

Blending Advanced VSE Technology With Today's Challenges: Case Studies

By Eric L. Vaughan



The IT industry at large too often labels customers using VSE/ESA as “small shops,” when, in fact, VSE/ESA powers some of industry’s largest organizations. The nimbleness and ease-of-use of VSE/ESA, complemented by its extensive capabilities and power, provide unmatched scalability, and serve both small environments with only a handful of employees as well as multi-billion dollar organizations.

The trademark of the VSE customer is his or her ability to squeeze every drop of value out of their company’s IT investment, and this characteristic is common regardless of size. With the advanced capabilities of VSE/ESA, and now the follow-on release of z/VSE, only the uninformed should believe there’s anything that can’t be done on a VSE platform.

Two shining examples of blending advanced VSE technology with today’s challenge of multiple platform environments are found in the state of New York: ADI, Inc. and Davis Vision, Inc.

Securing an Incredible Ride

ADI, with headquarters on New York’s Long Island, is one of North America’s largest wholesale distributors of security and low voltage products, with more than 105 branch locations in the U.S., Canada, and Puerto Rico. ADI’s product lines include intrusion, fire alarm, access control, Closed Circuit TV (CCTV), telephony, distributed Audio/Visual (A/V) and structured cabling. A division of the \$25 billion Honeywell family of companies, ADI has experienced exponential growth since its inception in 1982. ADI selected VSE as its platform to start the business, initially

averaging 50,000 CICS transactions per day. That’s grown massively to today’s rate of 1.6 million CICS transactions per day, and is expected to continue to grow.

ADI’s environment flies in the face of conventional belief, illustrating how a large, multi-faceted company can leverage the capabilities of VSE/ESA to its advantage. The mainframe environment includes a brand-new IBM eServer zSeries 890 (z890) Capacity Setting 270, boasting 707 MIPS of computing power. Rapid-fire storage access is made available with an IBM Enterprise Storage Server (a.k.a. Shark) Model 800, providing 3.3TB of usable space exclusively for the mainframe environment. The raw power of this data center is harnessed currently by VSE/ESA V2.7.2—all in native mode.

Ken Ripple, ADI’s IT Manager, tells why VSE has been the company’s platform of choice for more than two decades: “It’s easy to say—existing investments and proven results. The entire environment is very cost-effective both in terms of acquisition and in terms of operation. And most importantly, VSE has supported our business throughout our growth without requiring the large expenses from technology overhauls.”

There was a time, however, as with many other mainframe environments, when the continued viability of VSE was challenged. Explains Ripple: “During the industrywide push toward converting mainframe shops to the client/server model, there was a good deal of discussion internally about everything being moved to the new model. The mainframe ultimately won that skirmish because our functionality was more tuned to our specific business and because we were able to show the value centralized computing provided.”

As with most IT environments, there’s a large investment in other platform technology at ADI. In use are approximately 75 Intel-based servers running Windows Server 2000 and 2003 for Web, database, application and file servers, and one IBM eServer iSeries model 810 used for data warehousing. ADI blends these environments together with a variety of approaches. “In our world, the Intel servers function as clients, using the CICS/TS Transaction Gateway and TCP/IP Sockets applications to exchange data with the mainframe,” says Ripple. “And the iSeries interacts using FTP. The CICS/TS Transaction Gateway and TCP/IP for VSE have enabled us to develop a very robust e-commerce platform support-

ing some 20,000 Internet-based customers and vendors. But all roads lead through our zSeries processor.”

This entire infrastructure is built to support the company’s home-written ADONIS (ADI’s ONline Information System) COBOL-based application. Currently, the application development personnel all wear multiple hats, developing applications using COBOL on VSE and .NET Visual Basic, and JavaScript applications for the Intel environments. Ripple adds, “Our long history of success has shown the continued value of internal development. We even wrote our own IP Sockets print driver to streamline printer performance and error recovery to ensure optimum availability. This complex, intertwined application platform supports all 1,200 of ADI’s employees, and our ADONIS application is Web-enabled using a third-party, mainframe-based Web transformation product, delivering access to all the other Honeywell businesses worldwide that require access.”

With general availability of z/VSE announced for March 4, 2005, ADI is ensuring it is staying on top of these new developments. “We were participants in the z/VSE V3.1 beta test program,



ADI Headquarters

working directly with the IBM z/VSE development laboratory in Boeblingen, Germany,” explains Ripple. “There are several new capabilities of z/VSE that we’re very interested in, particularly the Flashcopy 2 support for our Shark system. With this facility, we have the ability to do multiple Flashcopies, which gives us near 24x7 availability of our online system. Before this new feature, our online system was unavailable for nearly four hours daily while we completed our batch processing.” Ripple continues, “The new Virtual Tape Server support is also important for us, and we look to be early adopters of that technology as well.”

With 23 consecutive years of growth powered by VSE technology, ADI plans

to continue to leverage its investment. Ripple opines, "Native VSE technology has fueled an incredible ride for our company, and there's no end in sight. As we move forward with z/VSE and beyond, we expect to tell similar stories after the next two decades." At ADI, success seems secure.

Vision to Anticipate Changing Times

Many users of technology choose to follow what they see, while others lead through their vision. Since vision is the singular focus at Davis Vision, Inc., headquartered in Plainview, NY, with its Customer Relationship and Information Technology Center (CRITC) located in Latham, NY, harnessing the challenges of today's technology through a well-executed plan has been a key to its success.

Davis Vision, Inc. established in 1917, is one of the nation's leading managed vision and eyecare providers, and presently serves more than 28,000 client groups covering nearly 30 million beneficiaries. The company administers the provision of plan services nationally through an extensive network of more than 17,500 providers geographically distributed in all 50 states, Washington D.C., Puerto Rico, Guam, Saipan, and the Dominican Republic. As an integral part of its parent company, which is one of the nation's leading healthcare providers with revenues exceeding \$8 billion annually, Davis Vision keeps a sharp eye on delivering superior value from its IT investments.

Davis Vision describes its operative philosophy as one of doing "Whatever it Takes!" to exceed expectations. This approach has resulted in unparalleled client satisfaction and benchmark retention rates in the industry. It's also exemplified in the approach to their IT infrastructure to meet the demands of rapid growth. With 212 MIPS via a new IBM eServer zSeries 890 Capacity Setting 160 anchoring the enterprise, Davis Vision's IT operation is a high-octane blend of technology. And like many mainframe data centers across the globe, Davis Vision delivers on its philosophy using VSE/ESA technology.

"Davis Vision began utilizing VSE technology in 1982," says John Perfetto, Davis Vision's vice-president, Vision Care Systems. "When IBM announced CICS/TS for VSE in the '90s with the same common code as OS/390, we realized we could maximize our investment in CICS on our VSE platform, utilizing it as the engine to drive the enterprise at

a fraction of what it would cost to run an OS/390 shop. At the same time, we would benefit from advanced CICS/TS features, such as storage protection, without the requirement of [migrating to] OS/390. This fit our mode of operation where we ensure that every dollar spent is the most effective it can be."

Using VSE/ESA V2.7 in combination with z/VM V4.3, Davis Vision operates a 24x7 data center to deliver the IT products its customers demand. The online mainframe system is served up primarily through Davis Vision's internally architected system called CompuVision, a CICS/COBOL managed vision care application that has evolved through 23 years of development. The mainframe portion of the operation pushes up to 1 million transactions per day through the CICS/TS system.

Davis Vision has been innovative in its approach to integrate the best of other platforms with its mainframe architecture. The company uses a network of Intel-based Web servers running Microsoft's Internet Information Server (IIS) and Java applications averaging nearly 500,000 hits per day as a Web front-end to the CompuVision application. And using IBM's Integrated Voice Response Unit (IVRU) technology, access is delivered to more than 15,000 additional telephone inquiries to mainframe data per day, furthering Davis Vision's mission of "complete customer satisfaction." Davis Vision also blends Linux into the environment, providing a J2EE application environment and Linux's relational UDB technology to leverage additional skillsets and application technologies. Using IBM's DB2 Connect via TCP/IP, the Linux/Java environments are tied into the VSE mainframe data store for information exchange.

For future growth, Davis Vision has put itself in a position to react without interruption by choosing IBM's Capacity Upgrade on Demand (CUoD) offering when they bought their new z/890 processor. "We've experienced high demand of our system and explosive growth over the last several years," explains Perfetto. "It was critical to be in a position to act quickly to serve the business. With IBM's CUoD, we purchased the ability to grow from 212 MIPS to 366 MIPS with, in essence, a flip of the switch and no system outage. That's a luxury we've never had before, and puts us in a position to react to changing business needs and adapt extremely quickly."

The new features of z/VSE offer important benefits to Davis Vision.



Davis Vision Call Center

"We're heavy users of IBM's Shark (Enterprise Storage Server) technology, both on the mainframe and the client/server side of our operation," says Perfetto. "z/VSE has two new features that we're extremely interested in taking advantage of: the new Flashcopy facilities to improve our online availability and the potentially improved data transfer speeds using the new native-attached SCSI device support. These features will enhance our performance and our availability—two important measurements of our success."

A long history of accomplishing its objectives is exactly why Davis Vision has continued to exploit the depths of VSE technology, even as it moves aggressively into new platform environments. Mike Thibdeau, Davis Vision's senior vice president and CIO, says: "We've chosen to remain on VSE technology because it has met our business needs, including stability, predictability, and scalability. Rather than the mainframe having to justify its continued viability, the interesting story here is the continual challenge of our Intel-based systems having to justify why the mainframe shouldn't be used for a particular need, as opposed to the other way around." Proof positive that results speak volumes, and trust comes from experience. **Z**

About the Author



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