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**NASA'S KEPLER TELESCOPE SET TO USE 3PAR IN THE SEARCH FOR
DISTANT EARTH-LIKE PLANETS**

NASA Ames Chooses 3PAR Utility Storage for Affordable, Scalable Performance

London, UK, 30th June 2008--3PAR® (NYSE Arca: PAR), the leading global provider of [utility storage](#), announced today that NASA Ames Research Center has chosen 3PAR Utility Storage for a mission that will send the [Kepler Space Telescope](#) into orbit around the Sun to find planets in solar systems outside our own. Set to launch in February of 2009, the mission will use 3PAR Utility Storage to store digital images taken with the powerful telescope and its camera. NASA Ames chose the resilient 3PAR storage system to meet its strict cost and performance requirements while maintaining massive scalability and avoiding the need for a full-time, dedicated storage expert.

"Even rocket launches have budget constraints," said Chris Middour, Deputy Manager for the Kepler Operations Science Center and member of Orbital Sciences Corporation. "We chose 3PAR because we believe it will enable this seminal space research to proceed more quickly while also enabling us to stay within our budget. We simply can't predict our ultimate storage needs at this time, but the agility, resilience, and scalability of 3PAR's technology gives us confidence in our storage infrastructure--no matter how large our data needs grow."

During the Kepler mission, the telescope will orbit the Sun while capturing images of approximately 100,000 solar systems in 30-minute intervals. Scientists will then use these images to analyse the orbital patterns of planets in these other solar systems. The aim of this research is to identify planets with the potential to sustain life, based on their sizes and distances from their respective suns.

Over the course of the Kepler mission, NASA Ames anticipates requiring between 30 and 90 terabytes of capacity to allow storage and analysis of images captured by the telescope. The precise amount of capacity actually required depends on several variables so it cannot be determined at the outset. With these precise performance and capacity requirements remaining unpredictable but potentially massive, NASA Ames had to find a low-cost yet extremely resilient and scalable storage infrastructure. This infrastructure needed to deliver high performance levels yet start small and grow over time in small, affordable increments. In addition, since the Kepler project is on a fixed budget, NASA Ames needed to find storage that would meet these requirements without the need for costly storage expertise or the purchase of specialised storage consulting services.

"Capacity and performance requirements change constantly, and the ultimate requirements of dynamic or high-growth projects are often difficult to predict at the outset," said Dave Reinsel, group vice president of storage and semiconductor research at IDC. "Solutions like 3PAR's brand of N-way clustering deliver cost effective scalability that, when combined with autonomic optimisation features, make for an attractive option for open-ended projects that need to do more with less."

To meet the requirements of the Kepler mission while staying on budget, NASA Ames selected the highly-scalable, clustered 3PAR InServ® Storage Server with 3PAR Virtual Copy. The InServ's unique InSpire® Architecture enables NASA Ames to meet their anticipated performance objectives

while using only cost-efficient Serial ATA (SATA) drives. While more economical than premium-priced Fibre Channel drives, SATA capacity is generally only used for less demanding “offline” applications since when placed in traditional storage systems SATA drives often cannot meet performance levels required of online storage. NASA Ames also opted to save on capacity costs by using 3PAR Fast RAID 5, which has been demonstrated to deliver high levels of performance comparable to that of traditional RAID 1 mirroring but with a 33% improvement in storage utilisation.

Since the 3PAR storage system is inherently efficient and self-managing, administration of the system does not require storage expertise. The Kepler mission anticipates that this native simplicity will allow them to avoid bringing on a full-time resource to manage their storage infrastructure. “The cost of storage does not end at just the hardware, but includes also the staff to manage and maintain the systems. With traditional storage vendors, we were looking at the need for a dedicated, full-time storage expert to administer our storage infrastructure,” said Middour. “With 3PAR, we are counting on the system’s ability to practically administer itself to spare us this additional expense.”

In analysing the images captured by Kepler, NASA Ames also anticipates the need to access their data at varying rates over time with the potential for heavy access by multiple scientists simultaneously. Up to a dozen scientists may need to maintain as many as four different versions of each set of data for a total of up to 48 independent views of the images captured by the telescope. With 3PAR Virtual Copy software--which was developed to create highly efficient and scalable read/writeable data snapshots--multiple scientists at NASA Ames will be able to maintain and modify individualised copies of their data. 3PAR Virtual Copy uses thin copy-on-write (COW) technology that is designed to consume additional capacity only for changed data once for all related snapshots. In doing so, 3PAR Virtual Copy delivers higher performance than traditional snapshot products while requiring less capacity, thus enabling NASA Ames to further stretch their tight storage budget.

“3PAR’s vision is to create worlds where information is exploited to its full potential,” said David Scott, President and CEO for 3PAR. “We’re excited that the NASA Ames Kepler project may literally turn this vision into reality by identifying new worlds with the aid of 3PAR Utility Storage.”

About 3PAR

3PAR[®] (NYSE Arca: PAR) is the leading global provider of utility storage, a category of [highly virtualized](#), tightly-clustered, and dynamically-tiered storage arrays built for utility computing. Organisations use utility computing to build cost-effective virtualised IT infrastructures for flexible workload consolidation. 3PAR Utility Storage gives customers an alternative to traditional arrays by delivering resilient infrastructure with increased agility at a lower total cost to meet their rapidly changing business needs. As a pioneer of thin provisioning--a green technology developed to address storage underutilisation and inefficiencies--3PAR offers products designed to minimise power consumption and promote environmental responsibility. With 3PAR, customers have reduced the costs of allocated storage capacity, administration, and SAN infrastructure while increasing adaptability and resiliency. 3PAR Utility Storage is built to meet the demands of open systems consolidation, integrated data lifecycle management, and performance-intensive applications. For more information, visit the 3PAR Website at: www.3PAR.com.

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