Understanding ASPs

Application Service Providers (ASPs) provide a new form of outsourcing service which could prove particularly useful to SMEs. We attempt to cut through the hype and myths to find out whether it's a worthwhile option.

By Rod Newing
IT Journalist

The Application Service Provider (ASP) Industry Consortium defines an ASP as "a provider who manages and delivers application capabilities to multiple entities from data centres across a wide area network." This is an extremely general definition that could embrace many large existing IT departments. I prefer my own amalgam of the two different definitions used by GartnerGroup and its DataQuest subsidiary. This would read: "The provision and servicing of business applications to end-user organisations over a network via a subscription-priced outsourcing contract." The fact that it is subscription-based means that an ASP usually charges its clients a fixed sum per user per month. Because it is outsourced over a network, it means that the software is located on a server in the ASP's own data centre, rather than on the customer premises. As such, it is perfectly reasonable to describe an ASP as a "computer bureau". There is also a general expectation that customers share the same set of software on a single server.

Dataquest predicts that the worldwide ASP market will grow from US$889 million in 1998 to US$22.7 billion in 2003, representing a 91% compound annual growth rate. Similarly, International Data Corporation is forecasting a market of US$21 billion by 2001. This market is being driven by the need of user organisations for speed of implementation, lower costs, simplification and the need for electronic business processes. The ability to rent a standardised package at a fixed monthly fee is ideal for start-up companies, as well as small and medium-sized companies and smaller business units that do not have the resources to build and manage their own systems.

Providers

We are at a stage where almost every company in the IT industry is claiming to be an ASP. Some rare examples of genuine ASPs are Corio, US Internetworking and FutureLink in North America, and Telecomputing in Europe.

These are good examples of ASPs because the only services they offer are ASP services. Most organisations that market themselves as ASPs were set up to provide a specific business solution and are describing themselves as ASPs in order to ride the wave of hype. In particular, the industry has heavily targeted the venture capital market with promises of new Internet business models, so positioning itself as an ASP can do wonders for an organisation's share price.

Europe has two good examples of established companies that are now describing themselves as ASPs. TDS is a 25-year-old German company that started out as a bureau for SAP's R2 mainframe business software. When SAP's R3 client/server Enterprise Resource Planning (ERP) software was launched, TDS continued the model by hosting servers dedicated to each of its customers. Its data centre houses over 200 servers that support 10,000 SAP users for 100 customers - mostly middle-sized German companies. Another example is NetStore, which was originally set up to provide offsite backup. Oracle has also attracted a lot of publicity with its Oracle Business OnLine subsidiary. It acts as an ASP for Oracle's Web-enabled ERP application suite. It has 2,000 users in 30 customers. PeopleSoft and J D Edwards are also acting as ASPs.

Software

It is hard to identify which types of software are most appropriate for the ASP model as so few contracts have been signed. However, there appears to be polarisation, with ERP software being most talked about. The ASP model is seen as a way that the big ERP vendors can expand out of their saturated high-end

Issue 128:March 2001
Page 13

PC Network *Advisor*
www.pcnetworkadvisor.com

File: T04134.1
Tutorial:Overview

corporate market into the medium-sized market. At the opposite end of the spectrum, office productivity tools are gaining a lot of attention. Sun Microsystems has purchased Star Office and will make it available for use over the Internet. Similarly, Microsoft has announced Office OnLine for small business customers and branch offices without on-site IT support. Microsoft claims that "it has been specially tuned to perform better and adjusts dynamically when being run in a hosted environment". It is accessed from Windows or Windows CE clients using Windows NT or Windows 2000 Terminal Services and terminal emulation.

One area that isn't receiving much attention is electronic mail, which could be very effective for smaller organisations who could have their servers managed for them. Interestingly, Office OnLine offers Microsoft Office Server Extensions, which allows collaboration between employees.

Another intriguing possibility is to provide virus protection along with other ASP services - each day, the anti-virus software could be automatically updated to provide protection from the latest viruses as soon as they are identified.

Internet Computing

One big myth about ASPs that can easily be dealt with is that surrounding Internet computing. Much of the hype that surrounds the ASP market is focused on the benefits of Internet computing, with applications being accessed through browsers. The ASPs manage to convey the message that Internet computing is good, and therefore you need an ASP. In reality, there are many advantages of Internet computing, but many organisations are already implementing it in-house. They are using their own servers accessed across their own corporate intranet, rather than third-party servers accessed over the Internet. Indeed, many existing ASPs are using dial-up connections rather than the Internet. Using an ASP is just one of the ways to implement Internet computing, but it is not a unique feature of the ASP model.

Rental

Although not entirely unique to ASPs, the ability to rent software for a fixed monthly subscription is certainly one of the major potential benefits of the ASP model. It converts a large initial fixed cost into a recurring variable cost, spread evenly over the life of the contract, which is typically three to five years. This makes the software more affordable for many organisations.

Indeed, one ASP reported making a sale specifically because an organisation's strategic plan required it to increase the number of users in the short term, but later to reduce it to below the initial figure. That would have been very costly and wasteful under the traditional licensing model.

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The fixed price per user per month covers use of the software, support and services, but normally excludes implementation. The ASP will hope to do the implementation as well, possibly for a fixed-price lump sum. However, some are willing for it to be included in the rental figure, using an equivalent of lease financing. This makes life simpler, because an organisation can deal with a single supplier for all aspects of the software. Even more importantly, that single supplier is responsible for any problems and is unable to point any blame elsewhere.

The ASP model is intended to be much cheaper than the traditional model. It is too early to put this to the test. Telecomputing claims an annual cost per seat on a 50-seat site of US$6,000, against US$10,000 for a standard internal network. TDS claims that it is saving its clients between 30% and 40% per annum over the cost of running and supporting the equivalent SAP software in-house. The ASP is a single purchaser and should be able to take advantage of economies of scale in the procurement of software licences and hardware, which should be passed on to its clients in lower user rental charges. The licence costs have yet to settle down, but Oracle charges ASPs based on the size of the server so, as the number of users grows, so the server is upgraded and Oracle's licence fee grows.

Cost is one reason why the ASP model is expected to be useful for smaller organisations. It is also supposed to make the ASP model more attractive for smaller operating units and branches. However, this argument doesn't take into

Issue 128:March 2001
Page 14

PC Network *Advisor*
www.pcnetworkadvisor.com

File: T04134.2
Tutorial:Overview

account the fact that any existing data centre in one of the larger operating units or in a corporate data centre could offer exactly the same service as an ASP.

Access To Skilled Staff

One of the more interesting claims by the ASPs is that they have available a pool of expertise that their customers can access. Many organisations wouldn't normally be able to recruit such experience in-house because the cost of good-quality specialists would be too much for a single small organisation to bear alone. However, the ASP is expected to have the means to recruit good staff and to provide them with enough career opportunities and variety of work to retain them. The ASP will need to offer both support staff and implementation specialists. Although they may have similar skills, implementation consultants are not normally interested in offering subsequent support.

Implementation

The way the ASP industry describes use of software on the Web makes it appear as if all an organisation need do is give their staff the ASP's Web site address and they can log on and start using a sophisticated ERP system. This is clearly untrue; there is a great deal of implementation work involved, even in setting up Office 2000, let alone in implementing an ERP system. Implementation is fundamental to the realisation of benefits in any major system.

Many of the packaged business software applications, such as ERP, customer relationship management, supply chain optimisation, warehousing, electronic commerce and electronic procurement require considerable customisation to match the organisation's business processes. Indeed, many organisations invest a considerable amount of time changing the organisation's business processes to increase efficiency or create competitive advantage before the software is customised.

The cost of consultancy and services for the large ERP systems usually amounts to five times the software costs. The important thing to remember about these implementation costs is that the costs will be largely the same, whether it is a traditional in-house implementation or implemented by an ASP. In the much-hyped use of ASPs to deliver ERP systems, the rental costs are clearly only a small part of the overall costs.

One impact of the ASP model is to threaten an end to the symbiotic relationship between the packaged business software vendors and the management consultants. The management consultants sell the client the need for an ERP system, and then make money on implementation. If an organisation is going to use an ASP it makes sense to get the ASP to carry out the implementation work, as this will make it much easier to set up and configure the software and servers, and should make them easy to maintain. One reaction is that the management consultants are starting to position themselves as ASPs in association with telecommunications companies. Deloitte Consulting is partnering with Sprint, and KPMG with Qwest.

The provision of rented application software is expected to become a commodity. Hence ASPs need additional value-added services, such as implementation, in order to create a source of differentiation in the marketplace and to generate additional revenue.

Pre-Configuration

One claim made by ASPs is that they are fast to implement because they use pre-configured software. This is true to the extent that they are merely adding a new company to software that is already installed on their server. However, to the extent that they are offering software already configured to the user organisation's particular industry, this is not a unique offering. Many software vendors, especially the ERP vendors, already allow you to choose between standard pre-configured "vanilla" versions of their software, or from a set of industry-specific templates such as telecommunications, pharmaceuticals or retail. These are often produced in conjunction with the major management consultancies in order to incorporate best practice for each industry.

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Issue 128:March 2001
Page 15

PC Network *Advisor*
www.pcnetworkadvisor.com

File: T04134.3
Tutorial:Overview

When combined with rapid implementation techniques this approach can reduce implementation costs to only twice the software licence costs, from the normal five times. It can also reduce the time taken to as little as six weeks for just the core modules. However, it isn't necessarily a good thing to blindly reduce the cost of services. A large proportion of the cost results from the need to change the business in order to generate benefits through improved efficiency, better reporting and creating competitive advantage. The problem with pre-configuration and rapid implementation is that it reduces the initial costs, but at the risk of not generating the benefits of changing the business processes. The consultant may leave the organisation to generate the benefits for itself later by changing the software, although in reality the consultants tend to come back to earn new fees under a new budget.

Offsite Hosting

Offsite hosting is not unique to ASPs, but is does have a number of advantages. We have already discussed the availability of skills and the economies of scale; the ASP should have advanced skills in supporting both hardware and software. On top of this, the ASP should be using high-availability servers. These are more expensive to purchase and more complex to manage than the servers the organisation would choose for itself. By sharing the costs between multiple clients, the ASP should be able to offer a higher level of reliability and availability than the organisation would be able to justify economically in-house.

We may even see ASPs offering a choice of servers, so that each customer only pays for the availability they require for each application. Some may only want a reasonably specified server for human resources and accounts-payable software, whilst the critical payroll, manufacturing, supply chain optimisation and Web site systems are hosted on fault-tolerant clusters that share the processing load. Hosting should also prove attractive for young, fast-growing organisations, in that the ASP handles the problems of scalability. Another advantage is that the ASP handles all software upgrades, so clients should always have access to the latest technology.

The ASP model differs from an offsite outsourcing model mainly in that the contract is entered into before implementation. With outsourcing, the contract is often entered into to manage the new system after it has been implemented.

A valuable service that is included in the ASP hosting model is automatic offsite backup of data. Whereas companies like NetStore already provide backup over the Internet, because ASPs are hosting the application they also manage the backup of the files maintained on their servers, often through mirrored data centres. Similarly, this provides a solution for business continuity, as all an organisation needs after a disaster is access to the Internet from any "cold" site. Security is provided through encryption of data; however, TDS has used dedicated servers so far because it makes it easier for clients to accept that their critical data is secure.

Small Businesses

ASPs have a great deal to offer small businesses. They can take away the technical complexity and remove the need for the business to employ full-time internal IT staff. The availability of skilled specialist resources also reduces the time taken to implement new systems. This allows the small business to concentrate on growing its business, rather than on IT support. In particular, it provides security of data, including managing backup. This is a vital task that is often performed badly or even omitted by small businesses. It is particularly vital for accounting systems, which are an obvious application for small companies. The ASP model could yet prove to be the way forward for small businesses, including one-man businesses and even consumers. By booting into a Web browser that automatically logs onto the ASP's server, the network computer could finally arrive.

However, the ASP model is being hyped as the ideal way for smaller companies to access the big powerful ERP applications. As we have seen when discussing implementation, this makes no sense at all. There is an assumption that SMEs want access to complex ERP systems, but in fact they are already served by excellent vendors, like Agresso, Great Plains, Intentia and Navision.

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Issue 128:March 2001
Page 16

PC Network *Advisor*
www.pcnetworkadvisor.com

File: T04134.4
Tutorial:Overview

ADSL

The ASP model is being driven by North American thinking and assumes unlimited communications access to the ASP. In reality, many countries have expensive, low-bandwidth connections that are charged on a time basis, which limits both the technical and economic benefits of the ASP model. The arrival of economically priced, high-bandwidth lines such as Asymmetric Digital Subscriber Lines (ADSL) will give an enormous boost, allowing all users to have a constant connection to their ASP. Whereas larger organisations can justify leased lines, small companies and branch offices will benefit from this new technology.

Further Information

www.aspindustry.org
The Application Service Provider Industry Consortium (ASPiC) was formed in May 1999 to focus on educating businesses and consumers and drawing up best practice. It now has over 725 member companies in 28 countries.

www.corio.com
Corio's first customer was Excite. It offers Broadvision, Changepoint, CommerceOne, E.Piphany, PeopleSoft, SAP and Siebel. Microsoft has invested in the company.

www.futurelink.net
Futurelink is a "computer utility company" that provides Microsoft BackOffice, Great Plains, SalesLogix, Onyx, Pivotal and Epicor.

www.appsonline.com
Interliant provides Lawson, Lotus Notes, Microsoft Exchange, Onyx, Oracle and PeopleSoft.

www.jamcracker.com
Jamcracker is a US company that aggregates and integrates applications hosted by others.

www.microsoft.com/isn
Microsoft's Internet Services Network assists those providing hosting services.

www.netstore.net
NetStore is a European company that offers remote systems management, data back-up and Microsoft Exchange. It has 18,000 users.

www.oracle.com/businessonline
Oracle BusinessOnline is the hosting subsidiary of Oracle and uses Qwest's infrastructure and Sun Microsystems and Hewlett-Packard hardware. Customers have to buy a full licence at the outset, paying a monthly fee for hosting. Oracle expects it to account for 80% of its application income.

www.salesforce.com
Based in San Francisco, Salesforce.com has developed "Internet native" sales force automation software that it rents directly over the Internet. The company plans to expand its offering to include a full suite of customer relationship management and other applications. It offers the first five licences free for 12 months.

www.tds.de
TDS Informationtechnologie has a traditional SAP R3 bureau business that differs from an ASP only in being profitable.

www.telecomputing.net
Norwegian TeleComputing has recently moved its headquarters to the United States of America. It aims at 50-1,000 users and guarantees uptime of 99%.

www.usi.net
USinternetworking uses mirrored data centres to provide Broadvision, Lawson, Microsoft, PeopleSoft and Siebel. Sagent was the first organisation to use Siebel over the Internet.

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Issue 128:March 2001
Page 17

PC Network *Advisor*
www.pcnetworkadvisor.com

File: T04134.5
Tutorial:Overview

Benefits And Drawbacks

The benefits of the ASP model can be summarised as:

- Converts a lump sum fixed cost into a variable cost
- Reduces cost of ownership
- Reduces complexity for the customer company whilst keeping it up to date with the latest technology
- Gives access to quality specialist skills
- Can provide higher availability
- Can be faster to market with applications that require less implementation
- Automatic backup and disaster recovery.

Against these benefits we would like to suggest a potential drawback that will not emerge for some time. There are potential problems if an organisation wants to change ASP - because of poor service, because it wishes to move to a software package that is not supported by the ASP, or because it has merged or been acquired. The customer needs access to its data in order to implement the new system and, if it is not written into the initial contract, may have to pay high fees for its own data.

Myths

We have tried to debunk some of the dubious claims that are being made about ASPs. Note the following:

- You don't need an ASP to implement Internet computing
- You cannot use any software from an ASP without some degree of implementation
- The ASP model has very little impact on implementation costs
- You can use pre-configured software without an ASP
- The ASP model will not make smaller companies want to use complex ERP packages.

Conclusion

The ASP industry is currently very much over-hyped. It is immature; very few contracts have been signed and even fewer fully implemented. The concept is therefore unproven, and the ASPs themselves are making large losses. We have attempted to identify what we believe are the genuine benefits of the ASP model. Whereas there is nothing unique in the model, it has considerable potential. If ASPs are able to master integration between their customers' systems and those of the customers' suppliers and partners, they could prove even more attractive as the business environment moves towards competition between supply chains, rather than between the individual organisations within them.

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