Netsourcing is the practice of renting or “paying as you use” access to centrally managed business applications, made available to multiple users from a shared facility over the Internet or other networks via browser-enabled devices. Netsourcing allows customers to receive business applications as a service. Rather than purchase software directly from an independent software vendor (ISV), customers may use netsourcing to access ISV applications such as personal productivity tools from Microsoft Office, e-mail/collaboration tools such as Microsoft Exchange, Lotus Notes, Netscape Messenger, and sophisticated enterprise resource planning packages from Baan, Great Plains Software, Oracle, PeopleSoft, and SAP. Customers typically pay for the service with an installation fee and a monthly subscription fee based on number of users, number of transactions, or percentage of the value of the transactions.
The concept of delivering ISV business applications as a service—or apps on tap—was initially called application service provision (ASP). But that term has proved too narrow. Customers are also using netsourcing to hand over entire business processes to service providers, such as human resource management or accounting. In this scenario, access to ISV software to support these business processes is just one component of the total packaged service. In addition, customers are also using netsourcing to remotely host and manage customer-grown applications, reducing the expense and need for internal information technology (IT) resources. More broadly, then, netsourcing can be viewed as an alternative delivery channel for business applications, services, and infrastructure provision.

Early adopters are already netsourcing to validate credit cards, to send legal documents, to apply sales tax, to transfer funds, and to exchange currencies—just to name a few applications. Customers will have entire business processes netsourced, including front-end customer orders through to back-end processes such as payables, inventory, and commission compensation. Intercompany exchanges are also ideally suited for the netsourcing model, including supplier and customer matching, bidding, negotiations, and delivery.

Because of the variety of netsourcing options, one of the first tasks for potential customers is to better understand the products and services offered in this new market space. In this chapter we first categorize the types of netsourcing suppliers and the types of netsourced business applications. We outline 11 general benefits of netsourcing, called value propositions to customers. We also identify some unique value propositions of different service provider business models. But much of this information is based on supplier marketing—business managers considering netsourcing also want to know: Who is currently buying these services? Are early adopters satisfied with netsourcing? Is netsourcing just a fad or will the market grow substantially so that it cannot be ignored? As covered in this chapter, the answers to these questions all suggest that large and small organizations in both public and private sectors will adopt netsourcing within the next five years because the value proposition is so compelling. However, there are significant
netsourcing risks to be mitigated. As for any other emerging business practices, business managers will have to learn the principles of sound netsourcing identified in this book.

Netsourcing by Any Other Name . . .

Potential customers are often perplexed by the proliferation of acronyms in the netsourcing space, including ASP, BSP, VSP, CSP, FSP, MSP, and SSP. Exasperated journalists have often given up on the nomenclature and more generally refer to the space as xSP. We have selected the term netsourcing as the overarching name, because the common element of any xSP is the delivery of a product or service over a network. Although there are no standard definitions for these xSP acronyms, we have placed them within a service stack based on the product or service, as shown in Figure 1.1.

**FIGURE 1.1** Mapping Netsourcing Options by Acronym
Managed Service Providers

Managed service providers (MSPs) help customers manage their infrastructure, primarily by monitoring devices and network traffic for their clients. Larry Greenemeier, an Internet columnist, classifies an MSP as any company that provides monitoring services for network access, infrastructure, applications, storage, and security.1 Typically, customers house their servers and workstations at their own locations, but the entire network may be monitored and managed from the MSP’s remote network operation center. For example, Marconi Medical Systems in Cleveland, Ohio, uses the MSP Intellinet2 to remotely monitor Marconi’s wide area network (WAN), local area networks (LANs), and remote sites. Marconi’s network includes 71 routers, 200 servers, and 1800 mobile users. Marconi pays Intellinet $3500 a month for the service.3 Other MSP services could include high-speed Internet access, data and file backup, storage, and recovery services. One way to think about the MSP subspace—MSPs offer technical product and services rather than business applications. Of the 554 ASPs listed on www.searchasp.com, only 24 are categorized as MSPs. But the MSP Association announced that its membership had grown to 100 members by March 2001.4 The META group estimates that the MSP market will research $10 billion by 2004.

Storage Service Providers

Storage service providers (SSPs) allow customers to purchase terabytes of storage on a demand basis and manage that storage on behalf of the customers. One of our research participants explained the benefits of using an SSP: “For example, we were talking about upgrades. In a managed storage environment you can burst up some old data and then bring it back down. Liquid storage. It’s not just the hard disk space but the storage services around that. In the ERP environment, there is nowhere to go but up as far as amount of data. We maintain two months of data in our service level agreement; if you have
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historical data you want to store, there is a data warehouse on-demand product to extract historical data.” Thus SSPs and MSPs provide technical services primarily.

Application Service Providers

Compared to the previous offerings, the primary product of an application service provider (ASP) is business applications, managed remotely by the ASP. Typically, ASPs do not even own their own data centers, but instead, lease servers from a third party such as Exodus. The ASP, however, serves as the central and primary interface between the customer and the application. ASPs may offer access to their own proprietary software and/or access to an ISV’s software. ASPs may service primarily one application type (such as e-mail), or offer a full application portfolio, including enterprise resource planning, customer relationship management, and supply chain management software. In the embryonic stage of ASP, the one-to-many business model of vendors essentially prohibited any software customization. In the final chapter we explain how the ASP industry is moving toward customization to attract larger customers.

One example of an ASP is EasyLink Services (formerly called Mail.com). They offer e-mail and groupware services, including Microsoft Exchange, Novell GroupWise, and message delivery services such as EDI, telex, desktop fax, and broadcast. Their initial business model was to charge $5 per mailbox per month. The initial value proposition to the customer was cost savings because the average cost to license and support e-mail in-house was $100 per employee per month. Their business model has evolved over time. End customers now access e-mail free of charge, with EasyLink generating revenues from advertisements and direct promotions. In the corporate space, EasyLink provides full-service messaging solutions, groupware, firewall protection, virus protection, and content filtering capabilities for a monthly fee. They have been one of the first ASPs to attract large customers, including Chevron, Ford, General Electric, Mazda, Metropolitan Life, Siemens, Sunoco,
and the U.S. Army. However, like many ASPs, EasyLink is still operating at losses and suffering a severe decline in stock price. When EasyLink was still Mail.com, the 52-week high for the stock price was $21 per share on March 28, 2000. The 52-week low was 41 cents per share on December 21, 2000, as reported on March 23, 2001. Now trading on the NASDAQ under EASY, the 52-week low was 38 cents on June 21, 2001.

**Full-Service Providers**

Full-service providers (FSPs) manage infrastructure, applications, and services such as integration, consulting, implementation, and customization. Many FSPs are trying to differentiate themselves from merely hosting applications for customers by stressing their customer-care capabilities. In many cases, FSPs offer customer services via partnerships with consulting firms. Under this definition, Corio is an example of an FSP that hosts many ISV applications, such as PeopleSoft, SAP, and Siebel. Corio has a number of implementation partners, such as Cap Gemini/Ernst & Young, Cambridge Technology Partners, and eForce, to help customers implement solutions (see Chapter 5 for a case study of Corio).

Another example of a full-service provider is Host Analytics (see Chapter 5 for a detailed case study). This FSP does forecasting, budgeting, reporting, and analysis for strategic performance measurement, management, and planning. This includes customized reports, ad hoc reporting, and ongoing management and strategy support. This company’s value proposition is to deliver business intelligence to smaller businesses comparable to larger corporations without investing hundreds of thousands of dollars in business intelligence technology. One FSP customer is Deloro Stellite, a St. Louis–based manufacturer of alloys and metal-related equipment. Host Analytics consolidates data from Deloro Stellite’s manufacturing sites around the world, and creates and delivers the customized reports over a browser. The cost of hosting is $2000 per month.
Business Service Providers

Business service providers (BSPs) deliver entire business processes as a service by managing the infrastructure, applications, data, and processes associated with an entire business process. According to a research report on 304 multinational companies sponsored by PriceWaterhouseCoopers, the most commonly outsourced business functions were:

- Payroll (37%)
- Benefits management (33%)
- Real estate management (32%)
- Tax compliance (26%)
- Claims administration (24%)
- Applications process (21%)
- Human resources (19%)
- Internal auditing (19%)
- Sourcing/procurement (15%)
- Finance/accounting (12%)

But participants in the PriceWaterhouseCoopers study also identified several barriers to success, including:

- Organizational resistance (56%)
- Unclear performance measures (56%)
- Fear of the loss of control of the process (48%)
- Lack of prior outsourcing experience (43%)
- Lack of planning (42%)

Despite these obstacles, Input, Inc. estimated that the BSP market would assume one-fourth of the $2 trillion global outsourcing market by 2003.

Exult is an example of a BSP. Exult provides human resource management services, targeted at the entire human resources department for global 500 corporations. Exult delivers services via their Internet-enabled product, called eHR. Exult’s eHR product, together with their comprehensive consulting services, enables the BSP to develop, refine, and implement HR best practices and realize lower HR costs for their clients. One of Exult’s largest customers is BP Amoco, which signed a $600 million, five-year contract in December 1999. BP outsourced the admin-
istrative and IT burden, reserving for itself only “the things that require judgment and policy.” The risks of such a big IT project—to standardize globally on and make accessible real-time human resource systems—were obvious. But BP’s risk analysis concluded that project difficulties would not harm business directly and that the potential $2 billion reduction in operational costs associated with the venture warranted the risk. Other Exult customers include Unisys and Tenneco. Exult is one of the few players in this space that have enjoyed rising stock prices. Trading on the NASDAQ under EXLT, the 52-week high was $19.85 on June 27, 2001, while the 52-week low was $7 on July 5, 2000. But, by 2001, Exult was still not generating a profit (net loss of $94 million in 2000).

ExSourcers

A related evolution, enabled by developments in Web-based technologies and infrastructure, may well be what has been called exSourcing, here meaning “engaging a service provider to deliver and service business processes that connect external constituents with internal data and processes.” As one example, firms needing back-end fulfillment to support their Web site could well go to such vendors like Ryder and FedEx, who will join hosted logistics applications with the logistics infrastructure and warehouses needed to fulfill orders, thus offering full services over the Net.

Another example of exSourcing is the Outsourcing Exchange provided by the Outsourcing Center. The Outsourcing Exchange is an Internet community where buyers and suppliers of both large and small companies can locate each other, post and respond to bids, and negotiate and award the buyer’s work to the chosen supplier (see www.outsourcing-exchange-center.com). The Outsourcing Exchange is financed through annual registration fees from suppliers as well as success fees paid by winning suppliers based on the total contract value of a negotiated deal. Some sizable IT outsourcing deals have been made through the exchange, such as a $25 million CRM data warehouse project by a Canadian Bank. EDS won a $150 million deal in only 75 days from RFP to contract. Both customer
and suppliers agree that the exchange shortens the purchasing life cycle and creates a level playing field. However, some suppliers are challenged to change their rules for sales compensation, which are usually based on region. In cyberspace, which region should get credit for the sale?

The term vertical service provider (VSP) has also been introduced in the media to describe ASPs targeting certain industries. The idea of VSP is to evolve the one-to-many business model toward a specific industry so that more requirements are met within the scope of parameter-driven software. The trend is also customer driven because customers want suppliers to provide customer references from their industry. A potential customer from an oil company may not be impressed by an ASP that has only dot.com customers—he or she wants to see industry-specific expertise.

Portera is an example of a VSP. Gary Steele, chief executive officer (CEO) of Portera, is vertically targeting the professional services market. Portera offers project collaboration, document sharing, Web meetings, as well as resource management and financial control to professional service firms such as consulting firms, advertising firms, or legal firms. Another VSP, Kliger-Weiss Infosystems (KWI), focuses on small to mid-sized retailers by hosting and providing access to data on cash registers, sales, and inventory. The CEO’s family actually operates several Benetton stores, which provide a live laboratory for the KWI’s systems and services.7

Commerce Service Providers

Whereas VSPs focus on a particular industry, commerce service providers (CSPs) focus on a particular product. CSPs offer to manage online commerce operations from top to bottom. On some estimates the market will be $2.5 billion by 2003. Outsourcing retail operations could be attractive to mid-sized content sites looking to build a Web storefront and wanting to avoid the exposure from developing their own. The latter could, according to some estimates, cost between $2 million and $40 million plus another $2 million to $50 million in recurring costs. Between three and six technology partners
would also be needed to build most sites. Enter the CSPs. The ideal range for these are sites that handle 50 to 250,000 transactions a year. Amazon would be too big and idiosyncratic, while AOL, for example, gets enough traffic to support expensive advertising sponsorships and affiliate programs. Within the midrange size, companies such as Escalate, Iconomy, CrossCommerce, and Vitessa are becoming store managers for businesses that are not solely e-tailers.

A CSP will manage every piece of the online store. This includes handling credit card transactions, order management, customer service through e-mail and call centers while keeping the Web site as the primary seller of goods, holding partial liability. A CSP will also help companies with merchandising and product sourcing, linking desired suppliers into the network, while further service can be e-fulfillment. CSPs will also help with customizing the commerce to the look and feel of their sites. Companies can choose which products to carry, design their own product catalog, set prices, suggest links, or develop a store with pictures and detailed descriptions.

CSPs also blend data analysis with CRM software. As one example, BellaOnline outsourced its retail operations to iSupplier and learned that 80% of sales were for goods between $20 and $25. iSupplier honed the company’s catalog to fit with the pricing and product demands of its online audience.

The CSP revenue model depends on site complexity and volume. Providers tend to charge from $10,000 to $100,000 to set up the commerce operation. Further, they charge between $1000 and $100,000 a month for hosting and a 5 to 12% cut on product sales. Most CSPs launched online stores for their customers as late as 2000, and few have been forthcoming about their revenues.

Before CSPs, content companies that wanted to sell related products could build their own e-commerce engine or create a low-cost network of e-commerce affiliates selling through the same site. But some affiliates may be less than stable; there may be dilution of brand and loss of customer data. The rewards from the affiliate program may be small in terms of the percentage of overall revenue shared among members, and
a company has no control over the pricing and products of other affiliates. Moreover, doing IT development work in-house often underestimates the amount of work involved.

An example of the alternative route is AutoMall.com, an auto shopping and resource site launched in August 2000 with the help of CrossCommerce. AutoMall needed to set up deals with distributors, project how much inventory to carry, and warehouse the product. Rather than build this capability in-house, Automall relied on its CSP, CrossCommerce. Automall also hoped that its CSP could move the company into selling books and accessories.

CSPs present a further twist in the e-outsourcing story. Although companies have been told to provide community, content, and commerce on the Web, the CSP model argues that if you are a content company, focus on that and outsource the commerce part. The model fits a certain size of content provider, although there were signs throughout 2001 of larger players becoming interested in this type of service. CSPs appeal to the logic of “focus on the core” inherent in outsourcing’s attraction. However, an e-business using a CSP company must be prepared to surrender some control. For example, if a CSP mismanages an order, it is the Web site’s brand that is damaged, not the CSP. There is also a trade-off between customization and cost; the more customization, the higher the price for the CSP service. Using a CSP does not avoid this trade-off dilemma, one that users also may experience.

**Netsourcing Viewed as a Service Stack**

Another commonly used framework to understand the netsourcing space is the service stack from an infrastructure perspective. Netsourcing can be viewed as a continuum of infrastructure services, beginning with connecting the customer to a network, through to hosting, application access, and application services. Service stack models help suppliers to position themselves in the netsourcing space, as well as to
guide customers through the technical and business aspects of netsourcing. In Figure 1.2 we present our service stack from an infrastructure perspective, which contains the following five layers: network infrastructure, network services infrastructure, hosting infrastructure, application operations infrastructure, and application access. The service stack model immediately highlights that there are many ways to netsource. Customers may netsource only up to the hosting level, then manage their own applications, content, and business processes. Or the customer may look for a full-service provision, which includes all layers of the model. Because many novice customers feel unsure about what types of issues are involved in each layer, we have devoted Chapter 4 to defining all the technical issues associated with each level.

**FIGURE 1.2** Service Stack Model: Infrastructure Perspective
It is also important for the reader to note that there are many variations of the service stack model besides our own. Table 1.1 contains service stack models from Oracle, Gartner Group, and IDC. In addition, EDS’s service stack is presented in the EDS case study in Chapter 5.

To understand how the service stack can help suppliers position themselves in the market, we asked Mark Newton, branch manager at Oracle, to explain his view of Oracle’s seven-level stack. For him, levels 1 through 3 represent hardware service provision, with only those companies operating in levels 6 and 7 being true business application service providers. According to this definition, an ASP is the organization that is on the hook for the customer’s contract. Independent software vendors need to move quickly up the value chain by becoming ASPs themselves or by forming alliances with companies at that level. While those operating at levels 1 through 3 will form a vital provision, the interesting developments will be in the upper levels. Players in levels 6 and 7 are redefining types of market offerings and how best to deliver effectively to specific customer segments. Mark Newton suggests at least two overall markets at levels 6 and 7: as an application service provider, with a one-to-many relationship to small and medium-sized enterprises, or as a BSP aggregator offering a suite of customized capabilities and services to relatively few big corporations.

**TABLE 1.1 Service Stack Models**

<table>
<thead>
<tr>
<th>Oracle</th>
<th>Gartner Group</th>
<th>IDC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customized applications</td>
<td>Customer relationship, general contractor</td>
<td>Process execution</td>
</tr>
<tr>
<td>Standard applications</td>
<td>End services (integration, application management)</td>
<td>Process support</td>
</tr>
<tr>
<td>Management and support</td>
<td>Data center operations and hosting</td>
<td>Content</td>
</tr>
<tr>
<td>ISV applications</td>
<td>Applications and content</td>
<td>Applications</td>
</tr>
<tr>
<td>Hardware/infrastructure</td>
<td>Platform</td>
<td>Development environment</td>
</tr>
<tr>
<td>Colocation/hosting</td>
<td>Network</td>
<td>Systems infrastructure</td>
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<tr>
<td>Network</td>
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<td>Network</td>
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</tbody>
</table>
However the netsourcing market develops, it is pretty clear that suppliers can use a service stack model to think through the ways to position themselves in the space.

**Which Applications Are Customers Netsourcing?**

One of the ways in which the netsourcing space can be evaluated is by the types of applications being bought by early adopters. As of first quarter 2001, our online international survey (see Appendix A) found that the most commonly netsourced applications were e-mail and communications, personal productivity tools, customer relationship management, finance and accounting, human resource management, and business-to-business (B2B) e-commerce (see Figure 1.3). (E-commerce is actually the second most frequently purchased ASP application if the B2C (business-to-customer) and B2B results are combined.) Many people do not consider personal productivity or communication software as business applications, so these are not often listed in other surveys. But a study by IDC confirms our findings—60% of their respondents said they would probably use an ASP for collaborative services such as e-mail, groupware, document management, conferencing, and scheduling.  

In addition to our own survey work, a number of IT research and consulting firms are regularly monitoring the netsourcing space, including Forrester Research, Zona Research, Gartner Group, and the Yankee Group. They have found similar results. For example, Forrester Research identified the main netsourced applications as e-commerce, customer relationship management (CRM), manufacturing and logistics, finance and accounting, human resources, supply chain management, product development, and industry-specific applications. In February 2001, the ASP Consortium and Zona posted results of a survey of 137 U.S. senior IT professionals. They found that the most frequently purchased ASP services were communications applications (34% of respondents), finance/accounting (25%), e-commerce (21%), customer relationship management (19%), education/training
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Applications such as e-commerce, CRM, and communications are ideally suited for hosting because they require unlimited access (ideal for Internet), are usually specifically written for Internet delivery (as opposed to delivering a client–server application over the Internet), and are usually not industry-specific. In the Zona study, less than 4% of respondents purchased ERP through an ASP. It is interesting to note that ASP spending patterns reflect overall application spending patterns. AMR Research estimates that ERP sales will increase annually by only 5%, whereas CRM will grow by 40% annually.9

What Is the Promised Customer Value of Netsourcing?

We have seen the types of suppliers and applications being offered in the netsourcing space, but what exactly is the value proposition to customers? In this section we introduce 11 general benefits promised to customers, which is explored more
fully in Chapter 8 once readers are convinced to evaluate netsourcing more closely.

1. **Lower total cost of ownership.** The cost is lower because the service provider spreads fixed infrastructure and software costs over many customers (economies of scale). In a Zona Research (2000) study of customers, this was cited as the most important expected benefit from netsourcing. Corio claims that on average, customers achieve a 70% reduction in total cost of ownership (TCO) in year 1, and a 30 to 50% reduction in TCO over a five-year period.

   Two illustrative examples of such benefits being delivered are provided by Zland.com and USI.net. In the Zland case we found one manufacturing firm paying $200,000 to a two-person Web developer team to develop e-commerce and e-marketing capabilities. Ongoing support cost the customer $40,000 a year, representing primarily consulting fees. Zland.com demonstrated that they could provide the same functionality for a $10,000 set fee and a monthly subscription under $1000 (see the Zland case study in Chapter 5). In Table 1.2 the ASP USInternetworking compares the cost of a client's traditional application implementation with its actual USI billed costs. The main advantage from a TCO, then, would seem to be few or no upfront costs in software licenses, hardware, and implementation.

2. **Allows the customer to focus on core work.** We have seen this argument used for IT outsourcing generally. Packaged solutions was one move in this direction, but what netsourcing can achieve is a further move toward the commoditization of IT and its management, thus freeing up general employees as well as IT staff for more strategic activities.

3. **Scalability.** Another main advantage of netsourcing is that customers typically pay a monthly fee based on number of users or number of transactions. As such, some have called netsourcing a new “pricing model” because customers can adjust IT costs based on incremental increases or decreases in use. Customers can avoid capital investment costs when internal resources reach capacity, or avoid the expense of idle equipment if downsized.
4. Fewer in-house IT experts. Fewer experts are needed because the service provider can spread expensive IT expertise over many customers. In addition to reducing a customer’s internal IT head count, netsourcing can also provide skilled labor not otherwise available. Netsourcing providers can do this at a reasonable price because of economies of skill achievable by utilizing its staff over multiple clients. A service provider will also be more interested in keeping its staff’s skills up to date and be able to provide a broader range of skills than most small and midsized enterprises (SME) could keep in-house. However, this advantage is not limited to SMEs. By 2001, even large organizations were experiencing problems retaining IT workers. For large organizations, however, the challenge is not the scarcity of IT people so much as the scarcity of specific skills. As one informant told us: “I was on the west coast with one of our existing large customers and I was asking this question about retaining skilled workers. They said they don’t have this problem anymore because there is

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<th></th>
<th>Traditional Implementation Costs</th>
<th>USI-Hosted Costs</th>
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<tr>
<td>License</td>
<td>$180,000</td>
<td>$0</td>
</tr>
<tr>
<td>Hardware</td>
<td>50,000</td>
<td>0</td>
</tr>
<tr>
<td>Implementation</td>
<td>480,000</td>
<td>0</td>
</tr>
<tr>
<td>Initial costs</td>
<td>710,000</td>
<td>0</td>
</tr>
<tr>
<td>Operations and support</td>
<td>20,000</td>
<td></td>
</tr>
<tr>
<td>Disaster recovery</td>
<td>4,000</td>
<td></td>
</tr>
<tr>
<td>Bandwidth</td>
<td>2,000</td>
<td></td>
</tr>
<tr>
<td>Monthly costs</td>
<td>26,000</td>
<td>36,000</td>
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enough fallout from the dot coms. So they aren’t struggling with the scarcity of people, but they are struggling with the specialization of skills.”

5. **Faster implementation of business solutions.** With netsourcing, applications can be delivered in days or weeks rather than in months or years. For example, ERP and B2B exchanges are available much quicker via netsourcing than if they are installed as a customized solution within an organization. ERP may take between six months and two years on the latter process, whereas enterprise ASPs such as Corio and USI have been known to take 60 to 120 days. USI can also configure a PeopleSoft server with software in 4 labor hours versus 120 labor hours if done without an ASP solution. Such speed can be explained by the reduced degree of customization provided by the service provider but also by the fact that the service provider is placing the software on its own familiar hardware and is able to use software components across clients.

6. **Flexibility.** Because customers have less long-term commitment to hardware, software, and perhaps even suppliers, a TCO provides more flexibility. We have noted that the customer’s total cost of ownership is reduced in part by investment avoidance. But investment avoidance also keeps the customer’s options more flexible because they can easily switch hardware and software. Switching suppliers may be easier with netsourcing than with traditional outsourcing because contracts are typically shorter in duration and based on more commodity-type products and services.

7. **Provides bundled solutions.** The bundling of hardware, software, systems development, integration, infrastructure, and their management again simplifies the administrative and decision-making burdens traditionally associated with IT. In this sense the organization is buying not a product or a service but a bundled combination, which, following Shiv Mathur in his 1997 book *Creating Value*, we could call a systems buy.

8. **Provides powerful computing to geographically distributed organizations.** Customers may experience large man-
Netsourcing can simplify and centralize these issues, and provide technical solutions and access to a broad range of applications and computing power at a lower cost.

9. **Reduction of technical risks associated with a fast-growing business in times of rapid technological change.** Often, a customer will need to ramp up its use of IT considerably, and service providers can cushion the customer from the usual internal IT problems associated with the need for rapid adoption. Furthermore, service providers can take away the pain and cost of upgrading applications and keeping up with the technological trajectory as improvements and new technologies come onto the market.

10. **Transfer of ownership headaches and risks.** There are both financial and technological risks associated with IT, especially where the technology is unproven or is an existing technology in a new application to a specific organization. A service provider will reduce the investment risk, but also the technical risk, not least because it is easier to back out of a netsourcing arrangement if it fails technologically. Reducing such risks becomes particularly important where systems and application failure can have damaging consequences for the conduct of the client’s business.

11. **Offers predictable level of IT expenditure.** Even where netsourcing does not turn out to be cheaper, large organizations may well be attracted to the stability of expenditure on IT offered by the rental model, especially where IT budgets are more typically volatile and future IT needs unpredictable.

Like all sourcing innovations, the promised benefits must be balanced against the risks. Netsourcing risks—at least as perceived by reticent potential customers in our international survey—include service quality, stability of service provider, security, reliability, and dependence on a third party. These risks, and how to mitigate them, are analyzed fully in Chapter 7.
What Other Values Do Netsourcing Business Models Offer?

A business model is a service provider’s plan for generating revenues based on adding enough value to attract customers while still earning a decent profit margin. Four business models are common in the netsourcing space: intermediaries, distribution channels, hosts, and portals. It is important for customers to understand a service provider’s business model to assess the long-term viability of the supplier as well as the best sourcing options for their business needs. All four of these models promise the 11 customer benefits discussed previously. In addition to these common benefits, each of the four business models offers customers some unique benefits. Suppose, for example, that a customer needs an ERP system and has decided to netsource. Should the customer use an intermediary, go directly to the ISV’s netsourcing subsidiary, purchase the software from the ISV and host it remotely with another service provider, or try netsourcing via a portal? The answer depends on a number of issues, such as whether the customer needs single or multiple applications, whether the customer is looking to avoid upfront software license fees, and whether one-stop shopping is important to them. Each of these four netsourcing business models is examined more closely below.

Service providers as intermediaries. In the netsourcing space, intermediaries host primarily third-party, best-of-breed ISV software and thus serve as retailers to ISVs (see Figure 1.4). Intermediaries can often provide a better deal to customers than if the customers purchased directly from an ISV. For example, the service provider Lodge (see Chapter 6 for a full case study) will refinance SAP licenses on behalf of customers, which allows customers to select a financing package to meet their needs, such as postponing any payments the first six months into the contract or paying fixed monthly fees.

Intermediaries may be application specialists by focusing on one type of application. For example, EasyLink (previously Mail.com) focuses on messaging applications and services. The additional value added to customers of application specialists
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is superior service because the service provider has focused expertise and resources on one type of application.

Intermediaries may be portfolio assemblers by offering several third-party, best-of-breed applications. Three widely known portfolio assemblers are Agiliti, Corio, and USI. The additional value added to customers of application assemblers is lower transaction and coordination costs because the customer has one-stop shopping for several applications and services rather than dealing with multiple ISVs.

Service providers as distribution channels. Many companies that write their own proprietary applications chose to deliver those applications to customers via an ASP channel (see Figure 1.5). The value added to the customer is direct access to a best-of-breed application with presumably superior technical support by the original architects, offered via a low-cost distribution channel. The value added to the supplier is that there are no payments to an intermediary.
The ISV may use the ASP as the only way that customers can access the software, or the ISV may use the ASP as a complementary channel to other distribution channels. In the case study chapters, you will see that Zland and Siennax are examples of ISVs that use ASP as their sole distribution channels. Most of the large ISVs, however, are developing multiple delivery channels, including an in-house ASP subsidiary. ISVs with in-house ASP channels include Oracle, PeopleSoft, SAP, and Great Plains. These companies also relicense to ASPs that act as intermediaries, as well as delivering through their own sales force, consulting businesses, and strategic partnerships. Multiple channels allow the ISV to market to large, midsized, and small firms across geographic regions and industries. Some people may question if the duplicate channels will cannibalize sales, but each channel adds different value to the customer. A customer may want to rent directly from PeopleSoft, for example, if that is the only application sought. But another customer may want PeopleSoft integrated with a customer relationship management package such as Siebel and there-
fore may prefer to rent both applications from an intermediary such as Corio.

**Service providers as hosts.** Some service providers host customer-owned applications, allowing the customer to avoid infrastructure investment and to reduce IT support personnel while accessing their own software (see Figure 1.6). For example, FutureLink hosts a customer’s software provided that the application is MS Terminal Server or Citrix MetaFrame compliant. Microsoft certainly demonstrated its support in FutureLink’s business model by investing $50 million in the company in the fourth quarter of 2000.

Probably one of the most widely known hosts is Exodus. Exodus offers Web-hosting services to 4,500 customers and hosts over 62,000 servers worldwide. Many of Exodus’s customers are actually ASPs that host their applications with Exodus to avoid building their own data centers, including Oracle Business Online. More traditional customers that host their

![Diagram of Netsourcing Provider as a Host](image-url)
sites directly with Exodus include Lenox, Blue Cross/Blue
Shield, L’Oreal, and U.S. News & World Report. Exodus
reported 2000 revenues of $818 million, an increase of more
than 300% from 1999 revenues. However, net losses were $256
million, primarily because of Exodus’s heavy investment in
new data centers. Consistent with the pattern seen in most
ASPs, the stock price had fallen to a 52-week low of $1.18 per
share on June 21, 2001 from a 52-week high of $69 on Sep-
tember 1, 2000. (Exodus trades on the NASDAQ under EXDS.)

Service providers as portals. Another netsourcing business model is
the portal, which serves as a single point of accountability
between multiple customers and multiple ASPs. The portal’s
added value includes one login and a single point of customer
support for multiple applications (see Figure 1.7). The down-
side of the business model is that the portal does not typically
have direct control over the service levels, although it is held
accountable for them.

The most famous portal is Jamcracker, founded in 1999 by
former Exodus Communications chairman K. B. Chandrasekhar,
together with Herald Chen and Mark Terbeek. Jamcracker
serves as a portal to the following ASPs: Connected, CriticalPath,
diCarta, Employease, Entex, Icarian, iPass, Managemark,
myCIO.com, OpenAir.com, OutPurchase, Talisma, UnitedMes-
saging, UpShot.com, USA.net, and WebEx. Accenture (formerly,
Andersen Consulting) recently partnered with Jamcracker,
which will lend credibility as well as new marketing channels to
the portal. Jamcracker’s Web site promises the following value to
the customer:

We test all the new web-based applications and services as
they become available from a variety of partners, and offer
only the ones that work best. We help you determine which
combination of services is best suited to your needs. Every-
thing is integrated onto a single platform and delivered to your
end users through a simple, secure solutions delivery platform
that’s accessible with a single sign-on from anywhere in the
world. Finally, you get continuous 24 × 7 support. Your end
users get quick answers directly from us, by e-mail, phone, live
online chat, or a service request placed through Jamcracker
Central. Your IT department, meanwhile, gets the time it needs to concentrate on more important things, like how to make your company even more efficient and profitable.

(Note that Jamcracker does not consider itself an ASP, but says: “We work closely with ASPs to integrate their services on our platform, offering our customers a broad range of different services.”) During 2001, Jamcracker had about 40 active customers and was negotiating with another 40 potential customers. They actively seek companies with 300 to 5000 employees, but, of course, know that their margins will be greater by selling to a few customers with many seats rather than selling to many customers with a few seats.

Another portal, Agiliti, decided to abandon this business model in 2001 because the market is not quite ready to purchase multiple applications from a single point of accountability. Instead, many customers instead prefer to test the waters by hosting one or two applications first before escalating their commitment.
Customer Perspective: Who’s Buying?

So far we have seen the types of provisioning and applications typically offered in the netsourcing space. But who is buying? Most studies to date show that the netsourcing market has developed primarily around small to mid-sized enterprises (SMEs). Our international survey, for example, found that nearly 60% of our respondents generated revenues under $20 million per year (see Appendix A for details). SMEs are attracted to netsourcing because they can get big company solutions at small company prices. For example, a netsourcing provider might be a better alternative than the high up-front cost of a package software license. Although packages are a cheaper alternative to in-house developed solutions, it is still the case that many SMEs feel unable to cover the packaged solution costs. Second, a netsourcing provider can assist with IT skill shortages, especially in the development and software maintenance areas. SMEs may well be unable to attract, let alone retain and afford such IT staff. Third, packaged applications from e-mail to ERP and CRM require an established IT infrastructure and connectivity to ensure optimal performance. SMEs find it difficult to retrieve the necessary human and financial resources to support and continually develop such IT infrastructures. In particular, startup SMEs (e.g., dot coms) are attracted to the first generation of netsourcing, characterized by a one-to-many business model, because they have no entrenched infrastructure or business practices, making canned solutions easier to implement. Being new themselves, startup SMEs may also have more faith in the robustness of startup netsourcing suppliers. When you add in that SMEs are increasingly under pressure to become externally connected as extended enterprises, the advantage of an ASP-provided business Internet infrastructure becomes strikingly clear. (Of course, these and similar opportunities need to be weighed carefully against the potential drawbacks of a netsourcing solution.)
Netsourcing can survive in the long run, even if it remains an SME phenomenon because this market is potentially very large. Indeed, in the United States there are some 8 million businesses with fewer than 100 employees, while globally small businesses exceeded 40 million in number. Forrester Research has predicted that in 2004 over 90% of the ASP market revenues will be attributable to SMEs.

During 2000–2001 it was still the case that netsourcing generally did not appeal to large-company customers. Forrester Research found nearly three-fourths of large companies not outsourcing applications. A mix of the following reasons, in order of greatest citation, was given:

- **Software already in-house.** Basically, the customers have already made the investment.
- **Not cost-effective.** Customers have looked at the economics and found that they could still do it more cheaply.
- **Expertise in-house.** Customers could afford to retain their own IT staff.
- **Want to retain control.** Netsourcing was assessed as being risky given the importance of the applications.
- **Applications are business specific.** Customers perceive a lack of possible customization of netsourced applications.

Having talked with big companies and the suppliers targeting the big company market, our own view is that the large-organization market will pick up substantially over the next few years. Indeed, our international survey of netsourcing customers has already noted the presence of large customers in the ASP space. Over 30% of our respondents generate yearly revenues in excess of $500 million (see Appendix A). A study conducted in 2000 by the Phillips Group found that 19% of companies with 500 to 100,000 employees currently use an ASP. But more important, 65% of these companies said they plan to use an ASP for internal applications within the next five years, and 72% intend to use an ASP for e-commerce.¹¹

Thus large companies are often the slowest to adopt innovations such as netsourcing, but eventually, they do
adopt. For example, if we look back to the early 1990s, nearly all large companies initially rejected client–server applications because of their in-house mainframe capabilities. Eventually, the new applications that large customers wanted were written on client–server equipment, and the economics of delivery were often superior. In the end, nearly all Fortune 500 companies adopted client–server technology, even though many legacy systems still operate on mainframes. Thus although large companies may say that they will never adopt netsourcing, the more likely route will be a mixed-sourcing portfolio of in-house, outsourced, and netsourced. Some large companies (e.g., Monsanto) are already experimentally netsourcing for less critical tasks, such as image management. The trade press is also uncovering more Fortune 50 companies signing netsourcing contracts, such as DaimlerChrysler and Nestlé. Other large companies will find that service providers can offer customized solutions because the size of their business can justify the supplier’s investment in customization.

**Are Early Adopters Satisfied with Netsourcing?**

Very few surveys have been conducted of the early customer experience. Our online international survey is one of the few studies of early adopters. In our survey we asked respondents to indicate the overall performance of their netsourcing supplier using a 10-point Likert scale, with 0 or 1 indicating poor performance, 2 to 4 indicating satisfactory performance, 5 to 7 indicating good performance, and 8 to 10 indicating excellent performance. Thirty-two customers answered this question as of the first quarter of 2001. The mean response was 7.06, indicating a “good” performance rating overall (see Figure 1.8). The netsourcing performance rating is a little higher than we found for traditional IT outsourcing. Using the same scale, our prior survey on traditional IT outsourcing yielded a mean performance rating of 6.47 (n = 113).
An Overview of Netsourcing

However, this high performance rating does mean that ASP customers have not experienced problems with their service delivery. The two most frequently experienced problems were slow response time (41% of respondents) and application unavailability (25%) (see Figure 1.9). But only a small percentage of respondents experienced problems often cited in the press, such as lost sales or unanticipated costs, and no incidents of hacking were reported.

Early customers were also asked in the survey to share their most important lessons on netsourcing. Responses ranged from unbridled enthusiasm to strong caution:

If it was available sooner, I would have done it sooner.

—Customer buying services from a European telecommunications company

I can easily access everywhere I want . . . it saves me lots of time by not having to go to the office. We had no hard time installing software on my laptop. I only access via my browser, which always works. I always have access to information about
my customers. I don’t need technical knowledge because they maintain the software and data for me.

—Customer buying e-commerce software and services from a Dutch provider

In my ASP’s case, we went through difficult times for quite a while through growing pains. I feel it is best for an ASP start-up to have sufficient capital from the get go. I had lost clients as a result of patches used until they acquired funds from an investor.

—Customer buying Web hosting services from a U.S. provider

Some ASPs deliver bad quality, but it was a forced choice. Be objective when selecting an ASP. Don’t buy their sales rap but compare services and ask for references from at least four other customers.

—Customer using three ASP suppliers with varying success

![FIGURE 1.9 Customer Experiences with ASP](image-url)
Summary

The netsourcing value proposition to customers is compelling: no upfront investment costs in infrastructure or costly software licenses, faster delivery of applications (measured in days and weeks rather than months and years), scalable solutions that grow or contract with the customer’s business, flexible solutions with minimal switching costs, and minimal expensive in-house support staff— to name a few. Given these benefits, who wouldn’t want to netsource?

On the downside, there are significant netsourcing risks that must be mitigated. The netsourcing of business applications is still seen as an immature option primarily offered by unstable dot.com startups. Business managers worry about the reliability and security of the Internet, feel that their business requirements are too idiosyncratic for canned one-to-many solutions, and do not trust outsiders to supply mission critical systems. Many global 2000 companies initially rejected netsourcing on these grounds.

Despite these cautions, our research has found that nearly all organizations—large and small in both the public and private sector—will netsource at least some of their business applications over the next five years. Initially, netsourcing has appealed primarily to small and midsized enterprises (SMEs). The one-to-many business model offers SMEs low costs, little infrastructure investment, and rapid implementation. SMEs are willing to incur the downsides of the one-to-many model, such as lack of customization, to achieve these benefits. Moving to the global 2000—these customers will probably select noncritical, discrete business activities, such as document or image management, for their first netsourcing adoption. By “testing of the waters” in the netsourcing space, global 2000 players can gain the experience they need to exploit this option further. Global 2000 companies also have the clout to demand more services, customization, and integration from service suppliers than from SMEs. Thus the netsourcing model for these players will probably morph away
from the one-to-many model. For the global 2000, however, netsourcing will probably always be viewed as merely one of the many sourcing options in their application portfolio.

Overall, research results on netsourcing are consistent with prior research on other IT management trends, such as IT outsourcing, business process reengineering, client–server technologies, and e-commerce strategies. Customer success depends on customer knowledge. Why are they adopting the trend? Are their expectations realistic? Have they evaluated the players properly? Did they mitigate the risks? Have they negotiated a clear, flexible agreement? Do they have internal capabilities to manage suppliers? As in any other new business practice, business managers will have to learn how to netsource successfully. Where does one begin? Throughout this book we provide business managers with tools to develop a sound sourcing strategy (of which netsourcing is merely one option), and to evaluate market options, mitigate risks, negotiate deals, and manage third-party suppliers. In Chapter 2 we step back inside the customer organization and describe the sound sourcing principles that serve as a precursor to a netsourcing evaluation.

**Endnotes**


2. Intellinet also offers business intelligence and Web development services besides MSP services.


5. See [www.mail.com](http://www.mail.com)’s Web site for product, service, and investor information.


13. For more details, see “Inside Information Technology Outsourcing: A State of the Art Report,” by Mary Lacity and Leslie Willcocks, published by Oxford Institute of Information Technology. The report can be ordered by telephone to the UK 1865422515, by fax 1865422501, or by e-mail Dave.Hall@templeton.oxford.ac.uk.