

ASP Model

Summary

The ASP model is a trend that emerged nearly three years ago that harnessed the connectivity of the internet to deliver software. The traditional internet experience involves searching web sites for either entertainment, educational or commercial purposes. The ASP significantly broadens the potential of the internet by displacing in-house client server software that is internally networked. By employing an ASP to provide software over the internet, businesses dramatically reduce technology related overhead while increasing worldwide connectivity of their systems for personnel, clients and vendors. ASPs also offer much faster time-to-market custom applications than most companies could perform internally. Software upgrades are immediate with no down time, training is outsourced at a fixed rate and software is supported and serviced. The efficiencies in time and money saved that ASPs offer has poised the business-to-business software sector to more than triple the business-to-consumer market currently dominating the internet. ASPs will emerge as a new utility for software delivery and we predict that approximately 50% of all software sales will be delivered over the internet by year end 2003.

Solutions/Advantages

The ASP model, in its purest form, is a logical evolution of Internet technology. It is not an ancillary "fad" of the information age, but rather the prime mover in altering the distribution and servicing of software applications. By outsourcing these IT services, companies not only increase operating cash flow by reducing costs, but also streamline internal processes while vastly increasing their accessibility to customers.

The following are core advantages that Application Service Providers offer:

- **Time to Market:** Faster operational implementation of web-based software applications than most companies have the infrastructure to accomplish internally.
- **Technical Support:** With software developers, engineers and consultants in high demand and short supply, ASPs offer clients 24/7 access to expert IT personnel offering deep applications expertise without the overhead and risk of retention.
- **Software upgrades:** All software design, implementation and upgrades are delivered per Service Level Agreement upon request or release.



- **Corporate Cost Control:** The ASP model allows clients to pay for advanced applications and infrastructure support as they use them, rather than forcing large up-front investments. Paying one flat monthly fee over the term of a contract allows clients a predictable expense as well as faster return on investment.
- **Scalability:** Clients benefit from implementation and maintenance expertise gained over previous engagements.
- **Security:** Because the ASP designs, implements and manages software, secure data and process control is ensured. As a result clients gain secure sites and data control through virtual private networks (VPN).

Alternatives/Risks

Businesses today have essentially three options: **1) outsource only specific applications, 2) continue to purchase and manage software programs internally, or 3) outsource their software applications through an ASP.** There may be initial reluctance to release control of mission critical applications due to security and customization issues. Perception and timing, therefore, represent primary risks of market entry. Only by seamlessly combining technical expertise, both on the hardware and software sides with the proper strategic business acumen to provide comprehensive e-commerce solutions, will this reluctance for change be eliminated.

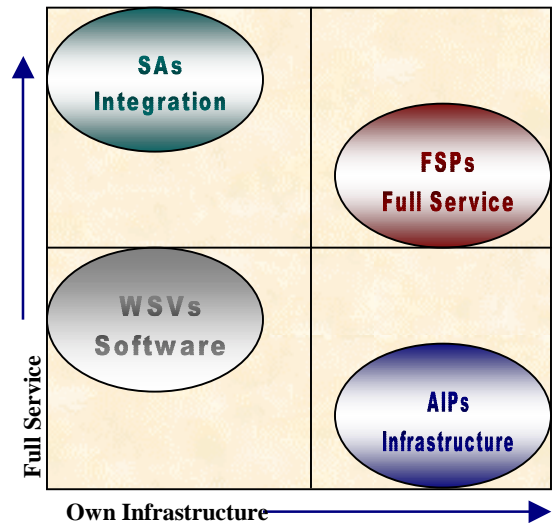
The ASP model will dominate the business-to-business application market within the next 5 to 10 years. The strategic advantages and efficiencies are simply too overwhelming to ignore. The risks lie in "how fast" rather than "if".

ASP Industry Classifications

Although very young, the ASP market can be broken down into four industry classifications. The differences lie in which services are actually controlled and provided in-house, as opposed to outsourced.

- **Web Software Vendors (WSV)** - These are software companies who have recently begun to reposition or establish their businesses to provide ASP capabilities. They typically partner with data center and network providers to handle the back end aspect of their offerings. Examples of WSVs include Oracle, Siebel and PeopleSoft.
- **Service Aggregators (SA)** - Service aggregators have their roots in system integration and frequently offer consulting services. The most visible service aggregators are the traditional consulting firms such as Deloitte & Touche and Ernst & Young. Companies within this category do not run their own data centers, but rather function as facilitators of the individual parts; software, integration, and data center/network.

- **Application Infrastructure Providers (AIP)** – AIPs traditionally focus on the back end of management and operations. They specialize in deploying and managing data centers or have their roots in Web hosting or telecommunications. Companies such as AT&T, Exodus, UUNet and Qwest could be considered AIPs. These companies already have an infrastructure in place, have large customer bases, and have the geographic reach to extend the ASP model to a global scope. However, they do not have core competencies in software application hosting and management.



- **Full Service Providers (FSP)** - Full service providers offer both the front end and back end as part of their solution. They invest the most in their infrastructure and support service, reliability, and technical expertise on a range of applications. FSPs also run their own data centers with the promise of providing higher levels of security and reliability for their clients.

Applications Hosted and Managed

Current ASP offerings are focused on the various enterprise software applications employed by nearly all businesses. They are ideally suited for the ASP model, as they typically require significant capital outlays and technical resources to implement and manage. Additionally, the lengthy implementation curves of these applications make quick time-to-market a near impossibility for companies attempting to do all the work internally. The following are categories of enterprise and other applications the ASP model is ideally suited to offer:

- **ERP** - Enterprise Resource Planning applications are designed to integrate and enhance communications between all aspects of a company's critical functions and are expensive and difficult to deploy. Companies with revenues less than \$200 million often find the costs of bringing these applications in-house prohibitive and too time consuming.
- **CRM** - Customer Relationship Management applications include marketing automation, sales force automation and process management. With the meteoric rise of the Internet, its progeny of "dot.coms" have placed a high premium on customer acquisition and retention. Many industry analysts view CRM applications as critical to the long-term survival of any Internet business as well as traditional companies attempting to adapt to the Internet evolution.



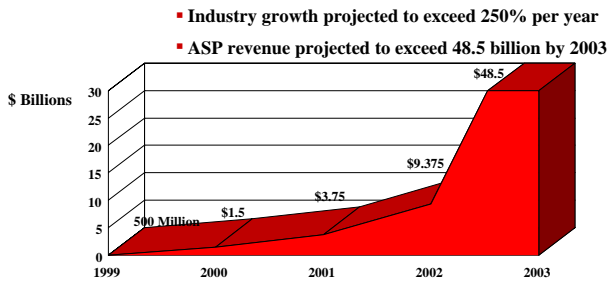
- **E-Commerce** - As traditional companies rush to create an effective Internet commerce presence, many will turn to full service ASP's to provide everything from Web site design and hosting to process customization and order fulfillment systems. These applications are relatively easy to deploy and enable companies to concentrate on their sales and marketing strategies, rather than devote scarce resources to an IT staff that will continually be faced with the challenges of rapid technological obsolescence and shrinking software release cycles.
- **E-Procurement** - Minimizing the cost of doing business is vital to every company's operations. E-procurement technologies allow businesses to automate purchasing of both production and non-production goods and services, thus helping to reduce procurement costs, shorten order fulfillment cycles, and improve inventory management. Application Service Providers can help a company quickly adopt an e-procurement system that links it reliably and securely with all members of its supply chain.
- **Data warehousing** - Effectively capturing and storing information obtained from both internal and external e-business systems is a major concern for companies of all sizes. This data may come from Web site visits, Web purchases, supply chain transactions or any number of other sources. Most data warehousing initiatives, if done in-house, can take years to deploy. Although equally complex, ASPs can offer this capability in market segments of greater customer demand, thereby maximizing the scalability and minimizing costs and implementation time.
- **E-mail messaging** – usually offered as a part of CRM and ERP packages, ASPs implement and maintain e-mail systems with appropriate security, remote access and rich content delivery services.

ASP Growth Projections

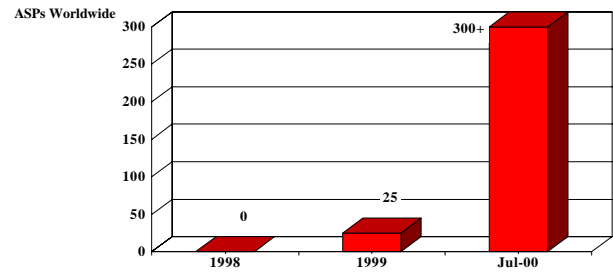
ASP Industry Growth

The ASP industry is truly in its infancy. Prior to 1999 there were only a few software suppliers actively hosting applications and by early 1999 there were approximately 25 firms functioning as an ASP. Today, there are hundreds of true ASPs worldwide. We predict industry growth will exceed 250% yearly to an anticipated range of between a low of \$15 billion to a high of \$48 billion by 2003.

Industry Growth Projections



ASP Industry in its Infancy



Software Sales Growth

The ASP model is expected to become the dominant software distribution method with approximately one third of worldwide businesses transitioning their IT infrastructure to Service Providers by 2003. Whereas today only approximately 2% of all software sales are conducted through ASPs, we anticipated that level to reach approximately 50% within the next three years.