Graid Technology Inc.

# Sertrix Unlocks Next-Generation Security and Performance with SupremeRAID™ by Graid Technology

CUSTOMER SUCCESS STORY | AUGUST 2025

## EXECUTIVE SUMMARY

**Sertrix GmbH & Co. KG, a cybersecurity specialist with expertise in Kritis and NIS-2 compliance, needed to modernize its high-performance data analysis infrastructure.** Their legacy Windows Storage Spaces solution, limited to RAID 10, only utilized 50% of available NVMe SSD capacity and could not deliver the required performance. After evaluating alternatives, Sertrix selected Graid Technology's SupremeRAID™ SR-1010, enabling RAID6 with two hot spares and boosting usable storage to approximately 84%.

With SupremeRAID™, Sertrix achieved 2.6 million random read IOPS, nearly 950,000 random write IOPS, and transfer speeds up to 17 GB/sec, all while supporting over 150 Microsoft Hyper-V virtual machines and maintaining low CPU utilization. The new solution maximized hardware investment, improved operational transparency and stability, and allowed Sertrix to deliver superior cybersecurity services and consultancy as a certified Microsoft specialist partner. This upgrade positions Sertrix for future growth and ongoing innovation in the evolving field of operational security.

## COMPANY OVERVIEW

**Sertrix GmbH & Co. KG, a subsidiary of ABSULT GmbH & Co. KG, is a leader in cybercrime prevention and operational security, specializing in Kritis and NIS-2 compliance.** Founded in 2019, Sertrix has rapidly evolved from a test environment into a trusted provider of advanced security solutions, offering both consultancy and managed services to clients with stringent data protection requirements.

## THE CHALLENGE

**As Sertrix expanded its suite of security and data analysis services, the company needed a storage solution capable of supporting high-performance analytics, virtualization (including Hyper-V), and Docker environments on Windows Server 2022/2025.** The legacy setup, based on Microsoft Storage Spaces with mirrored disks (RAID10), delivered only 50% usable capacity and limited performance, wasting valuable NVMe SSD resources and constraining scalability. Competing hardware RAID controllers from other vendors failed to meet Sertrix's requirements for both cost-effectiveness and throughput.

## CHALLENGE

### Scaling Cybersecurity Data Analysis

Sertrix needed faster, more reliable infrastructure to process massive datasets for its cybersecurity and compliance services without compromising accuracy or the ability to meet the demands of over 150 virtual machines.

## SOLUTION

### GPU-based RAID Integration

By deploying SupremeRAID™ SR-1010 by Graid Technology, Sertrix eliminated RAID bottlenecks and unlocked the full performance of its NVMe SSD infrastructure—without a full rebuild.

## RESULT

### Full Performance, Maximized ROI

Storage performance skyrocketed, query times vanished, and usable capacity jumped from 50% to 84%. Sertrix now handles larger workloads, delivers deeper analysis, and provides clients with faster, more resilient security services.

50% 84%

INCREASE IN USABLE STORAGE CAPACITY

## THE SOLUTION

**To overcome these performance and capacity limitations, Sertrix conducted a rigorous evaluation of alternatives, finding that competing hardware RAID controllers failed to meet its requirements for both throughput and cost-effectiveness.** The company selected Graid Technology's SupremeRAID™ SR-1010, pairing it with 12 Kioxia CM7-V 3.2TB NVMe SSDs and dual AMD EPYC 9554 CPUs. SupremeRAID™'s GPU-accelerated architecture is specifically engineered to unlock the full potential of NVMe SSDs by eliminating the I/O bottlenecks that constrain traditional RAID systems.

Following the successful implementation, the performance gains were immediate and dramatic. Sertrix deployed a RAID6 array with two hot spares, boosting usable storage from 50% to approximately 84%. The new infrastructure achieved 2.6 million random read IOPS and transfer speeds up to 17 GB/sec, all with minimal CPU utilization. In addition to speed, the solution delivered exceptional stability, running flawlessly for over six months under heavy load. SupremeRAID™ now plays a central role in helping Sertrix deliver superior, more reliable cybersecurity services and consultancy.

## KEY BUSINESS OUTCOMES

### Exceptional Performance

Sertrix achieved 2.6 million random read IOPS and nearly 950,000 random write IOPS, all with CPU utilization at just 15% across 64 threads. In real-world operations, the infrastructure **supports over 150 concurrent virtual machines** with transfer speeds up to 17GB/sec, ensuring seamless service delivery for demanding security workloads.

### Maximized Storage ROI

By moving from RAID10 to RAID6 with SupremeRAID™, **Sertrix increased usable storage from 50% to 84%.** This saved the equivalent of four NVMe SSDs-worth approximately $2,800-on a single server, while also reducing the need for additional hardware investment.

### Operational Stability and Scalability

Powered by SupremeRAID™, Sertrix's infrastructure has **performed flawlessly for more than six months —even under the most demanding workloads.**

### Future-Ready Architecture

SupremeRAID™'s **support for both Windows and Linux, as well as its compatibility with leading virtualization platforms like Hyper-V**, positions Sertrix to further optimize and expand its services as client needs evolve.

"With Graid SupremeRAID™, we unlocked the full potential of our storage infrastructure-enabling us to deliver faster, more reliable security solutions while maximizing our investment. Our clients benefit from **greater transparency, performance, and peace of mind**."

—Alexander Becker, Founder, Sertrix GmbH & Co. KG

## CONCLUSION

**Graid Technology's SupremeRAID™ empowered Sertrix to break free from legacy storage limitations, delivering best-in-class performance, efficiency, and reliability.** With SupremeRAID™, Sertrix maximized its hardware investment, improved operational transparency and stability, and reinforced its reputation as a trusted, innovative partner in cybersecurity and operational security.

> "With SupremeRAID™, we unlocked the full potential of our storage infrastructure-enabling us to deliver faster, more reliable security solutions while maximizing our investment. Our clients benefit from greater transparency, performance, and peace of mind."
>
> —Alexander Becker, Founder, Sertrix GmbH & Co. KG

Sertrix GmbH & Co. KG and Graid Technology invite you to learn how GPU-based RAID can redefine what's possible in your cybersecurity environment. **Learn more at** www.graidtech.com

## ABOUT SERTRIX GMBH & CO. KG

Sertrix GmbH & Co. KG, founded in 2019 by Alexander Becker as a subsidiary of ABSULT GmbH & Co. KG, is a leading provider of cybercrime prevention and operational security solutions. With deep expertise in Kritis and NIS-2 compliance, Sertrix delivers advanced security services and consultancy to organizations with high regulatory and operational demands. Originally established as a test environment for innovative security ideas, Sertrix quickly evolved into an independent company offering its own products and services. Today, Sertrix is recognized for its cost-efficient Security Operations Center (SOC) services, proactive approach, and commitment to transparency-helping clients optimize their security posture while adding value through expert consultancy and infrastructure design. As a certified Microsoft specialist partner, Sertrix supports both traditional and modern IT environments, including Hyper-V virtualization and Windows-based infrastructures. For more information on Sertrix GmbH & Co. KG, visit https://www.sertrix.de

## ABOUT GRAID TECHNOLOGY

Graid Technology, creators of SupremeRAID™ next-generation GPU-based RAID, is led by a team of experts in the storage industry and is headquartered in Silicon Valley, California, with an R&D center in Taipei, Taiwan. Winners of the esteemed Tech Trailblazers Storage Award for 2023 and the 2023 Golden Award at the Asia Pacific ICT Alliance, SupremeRAID™ performance is breaking world records as the first NVMe and NVMeoF RAID card to unlock the full potential of your SSD performance: a single SupremeRAID™ card delivers 28 million IOPS and 260GB/s of throughput. For more information on Graid Technology, visit graidtech.com or connect with us on LinkedIn.