides not only the technology and content, but also the proven sourcing methodologies to enable enterprises to develop and execute a strategic sourcing strategy. This ground-up approach for implementing strategic sourcing should be extremely attractive to companies that rely on manual and non-optimized sourcing processes.

i2 is one of the few companies that approach the sourcing process from the product design stage, enabling buying organizations to engineer the overall total cost of production and supply chain effectiveness into the product before it hits the manufacturing line.

Aberdeen research suggests that i2's approach to solving the early-stage problems with enterprise sourcing methodologies and product design strongly position it as a leading provider of e-Sourcing solutions.

Idapta

**1700 Promenade II
1230 Peachtree Street
Atlanta, GA 30308
(404) 214-2500
www.idapta.com**

Market Position

Founded in 1999, Idapta is an online marketplace platform provider, which offers a configurable solution for online negotiation and trade based on a number of industry-specific parameters.

Idapta targets enterprises and Net market makers in a variety of industries, with a concentration in manufacturing, services, transportation, and finance areas.

Idapta delivers its platform as a stand-alone Net market foundation as well as integrated in a product suite that provides industry-specific functionalities by leveraging the technology of a wide network of partners.

These alliances include Cohera for integrating catalog formats, OpenRatings, for supplier ratings and decision support tools, Vignette for Web-content management, and FreightQuote for logistic planning.

Idapta recently announced a joint technology agreement with BEA and a global distribution deal with CSC in addition to customer engagements including The Global Steel Exchange (GSX), LevelSeas, and PaperX.

Financial Highlights

Idapta is a privately held company. The firm has received \$35 million in funding by CMGI, @Ventures, SAP Ventures, and other private investors.

Organizational Structure

Idapta has headquarters in Atlanta. The company has 190 employees, including a sales force of more than 30 people. Key executives include the following:

- Biri Singh, President, CEO, and Founder;
- Anandee Pannu, CTO, Vice President, and Founder;
- Tom Lenahan, Senior Vice President Business Operations;

- Don Campbell, Vice President of Marketing and Business Development;
- Jamie Holley, Vice President of Sales, and
- Bob Kostrinsky, Vice President of Finance.

Core Products and Services

Idapta's core product is the MarketExchange negotiation and trading engine, a single application providing a full-range of transactional functionality, which is built on Idapta's Commerce OP. These functionalities include dynamic pricing and real-time RFQs and RFPs with multi-parameter, multi-stage and multi-threaded negotiations.

MarketExchange flexibility comes from Market Dictionary. The dictionary consists of a set of industry-specific definitions and terms. Idapta experts map the taxonomy of a selected industry and translate all the market-specific terms, attributes, and definitions in eXtensible Markup Language (XML). Customers can then base negotiations and transactions on any attribute in the dictionary.

Through its MarketExchange suite and Commerce OP, Idapta offers a set of e-commerce capabilities to support forward, reverse, sealed-bid, fixed-price, and multi-line auctions; pre-trade analytics; trade optimization and decision support tools; and negotiation capabilities.

Aberdeen Conclusions

Idapta is a trading and negotiation engine provider that well covers the negotiation needs within the sourcing process. Idapta has been successful in creating a "plug-in" infrastructure that supports Idapta's own as well as third-party applications.

In its two years of operations, the company has successfully formed alliances with a broad range of B-to-B solution providers. These partnerships have helped it broaden its customers' technology investments.

In Aberdeen's view, Idapta's success is tied to its ability to close alliances with integrators and channel partners. Through them, the company can fulfill the complex negotiation needs of many broad platform providers and take off with its sales.

Menerva Technologies

**1023 Chestnut Street
Redwood City, CA 94063
(650) 482-9240
www.menerva.com**

Market Position

Founded in December 1999, Menerva Technologies provides online collaborative contract negotiation and contract management solutions for enterprises and e-Marketplaces. The company's product suite, Menerva MarketProcess, focuses on contract negotiation and contract management for complex direct materials and services. It moves complex negotiation procedures into an iterative, multi-threaded online term sheet. This solution also supports a wide range of negotiated terms and parameters, including product specifications, logistics, and fulfillment.

The founders have an extensive e-Commerce software experience from companies that include OnSale, Oracle, Quest Software, and Ventro. Menerva had its first customer installation in the fall of 2000 at MeetChina.com and is targeting Fortune 5000 companies, private exchanges, and consortium exchanges.

Financial Highlights

Menerva is privately funded. The company raised an initial round of \$800,000 from private investors in January 2000 and raised a second round of \$5.4 million in June 2000 from the Zero Gravity Internet Group.

Organizational Structure

Menerva is headquartered in Redwood City, CA, and has 40 employees. Key executives include the following:

- Robert Petrossian, Co-Founder, President, and CEO;
- Zhonglin Ko, Co-Founder and CTO;
- James Greenwood, Vice President of Engineering;
- Joseph Hnilo, Vice President of Marketing; and
- Sue Taishoff, Vice President of Sales.

Core Products and Services

MarketProcess digitizes basic contract terms and conditions, enabling customers to use and carry them forward from initial sourcing through negotiation to contract development and management. Both buyers and sellers receive the power to automate and streamline processes, including product specifications and shipper terms, tariffs and discounts, contracts, and compliance. The Menerva MarketProcess suite includes the following:

- **Connect!** —allows users to dynamically author and distribute multi-term RFP/RFQs and multi-form RFIs with contract templates attached.
- **Collaborate!** —organizes and structures negotiations among multiple trading partners and supports multi-line-item bundled bidding and allows for question-and-answer unstructured discussions. The result is a structured negotiation along multiple parameters and phases.
- **Contract!** —generates and executes contracts, purchase orders, and letters of credit online.
- **Comply!** —tracks contract obligations through the life of an agreement for contract compliance and supplier performance.

The Menerva Repository integrates all four modules by storing business rules and term-sheet libraries in addition to archiving all contracts and deal interactions.

Menerva MarketProcess is available on a license basis and uses XML-based term-sheet technology. It has a scalable architecture and integrates with internal business systems, including ERP and APS systems.

Aberdeen Conclusions

Menerva is seeking to address a previously unexploited niche for contract negotiation and contract management solutions within the e-Sourcing marketplace. Ultimately, Menerva MarketProcess enables the output of a negotiation to automatically populate a legally binding contract that can be used over the life of the buyer-supplier agreement. By addressing the complete contract lifecycle, Menerva MarketProcess establishes an enduring “buying intelligence” that enterprises can leverage through their repeated sourcing cycles. By partnering with other players in the e-Sourcing space whose solutions offer internal spend and market intelligence functionalities, Menerva will be well poised to offer complete e-Sourcing service offerings to enterprises and e-Marketplaces.

Metiom

**One Liberty Plaza, 22nd Floor
New York, NY 10006
(212) 813-3500
www.metiom.com**

Market Position

Founded in 1996 as Intelisys, LLC, the renamed Metiom provides online procurement and marketplace solutions for indirect goods.

Metiom targets the financial services industry, financial departments of Global 2000 manufacturing companies, and the public administration.

The company has recently begun to expand its reach abroad by leveraging channel partners, including Hewlett-Packard for small business, Motorola for clients in Europe and Asia, and Westpac for customers in Australia.

Metiom clients include large companies such as Intuit, Hasbro, Louisiana Pacific, and Texas Instruments and financial services community members, such as First Union Corp., JP Morgan Chase, and Union Planters.

Financial Highlights

Metiom is privately held. JP Morgan Chase, Forstmann Little, and Summit own more than 80% of the company. Forstmann Little bought a 33% stake in Metiom for \$65 million in October 2000.

Organizational Structure

Metiom has headquarters in New York City and offices in Reston, VA; Alpharetta, GA; and Oakbrook Terrace, IL. The company also has international offices in Canada, Europe, the Middle East, and Asia. Metiom employs about 300 people. Key executives include the following:

- Chris Wagner, President and CEO;
- Martin Colburn, COO;
- Lowell Freiberg, CFO; and
- Michael J. Collins, Senior Vice President of Global Marketing.

Core Products and Services

Metiom ConnectTrade™ Enterprise Purchasing is Metiom's modular e-Procurement platform. Metiom ConnectTrade comprises a purchasing

engine—which carries out the transaction, payment, and catalog management—and 32 on-demand applications, optimized for different market uses. The modules cover logistics, business intelligence, and tools, among other functionality for custom solicitations of bids and quotes.

Metiom ConnectTrade supports forward, reverse, sealed-bid, and multi-line auction typologies; online negotiations; and RFQs. Negotiable product attributes include price, delivery terms, and shipment charges. The support of multiple parameters is vital for online sourcing that focuses on the optimization of the overall spending for the procured goods, including expenses related to quality, shipment delivery, and lead times.

Metiom ConnectTrade is delivered as inclusive of administration and hosting services.

Aberdeen Conclusions

Metiom's strategy consists of gaining major accounts, including large companies, mainly in the financial services sector, and gaining small and midsize customers with B-to-B e-Commerce capabilities tailored to them. In more than four years of activity, Metiom has landed a number of high-profile accounts. A long-standing relationship with and investments from JP Morgan Chase has given the firm access to the financial services industry, enabling Metiom to gain significant experience and traction in this sector.

Metiom ConnectTrade is suitable for companies that already have a sourcing framework in place and want to expand their sourcing activities online. For 2001, Metiom plans to add e-Sourcing critical functionality—such as automatic screening of supplier proposals, decision support and trade optimization support tools, which it will acquire either through internal development or through partnerships.

By completing its plan of functional enhancements and providing a well-rounded e-Procurement suite, Metiom is laying the groundwork for enabling e-Sourcing within its targeted vertical industries.

MindFlow Technologies

**6504 International Parkway, Suite 2400
Plano, Texas 75093
(972) 930-9988
www.mindflow.com**

Market Position

MindFlow Technologies seeks to position itself as a leading provider of Web-based strategic sourcing management applications and services that help companies make optimal sourcing allocation decisions. MindFlow differentiates itself from other second-generation e-Procurement solutions by offering a combination of qualitative and quantitative analysis capabilities along with a unique business-driven optimization engine that ensures that decisions are optimal and consistent and meet corporate goals and objectives.

MindFlow applications streamline the purchasing process by helping purchasing professionals quickly build sourcing models and make informed sourcing decisions using a total cost of ownership (TCO) approach. Also, MindFlow applications help define multiple procurement strategies and allow purchasing professionals to select suppliers based on specific sourcing criteria. Ultimately, MindFlow's goal is to provide a strategic sourcing platform for optimal supply allocation, spend analysis, supplier development, collaboration, and supply risk management.

Financial Highlights

Established in 1999, MindFlow is a privately owned company. In March 2000, MindFlow received \$4 million in its first round of funding from investors that included Dallas-based Hunt Ventures, Austin, TX-based Triton Ventures, and Ashutosh Roy, the Chairman and CEO of eGain Communications Corp (Nasdaq: EGAN), based in Sunnyvale, CA.

Organizational Structure

MindFlow's corporate headquarters are located in Plano, TX, where all of the company's 21 employees are located. Key executives bring a wealth of industry experience to the company and include the following:

- Jay Reddy, President and CEO;
- Srinivas Krishnaswamy, Vice President of Business Development and Product Management;
- Kevin Lewis, Controller; and

- Johnny Long, Vice President of Development.

Core Products and Services

MindFlow seeks to help companies find opportunities to reduce procurement expenditures through strategic sourcing management concepts, increases in analytical productivity, and reduced organizational costs. The company facilitates these goals through its ProcureMind suite of strategic sourcing management (SSM) applications. Individually, each of these applications is designed to help purchasing professionals manage the costs, capabilities, and risks associated with the supply base. ProcureMind enables buyers to run multiple negotiation rounds with suppliers through the automated development, delivery, and receipt of RFPs. Developed and supported by purchasing experts, ProcureMind not only enhances initial sourcing activities, but also institutionalizes proven sourcing and supply strategies. ProcureMind's main applications include ProcureStrat, ProcureSpend, Strategic Sourcing Scorecard, and ProcureToolkit.

ProcureStrat is a strategic sourcing decision support tool that enables purchasing professionals to determine the optimal sourcing allocation decision for an item or a group of items. This module lets buyers quickly build and run what-if scenarios that capture supply constraints, allowing them to test and justify their sourcing strategies before making a purchase decision. ProcureStrat's multiple-item analysis capability allows purchasing professionals to obtain sourcing efficiencies by bundling and unbundling items. ProcureStrat is well-suited for items that are high cost and/or critical and for which purchasing decisions are not purely price-based.

ProcureSpend helps purchasing professionals analyze items and categories with high percentage expenditures and identify highly critical items with complex supply chains. The application provides both a set of pre-defined reports and the ability for users to create ad hoc reports. The application provides powerful, multi-dimensional OLAP analysis on spending. ProcureSpend builds an accurate and comprehensive representation of a company's spending profile.

The Strategic Sourcing Scorecard application is a multi-dimensional performance measurement system that allows users to view performance across various levels and entities by using supplier, buyer, and sourcing organizational performance ratings.

The Scorecard provides both an enterprise view of an organization's overall sourcing performance and a detailed performance view across various combinations of dimensions, such as supplier, buyer, geography, and commodity.

ProcureToolkit is a set of analytical tools designed to help sourcing managers more effectively and efficiently conduct their tasks. ProcureOrder, one of the components of ProcureToolkit, optimizes the frequency and quantity of units ordered over a given period. Another component, Bid Analysis, enables purchasing professionals to determine the reasonableness of volume breaks by examining the incremental cost differences between volume levels.

Additionally, MindFlow offers a comprehensive range of professional services, including consulting, product implementation, and training. The consulting service offering encompasses data collection, spending analysis, category mapping, execution of strategic sourcing strategies, and performance analysis. Product implementation includes product configuration and integration with e-Procurement and ERP systems. MindFlow's training program instructs users on strategic sourcing best practices and the ProcureMind application.

Aberdeen Conclusions

Aberdeen research indicates that MindFlow applications offer a potentially valuable service in streamlined procurement processes and strategies. The MindFlow solution assists organizations in designing the optimal, inbound supply chain network and modeling the effects of this network before making a purchasing selection. This strategic sourcing solution also aids buyers in standardizing sourcing best practices and driving continuous improvements across the organization and the supply base.

Although the company is still in its early stages of development, its business solutions and extended roadmap provide a compelling vision for strategic sourcing and continuous improvement within procurement. To continue its growth, MindFlow will need to build channel and integration relationships to rapidly build a strong base of customer loyalty in the face of growing competition.

Moai Technologies, Inc.

**25 Lusk Street
San Francisco, CA 94107
(415) 625-0601
www.moai.com**

Market Position

Founded in 1996, Moai Technologies, Inc., provides online negotiation solutions for selling, procurement, and marketplace sites.

The company targets Global 2000 companies looking to build or add functionality to private and public direct materials and services marketplaces. Moai targets multiple vertical industries and has more than 140 customers, including Dairy.com, Eastman Chemical Co., ForestExpress, Neoforma, and Silicon Valley Oil Co.

Moai's technology partners include, BEA, Broadbase, BroadVision, Ex-tricity, IronSide, Manugistics, Requisite Technologies, RightWorks, Vi-gnette, and WebMethods. For reselling and systems integration, Moai partners with Accenture (formerly Andersen Consulting), Computer Sci-ences Corporation (CSC), Ernst & Young, Manugistics, and Hewlett-Packard (HP).

Financial Highlights

Moai is privately held. The company's primary investors are Accenture, BroadVision, HP, Intel, Merrill Lynch, Reuters, and UPS. Other investors include Eastman Chemical Co., HarbourVest Partners, Redleaf Venture Management, S.I. Venture Fund, J. & W. Seligman & Co., Tredegar In-vestments, Vortex Partners, and Walden Group of International Funds. To date, the company has raised more \$50 million in funding.

Organizational Structure

Moai has 160 employees in the U.S. and the U.K. Key executives include the following:

- Matt Miller, CEO, President and COO;
- Anne Perlman, Executive Chairman and Chairman;
- Deva Hazarika, Founder and CSO (Chief Strategy Officer);
- Frank Kang, Founder and Chief Scientist;
- Ray Letulle, CTO and Vice President of Product Management;
and
- Rich D'Angelo, Vice President of Sales.

Core Products and Services

Moai offers the LiveExchange Standard and LiveExchange Enterprise editions of its online negotiation solution.

Both LiveExchange Standard and Enterprise enable enterprises and marketplaces to add the negotiation function to their sourcing processes. Moai supports a broad range of negotiation types, including forward, descending price, sealed-bid, reverse, and Vickrey auctions, as well as fixed-price catalogs.

Additionally, users can configure both LiveExchange editions to support multiple languages and currencies, adjusting the price of goods to the participant's currency.

LiveExchange Enterprise also allows complex selection and trading procedures typically present in direct materials purchasing. The software accomplishes this function by facilitating multi-parametric, multiple-stage and multi-thread negotiations of non-monetary terms, such as quality and availability of goods.

Moai developed LiveExchange solutions in Java so that they would run on multiple systems and have a set of APIs to integrate with various enterprise systems and applications, such as ERP. LiveExchange Enterprise supports Oracle and Microsoft Structure Query Language (SQL) server databases.

Moai offers its solutions on a one-time license fee basis or as a subscription-based license.

Aberdeen Conclusions

Moai's extensive experience with dynamic bidding technologies and vast customer base make it a highly visible provider of negotiation solutions. Moai can bring numerous benefits to companies practicing e-Sourcing; however, the company's products will have the greatest impact when integrated into an organization's overall sourcing framework.

Moai has formed a multitude of technology and reseller partnerships to complement other marketplace platforms. As such, the company is likely to remain as a dominant best-of-breed provider of online negotiation technologies. Put simply, Moai is positioned to provide the engine to drive structured negotiations within enterprise and online marketplace environments.

Open Ratings

**928 Commonwealth Avenue
Boston, MA 02215
(617) 232-9660
www.openratings.com**

Market Position

Open Ratings provides supplier evaluation systems and rating technologies for its clients. The company differentiates itself in the e-Sourcing marketplace through its supplier performance ratings (SPR) system. This automated rating system and supplier performance database allows purchasing professionals to monitor their supply base as well as break through the “trust barrier” that often prevents buyers from conducting transactions with new and unfamiliar vendors that they have identified in exchanges. The result is a market intelligence database that end-users can employ for the benefit of improved vendor selection.

Such decision support information and supplier rating functionality make Open Ratings complementary to e-Sourcing and online negotiation solutions. The company has taken its unique technology and partnered with other leading suppliers in the e-Procurement space, including B2eMarkets, Dun & Bradstreet, elcom.com, Emptoris, ExpertCommerce, Perfect, and Supplyworks.

Financial Highlights

In October 1999, Open Ratings secured its first round of funding, which totaled \$2 million from Atlas Venture and Nicholas Negro Ponte. In December 2000, the company secured a second round of funding that amounted to \$16.9 million from Ampersand Ventures, Dun & Bradstreet and Atlas Venture. Open Ratings plans to devote these funds in expanded marketing and business development initiatives and in continued development of the SPR system.

Organizational Structure

Key executives include the following:

- Stan Smith, President, CEO, and Founder;
- David Sharpie, Senior Vice President of Sales and Marketing;
- Daniel Feldman, Senior Vice President of Product Development;

- Giorgos Zacharia, Chief Scientist and Founder; and
- Pattie Maes, Director and Founder.

Core Products and Services

Open Ratings leverages a strategic alliance with Dun & Bradstreet to augment the SPR system with D&B's database of 62 million companies and D&B's financial and supplier evaluation reports, resulting in the co-developed Buyer Insight. By enhancing this baseline data with the SPR system, an end-user can access a living repository of supplier evaluations. In essence, the SPR solution provides a unique and powerful new measurement standard in business performance to help clients select, source, and monitor vendors. Ultimately, this knowledge can be leveraged into better purchasing decisions and streamlined costs across a company's supply chain.

Supplier Performance Ratings can help participants of online negotiations to break through the "trust barrier" that often prevents buyers from conducting transactions with new and unknown online vendors. The result could be a new measurement standard in business performance to help select, source, and monitor vendors. The service is meant to function as a neutral, third-party ASP solution. Open Ratings claims that its software is the first to incorporate the reputation and accuracy of buyers when weighting feedback.

Aberdeen Conclusions

Open Ratings has taken a strong market intelligence platform and augmented it with a wealth of outsourced knowledge from Dun & Bradstreet. This extensive database of supplier financial and performance information is a defining characteristic of the Open Ratings SPR system. Ultimately, this partnership allows Open Ratings to leverage its unique advantage in delivering near-term value and long-term improvements for supplier evaluation decision support.

Oracle Corporation

**500 Oracle Parkway
Redwood Shores, CA 94065
(650) 506-7000
www.oracle.com**

Market Position

Founded in 1977, Oracle entered the B-to-B fray in 1996. The company's solutions include Internet procurement, sell-side e-Commerce, SCM, business intelligence, and CRM.

For e-Sourcing, Oracle offers its Oracle Exchange marketplace platform and Purchasing Intelligence. Furthermore, Oracle is building Oracle Global Exchange, a network of interconnected Net markets to deliver additional suppliers for sourcing. Oracle can also punch out to Oracle-Exchange.com to leverage content from supplier's that participate in the supplier network program.

Oracle Exchange provides a wide range of content management services through its partner network, which includes content service providers such as Requisite Technology and Peregrine (formerly Harbinger); product and service suppliers such as Corporate Express, Grainger, Software House International, and Adecco Staffing Services; and information providers such as Dun & Bradstreet.

Oracle targets its exchange platform at industry groups in a multitude of markets, primarily focusing on trading of direct materials. The company has more than 75 marketplace customers, including Auto-Xchange, Covisint, GlobalNetXchange, MedChannel, Belgacom, MetalMaker, and Cable & Wireless Hong Kong Telecom.

Financial Highlights

During the fiscal year ended in May 2000, Oracle (Nasdaq: ORCL) reported \$10.1 billion in revenues, which is a 15% increase from the previous year. On these revenues, the company made a profit of \$2.1 billion. The company's total profit, including investment gains, was \$6.3 billion.

Organizational Structure

Oracle has 45,000 employees around the globe. Key executives include the following:

- Lawrence J. Ellison, Chairman and CEO; and

- Jeffrey O. Henley, Executive Vice President and CFO.

Core Products and Services

Oracle's products with sourcing capabilities include *Purchasing Intelligence*, a procurement decision support solution and Oracle Exchange, a Net market platform.

Purchasing Intelligence enables organizations to analyze their enterprise spending patterns to identify savings opportunities, such as aggregation of orders. Corporate buyers can define KPIs of their suppliers and proactively monitor fulfillment of contractual obligations, such as on-time delivery of materials. Such performance monitoring can enhance a buying organization's supplier choice, which can ultimately lead to a more effective supply chain.

Oracle Exchange is Oracle's core offering for building private and public marketplaces. Marketplaces can utilize Oracle Exchange to offer multiple sourcing, trading, and SCM functionality to their participants. Additionally, the company supports collaborative product design through its Product Development Exchange offering.

Buying organizations can use Oracle-enabled marketplaces for identifying prospective suppliers. Oracle allows dynamic pricing through auctions and bid-ask exchanges for commodities and multi-parametric negotiations for trading of complex goods. Additionally, Oracle Exchange includes business intelligence tools to help identify negotiation and saving opportunities.

To facilitate global trade, Oracle Exchange supports 17 languages and enables foreign participants to view the marketplace in their own language.

Oracle offers Exchange and Purchasing Intelligence on perpetual license fees.

Aberdeen Conclusions

Oracle's broad set of solutions and experience in various areas of e-Business give it an edge over its competitors in providing e-Sourcing technologies as part of a complete B-to-B e-Commerce solution. Oracle's capital reserves and a massive sales force allow the company to effectively sell into its large installed customer base, giving it plug-in capabilities into existing products.

Development of a global network of interconnected Net markets further enhances the attractiveness of Oracle's products by providing buyers with an increasing prospective number of suppliers from which to source.

Strategic e-Sourcing: A Framework for Competitive Advantage

For effective sourcing purposes, only organizations with existing sourcing frameworks and best-of-breed negotiation tools should employ Oracle solutions.

Aberdeen concludes that the Oracle Exchange platform and e-Market network vision position Oracle to emerge as the virtual foundation on which some of the most competitive and diverse supply networks will be built and managed.

Ozro, Inc.

**One Bowdoin Square
Seventh Floor
Boston, MA 02114
(617) 367-5953
www.tradeaccess.com**

Market Position

Ozro (formerly TradeAccess) has differentiated itself in the e-Sourcing marketplace by delivering one of the first solutions that supports iterative, multivariate, negotiation-based transactions for B-to-B e-Commerce. The company's patented contract negotiation application, Ozro Agreement (formerly Dynamic Agreement) allows buyers and sellers to leverage the Internet to streamline and manage complex negotiated global transactions for any materials purchased under contract. Ultimately, Ozro Agreement seeks to provide automation to support the complete lifecycle of buyer-supplier relationships—from identification and negotiation through contract management and compliance. The solution offers users access to an iterative negotiation process, secure, valid commercial transactions between buyers and suppliers, real-time management of business relationships, and XML interfaces with other applications.

In June 2000, Ozro announced its first major customer, World Commerce Online, and established a partnership with Accenture (formerly Andersen Consulting) that targets the development of global commercial relationships online.

Financial Highlights

Founded in 1998, Ozro has been funded with venture capital from Cross Atlantic Technology Fund LP, 3i Corp., and several private investors.

Organizational Structure

Based in Boston, Ozro has 40 employees. Key executives include the following:

- Jeffrey M. Conklin, CEO;
- Cynthia Eades, CFO;
- William Flanagan, Vice President of e-Commerce Technology;
- Scott Foote, Vice President of Development and Services;

- Steve Mendola, Vice President of Business Development; and
- Gary Jackson, Vice President of Sales and Marketing.

Core Products and Services

Ozro approaches negotiated B-to-B e-Commerce with a framework that is outlined by the business rules of the buying and selling enterprises, the rules of the e-Marketplace, and the commercial rules of domestic and international trade to which all enterprises and marketplaces must adhere.

Ozro Agreement is a multi-term, iterative negotiation engine that supports ongoing and complex commercial relationships. Using Ozro Agreement, a client receives master purchase agreement templates that detail structured information, such as volume discounts and shipment schedules, and unstructured information, such as boilerplate legal terms and attachments, stored on an Oracle database. Additionally, the solution automates purchase order releases and payment methods. The result is a Web-based infrastructure that manages ongoing, tiered commercial relationships across multiple enterprises, geographies, and e-Markets. Ozro Agreement is a hosted, browser-based application that offers XML compatibility for integration with other applications. It is available under product- and technology-licensing programs.

Adding to the Ozro arsenal is the company's patent award for a "system for iterative, multivariate negotiations over a network" (Patent Number 6,141,653). Ozro could utilize the patent, which applies to multivariate, online negotiations for complex materials, to disarm competitors in the e-Sourcing space. However, the company foresees using the patent to lock-in partnerships with solution providers that want to provide support for online negotiations.

Aberdeen Conclusions

Ozro has emerged as a pioneer of complex online negotiations. The company's comprehensive Ozro Agreement solution extends the e-Sourcing framework to include post-negotiation contract management and SRM. Ozro's wild card is its patent award for online multivariate negotiations, which are a prerequisite for any effective e-Sourcing strategy. Although TradeAccess could potentially use the patent as a club to fend off e-Sourcing solution competitors, Aberdeen expects that Ozro will take a more strategic approach and use the patent as a bargaining chip to seek out partnerships with other providers of dynamic trading technologies and e-Sourcing solutions.

Perfect

**1860 Embarcadero Road, Suite 210
Palo Alto, CA 94303-3320
(650) 798-3335
www.perfect.com**

Market Position

Founded in 1999, Perfect provides solutions enabling online strategic sourcing process and decision support.

Perfect targets Fortune 1000 companies and major industry consortia. The company's suite of products and services is specifically designed for the e-Sourcing of direct materials, services, and contract negotiation. Perfect has 14 customers in a range of industries including telecommunications, retail, food services, electronics, information technology, federal government, and transportation.

To extend its ability to support a broader portion of the procurement cycle, Perfect partners with several companies, including Broadvision, Capstan, Commerce One, Entrust, Epicentric, I-Escrow, iXL, OpenRatings, Sierra Atlantic, and Rapt. Perfect has closed an alliance with OnMobile for wireless notification.

Financial Highlights

Perfect is a privately owned company. The firm has received more than \$38 million in funding by investors such as Allen & Co., Angel Investors L.P., Bessemer Venture Partners, NeoCarta Ventures, New Enterprise Associates, Odyssey Capital Venture, Primedia Ventures, Softbank Venture Capital, Steanberg Private Capital.

Organizational Structure

Perfect has headquarters in Palo Alto, CA. Perfect has 90 employees, including 14 sales people. Key executives include the following:

- Kevin Surace, President and CEO;
- James McCormick, CFO and COO;
- James Brackenrig, Vice President of Worldwide Sales;
- Ian Sullivan, Vice President of Professional Services;
- David Hurwitz, Vice President of Product Marketing;
- Cameron Sellers, Vice President of Business Development;

- Jane Lalonde, Vice President of Corporate Marketing; and
- Dr. Paul Milgrom, Founder and Chief Economist.

Core Products and Services

Perfect Internet-enables the requirements-to-negotiation-to-selection (RNS) process through a multi-dimensional transaction engine that produces the best overall value decisions for the sourcing of complex goods and services. Perfect Sourcing, the company's e-Sourcing platform, enables multiple models of negotiation and transaction and includes Perfect Process Designer for direct configuration and Perfect Insight, Perfect's decision support tool.

Perfect Sourcing, Perfect's business rules processing engine, enriched with advanced decision support tools, can match, rate, and rank hundreds of product, deal, and vendor attributes with specific weight values attributed by the user. After choosing the parameter's weight and submitting an RFQ, the buyer receives a sorted list of suppliers determined as most likely to satisfy the needs indicated in the RFQ. Suppliers can answer RFQs with different degrees of automation and express various levels of commitment. The software handles complete multi-line-item BOM with hundreds of line items and has an authorization workflow for accountability and approvals, as well as unlimited electronic negotiation with re-scoring. Through Perfect Process Designer, users can directly configure and add, change, and define infinite product attributes and preferences with no engineering support.

Perfect Sourcing simultaneously takes into account all the parameters of an RFQ. This approach reflects industry-specific negotiation priorities such as consideration for purity in chemicals, shipment terms in construction, and delivery date for perishables. From a supplier's point of view, Perfect Sourcing's features allow suppliers to easily use complex pricing rules and custom algorithms, enabling them to offer volume breaks and bundled bids.

Perfect Insight captures market and transaction information, incorporating OLAP to study time-series, multi-attribute negotiation, and transaction data. Users can then employ this data to decipher buyer preferences, uncover market trends, and understand the dynamics of purchasing behavior, supply factors, and bidding strategy.

Perfect Sourcing is available as a licensed software solution or as an ASP model.

Aberdeen Conclusions

Perfect's e-Sourcing solution addresses the needs of reliable online sourcing practices and market analytics with a range of negotiation, business analysis, and decision support tools that are among the most complete in the market.

The firm could now gain a critical competitive edge by selectively narrowing its industry target, by gaining sales momentum through alliances with system integrators and consulting organizations, and by executing planned technical enhancements, such as the addition of negotiation scheduling.

Aberdeen research shows that Perfect's offering should appeal to enterprises, Net market platform providers, and collaborative-product commerce solution providers.

Procuri

**3348 Peachtree Road
Atlanta GA, 30326
(404) 846-5400
www.procuri.com**

Market Position

Financial Highlights

Procuri is a privately held company that closed its first round of funding of \$7 million in December 1999. It raised the funds from senior management and an angel investor group from the Atlanta area.

Organizational Structure

Procuri has 23 employees with headquarters in Atlanta. Key executives include the following;

- Mark F. Morel, Sr., President and CEO;
- Kevin R. Elledge, COO;
- Tim Fulton, Executive Vice President of Sales and Marketing;
- David Markovich, Executive Vice President of Sales
- J. Nicholas Rozsman, Executive Vice President;
- Steve R. Brooke, CIO;
- Chris Clark, Senior Vice President of Customer Development;
and
- Bradley Reeves, Executive Vice President and General Counsel.

Core Products and Services

Procuri has developed a proprietary technology to deliver a broad e-Procurement offering. Procuri provides an Internet-based service that enables customers to create collaborative RFIs, electronic RFQs/RFPs, and dynamic pricing through several auction formats, including reverse, forward, standing offer, etc. Procuri's technology lets users automatically turn RFIs into RFQs for use in an auction event. Users can also create RFQs with an easy-to-understand wizard system. The reverse auction

tool allows buyers to structure bids for complex items. Bids can contain as many as 32 levels of subitems and indicate to potential suppliers on what level their responses must be. Procuri allows buyers to upload product descriptions in several popular formats, including CAD, MS Word, Joint Photographic Experts Group (JPEG), Graphics Interchange Format (GIF), and Portable Document Format (PDF). Another innovative feature is Procuri's inclusion of a frequently asked questions (FAQ) section for each auction. Suppliers can ask questions concerning the RFQ, and the buyer can post the answers as part of the auction description, allowing other suppliers to view the information.

Procuri enables buyers to invite preferred suppliers into a private reverse auction. Procuri asks suppliers to register with the company after a buyer has identified them. However, Procuri does not provide supplier certification or insist on ISO qualifications. Procuri supports multi-department usage of its product and can interface with buyer cost centers.

Procuri's software automatically selects a bid winner based on price unless the buyer specifies a manual closure, in which case a buyer may use their own criteria to determine bid winners. To assist with winning bid selection, Procuri's reverse auction tool allows buyers to develop, within the system, multi-variable weighting criteria includes both quantitative and qualitative criteria. Currently, Procuri is an XML-based platform that eases integration between buyer IT systems and Procuri. Procuri keeps suppliers informed of auction progress and other supplier bids through e-mail or instantaneously if they are monitoring the Procuri Web site and are logged in. Procuri's auctions are hosted on Exodus secure servers; no client hardware other than e-mail and Internet access and a Web browser is required.

Aberdeen Conclusions

Procuri's proprietary technology, coupled with its own low start-up costs and pricing policy, arm Procuri with the tools necessary to deliver e-Procurement tools to companies in the mid-market and above. Procuri's strengths lie in its support of complex bid structuring and its simple development process of comprehensive RFIs and RFQs. The ability to attach documents and FAQ files to these documents ensures proper response from potential suppliers.

RightWorks, Inc.

**1075 E. Brokaw Road
San Jose, CA 95131
(408) 579-4000
www.rightworks.com**

Market Position

Founded in 1996, RightWorks provides e-Business solutions for Internet procurement, business intelligence, content management, sourcing, auctioning, and digital marketplaces.

The RightWorks e-Business Application Suite supports the entire e-Procurement lifecycle and powers many-to-many trading platforms, integrates with disparate internal legacy systems and external trading partners, and allows customization for enterprise-specific processes.

To assist enterprises and trading exchanges in streamlining and optimizing their global sourcing process, RightWorks offers a software solution called RightWorks Strategic Sourcing. The RightWorks Strategic Sourcing process extends beyond procurement and price discovery; it promotes a learning process that assists in the definition and specification of design requirements and facilitates the selection of optimal value chain partners to better manage global corporate spending.

RightWorks complements this solution with the RightWorks Open Commerce Network, an open, horizontal exchange and virtual content aggregation portal that provides centralized access to products and value-added services over the Internet.

The company aims its solutions at a number of industries including manufacturing, high-tech, and financial services for the sourcing of products and services. RightWorks has multiple existing partnerships that it can leverage to enhance or distribute its products, such as i2 and Manugistics for SCM; ec-Content, eCatalog, Cardonet, and Vignette for content management; Business Objects for integrated commerce intelligence and analytic reporting; and webMethods for integration with enterprise systems.

For product implementation, RightWorks has partnerships with Breakaway Solutions, Cap Gemini Ernst & Young, Digiterra, and PricewaterhouseCoopers.

Financial Highlights

Rightworks is privately held. The company is backed by ICG (Nasdaq: ICGE) and Sequoia Capital.

Organizational Structure

RightWorks has nearly 400 employees in 10 countries in North America, Asia, and Europe. Key executives include the following:

- Mary Coleman, CEO;
- Jeff Carr, President;
- Dave Sugishita, CFO;
- Ramesh Patil, CTO;
- John West, Senior Vice President of Engineering; and
- Lou Unkeless, Senior Vice President of Product Strategy and Product Marketing.

Core Products and Services

RightWork's e-Sourcing offering consists of RightWorks Strategic Sourcing, a software sourcing solution, and RightWorks Open Commerce Network, a network of buyers, suppliers, and service providers.

RightWorks Strategic Sourcing enables intra-enterprise, as well as extra-enterprise, collaboration for identifying the necessary value in goods and materials to be sourced and establishing the appropriate budget allowances. Once these requirements have been established, the solution aids in the development of multi-attribute RFQs, RFPs, and RFIs, which can have specification documents attached. Buyers can assign weights to each attribute based on its importance to the buying organization. These weights can later be rated to select the most optimal contract.

After developing an RFQ, the buyer can establish negotiation terms, such as simple reverse auction or multi-thread and multi-stage negotiations on non-price parameters. The buyer can make the auction public or private, inviting only prequalified suppliers. Using RightWorks Strategic Sourcing, buying organizations can access the Open Commerce Network, thus expanding the organization's list of prospective suppliers. RightWorks Strategic Sourcing has multi-lingual and multi-currency capabilities to support sourcing from international suppliers. The solution supports dynamic language switching, which allows the supplier to view the negotiation in its native tongue.

To help make the process more efficient, RightWorks Strategic Sourcing permits the buying organization to reuse its RFQs, supplier lists, and negotiation processes and to create templates for regular use. Additionally, the solution enables the organization to create the corporate workflow

to effectively engage the approval processes, showing a graphic view of the negotiation and approval process.

After executing the negotiations, the buying organization can review and analyze its spending by suppliers, projects, and product lines.

RightWorks Strategic Sourcing is offered on a perpetual license and a hosted model with monthly subscription fees.

RightWorks Open Commerce Network allows suppliers and buyers to distribute and manage their content to multiple exchanges from a single management console. This network allows buying organizations to find new suppliers from which to effectively source.

Aberdeen Conclusions

RightWorks is emerging as the dark horse in the hotly contested B-to-B e-Commerce race. The company is effectively using its partners in product distribution as well as benefits from selling its products into its installed base. Through the Open Commerce Network, RightWorks rivals the largest e-Sourcing providers in using a commerce network to deliver additional suppliers to negotiations.

Aberdeen research indicates that RightWorks is currently one of the few B-to-B solution providers with the capabilities to enable trading across international borders, which provides its strong differentiation in the market.

Aberdeen concludes that RightWorks effectively addresses the global sourcing of direct materials. Organizations that have established sourcing processes and want to extend them to the Internet can most successfully use the company's solutions.

ShareMax, Inc.

**600 Parsippany Road, Suite 202
Parsippany, NJ 07054
(973) 884-6000
sharemax.com**

Market Position

ShareMax positions itself as an end-to-end e-Sourcing technology platform that combines both technology and content to provide the most comprehensive solution available today. The ShareMax Sourcing Management System (SMS) provides customers with all the necessary components to implement a complete sourcing program, including spending analysis, market research, supplier qualification, bidding negotiations, and supplier management. ShareMax is targeting Fortune 1000 clients and has a number of clients—including Conoco, Georgia Pacific, Pennzoil Quaker State, PepsiCo, and US Filter—using its technology solutions.

ShareMax channel partners include Booz Allen & Hamilton, and Deloitte Consulting.

Financial Highlights

Founded in June 1999, ShareMax is a privately owned company whose investors include Apollo Management, Indigo Capital, and Odeon Capital Partners.

Organizational Structure

ShareMax's corporate headquarters are in Parsippany, NJ. The company has additional offices in Madison, CT, and Chorley, U.K. Key executives include the following:

- Ali Naqvi, Chairman and Co-CEO;
- Dorian Swerdlow, COO;
- Eberhard E. Scheuing, Ph.D., Vice President of Business Strategy;
- John Jensen, Executive Vice President of Spending Analysis
- Katherine Vilchinsky, CFO; and
- John DeMattia, Executive Vice President of Sales and Client Services.

Core Products and Service

The ShareMax SMS is a technology platform that addresses the following:

- **Spending analysis:** SMS extracts and analyzes spending data from a customer, aggregates and integrates total spending amount, normalizes suppliers and categories, and classifies total corporate spending. SMS then enables customers to view multiple layers of the data by supplier, organization structure, and spending items and produces comprehensive diagnostic reports.
- **Content:** Through its alliance with Booz Allen & Hamilton, Inc., ShareMax delivers online objective market research on 50 product and service categories, enabling buyers to understand market dynamics, technological innovations, and pricing issues before engaging in negotiations.
- **Automation:** The SMS platform provides a flexible platform for online development of detailed RFPs, RFQs, and reverse auctions. The ShareMax platform allows clients to analyze and list suppliers and supplier bidding 25% to 50% faster than traditional methods, enabling procurement companies to spend more time on strategy and less time doing manual analyses.
- **Collaboration:** The SMS platform enables online collaboration, both externally with potential suppliers and internally with companies' engineering and other key departments within the supply chain. ShareMax offers a full document management system.

Aberdeen Conclusions

ShareMax's value proposition largely lies in its ability to help buyers identify their spending patterns and requirements and define how best to leverage this information to develop optimal sourcing and negotiation strategies. The knowledge and expertise offered through the acquisition of Analytics and its alliance with CPE is integral to ShareMax's value proposition. Aberdeen views ShareMax's recent decision to market the Analytical Services component of its comprehensive SMS solution as a stand-alone solution for spending analysis as particularly strategic. The company's detailed spending analysis functionality should appeal not only to enterprise buying organizations but also to competing e-Sourcing solution providers that may want to license the ShareMax technology to fill gaps in their own offerings.

Siebel Systems, Inc.

**2207 Bridgepoint Parkway
San Mateo, CA 94404
(650) 295-5000
www.siebel.com**

Market Position

Founded in 1993, Siebel Systems provides organizations with sales, marketing, commerce, and customer service applications. In May 2000, Siebel made the first step into the online sourcing space by acquiring OpenSite, an auction solution provider with more than 300 active clients and more than 80 partners.

OpenSite has been transformed into the Siebel eAuction application, part of the Interactive Selling Suite (ISS) business unit. Siebel eAuction targets Siebel Systems' clients as a solution that is integrated with other Siebel e-Business applications. The auction engine complements Siebel Systems' core business line by enabling clients to use online auctions as a transaction tool for market clearing of excess assets and inventories, price and demand discovery, promotions, and reverse auctions.

Siebel eAuction clients span many vertical markets, such as telecommunications and energy, finance and insurance, high tech, retail, construction, and machineries. Siebel eAuction customers include BLiquid, BMW, CNET.com, Georgia Pacific, GE Plastics, PNC Bank, and SkyAuction.com.

Financial Highlights

Siebel Systems is a publicly traded company (Nasdaq: SEBL). Co-founder and CEO Thomas Siebel owns 15% of the company. In 2000, Siebel recorded revenues of \$1.8 billion, a 127% growth over the previous year. Net income for the same period was \$222 million, a net income growth of 81.7% over 1999.

Organizational Structure

Siebel Systems is headquartered in San Mateo, CA, and has offices in 32 countries. Siebel employs more than 7,500 people. Key executives include the following:

- Thomas M. Siebel, Chairman of the Board and CEO;
- Paul Wahl, President and COO;
- Patricia A. House, Executive Vice President of Strategic Planning;

- Kenneth Goldman, CFO; and
- David Schmaier, Executive Vice President of Products.

Core Products and Services

The Siebel eAuction is an online trading and market evaluation tool.

Siebel eAuction supports several auction typologies, including forward, reverse, sealed-bid, Dutch, and private, and is integrated with other applications to provide services such as online marketing campaigns, product configuration, and collaboration for dispute resolution and post-trading reports.

Backed by Siebel Systems' technology and expertise in customer profiling, Siebel eAuction works as an innovative source of market information. The tools keep track of all the bidders' profiles, as opposed to the single-winner profile. Data collected can then be used for improving a product's lifecycle management. In the introduction stage, online auctions are a tool for discovering clearing price and demand levels in the market. When the product is in its maturity, the online auction becomes an inventory-level management tool and a promotion vehicle. Data collected via online auctions offer an insight into bidders' purchase behavior and help to offer tailored promotions.

Aberdeen Conclusions

Siebel Systems has made a strong debut into the online auctions space by acquiring OpenSite, a company with a recognized position and more than 300 active clients. Siebel eAuction delivers additional value to its users by being perfectly integrated with Siebel's platforms.

Siebel Systems has turned an auction engine into a rich market-discovery and product lifecycle management tool tailored to the requirements of Fortune 1000 companies, which form its existing client base. When offered as a stand-alone product, however, eAuction may face the fierce competition of many similar products, often equipped with vertical-specific functionality and price profiles.

With eAuction, Siebel has made a further step into selling applications with the same level of attention for relation management of its traditional business—expanding its clients' ability to more efficiently reach their customers with an additional transaction mechanism.

Tradefect, Inc.

**12 Gill Street, Suite 5000
Woburn, MA 01801
(781) 933-2213
www.tradefect.com**

Market Position

Founded in 1999, Tradefect is a privately owned provider of Procurement Knowledge Management solutions. Its flagship product, Intelligence Management, Procurement Automation, and Connectivity Technology (IMPACT), optimizes the sourcing of direct materials by enabling organizations to capture and store best practice procurement strategies, share this knowledge across the extended enterprise, and automatically engage both existing and new suppliers throughout the entire product lifecycle.

Currently, the Tradefect solution is in the beta stage of deployment with a proof-of-technology demo complete. Tradefect has established partnerships with many companies in the procurement space.

Financial Highlights

Tradefect is privately owned. The company's major investors include Ex-Seed, Sunrise Financial Group, and several private investors.

Organizational Structure

Tradefect is headquartered in Woburn, MA with an additional office for research and development in Israel. The company has approximately 30 employees. Key executives include the following:

- David C. Robertson, CEO;
- Adi Eyal, CO-Founder and President;
- Ohad Gliksman, Co-Founder and Vice President of Technologies;
- Oren Zamir, CTO;
- Tal Reichert, Vice President of Research and Development; and
- Patricia E. Nagle, Vice President of Sales and Business Development.

Core Products and Services

Tradecraft's IMPACT solutions helps companies capture and share knowledge about suppliers, commodities, sourcing strategies, and company policies at every stage of the product lifecycle—from initial product design and material search, through production sourcing and post-production value engineering—to spare parts sourcing. Tradecraft's solution enables multiple internal business functions—including design engineering, manufacturing, and procurement—to electronically collaborate to determine spending patterns, define detailed requirements, and make better decisions throughout the product lifecycle.

The Tradecraft IMPACT solution adds intelligence to the sourcing process by capturing best-practice sourcing strategies and critical supplier, product, and market intelligence. At the heart of the Tradecraft solution is a structured knowledge base that captures the knowledge from procurement and commodity experts. This knowledge about suppliers, commodities, sourcing strategies, and company policies is leveraged by the solution's Strategy Engine to inform and improve the procurement process. The Strategy Engine stores rules about when to use a particular supplier or commodity, what people should be involved in a sourcing process, and how to evaluate quotations from suppliers. The Strategy Engine uses sophisticated mathematical algorithms to deliver the appropriate level of business intelligence and process knowledge to make sure that the sourcing process is executed effectively and that the organization is making optimal purchase decisions.

Aberdeen Conclusions

Tradecraft speeds the sourcing process and reduces administration costs by automating and streamlining existing processes. The company's IMPACT solution also encourages the effective use of Internet-based business models, such as e-Markets and reverse auctions, by delivering the appropriate business intelligence and integration support required to make the most effective use of these online channels.

Tradecraft improves visibility into multiple layers of the supply chain—including contract manufacturing operations—giving buying organizations greater leverage over suppliers and improving overall supply chain efficiencies. The strength of the Tradecraft solution lies in its ability to facilitate direct materials sourcing and evaluation based on multiple parameters at every step of the product lifecycle, making the solution a critical component of any sound e-Sourcing framework. Aberdeen expects that Tradecraft will continue to partner with other e-Sourcing suppliers whose offerings will complement its core functionality.

VerticalNet Solutions

**301 Howard Street, Suite 1410
San Francisco, CA 94105
(415) 995-2080
www.verticalnetsolutions.com**

Market Position

VerticalNet Solutions, launched in September 2000, provides a commerce platform and applications for strategic sourcing of direct materials.

VerticalNet Solutions' platform technology has been developed after two strategic acquisitions. In 1999, VerticalNet acquired Isadra, a technology provider for distributed data management technology. In March 2000, VerticalNet acquired Tradeum for roughly \$500 million, which developed a platform and multiple commerce modules (auctions, exchanges, and structured negotiations) for building direct materials marketplaces.

Tradeum and Isadra are now at the core of Vertical Net Solutions division, a business unit that delivers a strategic sourcing marketplace platform targeting industry alliances and large manufacturers across many industries.

Financial Highlights

VerticalNet Solutions is a division of VerticalNet (Nasdaq: VERT). For the fiscal year ended December 2000, Vertical Net had revenues of \$112.5 million—an increase of 510% over 1999. The company had net losses of \$97.6 million.

VerticalNet did not count revenues for VerticalNet Solutions separately in 2000; it disclosed that VerticalNet Solutions generated roughly \$7 million in revenues in the last two quarters of 2000.

Organizational Structure

VerticalNet formed VerticalNet Solutions, the B-to-B software division of VerticalNet, through the acquisition of Tradeum. The new division will operate as a stand-alone unit within VerticalNet and will retain Tradeum's office location in San Francisco. Key executives for VerticalNet Solutions include the following;

- Zev Laderman, CEO;
- Ruby Sahiwal, COO;
- David Ritter, CTO;

- Michael Farrell, Vice President of Professional Services;
- Robert Sepanloo, Vice President of Marketing;
- Lloyd Lurie, Vice President of Technical Operations;
- David Smith, Vice President of Enterprise Solutions; and
- Matthew Bohnert, Vice President of Strategic Services.

Core Products and Services

VerticalNet Solutions division targets Global 2000 companies and industry alliances and delivers a platform and applications for building public and private marketplaces focused on direct materials procurement.

The product suite runs on VerticalNet's Trade Server, an engine for real-time transactions based on multiple product specifications that supports a variety of VerticalNet modular applications.

VerticalNet Solutions' technology provides RFP and RFQ management by enabling negotiation of multiple product's parameters and variables such as price, quantity, delivery dates, and credit terms. The company's product suite also supports multi-stage and multi-threaded negotiations.

The VerticalNet Solutions platform also provides content building and administration functionality, bulletin board posting, sharing of knowledge and information about product categories, and a complete coverage of catalog management.

Aberdeen Conclusions

VerticalNet Solutions is the engine that will drive dynamic trading in all VerticalNet communities and will serve as the cornerstone of VerticalNet Solutions' e-Marketplace Suite. Aberdeen concludes that this solution can be a valued addition to a buying organization's overall sourcing framework, driving collaborative, multi-parameter negotiations with suppliers. Users of VerticalNet Solutions would be wise to complement this core functionality by accessing the content and supplier directories available in VerticalNet's trading communities.

Webango, Inc.

**3508 Basset Street
Santa Clara, CA 95054
(408) 562-9925
www.webango.com**

Market Position

Founded in 1998, Webango is marketing itself as a provider of collaborative e-Sourcing solutions that are designed to support the negotiation and management of complex and long-term trading agreements. The company's solution set boasts one of the largest process footprints in the e-Sourcing space, with functionality spanning strategic sourcing, contract management, and SRM. Targeting the Global 2000, Webango has had some early successes, including Cisco Systems and Eastman Chemical Co.

Financial Highlights

Webango is a privately held company. Redwood Ventures provided seed capital. Webango's first round of venture capital funding, announced June 12, 2000, was led by Battery Ventures and Concord Ventures and totaled \$20 million.

Organizational Structure

Webango is headquartered in Santa Clara, CA. Key executives include the following:

- Rami Goraly, President and CEO;
- Eytan Ben-Meir, CTO;
- Eva Mineva, Vice President of Marketing; and
- Patrick Nicolas, Vice President of Engineering.

Core Products and Services

Webango's e-Sourcing services are delivered through the Webango Network™, a fully hosted Web-based portal that enables authorized suppliers and buyers to exchange documents and to access a wealth of information and functionality to aid them in strategic sourcing decisions. The decision support resources are divided into Source Select™, which helps buyers select suppliers to fit their needs, and Source Evolve™, which provides buyers with the tools to maintain long-term relationships with those selected suppliers.

Source Select includes the following components:

- *Webango Profiler* allows buyers to access a database of supplier profiles, financial data, and performance information. Buyers can use this information to identify and pre-screen potential sources of supply.
- *RFP Platform*, a highly intuitive, template-driven utility that guides buyers through the process of building detailed RFPs. During the creation of RFPs, buyers can weight certain criteria, allowing the most important criterion to affect evaluation of proposals. Buyers can access industry-specific RFP templates that have been developed by Webango and its partners. These partners include Ankelsaria Group, Emergent, and QPEC. Users can add their own standard RFP templates for repeated use.
- *Proposal Platform* enables suppliers to quickly and flexibly create and edit proposals. The process encourages collaboration by team members.

Source Evolve contains the following components:

- *Contracting Platform* helps buyers create and maintain long-term quality relationships through contract management features. Contract creation through the use of model agreements allows for lucid exchanges of information throughout the contracting process. The product automatically notifies users when certain contract goals have been achieved, aiding contract management.
- *Performance and Relationship Management* enables buyers and suppliers to follow the performance of their contracts and evaluate their relationship based on agreed-upon criteria.

The Webango network is fully hosted by Webango. Buyers and suppliers can access all the functionality and information of this network using standard browsers, eliminating the need to install any software or download plug-ins. Running at Exodus' secure data centers, the Webango Network is backed with 100% redundancy and hot failover. An Ernst & Young LLP CyberProcess Certification™ certifies its security and impartiality is certified.

Aberdeen Conclusions

Webango is one of the few suppliers that has extended its core e-Sourcing offerings to manage the entire trading lifecycle—from initial sourcing to contract management to SRM. Like all pure-play

e-Sourcing solutions, Webango can deliver rapid savings and process benefits. However, the company's broad solution set is positioned to enable customers to generate continual improvements in sourcing and trading partner management.

WorldPreferred.com, Inc.

**11 Church Street, Suite 300
Toronto, Ontario M5E 1W1
Canada
(800) 710-9038 (U.S./Canada only)
www.worldpreferred.com**

Market Position

WorldPreferred occupies a position within the e-Procurement market space, providing a vast repository of supplier profiles and performance information to enable buyers to qualify potential sources of supply. Suppliers represented in WorldPreferred's Web-based repository have achieved certification by internationally recognized quality management systems, such as ISO 9000 or QS 9000. Certification comes from an accredited registrar that has been approved by that country's national accreditation body on behalf of ISO. WorldPreferred's B2B Passport™ provides detailed profiles of these certified suppliers, enabling buyers to rapidly screen suppliers before engaging in negotiations.

Financial Highlights

World Preferred is a privately held company. It closed a round of venture funding worth \$5.6 million in October 2000. Lead investors were NB Capital Partners Inc., New Millennium Internet Ventures Fund, and Jefferson Partners. All three lead investors are Canadian firms.

Organizational Structure

World Preferred is headquartered in Toronto, Canada. Key executives include the following:

- Bradford Geddes, President and CEO;
- Cliff Jones, Senior Vice President of Operations;
- Sean Shannon, Vice President of Marketing and Customer Relations;
- George Klissarov, Vice President of Technology;
- Stewart Anderson, Vice President, Registry Operations; and
- Karen Henderson, Vice President of Finance.

Core Products and Services

World Preferred boasts a database of detailed profiles of more than 70,000 suppliers from around the globe that are certified to management system standards such as ISO 9000, ISO 14001, and QS-9000. Using the World Preferred Web site, buyers can conduct parametric searches against the World Preferred repository to rapidly identify and qualify suppliers for negotiation events. Certified suppliers can use its B2B Passport to post and update their profile information, including certification documentation, contact, and marketing information. The B2B Passport can also reside on a supplier's own Web site or be used in an e-mail marketing campaign.

Once a buyer has identified a supplier of interest, the product displays that supplier's profile. The profile contains a company overview; product information; the registration certificates awarded the supplier; RFI that, once completed, is sent directly to the supplier. At that point, it is up to the individual supplier and buyer to continue interaction based on their own discussion. World Preferred provides only a means of facilitating initial contact, making it a highly complementary service to enterprise sourcing initiatives, dynamic trading applications, e-Sourcing solutions, and e-Markets.

Free to buyers, The World Preferred service charges a nominal fee to suppliers for representation in its database. The service offers suppliers a lower cost and more effective channel for promoting and getting a return from their certification than it could through traditional, offline venues, such as advertising and marketing brochures.

Aberdeen Conclusions

WorldPreferred's extensive supplier database should prove to be a highly effective tool for assisting buyers in identifying and qualifying potential suppliers. The World Preferred service is attractive and unique in that it uses internationally recognized quality management system certifications that, in essence, guarantee the quality of its suppliers. Suppliers benefit from greater exposure and greater ROI with their certification.

Zeborg, Inc.

**90 Broad Street, 15th Floor
New York, NY 10004
(212) 377-7300
www.zeborg.com**

Market Position

Zeborg was formed in April 2000 by the sourcing and procurement team of Mitchell Madison Group (MMG), a leading management consulting firm that was merged into marchFIRST. Zeborg has retained the rights to all the intellectual property that Mitchell Madison amassed during eight years of helping clients with procurement and strategic sourcing initiatives. During that time, MMG had executed more than 850 successful engagements that included sourcing more than \$30 billion in customer spending and saving companies \$5 billion. Zeborg leverages the sourcing methodologies and domain expertise gained through these experiences to create product and service offerings designed to address the indirect sourcing needs of Fortune 500 companies.

Financial Highlights

Zeborg is a privately held company. Since its inception in April 2000, Zeborg has closed \$48 million in VC funding provided primarily by Willis–Stein & Partners. marchFIRST holds a minority stake in Zeborg.

Organizational Structure

Zeborg is headquartered in New York City and has additional offices in Los Angeles and Boston. Zeborg employs more than 140 people, roughly 70 of which are sourcing experts from MMG. Key executives include the following;

- Arnab Gupta, Chairman and CEO;
- Paul ter Weeme, COO and acting CFO;
- Norman Dee, CTO;
- Robert Vokes, Strategic Alliances;
- Alisa Norris, Marketing; and
- Jonathan C. Lee, Product Engineering

Core Products and Services

Zeborg has created e-Sourcing solutions that combine dynamic trading, decision support, and transaction processing technologies with proven sourcing methodologies and services to lower the costs of indirect goods a company purchases, delivering savings in a short time frame. Zeborg supports the complete strategic sourcing cycle through three Web-enabled products the company delivers through an ASP model and hosts on secured servers by Exodus.

Zeborg ExpenseMap is primarily for CFOs or enterprise procurement directors. Zeborg ExpenseMap is a comprehensive internal spend analysis and management tool that provides an enterprisewide, detailed breakdown of who buys what from whom and at what price. The information generated is immediately useful, allowing buyers to identify and prioritize optimal savings opportunities and reduce off-contract and maverick purchasing.

Zeborg Advanced Sourcing is a cost-reduction process that uses online RFPs and negotiation tools. Zeborg Advanced Sourcing allows buyers to conduct auctions with suppliers of their choice.

Zeborg MarketPort is a Web-based contract and purchasing management application that implements contracts from Zeborg Advanced Sourcing to secure and improve savings. The application sits on the individual buyer's desktop and facilitates day-to-day purchasing and provides a private network of selected suppliers adhering to negotiated prices, rules, and practices. It comprises three engines: Pricing, Transaction, and Monitoring. Leveraging the data acquired through the use of Zeborg Advanced Sourcing, the Pricing engine enforces contract prices and continually seeks out best prices by evaluating market conditions and allowing for spot market-buying opportunities. The Transaction engine facilitates the processing of purchase orders and easy communication with vendors. The Monitoring engine captures a range of data through the other two engines to generate monitoring tools and client-specific and category-relevant reports to monitor user and vendor compliance. Zeborg offers customized versions of these marketplaces for five key product areas: computing, freight, labor, print, and facilities management. Later this year, Zeborg MarketPort will include additional spending areas in healthcare, media, and advertising and telecom. Zeborg MarketPort is designed to allow buyer organizations to capture the knowledge and technology necessary to make improved sourcing and procurement practices a permanent part of their own operations.

Zeborg sells these products and services separately or as a complete package. In general, fees are based on an initial setup fee and a monthly

subscription fee for continued support and updates. MarketPort users are charged a small percentage fee per transaction.

Zeborg's solution set is made to work with existing ERP systems and compliments other SCM platforms. To that end Zeborg has recently announced that it is working with Ariba to offer corporate buyers a complete online solution for the procurement of indirect goods and services. In addition, Zeborg has partnership agreements in place with Cushman & Wakefield and FacilityPro.com, two leading facilities management companies, and with The Superior Group, a leading provider of strategic staffing solutions and labor services.

Aberdeen Conclusions

Zeborg has created sourcing solutions that embed market-specific expertise into technology that delivers tangible and sustainable savings. It works with large Fortune 500 clients and has seven such clients, including American Express, to date. Zeborg continues to broaden its functionality and customer base; however, some key early successes suggest that the company is positioned to become a prominent player in the e-Sourcing space.

Author Profiles

Tim A. Minahan

As Managing Director of Aberdeen Group's e-Supply Chain Management (e-SCM) Research, Tim Minahan is responsible for managing research, analysis, and assessment of B-to-B Internet-based commerce and EDI solutions for procurement, sourcing, logistics, and SCM. Minahan focuses on technologies in this space that reduce process costs and cycle times, support enterprise wide self-service procurement capability, integrate with key back-office and trading partner systems, and provide metrics that enable management to improve design and administration of the supply chain and to better utilize corporate purchasing dollars.

Minahan joined Aberdeen three years ago after nearly a decade of researching, reporting, and advising on procurement, SCM, e-Commerce, management, computer policy, and technology issues. He previously served as senior editor of SCM for *Purchasing* magazine, an editor for *Electronics Purchasing*, and a technology reporter for *Government Computer News*. Minahan currently serves on the editorial advisory board of *Supply Strategy* magazine.

Minahan has a B.A. from Boston College.

Doug Cohan

Doug Cohan is a Research Associate in Aberdeen's Emerging Technology Intelligence Group.

Cohan has researched Third-Generation Venture Capital (formerly Internet incubator) market, with a specific focus on what business model variations have delivered success in this volatile space. His research has been published in Aberdeen's *Early Stage Investing Outlook for 2001-2002: An Industry in Transition*, the third edition of Aberdeen's ongoing series covering the market.

Cohan received a B.A. in History and Political Science from Williams College.

Isaac Ro

Isaac Ro is a Research Associate in the Emerging Technologies Intelligence Group at Aberdeen.

Ro recently researched and profiled companies for Aberdeen's *Early Stage Ventures Outlook 2001-2002: An Industry in Transition* report for the Private Equity Services practice at Aberdeen. Ro profiled key players such as idealab!, Rebar Foundry, Acacia Research Corporation, and Ptek-Ventures in this report.

Currently, Ro is beginning work on a new Aberdeen research report that will consider the current and future state of the wireless handheld devices marketplace, including next-generation PDA's and smart phones, with respect to their applications in and around the enterprise.

Ro holds a B.A. with honors in History from Middlebury College.

Andrei V. Arkhipov

Andrei Arkhipov is a Research Associate with Aberdeen's Emerging Technologies Intelligence group. He identifies and tracks leading-edge information specific to hyper-growth and emerging IT markets.

Arkhipov has co-authored *Net Market Technology: Internet Hubs Drive Business Process Reengineering* (March 2001) and *Internet Bill Presentation and Payment: e-Business Solutions for Improved Customer Service and Cash Flow* (August 2000).

Before joining Aberdeen Group, Arkhipov researched sell-side e-Commerce software and applications-management solutions at the Hurwitz Group, a Framingham, MA-based market research and consulting group. Arkhipov also worked at MFS Investment Management.

Arkhipov holds a B.S. in Business Administration with a concentration in Finance from Northeastern University.

Esme' Fantozzi

Esme' Fantozzi is a Senior Research Associate with Aberdeen's Emerging Technologies Intelligence group. She identifies and tracks critical and cutting-edge information specific to hyper-growth and emerging IT markets.

Fantozzi co-authored *Net Market Technology: Internet Hubs Drive Business Process Reengineering* (March 2001).

Before joining Aberdeen Fantozzi worked as technology consultant completed a feasibility study on innovative energy sources for a Fortune 100

100 company. Fantozzi has been physics researcher at Pennsylvania State University, where she designed and realized an advanced data acquisition system for an international research project. Additionally, Fantozzi was product manager at a General Electric Procond Elettronica in Europe.

Fantozzi holds an M.S. and a B.S. in physics from Padua University (Italy) and a diploma in piano from Venice Conservatory (Italy). Fantozzi has completed graduate courses in managerial finance and economics at Harvard University.

Appendix A

Lexicon of Acronyms and Abbreviations

AP	accounts payable
API	application programming interface
APS	advanced planning and scheduling
AR	accounts receivable
ASP	application service provider
B-to-B	business-to-business
BOM	bill of materials
CAGR	compound annual growth rate
CAD	computer-aided design
CAM	computer-aided manufacturing
CAPS	Center for Advanced Purchasing Studies
CD-ROM	compact disc read-only memory
CEO	chief executive officer
CFO	chief financial officer
CIO	chief information officer
CMO	chief marketing officer
COO	chief operating officer
CPO	chief procurement officer
CSO	chief strategy officer
e-Commerce	electronic/Internet-based commerce process automation
e-Business	electronic/Internet-based business process automation
EDI	electronic data interchange
e-Procurement	electronic/Internet-based procurement automation
e-Sourcing	electronic/Internet-based sourcing automation
ERP	Enterprise Resource Planning
FAQ	frequently asked questions
GIF	graphic interchange format

ISO	International Standards Organization
ISV	independent software vendor
IT	information technology
JPEG	Joint Photographic Experts Group
KPI	key performance indicator
MRO	maintenance, repair, and operating
MRP	material requirements planning
NAPM	National Association of Purchasing Managers
Nasdaq	National Association of Securities Dealers Automated Quotation
NYSE	New York Stock Exchange
OLAP	online analytical processing
PC	personal computer
PDF	Portable Document Format
PDM	product data management
PSP	procurement service provider
QA	quality assurance
RFI	request for information
RFP	request for proposal
RFQ	request for quote
ROI	return on investment
SCM	supply chain management
SI	systems integrator
SIC	Standard Industrial Classification
SQL	Structured Query Language
SRM	supplier relationship management
SSL	secure sockets layer
TCO	total cost of ownership
VC	venture capital
XML	eXtensible Markup Language

Appendix B

Related Aberdeen Research

Aberdeen Group has produced several publications that provide complementary market research and strategic market information relating directly to e-Sourcing:

- *Procurement Service Providers: Full-Service Procurement for Competitive Advantage*
White Paper (February 2001)
- *e-Sourcing Best Practices: One Size Does Not Fit All*
White Paper (November 2000)
- *Strategic Sourcing: Key to Competitiveness in the Internet Economy*
White Paper (September 2000)
- *MindFlow Technologies Provides Web-Based Platform for Strategic Sourcing Management*
Impact (August 2000)

Information on these and any other Aberdeen publications can be found at www.aberdeen.com or by e-mail at info@aberdeen.com.