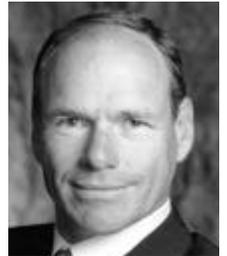


[data]

LINE

AUSPEX

FROM THE PRESIDENT & CEO



I would like to take this opportunity to personally welcome you to the inaugural issue of **DataLine**—Auspex's quarterly customer newsletter.

With **DataLine** we hope to not only keep you up-to-date on the latest Auspex news, but provide information that can add value to your business. You'll hear from other Auspex customers sharing their experiences on current IT issues and solutions, review the latest Auspex product announcements, and periodically take a look inside Auspex to chat with Auspex employees," the real champions of our commitment to customer support.

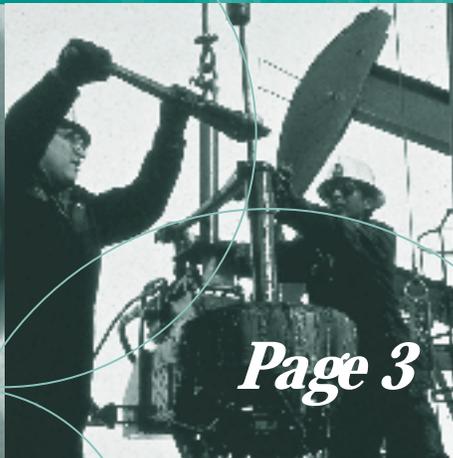
As you'll see featured in this issue, we are focused on delivering solutions comprised of platforms, software, and services—all designed to provide you with continuous shared access to network data. During the month of March we announced our new enterprise-class NetServer, which delivers near-gigabit Ethernet speeds with Cisco Fast EtherChannel™ connectivity, and began shipping our new NeTservices (UNIX and NT) bilingual product. We believe these offerings, together with our comprehensive set of high-availability solutions, will meet your growing need for continuous access to network data.

I hope you find **DataLine** interesting and informative. Of course, we welcome any comments you might have, because we want to develop this newsletter into something you look forward to receiving every quarter. As always, we value having you as an Auspex customer.

Bruce N. Moore



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Auspex Moves to New Headquarters

“With DataLine, we hope to not only keep you up-to-date on the latest Auspex news, but provide information that can add value to your business.”



AUSPEX

ENHANCING VALUE

Auspex Announces New Enterprise-Class Hardware and Software Solutions

Near Gigabit Network Throughput, Transparent Network Failover, Large File Size Support

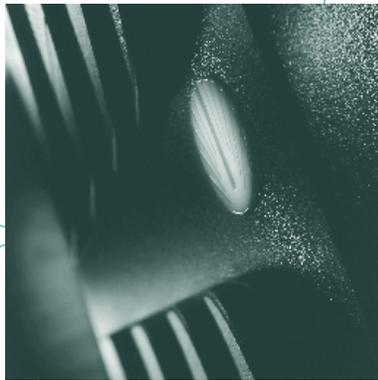
Auspex recently announced its new flagship NetServer NS 7000/800 and NetServer system software with Cisco Fast EtherChannel™ support. These offerings include significant new performance and reliability enhancements consistent with

Auspex's emphasis on developing hardware- and software-based solutions that support data consolidation as a data management strategy for customers.

The new release delivers near-gigabit data throughput levels (800 megabits/second), load balancing, and transparent network failover on existing network infrastructures through its support of Fast EtherChannel™ switch technology from Cisco Systems. The ability to manage larger file sizes (up to 1 terabyte) is important to customers who use modeling and simula-

tion, seismic interpretation, MCAD, and multimedia applications. The new platform also is 33% more compact than prior generation NetServers, an important feature in today's crowded IT departments.

When asked about his company's decision to purchase the new NetServer NS 7000/800, Wes Geloneck, Chief Systems Engineer at British Petroleum Exploration in Houston said, "Achieving the highest level of reliability and overall stability was a critical factor for British Petroleum. The Auspex NetServer 7000/800 provides better performance and reliability than accessing data on local disk. After a thorough analysis, we determined that Auspex has the ability to deliver the performance and reliability that is critical in BP's seismic interpretation activities."



AUSPEX ANNOUNCES Y2K INITIATIVES

Auspex has announced a comprehensive Y2K (Year 2000) compliance program. Under the plan, products delivered after June 30, 1998 will ship with Y2K compatibility. Y2K upgrades and implementation assistance will be provided for systems purchased before this date. Check Auspex's web page at www.auspex.com for more information.

About NetServer NS 7000/800

With redundant, hot-pluggable power supplies and a 33% more compact design, the NetServer NS 7000/800 is highly reliable and makes more

efficient use of valuable space in the IT department. Based on Auspex's patented Functional Multiprocessing® (FMP®) architecture,

the NetServer NS 7000/800 scales independently in terms of network bandwidth, network connections, and storage so that IT managers can fine-

tune performance to meet the specific requirements of their environment. Auspex NetServers store, manage and serve multiple-terabytes of

data and allow customers to realize the benefits of data consolidation. The NetServer NS 7000/800 is currently available.

The New Partnership: Geoscience, IT, and the Drill Bit

A New Strategy for Apache

In late 1996, a shift in Apache Corporation's business strategy caused an explosion in its data volume. According to Robert Johnson, Manager, Exploration and Production Technology, the change at Apache "goes back to the company's planning process in 1996 for 1997 and beyond. Senior management redirected our exploration efforts from acquiring most of our properties to a more focused emphasis on growing through our drilling program. Exploration is riskier than acquiring a proven asset, but it also presents the opportunity for greater rewards."

This change in Apache's growth strategy raised the bar for IT performance dramatically. Once-acceptable NFS delivery was now too slow, and reliability was too spotty. Johnson explained, "If our geoscientists can't perform their interpretation, then, basically, our exploration process comes to a halt. While we're waiting to decide whether to pursue additional opportunities, we've got money sitting on the table. We have to be able to make these decisions, and we need access to that information. That's why we teamed up with Auspex and Landmark."

Analysis Calls for Infrastructure Redesign

Apache's geocomputing infrastructure became a make-or-break element in the company's revised strategy. Johnson utilized the collective technical talents of Apache's IT specialists and end users, Landmark Graphics, and Auspex Systems to assess the existing environment and recommend successful solutions.

Johnson commented on the value Landmark Graphics brought to this process. "I rely heavily on Landmark for technical

power increased—without imposing bottlenecks. In the end, Apache targeted three objectives: remove NFS performance bottlenecks, increase reliability and ease of management, and decrease dependency on local disk storage.

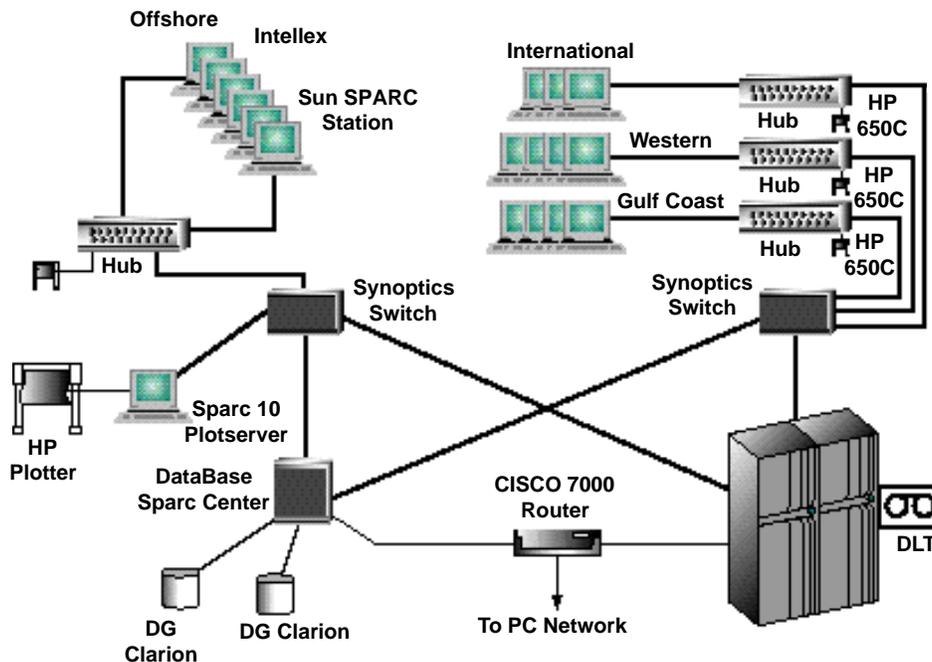
Issue One: Performance Bottlenecks

Apache's existing topology was solid, employing a good cabling plan and a

100 MB Fast Ethernet switch to the desktop. Both data and applications were served from Sun 1000s in a decentralized mode so that one server served applications while the other managed and served all the seismic data.

"Our bottlenecks were in delivering data to the desktop," said Johnson. "And we knew that, in pursuing the company's new corporate strategy, this bottleneck would worsen unless a real change was made." When Apache

started deploying Sun Ultra workstations, the higher capacity I/O requirement was too much for the existing servers. As Johnson explained, "Workstation performance outpaced server performance and capacity. It hadn't reached critical mass yet, but the envelope was being pushed, and we knew the issue would escalate as the company continued to deploy the newer client hardware to the desktop. Apache was looking for a solution that would manage the explosion



System/Network Configuration

advice, planning, and consulting. Landmark helped Apache determine that the environment was reaching a critical mass and that the company needed to make some significant decisions regarding our infrastructure to accommodate the changes in our business."

Apache focused its objectives. The ideal infrastructure would support the productive capabilities of geoscientist users even as data volumes grew and desktop computing



of data, integrate it in our environment, and deliver it to the desktop, all in a cost-effective way. That's why we chose Auspex to replace the existing technology and bring us a higher level of performance."

Issue Two: Reliability and Ease of Management

Server reliability had also become an issue. The existing architecture was inconsistent. Johnson explained, "Reliability and uptime are critical to Apache's business. Data drives the company's decision-making process. If systems are down, decisions can't be made. The company can't decide to drill a well, but it also can't make a critical decision to stop drilling that would minimize its risks." He continued, "There's a misconception that every decision is to drill. But, data also provides the capability to decide against drilling in a particular location and to stop capital expansion at that point."

Johnson went on to discuss the hidden costs of complex system administration and management. "I have a very small group here," he said. "I don't plan to expand this group. I'm not looking to add 5 or 10 people, and I don't want to purchase a system that will require that. And, let's face it, the more we are forced to bring the system down for maintenance, the less reliable it is and the more administrative resources we require."

During the Apache evaluation process, Johnson approached a number of companies that had Auspex and Sun file servers in use. "The major difference was the complexity of the Sun environment to maintain and administer. I went to another site a year ago to look at the Sun products, and the level of expertise and knowledge needed to maintain that environment was, in my opinion, very high."

The Auspex system's high reliability and

uptime, low maintenance requirement, and ease of management were critical factors in Apache's buying decision. "The high Mean Time Between Failure data on Auspex was very impressive," said Johnson. "So, too, was the the ease of management represented by Auspex. It was important for Apache to meet its strategic objectives for performance and reliability and at the same time realize the benefit of Auspex's ease of administration."

Issue Three: Local Disk Storage

Apache's geoscientists analyze and process large, seismic data files. These files allow them to look at subsurface geology and inspect a wall of the depositional environment as though they were looking at a

"Apache was looking for a solution that would manage the explosion of data, integrate it in our environment, and deliver it to the desktop, all in a cost-effective way. That's why we chose Auspex to replace the existing technology and bring us a higher level of performance."

slice in the earth that extends down thousands of feet. Using data in this manner, Apache's geoscience user community is able to perform highly effective, interactive what-if analyses. This methodology is a far cry from the pencil and paper analysis performed in the past.

These seismic survey files can be as large as 10-15 GBs. Yet, Apache's environment relied heavily on local disk storage, and this presented Johnson and his staff with serious challenges. "Managing local disk storage

became an administrative nightmare. We had 300 GBs throughout the company, and 150 GBs of that was on the desktop. We had no RAID technology to fall back on, no reliability."

"Ultimately," Johnson explained, "Apache's goal is for clients to become virtually diskless, with all data moved to the central file server. We chose Auspex because we wanted the proven scalability it offered. If we need more storage, we just buy more disk. This flexibility is important if Apache is to grow and scale its business."

Implementing the New Design

Apache's current project includes reorganizing its entire infrastructure. The project's goals are to minimize administration of hardware, consolidate several tasks that are currently supported on the 1000s, and move all seismic data that's currently on desktops to the Auspex fileserver. "Going forward," said Johnson, "we plan a full migration to the Auspex, and making it a key component to our computing infrastructure. Landmark and Auspex will continue to be part of the planning and implementation of Apache's plan."

The Auspex field engineering team that has assisted Apache on this project has extensive experience working with customers in the oil and gas industry and has a strong relationship with Landmark. Noting how important this industry experience was to his process, Johnson said, "It was really helpful that the Auspex team understood this business and environment from Day One. They were here with Landmark as part of the planning team, putting the time line together and planning the process." Johnson concluded, "This alliance of Landmark, Auspex and Apache will enable Apache to reach its long-term, strategic

SOLUTIONS —

Auspex Ships NeTservices, ServerGuard Extends Range

Enhancing value to customers is what it's all about at Auspex today. No longer simply a supplier of "big black boxes," our value proposition encompasses a range of continuous data access (CDA) solutions for customers in mission-critical, network data management settings.

UNIX and NT File Sharing

"I've been out meeting our customers, and a growing number of them are struggling to manage mixed UNIX and WindowsNT network data," said Anup Pal, Senior Engineering Manager. "I believe that NeTservices—with its feature-rich functionality, file sharing and management of up to two terabytes of UNIX and WindowsNT data on a single system—will simplify administration and significantly improve management for our customers' network data."

NeTservices began commercial shipment at the end of March. The product allows UNIX and WindowsNT end-users to simultaneously share the same data files on a single, highly scalable and reliable Auspex NetServer. NeTservices also eliminates file duplication and relieves the administrative burden for IT staff.

NeTservices is especially well-suited to the needs of customers with very large UNIX and NT files that need to pass those files rapidly along the network so end users can share the data.

As in the case of US West, who was a NeTservices beta site, relieving the IT administrative burden is a key benefit. "NeTservices delivers a real ease-of-management advantage," said Chris Morgione,

member of the Technical Staff in the IT group at US West's Littleton, Colorado Network Reliability Operations Center (NROC). "Our end-user home directories and files are already established on an Auspex NetServer. NeTservices eliminates the need to duplicate, maintain and manage NT files and directory structures on a separate NT server. That will help save staffing commitment, and we won't have to try to keep two file structures—UNIX and NT—synchronized."

High Data Availability

"For some customers, distance has become an increasingly important factor in the ServerGuard equation," said Chris Melville, Auspex Director of High Availability. "If a natural disaster occurs, the financial and market impact on a company can be catastrophic. ServerGuard is a valuable insurance policy for the availability of critical data, making it a prudent investment for customers."

For a powerful example of the value of ServerGuard, consider the recent experience of a U.S.-based semiconductor company, where file server downtime is valued at hundreds of thousands of dollars per hour. A fire filled a critical data center with smoke, and the ServerGuarded pair immediately failed over to the secondary server, which was located a short distance away. No data was lost, and users continued their work uninterrupted for the four days it took to restore the smoke-damaged computer room. This story demonstrates how vital ServerGuard can be in appropriate applications.

When it comes to meeting the need for

continuous access to mission-critical data, no one else in the industry can even approach ServerGuard's track record:

- **Outstanding Data Availability**—ServerGuard continues to extend its lead as the industry's only transparent, network-based, fault- and disaster-tolerant failover solution. In fact, in a recent analysis of our installed base, ServerGuard has delivered 100% data availability in all properly installed and configured sites.

- **Extended Range**—With Auspex support, a well-known U.S. customer in the financial industry is working to implement a wide-area.

- **In London**, where terrorist attacks are a valid concern, a major global publishing company has a ServerGuarded pair deployed at a distance that the customer characterizes as "bomb-safe."

- **Another Auspex customer**, a leading architectural company, was rated an Enterprise Value Award winner in the February 1, 1998 issue of CIO magazine. ServerGuard is a key component to their comprehensive IT strategy.

Auspex's focus on providing solutions for CDA not only makes us unique in the business, it's an approach that aligns with the goals of our customers. The products and services we're delivering today are part of a comprehensive set of CDA solutions that reflect our ongoing commitment to our customers' success.

Auspex Moves

Recently, Auspex relocated its Santa Clara-based headquarters to a newly constructed, 269,000 square foot campus in the heart of the Silicon Valley. Approximately 450 of the company's 650 employees are housed at the four-building, state-of-the-art campus, with the balance located in sales and support offices worldwide.

INFORMATION CONNECTION

Do you need up-to-date information on Auspex products and technology? Have you seen our latest annual report (with its companion CD)? You can down-

load the information you need from our Web site (www.auspex.com). Or, to request literature, give us a call at (800) 735-3177.

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