Smart money managers can avoid cost of DASDs

ANALYSIS

BY JOHANNA AMBROSIO
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When the going gets tough, the tough turn to systems software to help avoid costly hardware add-ons. Users report that with some software tools and upper management's increased willingness to give them personnel and money devoted to the job, they can get more out of existing systems, particularly during troubled economic times.

Navistar International Corp. in Chicago has managed to avoid adding direct-access storage devices (DASD) to its arsenal for the past three years because of an aggressive management program started in 1985. The original idea was to apply Deming's Statistical Process Control theories to the data center, said Mike Watson, manager of productivity and quality improvement.

Over the past few years, Watson said, Navistar has saved millions of dollars with a combination of off-the-shelf and in-house developed software. The company uses Legent Corp.'s MCS software and IBM's Hierarchical Storage Management (HSM) scheme with its own models.

"We have models to evaluate the costs based on the age and size of the data set, the number of times it has been accessed and the statistical probability of its being accessed again after a certain number of days," Watson said. "We can set the parameters that are most cost-effective for us, we can balance things out, and we can economically defend our decisions."

However, "it's not smoke and mirrors," he said. "We've been through two processor upgrades and a memory upgrade since 1985. Our loads are growing — we've just managed them smarter," he added.

At Maryland Casualty Co. in Baltimore, "my charge is to make our new system last for two years, no matter what," said John Melville, manager of systems resource management. "We're not going to spend another $8 million on a mainframe before that."

In December, Maryland Casualty added an IBM Enterprise System/9000 Model 9021-580 as its second mainframe. "Capacity optimization is a big project for us," Melville said. "In the past, it was done as people had time. Now, senior management recognizes it as an important savings. It's become a formalized process, regularly scheduled."

A probing Strobe

Melville said he expects to buy a package that he has piloted sometime this year. Strobe, which was developed by Programart in Cambridge, Mass., identifies which jobs are using excessive resources, Melville said. "Our goal is to run every application through Strobe before it goes into production. Our tests indicate that Strobe allows you to reclaim 10% of your CPU cycles."

Another tool Melville said he expects to buy is called Innovation Access Method from Innovation Data Processing in Little Falls, N.J. "It's a VSAM replacement package," Melville explained. "It not only breaks through VSAM's 4M-byte limitation on data sets, but it also saves about 25% on DASD and improves performance by about 50% over VSAM," he said.

There is another real plus to using this kind of software. Mike Wharrie, supervisor of planning support at Hudson's Bay Co. in Toronto, said his Legent capacity planning software allowed him and his team to bargain better with IBM when it came time to buy a new mainframe.

"We were going to defer the 600J, which we installed last September," Wharrie said, "but then IBM offered us an upgrade from our 600E at no incremental financial cost. The information is leverage, and boy, do we use it."

IBM must have known that was no idle threat. Back in 1985, Hudson's Bay deferred a hardware upgrade for six months, for a savings of $750,000.

"You have to be prepared to make some hard decisions and live with them," Wharrie warned.

According to Melville, "to save capacity, you need a little excess capacity to move around in. You need 10G to 15G bytes of DASD to get HSM rolling. Once you do, it pays you back with even more."

"There are a lot of software tools out there, many very good," he said, "but you need the management commitment, or all the tools in the world won't help you. It has to be understood that this will cause extra work but that there is a benefit."

IS department nurses hospital computing ills

ON SITE

BY SALLY CUSACK
CW STAFF

PROVIDENCE, R.I. — While many companies and business entities have been concentrating on downsizing or outsourcing operations, the information systems department at Women and Infants' Hospital has been busy growing both its IS staff and its IS systems to meet the computing needs of modern medicine.

Bruce Reirden, vice president of information services, recalled that when he arrived at the health-care facility in 1988, six people were responsible for IS in a Data General Corp. MV computing environment.

Today, the fifth-largest obstetrics hospital in the country has doubled its IS staff and employs several part-timers.

In addition to requesting staff increases, Reirden spearheaded a drive to replace an aging DG MV 4000 and MV 10000 with DG's top-of-the-line MV 40000, which supports 220 devices on an Ethernet network, including CRTs, printers and embossers.

With the system installation completed in October 1989, the hospital moved ahead in December with plans for a much needed software upgrade. Women and Infants' had previously been using Version 6.6 of Professional Health Care Systems' Patient Communication package.

According to Reirden, the change to Version 7.1 was initiated in December 1989 and completed in May 1990. The nature of the upgrade was so great, Reirden said, that it was comparable to changing vendors.

"The typical problem in any hospital is that each employee has his or her own job to do, in addition to learning a new software system," Reirden noted.

Hands-on involvement

In this instance, employees were responsible for helping to define individual screens, reporting requirements and appropriate tables. The heads of all departments were involved in the upgrade and installation, including the training, planning, documentation and testing phases.

The upgrade offers Women and Infants' several significant advantages over the previous version, Reirden said. Among them are automated patient registration functions and increased reporting capabilities.

Perhaps even more importantly, the system now allows information from the admitting process to be passed electronically onto the billing application, which eliminates a tremendous amount of paperwork.

"Before, all health insurance-related information, such as Blue Cross/Blue Shield requirements, had to be captured from the CRT and transferred onto paper to be sent to billing," Reirden said.

Along with the shiny new computer and the sophisticated software package, the hospital has replaced its traditional 9.6K bit/sec. lines with a microwave and fiber-optic communications link to transmit data between the computer center and main medical facility.

According to Reirden, DG's Network Services Division de-

Women and Infants' *system upgrade lets doctors give patients more attention*

signed the network and subcontracted Diversified Communication Technology, Inc. in Abington, Mass., for the actual microwave installation. Reirden said he feels that DG's field service staff is "the best" and added that the network was installed over a period of three weeks.

"Now, we get an instantaneous reponse," Reirden said. "We also looked at laser options and T1 technology. The problem with laser is that it is very susceptible to snow and rain, and the T1 tends to be expensive."

Even with the hardware and software upgrades and the networking installation behind them, Reirden and his staff are not kicking back to rest.

The hospital recently installed a DG Aviion 6200 to automate all laboratory testing functions and is evaluating an operating room scheduling package to run on a personal computer-based local-area network.

"We rely heavily on end-user input," Reirden said.

"They have to tell me what they need to run their business. It's my job to tie it into the overall computing strategy."

Laboratory system on its feet without tired soles

The third segment of Women and Infants' troika of projects was the installation of a laboratory information system that has cut down on time, costs and shoe leather wear and tear.

Running software from Medical Information Technology, Inc. on a DG Aviion Model 6200, the laboratory system has already partly automated a process that was entirely manual. Bruce Reirden, Women & Infants' vice president of IS, said the system will be completely automated within one year.

When a patient needs laboratory work done, the doctor sends an order to the laboratory. Reirden said he plans to replace the current manual system by having the orders for laboratory work placed at the point of service.

Once the order is entered into the laboratory computer, the test is run and the results are sent from the machine processing the sample directly to the comput-

er via Ethernet, a process that "significantly increases accuracy," Reirden said.

If the work is for patients in the emergency room, the delivery room or the neonatal intensive-care unit, results are sent to printers in those units. The remainder is distributed by foot, but Reirden said that process will also go on-line.

The system, which went live early last month, has run into the inevitable snags. "We had to do a fair amount of scrambling to resolve problems," Reirden said. "The biggest problem is that we got buried with paperwork. We went from a manual system that dealt with one slip of paper to an information explosion."

For example, a report printed in the emergency room would also appear at the main printer, and copies were also generated for the patient's physician and medical records. Reirden said the paper glut has been cut by about two-thirds.

CAROL HILDEBRAND

Reirden: *process increases accuracy*