Application Services—A New Playing Field

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ASPS—A NEW PHENOMENON

At a recent press conference held to announce the appointment of Microsoft's new CEO, Bill Gates equated the trend towards Internet based software services with Microsoft's adoption of the GUI:

"The nature of software will be changing, software will be delivered in many cases as a service across the Internet instead of a packaged product...The nature of the platform, the way that it works, the way that people develop these applications, all of those we need to bring some breakthrough technologies to. I'll take on a new role that will allow me to spend almost 100% of my time on these new software technologies."[1]

Bill Gate's change in focus reflects Microsoft's recognition of the continuing global trend towards the outsourcing of software, associated services and all non-core activities. The application service provider (ASP) model and the associated convergence of the Internet and communications industries are at the forefront of this movement in 1999/2000.

The ASP model is based on the idea that reliable, network based applications, e-business solutions and associated services can be provided to users on a similar model to that of the traditional utility, that is, something users can tap into and pay for on a usage basis. Service providers claim that the ASP model can replace an organisation's IT department as the implementation, availability, maintenance, support and development of software applications is provided as a service. The attraction for customers is a lower total cost ownership (TCO), based upon a rental model rather than capital investment, with associated gains in the integration of applications and speed of deployment.

The ASP model, in its various forms, has ramifications for software and hardware vendors, communications vendors, professional services firms and other associated players in the Internet industry. It has the potential to infringe upon and displace existing business structures, relationships and strategies through the resulting changes that will occur in software licensing models, application and network architectures, customer relationships and distribution channels.

The last four months have seen a proliferation of emerging ASPs and positioning alliances between various industry leaders attempting to obtain first mover advantage in this developing industry. The success of ASP strategies will depend on the alliances and partnerships that are formed between the IT and telecommunication industries.

As industry commentators raise predictions about the growth of the ASP industry, many have been sceptical in their analysis of the ASP model and its impact on the information and technology (IT&T) industries. Whilst some see the ASP model as a fundamental shift in traditional IT&T service delivery models, others see it simply as a new distribution channel. The following is an analysis of the ASP model and our predictions of the impact the ASP model will have on the IT&T industry.

THE ASP MARKET

Early ASPs such as Corio & US Internetworking have targeted small to medium enterprises (SMEs) and aggressive growth companies (AGCs). SMEs and AGCs tend to lack the constraints of entrenched business processes and infrastructure found in most large organisations which allows a rapid implementation of the ASP model for relatively little cost.

However, it is not just SMEs & AGCs that are interested in the ASP model. The positioning of vendors such as SAP and Oracle, traditionally service providers to large enterprises in the ASP market, and negative market drivers in the form of IT employment and increased pressures for quicker IT implementation make the ASP offering compelling to enterprises at both ends of the spectrum.

Despite the interest and activity in ASPs, estimating the current and future size of the market for ASP services is problematic. Firstly, it is an emerging market which means that any predictions are subject to projections regarding both customer acceptance and market growth. Having said that, the majority of analysts agree that the ASP model is a high growth rate area. Secondly, there is disagreement as to what is meant by the term "ASP" and therefore what revenues should be included within the ASP market. This has led to estimates ranging between a market worth of $21 Billion by 2001 (Forrester Research), $4.5 Billion by 2003 (IDC), and $22.7 Billion by 2003 (Gartner Group).[2]

FORMS OF ASPS

The ASP model has developed in several forms:

- Environment Service Provision—the ASP offers a range of applications and services based on a rental model as outsourced applications over a network environment.

This model is derived from IT outsourcing where an outside provider integrated and managed the company IT infrastructure. Traditionally this was done on-site. However, the development of thin-client technology has allowed the provision of a complete desktop to backend applications environment over a private network.

- Selective Application Outsourcing and Hosting—the ASP offers individual applications accessed over a network or Internet connection based on a rental subscription.

This model is generally regarded as the traditional ASP model. It has evolved as ISP and third party web-hosts moved from providing essentially static web and mail services to providing dynamic and interactive e-commerce applications and associated services. One of the early driving forces of this model were the new business paradigms, with the associated IT and capital demands of business to business and business to consumer ecommerce. Another factor driving this model is the provision of sophisticated applications, eg enterprise resource management software, for small to medium businesses that otherwise would be unable to afford the high-end functionality offered.

ASPs utilising this model generally function on a 'one to many basis', with standardised web or network based applications (with limited customisation) and core services, subscribed to over a specific contract period. Early providers would generally offer a limited range of applications rather than a complete package. The resulting economies of scale and increased speed of deployment were used as an incentive for customers.

The current trend in this area is the movement from offering discrete services and applications towards total service provisions (TSP). Under the TSP model ASPs provide end to end solutions, with a range of pre-integrated application and services. Early ASPs such as Corio, USI and Arsitasoft are re-positioning themselves in this market with an increasing range of products and services offered either directly or through associated partners.

- Web-based applications provided over the Internet.

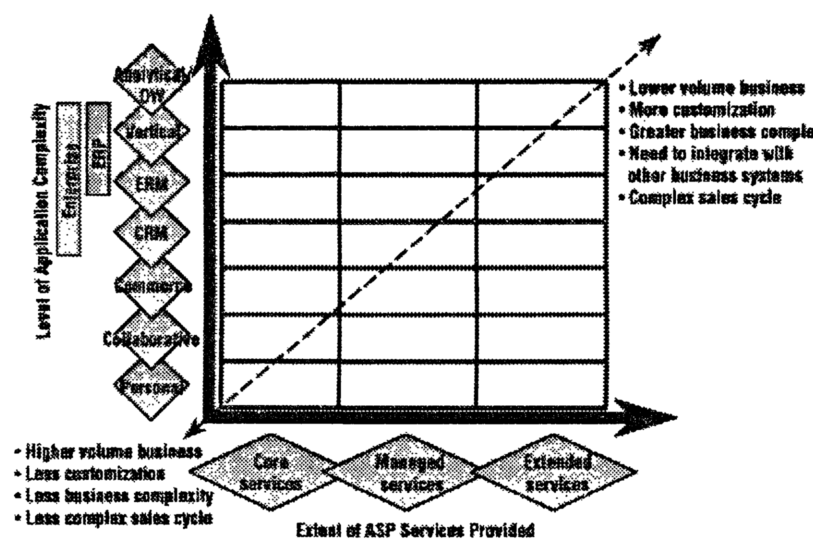
These applications and services have developed from Internet based offerings such as shareware which users can subscribe to and access instantly over a web browser. The applications are designed to be self-service, with service support for end-user training and instant access features. Examples include e-mail applications, document storage services and desktop productivity tools. Web based applications tend to be offered in partnership with a total service provision ASP in order to fill specialist needs in niche markets. These applications will drive the emerging pay per use rental model with customers signing up and paying for the use of the applications as and when they need them.

The extent and scope of an organisation's ASP offering will be defined by the applications that are offered, the services provided and the customers that are targeted. As illustrated in figure 1, ASPs targeting enterprise business will generally have lower volume offerings that provide applications and services with high levels of customisation, integration and professional services. In comparison, ASPs targeting SMEs will focus on the provision of high volume core applications and services with limited customisation and integration.

1 "Gates goes on ASP quest", ASPnews, http://www.aspnews.com/_News/News000115Microsoft.htm

2 Forrester research has projected that the market for outsourcing of enterprise applications will be worth $21 Billion by 2001, and a ASP market (including only software and related services rentals at a projected 400% annual growth rate) reaching $6 billion by 2001—"ASP CaseStudy: Futurelink", ASP News Review, May 1999, http//:www.ASPnews.com
IDC has forecast world wide spending on ASP services for enterprise applications will reach $2 Billion by 2003 with the entire market (including collaborative and productivity application and an annual growth rate of 91%) worth $4.5 Billion. "The ASP's Impact on the IT Industry: an IDC wide opinion, International Data Corporation, September 1999, http://www.idc.com, p2
Gartner Group 's Dataquest forecasts the worldwide ASP market to reach $22.7 Billion (including software support, IT consulting, IT development and integration, and education and training) by 2003 at a projected growth rate of 91%. "What are the current market trends", Gartner Group, 11 January 2000, http://gartner12.gartnerweb.com/public/static/hotc/hc00085642.html

The ASP Market Landscape



Source: International Data Corporation, 1999

FIGURE 1 [1]

ASP CHARACTERISTICS

Despite the different forms of the ASP model, there are certain characteristics that define the ASP offering. These include:

- the provision of access to and management of commercially available applications;
- rental of applications (includes application deployment, hosting, management and access to other services and resources for managing software applications);
- ASP services are provided and managed from central locations over a leased network or via the Internet;
- ASPs are generally focussed around the provision of services on a one to many offering generating economies of scale in a shared environment; and
- ASPs are responsible for coordinating all parties involved in the delivery of the service for the client, whether or not they provide all elements of the service themselves.

ASP PARTICIPANTS

Participants in the ASP industry are appearing daily. Although many of these are established providers in the IT&T industries, for an ASP to successfully deploy, host and manage applications from centrally located facilities, a broad range of skills and resources is required. It is unlikely that such an extensive scope of skills and resources will be held by single participants in the traditional IT&T market. This has led to the majority of ASPs being created by alliances formed to merge skill sets and resources in the services, networks, hardware and software application environments. Figure 2 illustrates the various resource and skill components that make up an ASP:

1 "Figure 3 The ASP Market landscape" from IDC report, - "The ASP's Impact on the IT Industry: an IDC wide opinion, International Data Corporation, September 1999, http://www.idc.com.

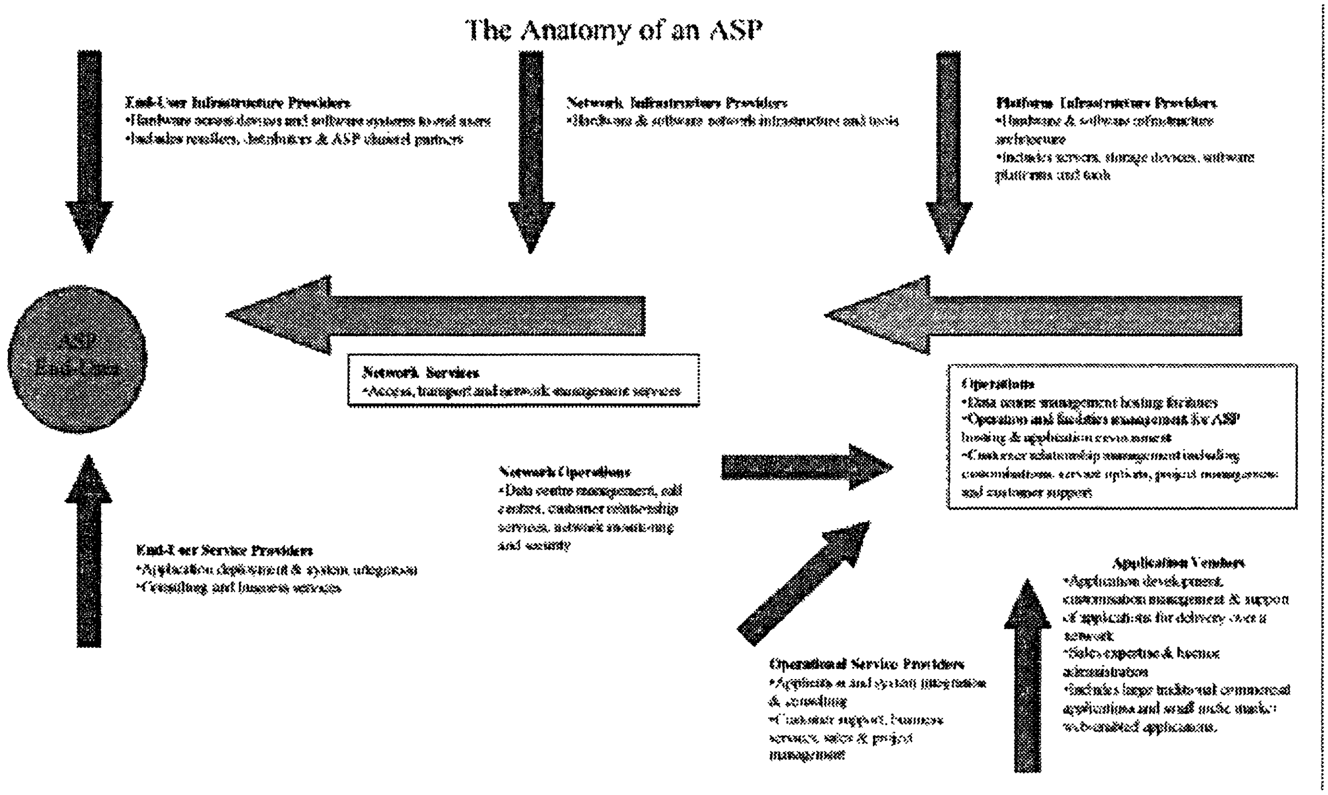


FIGURE 2

In each ASP alliance there will be a dominant partner responsible for delivering the ASP service and managing the client relationship while strategic partners provide the different components of the relationship for total end to end performance of the model.

THE IMPACT OF THE ASP MODEL ON THE IT&T INDUSTRY

The emerging alliances and positionings raises interesting questions for ASPs and customers alike. In the short term issues such as the relative strengths of alliance partners, distribution strategies and alignment of interests will need to be addressed by alliance partners. Although these are no different to the issues faced by any alliance, due to the nature of the ASP model some new issues arise which will need to be managed. Ownership and control of the client relationship, development of growth strategies and management of distribution channels will raise interesting challenges for ASP partners over the next few years. Perhaps the most fundamental impact of the ASP model will be its effect on the relative power of alliance partners, both within the ASP alliance and in the market generally.

THE IMPACT OF THE ASP MODEL ON THE COMMUNICATIONS INDUSTRY

Network service providers (NSP) will play a leading role in the ASP industry. The primary basis for the ASP model is the provision of services over high-speed network connections. Opportunities exist for network providers, including traditional telecommunications, ISPs and hosting services, to provide both the network services and operational service components of the ASP model.

NETWORK SERVICES

NSPs are needed to provide access, transport and management services to deliver the application services to end-users. A lack of dependable and reliable bandwidth to end-users is seen as a limiting factor in ASP market growth. Industry experts and participants predict that NSPs will struggle to meet the ASP service level needs of end-users during the next three to four years.

It is not merely a matter of laying more pipes. One of the challenges of the ASP model is the shift in focus from the pure provision of bandwidth to the delivery of "application aware" connectivity services providing dependable and reliable performance across networks. NSPs that can offer high performance secure networks, with continuous real time links between the network and application environment, will be in a strong position to participate in the ASP market.

OPERATIONS SERVICES

NSPs are also positioned to provide the operations component of the ASP model as they already operate in a utilities environment with strong core skills in the areas of managing customer relationships, billing and the provision of service options from centrally located data centres. These NSPs can readily take responsibility for maintaining the ASP hosting and application environment by leveraging off their existing data centres, call centres, service metering and billing facilities.

Cable and Wireless (C&W) is an example of a NSP which has positioned itself in the ASP market. Through its recent alliance with Compaq and the Internet Commerce Corporation, C&W will provide ASP services directly to end-users. In addition, C&W and Compaq will provide network and associated services to other ASPs by aggregating the C&W network and data centre services with Compaq's hardware and support services.

THE IMPACT OF THE ASP MODEL ON THE IT INFRASTRUCTURE PROVIDERS

IT infrastructure providers are crucial to the platform and network components of the ASP model. The dependency on IT infrastructure will only increase as demands on traditional network and platform architecture intensify due to ASP requirements for high level capacity, redundancy, availability and security to achieve service levels for multiple customers.

IT infrastructure providers include traditional suppliers, distributors and resellers of hardware, software infrastructure and tools. Increasingly ASP demand will call for the integration of total platform and network solutions rather than stand-alone products with a focus on TCO, reliability, availability and scalability. In response infrastructure providers will form relationships and partnerships with other infrastructure providers to supply comprehensive infrastructure services and components to ASPs or, in combination with other components, establish an ASP offering themselves.

New pricing, risk and strategy models will be explored as the ASP model expands. The pricing strategy of infrastructure providers will likely change as the transition to a rental model leads ASPs to minimise capital investments by offering alternative risk sharing options. These could include risk reward structures with low up-front costs or transaction based revenues depending upon customer usage.

Large infrastructure providers such as Compaq, Sun, Hewlett Packard and Microsoft are currently establishing relationships with early ASPs and other software applications, service professionals and network providers. These relationships take various forms including, direct investment, partnerships, strategic alliances, licensing options and supply partnerships. In addition to providing ASPs with the necessary hardware and software tools to provide ASP services, these relationships facilitate the cross sale of associated services such as existing data and call centres to existing clients of alliance partners.

THE IMPACT OF THE ASP MODEL ON APPLICATION PROVIDERS

The ASP model has potentially major ramifications for application providers as access to applications shifts to a new distribution and delivery channel. Under the ASP model the primary or dominant partner will control all aspects of the customer relationship including the scope of application packages, customisation, growth and ongoing management. Application suppliers that are not the dominant player will lose direct control of their customers over time. Application branding, while important in the emerging ASP market, is likely to diminish in importance with brand focus shifting to the total ASP offering rather than the individual sub components of the ASP service. End-users will tend to evaluate a total ASP package on its ability to meet their changing needs quickly and reliably rather than on the brand of specific components offered by the ASP.

Application providers will need to consider new pricing models and strategies as the service rental model is applied by ASPs. Although there will be a transition period where the traditional capital model, where a customer purchases the software and associated licences, will continue to apply, this must change to meet customer demand for ASP services. Current ASP models tend to be based on a monthly fee for user access to applications and ancillary services. Management of upgrades and customisation are often included in these services threatening the lucrative "upgrade cycle" income stream. In addition, alternative models are developing which are based purely on customer usage.

Vendors like Microsoft who have established applications developed for a specific operating network have the additional challenge of re-engineering software products to function over the variety of ASP platforms and networks that will evolve. Software vendors will not be able to prescribe the technology required at the client device but will need to develop applications capable of running on a device of the lowest common denominator. This is likely to be a browser based system which, while appropriate for some applications, will be difficult to implement for others.

In contrast to established vendors, independent software vendors which have developed their applications based around the web browser application architecture are in a position to take advantage of the ASP model. The size and positioning of these vendors allows them to use ASP alliances and partner programs to compete with the larger established vendors by utilising the market reach and management services of the ASP partners.

THE IMPACT OF THE ASP MODEL ON THE SERVICES INDUSTRY

Providers of services to end-users are required to supply expertise and personnel in the form of consulting, management skills, system integration, customisation and business services within the ASP model. Traditionally the services industry has focused on the deployment and integration of applications for high-level enterprise firms. Although the ASP model will continue to provide high level enterprise opportunities, service providers will need to shift their focus to issues such as the integration of existing legacy systems into the ASP model and the development of new relationship skills to meet the characteristics of the ASP model.

The quickest growth in the ASP market is in the SME and AGC market, which is not the traditional client base for the services industry. However, by entering into ASP alliances consulting firms can simultaneously provide application deployment services to multiple mid-level clients.

The ASP model will have ramifications on pricing and implementation strategies for the services industry generally. A large number of ASP offerings will revolve around standardised products with minimal customisation, leading to shorter implementation times with minimal expense. This will change customer expectations regarding the cost of implementation services and is likely to impact upon the level of fees which are sustainable in the services industry over the long term.

As an alternative to providing services complementary to the ASP offering, services firms can position themselves as the dominant partner in an ASP relationship by leveraging their existing skills and core competencies. This option may be particularly attractive to outsourcers and systems integrators that have strong client relationships and skills, facilities and experience in application integration and implementation, data centres and network connections.

Ernst and Young Technologies Inc (EYT), the solutions integration arm of Ernst and Young Global Client Consulting, is one example of a service provider which has positioned itself in the ASP market. EYT will offer customers a dual delivery approach either via the ASP model or through the traditional installation of software on-site. KPMG, another leading services firm, has formed an ASP alliance with Qwest.

THE FUTURE OF ASPS

As industry experts continue to speculate on how IT&T players will consolidate in the ASP market and the level of growth that the ASP model will achieve, it is too early to predict the true impact the ASP model will have on the offering and relative market position of established IT&T providers. Although the service focus of the ASP model means that it may