



Press Release

3PAR First to Deliver Autonomic Storage Tiering for High-End Arrays

3PAR Delivers Cost- and Performance-Optimized Storage for Up to 30% Less

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3PAR® (NYSE: PAR), the leading global provider of **utility storage**, announced today the introduction of 3PAR Adaptive Optimization software for autonomic, sub-volume storage tiering with 3PAR InServ® F-Class and T-Class Storage Servers. In addition, 3PAR announced support for the STEC MACH8IOPS Solid State Drive (SSD), a new class of cost- and power-efficient SSDs. With this announcement, 3PAR has become the first high-end storage array vendor to deliver autonomic storage tiering for enterprise and cloud datacenters. The combination of 3PAR Adaptive Optimization, 3PAR SSDs, and the massively parallel, highly virtualized InServ **Storage Server** allows 3PAR customers to meet service level targets for approximately 30% lower cost than with Fibre Channel drives alone.

Meet Service Level Targets at a Lower Cost

3PAR's autonomic, fine-grained approach to service level optimization was designed to reduce enterprise and cloud datacenter costs by delivering the right Quality of Service (QoS) to the right data at the right time—non-disruptively and on an ongoing basis. Adaptive optimization takes place at the sub-volume level, so InServ arrays using SSDs require fewer of these premium drives to meet even the most stringent performance targets. With 3PAR Adaptive Optimization software, InServ arrays are able to achieve desired service levels by combining multiple storage tiers—using any combination of SSD, Fibre Channel, and Nearline (enterprise SATA) drives—within a single volume for a lower overall cost per gigabyte than Fibre Channel-only configurations.

"The efficiency of combining fine-grained data movement at the sub-volume level with the use of SSDs and Nearline is anticipated to help us meet our service level objectives within a smaller footprint and for a lower total cost," said Nicholas Ferguson, Senior Infrastructure Architect at Nephila Capital. "In addition, we have calculated that incorporating SSDs into our InServ array results in operational savings, since power and cooling requirements with SSDs are far less than spinning media."

The combination of 3PAR Adaptive Optimization software and SSDs uniquely capitalizes on several key features built into the highly virtualized 3PAR InSpire® Architecture. These features include: a built-in, sub-volume data movement engine; a Mesh-Active cluster that works with wide striping to balance the high performance of SSD resources across all controllers, CPUs, and ports; a caching architecture for tiered storage that has been enhanced for SSDs; and extensive historical reporting capabilities.

"Solid State Drive technology has not only unlocked new levels of performance within a smaller carbon footprint, but it has created the opportunity for the industry to rethink existing tiered storage paradigms," said Scott Stetzer, Vice President of Technical Marketing, STEC. "By combining Adaptive Optimization with leading-edge STEC Solid State Drive technology on energy-efficient, 'green' storage arrays, 3PAR has taken a highly innovative approach to both performance and cost optimization for the enterprise."

Increase Agility with New Autonomic Management Capability

3PAR Adaptive Optimization was designed to help organizations achieve the most efficient distribution of data over the application lifecycle, without administrator intervention. The software intelligently monitors sub-volume level performance, then applies user-configurable policies that autonomically and non-disruptively rebalance a workload across tiers to continually and flexibly meet changing application demands. At the same time, Adaptive Optimization minimizes the risk of user-level impact through non-disruptive sub-volume data movement technology, which has been proven over years of use, coupled with administrator controls that incorporate additional policy override mechanisms.

3PAR Adaptive Optimization software also includes QoS gradients that can be used to bias data movement within a profile based on specific performance or cost objectives. A QoS gradient accelerates or decelerates data movement toward a particular class of resources so the user can better meet service level and cost objectives. For example, a performance gradient can be used for data with high service level demands, such as a seasonal order management application. As workloads begin to spike (such as when Black Friday or Cyber Monday approaches), the gradient will rapidly and autonomically move data to high performance resources and maintain it there until after the activity has declined.

"3PAR's autonomic storage tiering gives users the freedom to apply policies flexibly, on a per-application basis, so that only applications with changing performance characteristics use Adaptive Optimization technology, while other more stable data is left in place," said Laura DuBois, IDC Program Director, Storage Software. "This enables 3PAR customers to safely configure multiple storage tiering profiles on a single, highly virtualized InServ array for greater flexibility, increased consolidation, and fewer equipment purchases."

"The combination of Adaptive Optimization with SSDs extends 3PAR's leadership in autonomic storage management," said David Scott, 3PAR President and CEO. "We believe that bringing autonomic storage tiering to enterprise and cloud datacenters promises to not only reduce costs and deliver additional green benefits, but to increase storage infrastructure agility and the ability to handle changing and unpredictable workloads in virtualized environments."

3PAR Adaptive Optimization software is orderable immediately. SSDs for the 3PAR InServ will be orderable next quarter and are compatible with all InServ F-Class and T-Class arrays running the latest version of the 3PAR InForm[®] Operating System. 3PAR Adaptive Optimization software is an optional product that starts at \$1,400 and requires 3PAR System Reporter software, version 2.7 or newer. Pricing for SSDs starts at \$22,400 per InServ array.

About 3PAR:

3PAR[®] (NYSE: PAR) is the leading global provider of utility storage, a category of **highly virtualized** and dynamically tiered storage arrays built for public and private **cloud computing**. Our virtualized storage platform was built from the ground up to be agile and efficient to address the limitations of traditional storage arrays for utility infrastructures. As a pioneer of thin provisioning and other storage virtualization technologies, we design our products to reduce power consumption to help companies meet their green computing initiatives, and to cut storage total cost of ownership. 3PAR customers have used our self-managing, efficient, and adaptable **utility storage systems** to reduce administration time and provisioning complexity, to improve server and storage utilization, and to scale and adapt flexibly in response to continuous growth and changing business needs. For more information, visit the 3PAR Website at: www.3PAR.com.