



### Something Old, Something New

Funny how trends come and go. Inline skates were the hot item a couple years back, only to be replaced this year by roller-skates.

The storage industry, and its target customers, follow the line of buying into the latest and greatest storage devices and strategies with little or no thought towards the future. It is mostly in hindsight that people begin to evaluate their decisions.

The fast paced economy of the '90s saw massive amounts of RAID storage as the medium of choice for enterprises. With venture capital and inflated stock prices, the "it's all good" attitude prevailed. The answer to most growing storage problems was to throw more money at it until it was temporarily solved.

Well, those days are long over and most people are feeling the pinch. With tighter budgets and smaller staffs, enterprises are reevaluating their network strategies. As a result, solutions such as NearLine storage, previously neglected and considered unfashionable, are showing some legs in the market.

This quarter's newsletter addresses what we in the storage industry have identified as customers demands for data storage. Budgetary and time constraints only highlight the need to pay close attention to details, as NearLine storage continues to become an essential component of the corporate backbone.



Robert W. Riland III  
President & CEO

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### >> In the News

#### DISC Announces Tivoli Support for Orion Series

IBM Tivoli Storage Manager v. 5.1 software now supports DISC's Orion Series NearLine storage devices.

The 5.25 inch Orion Series is built around the Magneto Optical (MO) technology and is a storage medium that offers random access, long shelf life and high data-delivery speeds. IBM Tivoli Storage Manager complements the Orion Series by creating a high-performance solution for protecting and managing mission-critical business information in data rich environments.

"As businesses seek to streamline their business processes, they are beginning to recognize the need for a complete storage solution," stated Brenda Zawatski, Vice President, Tivoli Storage, IBM Software Group. "Tivoli storage management software is an important piece to solving the storage puzzle and remains committed to working with leading companies such as DISC."

"NearLine storage solutions are poised to become one of the key driving forces behind the next generation of enterprise-wide storage architecture", said DISC President and CEO, Bob Riland. "The integration of both companies' technologies provides IBM Tivoli Storage and DISC's joint customers with a best-of-class solution that delivers the optimum solution for NearLine storage"

#### DISC Products Available Through SEWP III Contract

The month of March saw DISC announce a partnership with reseller Government Micro Resources to sell NearLine storage solutions to federal agencies on NASA's Scientific and Engineering Workstation Platform (SEWP) III contract.

"We are pleased that we will be working with DISC, Inc. and representing their product line to the government market," said Bob Keigley, GMR's Vice President of Vendor Relations. "DISC has designed its solutions to provide the reliability, performance and capacity needed for mission critical storage applications."

GMR was awarded contracts by the National Aeronautics and Space Administration (NASA) in two classes of the Scientific Engineering Workstation Procurement III (SEWP III) program. SEWP III was a full and open competitive procurement, and GMR is the only small business to receive an award. DISC's Storage libraries are now available to all federal agencies on the NASA SEWP III contract through resellers like GMR.

"This partnership is perfect for DISC because of GMR's strong presence in the government market," said Bob Riland, DISC's President and CEO. "Together we will provide affordable, reliable and scalable storage solutions that address the demanding and increasing needs of government end users today."

## >> ISV Spotlight



QStar Technologies, Inc. located in Fort Walton Beach, FL supports both Orion and NSM Series libraries. QStar develops sophisticated, large-scale client/server Storage Management Software. With offices in the US, UK and Italy, QStar is committed to providing support to the global market. QStar's latest release includes Fibre Channel support for jukebox SAN environments, including DISC's FCU series SAN product. QStar software operates on all major UNIX platforms, NT/Windows 2000 and Linux. By utilizing a common source pool for all platforms, enhancements are done across the board and media transportability is built in.

The functionality of QStar software is based on extensive research of user requirements and customer feedback. This has helped QStar develop top-of-the-line software that brings "relevance and intelligence" to the storage device. Relevance comes within the ability to easily configure QStar software so that it fits well within and meets the needs of the application(s) (imaging, document management, multimedia, database, archive applications, etc.) it is serving. Intelligence lies within the ability to provide a level of configurable functions that automate the use of the storage device.

QStar and DISC will work together to offer continued support for all current, and future, DISC products. To find out if QStar software is right for your application or to receive additional information about the QStar product line please contact your DISC sales representative.

QStar can also be located at [www.qstar.com](http://www.qstar.com).

## >> Application Story

### DISC & Sun Microsystems

#### Key Business Challenges:

- \* Implement an environment that delivers multiprocessing and multithreading capabilities for compute-intensive graphics
- \* Replace distributed cache to a central cache system to increase speed and reliability of data retrieval

#### Key Business Solutions:

- \* Sun Enterprise servers provide high-performance, scalability, and reliability as core systems
- \* Solaris Operating Environment delivers a highly available and robust environment to the hospital networks
- \* Sun systems together with the Agfa Impax System and DISC NearLine Storage Systems, provide a cost-effective way to store the large volume of PACS images online

#### Key Business Benefits:

- \* Helps provide extremely high uptime
- \* Offers a powerful and reliable server
- \* Provides timely assistance via Sun Support Services
- \* Reduces the cost of storing medical images online while providing immediate access to the images locally and globally for patient care and research

DISC & Sun Microsystems (cont.)

As part of the University of California San Francisco, UCSF Radiology Center is a leading academic health science campus. Known for its innovative research, outstanding education, and clinical excellence, UCSF Radiology is consistently ranked among the top six institutions in the National Institute of Health (NIH).

Located in Northern California, UCSF Radiology is both a medical school and a working hospital. First opening its doors in 1906, UCSF Radiology performs more than 250,000 exams per year.

Recently, UCSF Radiology upgraded its Picture, Archive, and Communication System (PACS). The PACS at UCSF incorporates the radiology information system and the hospital information system to create an intelligent integrated patient system. At the core of the PACS are Sun Enterprise(TM) servers running Agfa Impax software and DISC Automated Nearline Storage Systems.

#### The Solution:

UCSF Radiology's goal is to always have timely access to digital imagery and patient information. In order to interconnect its database, digital voice dictation system, electronic mail, library information system, and various medical centers, UCSF Radiology needed an open architecture and standardized computer network. Already a satisfied customer of Sun systems, the selection was easy.

Sun has been providing leading-edge technology to the medical imaging industry for more than a decade. So, it's no wonder UCSF Radiology selected Sun Microsystems for the core of its infrastructure.

"I've been working with Sun systems for more than 11 years. Sun consistently has strong products that work well in clinically intensive environments. We do a lot of UNIX(R) tasks and our core systems need to have multiprocessing and multithreading capabilities. And Sun seems to be the leader in the market at this point," says Todd Bazzill, computing resource manager at UCSF Medical Center, Laboratory for Radiological Informatics.

UCSF Radiology is using four Sun Enterprise 450 servers for its central server, running with UltraSPARC(TM) II processors and four gigabytes of memory per station. For its central Oracle database server, UCSF chose the Sun Enterprise 5500 server for its high performance and outstanding reliability. The current Solaris(TM) Operating Environment meets UCSF's multithreading and multitasking needs; although plans include an update to the Solaris 8 Operating Environment in the near future. The Solaris Operating Environment delivers the scalability, availability, and manageability UCSF needs to complete its PACS environment.

As a SunSpectrum Silver(SM) support customer, UCSF Radiology can take advantage of award-winning telephone support and on-site hardware service as well as convenient access to on-line technical support.

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"With the Sun Enterprise 5500 server and the availability of our gigabit connections on our Sun Enterprise 450 servers, this upgrade allows us to send information out to the review stations very quickly. For example, we can pull up an eight megabyte image of a chest x-ray from a review station and display it in just one-to-two seconds, even from a distance of as far as two kilometers away," states Bazzill.

"The Sun systems are very fast and extremely reliable. In addition, Sun has a phenomenal service team that resolves any problem in a timely manner," adds Bazzill.

For the storage portion of its PACS infrastructure, UCSF Radiology is using two DISC NearLine Storage Systems. The DISC library acts as an archive system to store digital images from multiple sources. Capable of storing up to 18 terabytes of information, the DISC system stores all the University's medical images from the past nine years.

"The DISC library has a robotic arm that will pull magneto-optical platters out and move things very quickly and efficiently. The uptime is 99.9 percent and it is rock solid," says Bazzill.

#### How it Works:

The digital image is transferred from the Diagnostic Modality (CTs, CRs, MRIs, or ultrasounds) to a Sun Enterprise 450 server, which acts as a gateway. The gateway communicates with a device called a Broker. The information is then sent to the central cache (the Sun Enterprise 450 servers), which allows the display systems to retrieve and view the images on high-resolution monitors located throughout each medical facility. The information is also sent to UCSF's Web servers so it is available worldwide through a secure intranet. In addition, the image is sent to an archive server (Sun Enterprise 250 server) to be stored to the DISC NearLine Storage System.

"With the upgraded PACS, we can take all the digital images from every digital modality (CTs, MRIs, CRs, ultrasounds, Nuclear Medicine, mammographies) and send them to our central servers (Sun Enterprise servers). Then, the studies are sent to our archive and Web servers as well as being available to retrieve from and displayed at any of our Diagnostic Review Stations," explains Bazzill.

Sun Enterprise servers, Solaris Operating Environment, and Java(TM) software provide the reliability, interoperability, and connectivity UCSF Radiology needs to help power its radiology solutions and integrated hospital environment. Sun's platforms and solutions have transformed radiology from science to innovation to informatics. Java software has helped Picture Archiving Communication Systems (PACS) become a viable and pervasive solution for small-to-large medical facilities.



## >> Upcoming Events

DISC is scheduled to participate in the following tradeshows:



Dates: May 15 - 17, 2002  
Location: Sacramento, CA  
Booth #: 1403

## >> Reseller Spotlight

DISC works with an extensive network of resellers. If you would like to contact your local reseller, or are interested in partnering with DISC, please contact us.



Todd Enterprises, located in Plainview, New York has been a valued partner for the past 10 years. This long-standing relationship has flourished by combining Todd's expertise in configuring total storage solutions with DISC's NSM Series storage libraries.

Pioneering CD-ROM usage in network storage applications in the mid 1980's, Todd has consistently gained market presence by partnering with storage leaders such as DISC, to provide integrated solutions to government, legal, publishing and education markets.

The collaboration between Todd and DISC is currently focused on providing advanced video technology solutions. Targeted specifically at professional and collegiate sports programs, Todd's system integrates DISC DVD libraries into a complete package combining video and statistical analysis with play diagramming capabilities. The company also offers an analog video-to-video cd conversion system for long-term archival and random access availability.

Nick Antonuccio, Northeast Regional Sales Manager noted, "Todd has expertly identified customer requirements ahead of the curve, and has responded by integrating advanced video technology solutions."

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## >> Comments? Questions?

Do you have an idea for our next newsletter? We're always on the lookout for success stories. If you know of a company that might be interested in serving as a reference site, please let us know!

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