



The Challenge.

Wire-speed capture, analysis, and retention of a wide-range of information types requiring consistently available high I/O bandwidth with rapidly growing capacity requirements.

The Solution.

The WarpDrive card will be used as a caching drive. The WarpDrive card enables very high IOPS to accelerate high demand applications such as real time network analysis. Where standard HDD technology might not be able to keep up, the WarpDrive card offers a PCIe plug-in solution that easily installs into existing server platforms without taking away precious system resources from the CPU or memory.

The Result.

One customer has indicated a "Design Win" at its current stage of evaluation. Another customer is also currently in testing and has also indicated the WarpDrive card is setting the standard for performance and feature set. So far, the WarpDrive card appears to be the best solution for these customers for wire speed network monitoring and big data analysis generated by SIEM applications when compared to multiple SSDs, external Flash storage appliances, and competitive PCIe Flash cards on the basis of product fit, performance, storage density, price, and vendor stability.

LSI and NCS Technologies deliver performance and savings for network security solutions.

NCS Technologies wins evaluations with LSI® MegaRAID® controller cards and WarpDrive™ SLP-300 accelerator card.

Is it a threat if you don't know you're being threatened? Is it dangerous, if you don't know you're in danger? What you don't know, can it hurt you? Yes, yes and yes.

In the world of network management, undetected threats can be the most dangerous. If network managers don't know they're under attack, the consequences can be severe. Network performance, reliability and security have never been more important. Business operations, customer satisfaction, even public safety and national security rely more and more heavily on networked technologies that "just have to be there."

Distributed applications, rich data, security, compliance and Quality of Service (QoS) requirements all drive the need for bandwidth and control, which has put a lot of pressure on suppliers' abilities to offer line-rate network traffic analysis, recording, monitoring, and reporting using increasingly sophisticated, visually rich and powerful analyzers. Combining the accelerating growth in overall traffic with the factors noted above, suppliers of traffic analysis solutions are facing a perfect storm.

As a result of this perfect storm billions of dollars have been spent to protect vital corporate, private and government data in flight across the networks of large and small corporations, sovereign nations and the world. By one estimate the U.S. Pentagon alone has invested over \$100 million to detect, prevent and respond to cyber threats.

The threat sources are as diverse as the targets. Intrusion, denial of service (DoS) and virus attacks can enter network infrastructure through game consoles, laptops, and mobile devices. The threats are sophisticated, often subtle, and often intended to harm.

“LSI has literally millions of units installed in the field – they are a leading supplier of storage semiconductors to major OEMs around the world and they have a very strong commitment to their channel program partners. Their support organization has played an important role in helping us address our customers’ issues on several occasions, - very knowledgeable, very accessible. Access to that level of support is one of the benefits we have as a Premier Member in their Channel Partner Program.”

Steve Stuck
Group VP,
OEM Server and Appliance Sales,
NCS Technologies



NCS Technology network security solutions, based on LSI storage technologies, are key to prevent sensitive data from being sucked into a wormhole

Companies offering network monitoring and security information event management systems (SIEM) products and services to address these threats are among the most respected in the industry, both for their technical and their business expertise. NCS Technologies (NCS Tech) in Gainesville, Virginia is a leading provider of solutions-oriented design, manufacturing and supply-chain management services for independent software vendors and solutions oriented hardware OEMs looking to outsource the development, manufacturing and fulfillment of their compute or storage based solutions.

“We provide architecture and design support to solution providers focusing on mission critical applications in finance, healthcare, government and defense”, explained Steve Stuck, Group VP, OEM Server and Appliance Sales, at NCS Tech. “In addition companies often turn to us at the end of the planning and design phases and ask us to help them with fulfillment as well. Over the years our technical expertise has allowed us to build manufacturing and supply chain capabilities that let us deliver on the designs we helped our customers envision.”

“It was a little nerve-wracking at first,” Stuck continued, “We would come up with all these great ideas, and our customers turned to us and said ‘okay now we need you to build it.’ We really had to deliver then. That’s why we only work with first tier vendors who can give us access to proven, leadership technologies, and the engineering resources to support them, companies like LSI.

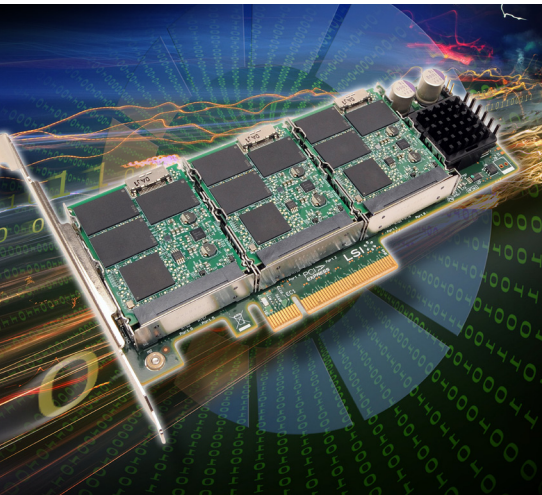
“We recently completed a design for a customer who needed a continuous network monitoring solution to identify and correlate network security threats, provide analytical and diagnostic tools, correlate and remediate risks to the information infrastructure for government and commercial customers including insider threats, zero-day exploits, targeted malware, advanced persistent threats, data leakage, fraud, and espionage.

“They exposed requirements to us for wire-speed capture, analysis, and retention of a wide-range of information types, needing consistently available high I/O bandwidth with rapid scalability and without increasing latency for network traffic user. Their previous solution exposed network and storage infrastructure bottlenecks.

“For adequate information security, you need total visibility into all aspects of your information network. However, every IPSec alert, firewall log, server transaction, application activity—or any other relevant data—creates more information that must be collected, stored and managed. While the information may be relevant, and highly valuable for security analysis, the sheer volume of information becomes overwhelming to most network monitoring and SIEM system architectures. Among other things the natural dynamics of the data required us to consider highly scalable solutions. Maxing out data storage capacity could be a real disaster in a context like this.”

"The WarpDrive card showed better performance, took fewer systems resources- allowing those resources to better support client applications – and was less expensive."

Steve Stuck
Group VP,
OEM Server and Appliance Sales,
NCS Technologies



The LSI WarpDrive SLP-300 enables very high IOPS to accelerate high demand applications like real time network analysis and SEIM. Where standard hard drive technology might not be able to keep up, the WarpDrive card offers a PCIe plug-in solution that easily installs into existing server platforms without taking away precious system resources from the CPU or memory.

"We did a deep dive on their requirements and the technologies available," Stuck explained. "We settled on 2U and 3U enclosures configured with a variety of network interfaces, copper and optical Fibre, 1GbE and 10GbE. We proposed configurations with 12 or 16 1TB 7200RPM SAS or SATA disks plus SSD drives and a pair of the LSI MegaRAID SAS 9260-8i controllers. In addition, we recommended including an LSI Warpdrive SLP-300 card as a high-speed device for storing and delivering database indices and important data sets that need low latency access.

"This turned out to be a winning configuration for one customer of ours who was using a specialized SSD-based storage appliance to service the network monitoring requirements for a major federal agency...very expensive. We were able to improve performance and cut cost for them by getting them to look at using the WarpDrive card and high capacity SATA drives to get the performance and capacity they needed, at a much lower solution cost.

"In another instance," Stuck added, "a customer in the SIEM space was going down the path of evaluating a consumer grade PCIe-based solid state storage device, and we were able to get them to evaluate and approve the enterprise-class WarpDrive SLP-300 card for evaluation. They reported back to us that the WarpDrive card's performance was significantly better, and the cost was more attractive, too."

"The WarpDrive card showed better performance, took fewer systems resources- allowing those resources to better support client applications – and was less expensive. The WarpDrive card enables very high IOPS to accelerate high demand applications such as real time network analysis. Where standard hard drive technology might not be able to keep up, the WarpDrive card offers a PCIe plug-in solution that easily installs into existing server platforms without taking away precious system resources from the CPU or memory.

"Both of these customers in the network security space have applications with implications for national security, so we know their evaluation standards demand the very best. That's why we included LSI MegaRAID controllers and the WarpDrive card as part of our configuration.

"Because of who we work with at the corporate, state and federal level in network security," Stuck clarified, "many times we are unable to share the names of our customers. We all know they exist, and most of us are glad they are there. They do a good job, but they don't like to call a lot of attention to themselves."

He went on, "And for NCS Tech, one of the great things about the work we do for our customers in network security is that it is completely transferrable to the big data and I/O performance challenges our customers face in other market segments. We offer very similar configurations to customers in healthcare and financial services, where performance and data protection are critical to business operations.

“There, too LSI helps us meet or exceed our customers’ requirements with storage options that let us optimize high-performance solutions to protect critical information and networks. Utilizing the industry’s fastest analytical tools, we enable our customers to identify, correlate and remediate threats in minutes instead of hours, allowing them to mitigate risks to their information and infrastructure,” Stuck concluded.

Benefits

LSI WarpDrive SLP-300 PCIe Acceleration Card

- High performance in-server storage allows single server solution
- Facilitates reduced server count
- Helps enable higher web server performance
- Dramatically improves transactional application performance

LSI MegaRAID 6Gb/s SATA+SAS 9260-8i Controller Card

- Superior performance
- PCI Express 2.0 provides faster signaling for high-bandwidth applications
- Support for 3Gb/s and 6Gb/s SATA and SAS hard drives and SSDs for maximum inside-the-box flexibility
- Support for LSI Advanced Software Options including MegaRAID Fast Path, CacheCade™, SafeStore™ and Recovery software
- Low-profile MD2 form factor for space-limited 1U and 2U environments



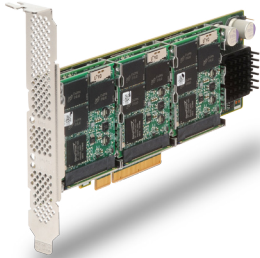
ABOUT NCS TECHNOLOGIES, INC.

Since 1996, NCS Technologies, Inc. has been an innovator in the IT arena. Housed in their new state-of-the-art facility in Gainesville, VA, NCS designs, manufactures, integrates, tests, distributes, and supports their full line of commercial and rugged IT solutions.

NCS designs solutions for various federal government agencies, the Department of Defense, NASA, NIST, state and local governments, research organizations, and a myriad of commercial customers with unique requirements. NCS' Engineering Division is sharply focused on architecting and deploying High-Performance Computing (HPC), storage, and virtualization solutions, as a logical outgrowth of the company's core expertise providing desktops, notebooks, mobile devices, thin clients, servers, and Internet appliances governed by ISO-9001:2008 standards. For more information, please visit www.ncst.com.

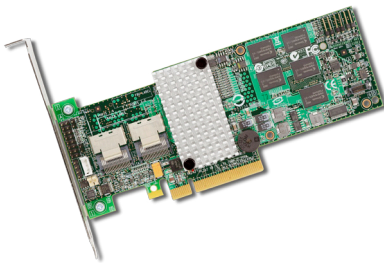
Components and Configuration

LSI WarpDrive SLP-300 PCIe Acceleration Card Low-profile MD2 x8 PCIe 2.0 SSD cache card



Offering high performance with low latency and a low CPU burden, the PCIe small form factor WarpDrive acceleration card is designed to maximize transactional I/O performance for applications such as Web serving, data warehousing, data mining, online transaction processing and high-performance computing. This reliable acceleration card performs consistently across reads and writes regardless of workload. This solid state storage solution utilizes industry-standard and widely deployed LSI SAS software for easier system integration and management and a faster time to market.

LSI MegaRAID 6Gb/s SATA+SAS 9260-8i Controller Card



MegaRAID SATA+SAS controllers provide a new level of reliability, availability, and performance to businesses that are facing storage challenges driven by unprecedented data growth. With data transfer rates of up to 6Gb/s per port, the MegaRAID SAS 9260-8i controller brings users new features and improved performance, while continuing to support all the features of the previous 3Gb/s SATA+SAS generation. This MegaRAID value line controller, ideal for inside-the-box connectivity, employs the latest in RAID-on-Chip (ROC) technology and complies with the PCI Express 2.0 specification.

Build Today

You can use the same LSI RAID technology as NCS Technologies for your high performance requirements today. Contact David Graas at david.graas@lsi.com for more information.

For more information and sales office locations, please visit www.lsi.com/channel



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