

## ASP's Practiced Approach to E-Commerce

*This article was contributed to ASP Insight by Successful Business Reporters Inc. Successful Business Reporters is located in Ft. Collins, CO and has over 9 years experience reporting on high technology, much of which revolves around ASP successes and challenges.*

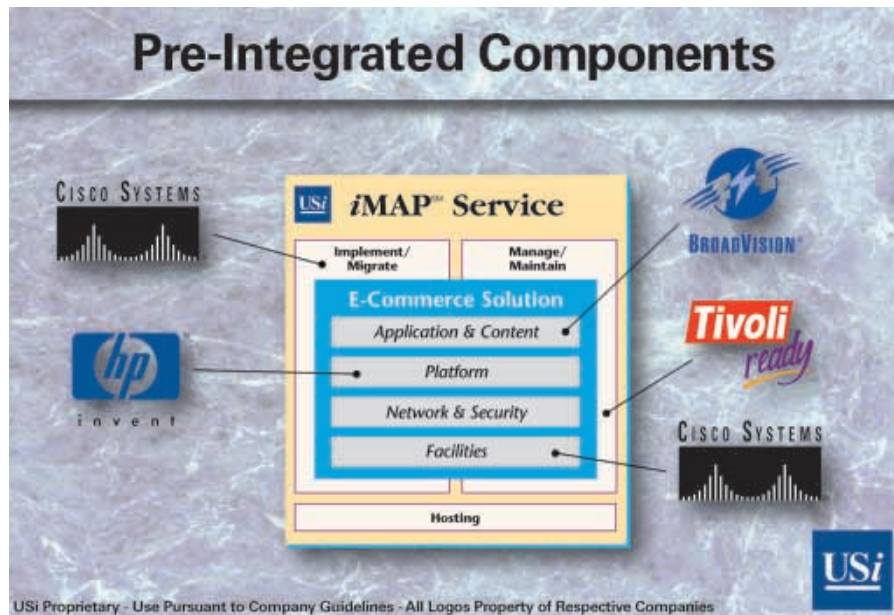
For corporations everywhere, new forays into e-commerce mean they'll have to deploy and support an infrastructure fast, in Internet time. Doing this without adding to IT management complexity or company overhead costs had been a significant hurdle until USInternetworking pioneered the concept of implementing, managing and hosting applications for the enterprise.

E-commerce is creating a new set of challenges for dot.com startups to well-established brick-and-mortar companies. Driven by the corporation's need to capture increasing shares of business online, IT managers take the first step by deciding on a commerce application and BroadVision is the most frequent choice. Then they face a daunting decision; whether to assign implementation, deployment and application hosting to internal IT resources, or to shift gears and contract for these services with an ASP who, interestingly, may outsource server hosting for these applications to other providers.

One company confronted with such a dilemma at the brink of the 1999 holiday shopping season was California-based, The Luggage Center. In the travelware business since 1927, The Luggage Center operates 32 stores on the west coast. Company executives and Erik Erlendsson, Director of IT, wanted to build some portion of new sales from holiday shoppers with an online store — that opened just in time in December!

Standing in the way, however, are industry figures showing million-dollar development costs, potentially lengthy development timetables, plus uncalculated distractions for internal IT groups. A recent Gartner Group report puts the average cost to develop and launch an enterprise e-commerce site at \$1.01 million. While the average time to complete an e-commerce site is five months, some sites have been a year and more in the making. Is it surprising that 80% of the cost is labor? In 2000, the cost will range from \$5-20 million for a 'market differentiator' site, as opposed to a mid-range 'get on the map' site, or lower-cost 'run with the pack' site.

Erlendsson and team acted promptly after their research showed that by working with



an application service provider (ASP), they'd make several gains. First, they'd shave considerable time from the proposed implementation schedule. While virtually every company has different operating systems, hardware, and applications, an ASP can implement an e-commerce solution and other enterprise applications in as little as 90 days.

Solution manageability and creativity must blend in this new domain. Software Magazine (August 1999, "USInternetworking Pushes CM Envelope") observed that USInternetworking is making several dozen implementations each month, benefiting from the constant use and experience with specialized tools to control and manage the inherent subtleties and complexities of the solution. In the ASP model, teams within the ASP and client company focus on their core competency. For customers, this means they preserve and concentrate internal resources on the core business. They can also forgo the difficulty of finding (and keeping) web-developers and web-host administrators on the payroll.

Having access to... a large pool of talented, diverse developers who specialized

in e-commerce applications and could handle the support and integration of all the components of our complex system was a deciding factor for us," said Erlendsson. The strategy also saves The Luggage Center investment dollars for all the hardware, software applications, and network services associated with opening a commercial Web site to support customer services and important integration of data with back-office processes.

As application service outsourcing heats up, USInternetworking advances the model of crafting a network specifically for hosting outsourced web applications. It assembled a clean-slate infrastructure, now installed at four data centers, from Cisco Systems and HP for the network, application, and database servers running applications from BroadVision, Microsoft, and Tivoli, which supports diagnostic software for watching over the entire network. Since an e-commerce enterprise depends entirely upon processes running reliably over the network and server availability/response time, USInternetworking's approach puts network and performance monitoring at the

center of the configuration and does not outsource application hosting which makes management a remote function.

The Luggage Center's experience with this strategy provides a solid model for other brick and mortar companies, especially when the mood among company executives is to avoid adding IT staff to the payroll, even if these people could be found. Forrester Research says IT managers' increasing interest in applications outsourcing, measured in dollars and contracts, will surpass \$21 billion by 2002. These investment predictions measure the interest by true and mid- and small-size companies, as well as much larger corporations who want to add e-commerce sites to existing sales channels.

ASP's are in the bold business of shifting economic paradigms. By helping companies like The Luggage Center quickly acquire an Internet infrastructure and either tap wider circles of prospects or even enter new marketplaces for the first time, USInternetworking's collective application and services provisioning earned the attention of analysts by defining the ASP since it's 4/99 IPO launch.

The firm was recently cited by Internet Research Group, Los Altos, California, as the top-ranked ASP in the industry with 36% of the market. It is one of the few ASPs offering what's called by some, a 'complete' e-commerce solution for a flat monthly rate. In this case, the package incorporates numerous, pre-integrated components essential for making e-commerce feasible, i.e., a fully functional and manageable arm of a corporation's sales and marketing operations and with important data links for integrating back-office processes such as shipping, distribution, and inventory, for example. These, as ERP and supply chain managers will notice, are the core of a burgeoning B2B industry.

USi's strategy of pre-integrating software application components leverages several prominent best-of-breed products and expertise from solution partners. These application choices are contained within USInternetworking's iMAP (Internet Managed Applications Provider) solution and support several layers of services within the overall solution.

We see that one side of USi's model combines a time-tested use of pre-integrated applications for rapid deployment with expert e-process technologists to address company-specific process requirements (overcoming prior misconceptions about the lack or difficulty of making customizations to fit a company's business strategy).

There is still another benefit to USi's focus on hosting applications, i.e., the continuous experience at provisioning puts the company's teams in excellent position to evaluate the customer's e-commerce potential for its impact on the infrastructure. As such,

the server configuration, database design, and other aspects affecting performance can be optimized in ways not possible without the prior modeling of best-practices. USi will host a scalable architecture by determining the configuration of server CPUs and memory needed to support the enterprise applications and various databases and maintain performance levels for concurrent users. As growth and transaction volumes at client sites increase, USi will scale up the server underpinnings to maintain performance—and is already utilizing hundreds of Hewlett-Packard Enterprise Class Servers in its data centers.

USi also separates clients' server architecture. In this model, for example, one server supports BroadVision's One-to-One e-commerce application, another Netscape, a third, databases and a fourth, e-analysis. The approach also has the advantage of enhanced manageability of the services as well as control and optimization of response times for application users. With management software, control is integrated so there is a single point of server management and monitoring at USi's data centers.

As recently as early 1999, almost all e-commerce sites were first generation, with dynamic 'shopping carts' becoming a dominant feature. During the last half of the year, however, it was apparent that many more were being built requiring much more complex functionality and scalability. Now, in 2000, Web sites can be integrated with the company's back-end services such as accounts payable, accounts receivable, order log, customer service and customer relationship databases.

Much more complex customer profiling is supported by USi now than even a year ago using an e-analytics product, BroadBase®. This enables e-companies to intelligently analyze their customers and configure their sites to show visitors related products or Web pages that might interest them (based on what they have already purchased), in order to encourage additional purchases and customer loyalty. The goal is to cater to all of the customer's needs and make multiple selections and purchases rather than leaving opportunities for the customer to surf out of the Web site and complete their purchases elsewhere. USi's facility, incorporating the HP 9000 servers, provides an important supporting role here because these kinds of transaction activities make concurrent usage and processing loads difficult to predict and prepare for.

Christopher McCleary, President and CEO, USi, said, "There is a noticeable upward trend in the integrated reporting of user activities on e-commerce sites. In contrast to the traditional order-only data, sites are being designed to pick up user profile data such as all pages visited and for how

long, calls to tech support and what the question was, did they buy another suggested product and did they find what they were looking for. Reporting these transactions throughout the company has become exceedingly complex, especially when you consider all the departments that use this data."

In these respects, The Luggage Center determined that USi could leverage proven programs and solutions at a realistic price. In addition, USi provided an intellectual property (IP) library of solutions that management could review and determine which components they wanted to incorporate into their own solution. Because companies are looking to meet cost goals and rapid deployment schedules, USInternetworking espouses a 'productized' solution and IP Library. This approach makes the decision to outsource much easier because IT groups can literally pick and chose from a library of 50-60 components, plan how they want the components to work in concert, and have the assurances, based on prior successes of prior implementers, of remaining within budget.

Towards the end of October, implementation of the iMAP solution for The Luggage Center began with a goal of going live on December 10. Three companies were involved in the team effort; USi as the ASP, BroadVision as the application provider, and HP as the platform provider. USi coordinated the entire operation, creating the synergy and drive required to get the job done. Four HP-UX N-Class servers were installed in The Luggage Center's data center which was up and running just in time for holiday shoppers to take advantage.

The Luggage Center's IT team estimates that it would have required four to six months if they had done it alone, compared to the eight weeks the team effort required. The Luggage Center signed a five-year contract for the BroadVision One-to-One e-commerce application, which runs on a 64-bit HP-UX server along with an Oracle database. In retrospect, the company is convinced they would have had to pay more for the e-commerce site if they had purchased each component separately from the three vendors.

USi has the practice of collecting data and anecdotes that come out of implementing each new e-commerce site. After the site is up and running, everyone on the implementation team participates in a post-mortem to determine how the project went, did they learn anything that could be used in the future and what new data could they add to the IP Library. Everyone on the implementation team, both USi and client team members, benefits from the experience and as a result, they go into the next project with a lot more knowledge, experience and confidence. It's a win/win situation for all concerned.