



Compaq StorageWorks

StorageWorks runs high-performance mission for Evans and Sutherland

A leading developer and manufacturer of three-dimensional graphics technology and synthetic environments uses Compaq StorageWorks solutions to support its immense databases

“Our data grows at the rate of one or more terabytes annually,” says Brian Dunleavy, Manager of Evans and Sutherland’s Computer Systems Group, “We need reliable multiplatform storage that has the performance capacity to handle large, mission-critical graphics databases. StorageWorks solutions do the job effectively.”

“We discovered that StorageWorks solutions not only met our current multiplatform performance needs, but provided a well-defined and scaleable growth path into the foreseeable future,” Dunleavy recalls.

The squadron commander flies low over enemy terrain. Without warning, the valley shrinks into an impassable gorge as cliff walls race towards him at 1,500 miles per hour. He barks commands to his copilot. He’s too late; it’s a disaster. The commander and copilot climb out of the flight simulator – still a little shaky, but much wiser for the exercise.

Evans & Sutherland (E&S) software and hardware solutions for highly realistic visual systems are used in simulators to train military and commercial pilots throughout the world. The company’s visual systems are an integral part of full mission simulators, which incorporate a number of other components, including cockpits or vehicle cabs and large hydraulic motion systems. In addition to development tools and systems to create the databases and the real-time software to run them, E&S visual systems include high-performance image generators, state of the art pro-

jectors, and display systems, as well as integration, installation, and support services.

The challenge

E&S’s multi-host, server environment supports everything from file and print serving to various enterprise applications, such as development and manufacturing. A mix of Sun servers run the Sun Solaris UNIX operating system, along with SparcStations on the desktop. Compaq 5000 and 6000 servers run Windows NT and Windows NT on the desktop.

The lion’s share of this computing environment is in place to support the massive graphics databases which comprise the building blocks for E&S’s virtual reality products and development projects. Brian Dunleavy, Computer Systems Group Manager at E&S, didn’t just need any storage solution; he needed an industrial-strength solution.

COMPAQ

Better answers

The Solution

An UltraSCSI RAID Array 7000 subsystem ensures high availability by utilizing redundant power supplies and controllers. Two sets of controllers attach to Compaq NT servers and a third set to a SparcServer 1000, all in the same cabinet. Dunleavy adds that lately E&S has been replacing some of the 9 GB drives with newer 18 GB drives, doubling its storage capacity by simply unplugging the old and plugging in the new drive.

"This is the type of scalability and flexibility for which we bought StorageWorks originally and it has delivered as promised over the years," he confirms.

MULTIVENDOR SUPPORT

"StorageWorks allows us to mix-and-match computers and disk drives with complete flexibility with respect to our Windows NT and UNIX environments," says Dunleavy. "It's a simple matter of plugging and unplugging a subsystem. StorageWorks offers an elegant design for a multi-platform company like E&S."

MANAGEABLE

"Everybody is understaffed and operating mean and lean these days," Dunleavy says. "We installed StorageWorks and then didn't have to touch it for six months. That kind of reliability helps us get other jobs done and

stretches our overall productivity. Having everything in one cabinet makes for easy maintenance, which further increases productivity."

RELIABLE

"We chose StorageWorks because we require a dependable disk subsystem," Dunleavy stresses. "If a disk goes down, the company suffers and timelines aren't met. Our subsystems have to be up and spinning continuously, end of story. Practically speaking, all of our system administrators are on call around the clock; there is no leniency. StorageWorks disks give us the reliability and high availability we demand."

IMPRESSIVE SERVICE

"Initially, Compaq impressed us with its responsive pre-sales support," he recalls. "Good vendor support is one of our major requirements. But even after the sale was culminated, Compaq continues to deliver the support it promised us."

Call us

To learn how Compaq StorageWorks has helped other companies achieve their goals, and can help you reach yours, please contact your authorized representative or visit us at:
www.compaq.com/storageworks

"We want to get our hands on the latest advancements as soon as they are proven to be reliable," concludes Dunleavy, "Compaq storage solutions build a scaleable stairway to emerging technologies which provide us with strong investment protection and a competitive edge."



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