

Customer Value Powers Opportunity for Network and Hosting Service Providers

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Executive Summary

The emergence of application service providers (ASPs) in the late 1990s focused attention on the benefits of delivering complex applications and business solutions via a network for a fee. However, this utility-like delivery concept was not new. Network service providers (NSPs) have delivered communications and infrastructure services via a network for many years. More recently, Internet service providers (ISPs), Web hosting service providers (HSPs), and storage service providers (SSPs) have extended the concept by taking advantage of more pervasive public and private networks and an explosion in available network bandwidth.

Whether providing access to the Internet, an application, or an entire business process, these utility-like services have a number of common elements: delivery over a network — whether the Internet, a virtual private network (VPN), or leased line; management by the service provider or partner rather than the customer; a one-to-many business model; and service-fee-based pricing. IDC refers to these services as xSP services and has developed a taxonomy and framework for understanding the various types of xSPs and their interrelationships.

Thus far, NSPs and HSPs have been the most significant and successful of xSPs that deal with the provisioning of network and system infrastructure. Both types of organizations generate revenue by delivering a variety of xSP services to their customers. They also benefit by utilizing a number of services from xSPs, including billing, storage, network management, customer relationship management, and other applications.

Additionally, as providers of the networks for delivering xSP services, NSPs benefit a third way from the success of xSPs. In 2000, the xSP-related services of NSPs totaled \$100.4 billion. IDC estimates this revenue will rise to \$332.8 billion in 2005, a compound annual growth rate (CAGR) of 27.1%.

This white paper traces the evolution of xSPs, explains IDC's xSP taxonomy, and discusses the implications and benefits of the xSP business model, with particular focus on NSPs and HSPs. One early lesson is the critical need for xSPs to create partnerships by leveraging the strengths of the xSP ecosystem — and for customers to select xSPs that have strengthened their capabilities through such partnerships. The paper explains how IBM's xSP Prime program can help xSPs forge the right partnerships and improve their service offerings through a well-established delivery model.

Finally, two case studies illustrate how xSPs can add value to the services they offer to customers. One examines an HSP that supports ecommerce and other Web solutions; the other looks at a very profitable xSP that is growing 100% year over year by offering billing solutions for wireless service providers.

The xSP Model: Moving from ASP to xSP

Outsourcing continues to change the face of business. As companies seek ways to trim costs and gain a competitive advantage, more and more firms are outsourcing noncritical functions so that their key personnel can focus on the organization's core competencies.

The growing appeal of outsourcing has revived interest in the old concept of the "information utility." The utility model was first proposed as a more flexible and efficient alternative to developing corporate network infrastructures to support an organization's communications needs.

Instead of the expense and hassle of building and constantly upgrading the infrastructure to support growing and changing corporate needs, an organization could contract with an information utility. The organization could then obtain end-to-end connectivity on demand, where and when needed, similar to buying electricity from the local utility.

As public and private networks became more pervasive and network bandwidth more readily available, the utility concept has evolved to encompass ISPs, HSPs, SSPs, and ASPs.

All of the utility-like services have common elements. They are:

- Delivered through a network
- Externally managed
- Based on a one-to-many business model
- Based on a service fee

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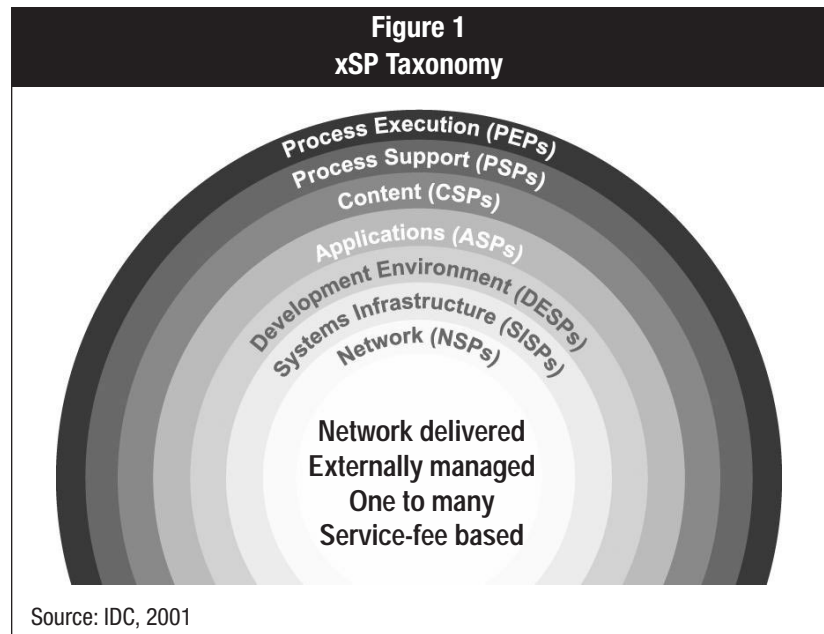
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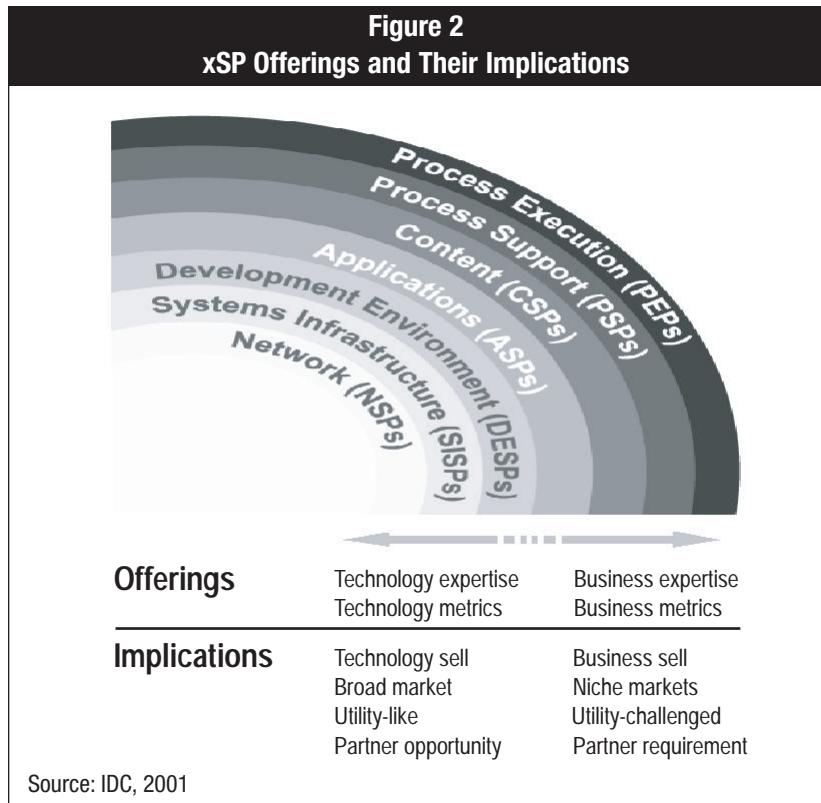
IDC refers to service offerings that share this underlying model as xSP services. Initially, many companies offering any type of new service through the xSP model referred to themselves as an ASP, regardless of whether or not what they were serving was an application. This attempt to jump on the popularity bandwagon of the term “ASP” backfired in the face of many businesses when the hype around ASPs suddenly imploded. In an effort to rebrand and put distance between themselves and the unfortunate ASPs, many xSPs sought to use acronyms more descriptive of the services they offered (e.g., management service provider [MSP], HSP, or SSP). As the naming conventions (and the resulting plethora of acronyms) began to catch on, the term xSP began to appear in the industry, with the “x” serving as a placeholder for a term descriptive of the offered service.

IDC developed the xSP taxonomy as a way to help xSPs, and their customers and suppliers, to understand the cornucopia of “new” xSPs and how they interrelate, both in technology and business. As shown in Figure 1, each band in the taxonomy describes not only the different types of xSPs in terms of what services they offer but also offers insight into the xSP ecosystem and the business and technology dependencies occurring between the service segments.



For example, a company offering a suite of disparate applications in an integrated platform is still an ASP because its core service offering is the application. However, another company offering storage services would be considered an SSP, a subset of systems infrastructure service providers (SISPs). Web hosting (Internet data center) companies also provide SISP services, while ISPs fall into the NSP band with the big telcos of the world because the services they offer give consumers access to the Internet and communications networks.

As the xSP market develops, the large players (e.g., telcos, IT services companies, and consultant firms) are moving toward these new opportunities. The second movers in many cases are large firms with significant depth and experience in offering services, and they are looking to expand into this new market. In response, many of the smaller first movers have realized the difficulty of “going it alone” by trying to provide everything the customer needs themselves. As a result, they are partnering with other xSPs to leverage the values and capabilities of adjacent or nearby capabilities (see Figure 2).



Service offerings in the inner layers are more technology-centric, so the xSPs that offer these services have technology-oriented core competencies. They emphasize technology metrics in their services contracts, and they strive to achieve operational excellence. Service offerings in the outer layers have business-oriented core competencies, so the xSPs that offer these services emphasize business metrics in their service contracts and strive for business excellence.

Partnering activity is likely to continue for some time while the xSP market and its players stabilize and mature. IDC expects the overall xSP market to grow from \$106.8 billion in 2000 to \$392.8 billion in 2005, a 30% CAGR (see Table 1).

Table 1
Worldwide xSP Revenue Forecast, 2000–2005

	2000	2001	2002	2003	2004	2005
Revenue (\$B)	106.8	137.5	179.6	234.7	305.2	392.8
Key Assumptions:						
<ul style="list-style-type: none"> • This forecast includes the impact of the present economic slowdown. • This forecast does not include content service providers. 						
Source: IDC, 2001						

NSP and HSP Business Models

After ASPs, NSPs and HSPs may be the most familiar of the xSPs. Thus far, NSPs have been the most successful of the xSPs, with revenue from xSP-related services of \$100.4 billion in 2000. IDC estimates this revenue will rise to \$332.8 billion in 2005, for a CAGR of 27.1%. NSPs also power the xSP market by utilizing a number of services from xSPs. At the same time, NSPs benefit from the increased bandwidth needed to deliver xSP services.

As for HSPs, the impact of broadband network access and Web-based services on the Internet and business has been significant and has driven extensive expansion of Internet data centers and the services from which they are offered.

To illustrate the NSP and HSP business models, this white paper includes two case studies. The NSP case study shows how one xSP might benefit from another by using its xSP services — for example, when a telecommunication, or network, service provider hires an ASP to provide billing administration and maintenance. The HSP example shows how an xSP can partner above, within, or below its “band” when looking to expand the value-added service provided to customers. Regardless of its location in the xSP taxonomy, the service provider is able to broker alliances with the companies providing services either above, within, or below the particular xSP’s band.

Many xSPs, such as NSPs, can gain prime benefits from the different services that other xSPs can provide to them, such as billing administration, network management, customer relationship management, and supply chain management. Since the NSP’s primary benefit to its customers is delivering a complete and reliable network solution, outsourcing many of its more mundane functions to other xSPs, whether ASPs, MSPs, or some other variety, can provide the NSP with more adaptable and tailored solutions.

The HSP focuses on providing the infrastructure real estate to ASPs and other enterprises that want to manage their applications but do not want to manage or maintain the hardware on which the applications reside. Initially, many HSPs provided simple shared access or collocation services. However, as the market matures, HSP customers will benefit from the pursuit of new services and bundled offerings as HSPs partner closely

with ASPs, NSPs, and other SISPs, such as storage or network management service providers. These alliances and agreements will allow HSPs greater economies of scale that can be passed to their customers through discounted bundling offers or multifeature service agreements. For example, an HSP could offer simple Web hosting but then provide storage and systems management services at a discount in a bundled package. This bundling will give customers greater value and cost savings as well as a large suite of service offerings from which to choose.

Allying with NSPs to bundle access and transport services into their offerings is definitely a plus for both companies, as well as their customers. Moreover, the service providers could leverage one another's functionality to provide better benefits to the customers while increasing their access to new customers. Some of the technologies that could be bundled into neat packages for the discerning consumer are:

- IP services
- Web talk (such as voice over IP [VOIP] or other Internet voice services)
- Virtual private networks (VPNs) or IP VPNs
- Enhanced routing and data tracking
- Content delivery/acceleration
- ASP support applications (such as billing or usage tracking)
- Storage services
- System management/maintenance
- Security services

These types of partnerships have the potential to offer very solid customer business benefits, such as improved time to market for services, continuous technology upgrades, cost-effective solutions, and stimulation of the customer's revenue.

Empowering Customers

Continuing with HSPs and NSPs as representative examples of xSPs, we suggest that the potential clients of these service providers look for a provider willing to build a relationship and offer support in many areas rather than a provider that is focused only on the delivery of technology solutions. In addition to sharing their technical competence, NSPs and HSPs may be able to help their customers increase revenue through complementary business skills, such as:

- **Sales and marketing.** Through co-marketing and sales support, the HSP or NSP may be able to provide its customer with marketing plans, shared expense, or co-branding campaigns. Sales support could come in the form of co-selling or customer access to the service provider's sales force.

- **Service, maintenance, and management.** Since NSPs and HSPs already manage much of the hardware infrastructure, system management is a natural extension. For small customers, being able to hand over much of this responsibility can free their resources to focus more on their own core competencies.
- **Application provisioning.** If an HSP is already doing much of the application maintenance and monitoring, it is a natural step for the company to provide provisioning support to its customers. This move would eliminate one more task to which their customers must attend.
- **Billing.** This is a critical piece that NSPs or HSPs should explore. Many businesses often have difficulty with billing because of the complex nature of billing systems. If the service provider can offer a well-integrated and flexible billing application, it can be a dramatic time saver and enhancement for the provider's customers.
- **Order taking.** Managing order-taking applications works hand in hand with handling billing applications and can be a great time and money saver for the customer.

Potential (or current) NSP and HSP customers should look carefully at the relationships the service provider has with its partners. Strong relationships only strengthen the ability of the service provider to add extra or new functionality to its customers. The HSP or NSP would also be likely to employ or leverage any relationship it would have with an outside integrator to ensure the best possible solution for its customers.

Addressing New xSP Functionality: Alternatives

If the xSP is investigating adding new functionality or services, potential or current customers may want to be aware of any integration issues the xSP might have. Internal integration efforts can be costly, complex, and cumbersome for the xSP, and if they are handled poorly, the customer can suffer lost time, increased costs, or even lost business. Looking at outsourced integration solutions from a professional services company can provide many benefits to the xSP and its customers. However, in certain situations it may make sense to use an equipment manufacturer as the integrator so the xSP will be able to leverage outside expertise as well as enter into strong and mutually beneficial relationships with the manufacturer. The xSP may even choose to outsource its equipment as well as to provide a better economy of scale and savings that can then be passed on to its customers through pricing or service benefits.

One equipment manufacturer that serves as an integrator/partner is IBM, which has the added benefit of also being a professional services firm. In August 2001, IBM introduced the expansion of its ASP Prime program to include all xSPs. The extended program, which IBM renamed xSP Prime, focuses on providing comprehensive business and technical support to all xSPs — from ASPs to HSPs, MSPs, and SSPs.

From the perspective of a potential xSP customer, the new upgrades and integration from a program such as IBM's may provide an increase in efficiency and potentially reduce costs in the customer's business that could precipitate a similar savings to the consumer of the xSP services. For example, these savings may occur through the reduction/redeployment of personnel or from lower capital expenditure needs. The added benefit of engaging a third-party integrator is that the xSP may gain the ability to fully understand and leverage the knowledge of how its additional services or upgrades can impact its customers' bottom line.

IBM's programs provide xSPs with business design and financial workshops that help them determine when they will attain profitability and what factors influence their ability to reach their goals. As part of the xSP Prime program and through workshops like the technology strategy workshop, an xSP can determine the most efficient infrastructure to use in its service offering. IBM's xSP Prime Solution Centers will give an xSP the chance to develop and test its new applications and solutions. Other services, such as the Hosting Advantage program, enable the xSP to work with other companies, allowing the xSP to develop a more value-added suite of services through partnerships for its customers. The following list details IBM's offerings for qualified partners to help xSPs add more value to their customer services:

- Business Design Workshops
- Financial Modeling Tools
- Technology Strategy Workshops
- 10 xSP Prime Solutions Centers Worldwide
- xSP Prime Online
- xSP Enablement for ISVs
- Hosting Advantage Program
- Joint Marketing Planning Workshops
- Customer Demand Generation Activities

With these services and offerings, an equipment manufacturer (such as IBM) can assist an xSP in developing its marketing, business, and financial plans. The result of this collaboration would be a service offering that provides higher savings or greater value to the customer over the longer term.

Challenges

While there are many positive aspects about using xSPs, the potential xSP customer must keep all the possibilities, including the negative, in mind when making the decision to pursue this form of outsourcing.

xSPs face many challenges, and customers should be aware of these challenges and weigh them accordingly when selecting not just the xSP with which to work but also when deciding whether to pursue a relationship with an xSP at all. Some of these challenges are as follows:

- **Integration with customer legacy systems.** Many smaller xSPs may not have the staff or the expertise to smoothly integrate their customer's legacy solutions with their own network-delivered offerings. Potential customers should carefully explore this ability prior to installation of the services. In some cases, the xSP will provide its solution to a customer on a trial basis. This is an excellent way to allow the xSP to prove itself.
- **Financial security.** With the turn in the economy, many xSPs are struggling to maintain a positive cash flow. When evaluating an xSP, potential customers should consider the provider's financial model of success and when the xSP intends to be profitable. A potential customer should perform due diligence to understand who is backing the xSP and who its solutions partners are. If the xSP has strong relationships with its backers, and the backers themselves are solid, then there is less risk of the xSP suddenly disappearing.
- **Contingency plans.** When working with an xSP, potential customers must assume the worst. They no longer have the luxury of not addressing what happens if, for whatever reason, the xSP suddenly ceases to operate. They must understand where the xSP is keeping key data: Are backups kept onsite or offsite? What are the xSP's failure plans? Is there another company willing to offer an equivalent service if the xSP ceases to operate? Before selecting an xSP, potential customers should ask the tough questions.
- **IBM challenges.** IBM initially developed its Prime program for ISVs and developers focusing on the ASP market. Going forward, IBM's challenge will be to extend the same level of service to all types of xSPs. This will require IBM to stay informed of developments in all areas of xSP services and understand the varied needs of each type of xSP.

Conclusion

Overall, the xSP market is powered by the value it provides to customers. Certainly, ASPs have illustrated the diversity of services that can be offered through this model. However, it will be the return on investment that customers receive from these services, whether measured by cost savings, revenue generation, or some other added value, that will determine their success.

When exploring the options of using an xSP, potential customers should weigh the advantages of saving time, lowering capital expenses, and making better use of personnel resources against the potential challenges, such as legacy integration, xSP financial viability, and lack of contingency plans. Any form of outsourcing is a big decision for an enterprise. However, if the right business opportunity exists, the benefits reaped from xSP services can be substantial.

Case Study: Helping Enterprises Explore Solutions

Diveo Broadband Networks Inc., Washington D.C.

Diveo is a privately held corporation that operates in seven countries throughout Latin America, offering Internet data center and broadband access services to large and medium-sized enterprises. To provide superior service and solutions to its customers, the Washington, D.C.–based company has partnered with IBM for its regional presence, technological reliability, professional services, and brand-name strength.

Diveo specifically targets three major Latin America markets: Brazil, Mexico, and Argentina. After three years of careful planning and building networks, the company brought its broadband access side of the business online in 1999. In the early part of 2000, it began to offer Internet data center services. Today, Diveo has seven Internet data centers in five countries. It offers services such as dedicated hosting, collocation, managed services, caching, IP transit, and virtual private networking while working closely with ASPs, systems integrators, and other solution providers.

While Diveo was building its market presence, it perceived a need to help its potential business customers explore the cost savings or revenue gains that could be realized through using ecommerce or Web solutions from a hosting provider of its caliber. Also, since Diveo's network is panregional, it recognizes that its solutions, provided in concert with another big multinational company, such as IBM, would appeal to potential large multinational customers such as Carlson Wagonlit. Additionally, Diveo had discovered that import/export restrictions were affecting its deployment schedules; thus, working with a manufacturer that could assist with improving the situation would be a plus. Given these concerns and its target markets, Diveo was careful to select a partner that could provide a solution to as many of its needs as possible.

Though Diveo offers a multivendor environment to its customers, when seeking a partnership, the company focused its rigorous evaluation on vendors that could offer comprehensive solutions and services to address the diverse needs of its customers. Diveo's partnership with IBM has provided the company with multiple ways to focus on bringing the best value possible to its customers.

IBM has had a regional presence in Latin America for roughly 50 years. It knows the needs of the marketplace, and it offers local manufacturing, which eliminates most of the issues with import/export regulations. Additionally, IBM's strong brand and relationship with Diveo is reassuring to many of its larger customers. As part of its five-year agreement with IBM, Diveo also contracts with IBM Global Services (IGS). The deal calls for IGS to provide all the network monitoring and maintenance, leaving Diveo more free to focus on providing the best value to its customers. These value-added solutions may range from customer relationship management (such as an online bank's ability to reduce branch and personnel costs through improved customer service over the Internet) to supply chain management (such as a customer lowering its supplier costs through a competitive bidding process that drove down prices).

While Diveo specifically focuses on providing data center services and broadband access — the hardware and its corresponding network management — it seeks to support its customers through partnerships when necessary. As Mark Lineaweaver, director of corporate business development, stated: "Whether a customer needs application services or hardware, Diveo will bring a team together for the customer, collectively working to offer the best cost-saving or revenue-building solution possible, ensuring maximum customer satisfaction."

Case Study: Increased Billing Efficiency and Capacity

H.O. Systems, Savannah, Georgia

H.O. Systems, founded in 1988 and headquartered in Savannah, Georgia, is a provider of end-to-end billing and customer care solutions for tier 2 and tier 3 carriers in the wireless marketplace. Currently, H.O. Systems is billing for more than 6 million subscribers per month. H.O. Systems' core product, speedSUITE, is a complete back-office solution that includes provisioning and mediation, point of sale, inventory management, campaign management, event rating, and bill creation. By utilizing IBM's hardware and software products as the platform for its product, H.O. Systems increases scalability and efficiency in its operation.

H.O. Systems, a privately held company, has experienced 100% growth for the past decade. This continuous growth and success strained existing applications and hardware, creating the need for a platform upgrade. The billing and customer care system is the most mission-critical system

for service providers. Speed and system performance are essential to wireless carriers, and any system downtime results in loss of revenue. Thus, the system must be supported by a proven hardware platform.

“We evaluated Sun, IBM, HP, and Compaq and selected IBM based on their proven system performance and their desire to foster a partnership environment. They have supported us through the conversion of our first customer and offer continued service as we evolve our current business structure,” said Maria Watts, vice president of marketing and strategic planning at H.O. Systems.

IBM’s support and service help make the transition to the IBM platform seamless and beneficial for H.O. Systems’ customers. IBM remains onsite with H.O. Systems throughout the conversion process to ensure a smooth transition.

The implementation of the IBM platform has had a significant impact on system performance for H.O. Systems’ clients; for example, bill runtimes have declined dramatically. One customer’s bill runtime was reduced from 17 to 4 hours. This reduction in time was a result of changing only the hardware platform; no changes were made to the billing application.

H.O. Systems has successfully transitioned four customers to the IBM platform and will continue the transition of current customers over the next 18 months. All customers will experience the benefits of this transition through increased speed, capacity, and efficiency.

The IBM platform enables H.O. Systems to enhance the performance of the current speedSUITE application. IBM is also working closely with H.O. Systems to maximize the capabilities of IBM hardware and future H.O. Systems’ applications. The platform empowers H.O. Systems to effectively bill for new value-adding data services, which are the future of the wireless industry.

The partnership between H.O. Systems and IBM is helping shape the future direction of H.O. Systems. The two are working together to expand into new markets, develop business opportunities, and enhance existing processes. The partnership creates value for H.O. Systems’ current customer base and provides H.O. Systems with opportunities to pursue new customers. The partnership allows H.O. Systems to offer enhanced functionality without impacting its product’s cost structure.

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