Graid Technology Inc.

Accelerating Quantitative Finance Research with Novatech, NVIDIA, and SupremeRAID™

CUSTOMER SUCCESS STORY | NOVEMBER 2025

EXECUTIVE SUMMARY

A premier UK institute specializing in quantitative finance set out to turbocharge their research capabilities using advanced AI and machine learning for financial modeling. Their mission: eliminate workflow bottlenecks and scale for the future. The challenge demanded not only immense compute resources, but also a seamless, scalable, and robust storage solution to process and protect massive, mission-critical datasets.

THE CHALLENGE

- Intensive AI workloads and financial modeling required rapid data movement between compute and storage.
- Legacy infrastructure risked creating workflow bottlenecks, threatening research agility and speed to discovery.
- Data integrity and security were paramount, as was ensuring research data was safe and accessible—without compromise.
- The solution needed to scale confidently in step with the institute's evolving research needs.

THE SOLUTION

Collaboration and Customization:
Novatech worked hand-in-hand with the institute to precisely understand their use case and create a solution tailored to unique requirements.

- Integrated a 178TB high-speed NVMe 4.0 SSD-based SupremeRAID™ storage server, engineered for both blazing performance and reliable capacity.
- Implemented RAID 6 for fault tolerance, ensuring ongoing access to data even in the event of two simultaneous drive failures per pool.
- Built-in scalability—both the GPU and storage solutions are designed to expand as data and research demands grow.
- Enhanced security with automounted home directories, centralized group management, Kerberos authentication, and a modernized identity/access control model.
- Introduced a high-performance SLURM Workload Manager to streamline resource allocation and research throughput.

novatech

CHALLENGE

Underperforming Infrastructure

A premier UK institute specializing in quantitative finance set out to turbocharge their research capabilities using advanced AI and machine learning for financial modeling.

SOLUTION

No Risk, All Reward

A 178TB NVMe storage server, accelerated by SupremeRAID™, delivers blazing speed, RAID 6 data protection, and unlocks powerful, next-generation research capabilities.

RESULT

High Yield Performance

Future-proofed for tomorrow's needs, the new platform empowers world-class financial modeling, combining peak performance, resilience, and full support for advanced AI modeling.

RESULTS

Bottleneck-Free Performance

The new GPU and storage infrastructure allows researchers to run advanced AI models and financial simulations at unprecedented speed—without data movement delays or performance stalls.

Future-Proof Scalability

The system can easily expand with new storage and compute nodes as research requirements become more complex.

Rock-Solid Data Protection

RAID 6 with SupremeRAID™ delivers world-class fault tolerance and quick recovery from hardware issues, while centralized security ensures tight access controls.

Research Confidence

Scientists and analysts at the institute now conduct world-class financial modeling with confidence, knowing their platform combines peak performance, ironclad resilience, and seamless manageability.

Why SupremeRAID™ for Financial Services?

SupremeRAID™ SR-1010 provides unique advantages for fast-paced financial modeling, real-time analytics, fintech, and high-frequency trading. By offloading RAID operations to the GPU, it eliminates NVMe bottlenecks and maximizes both performance and uptime. This enables FSI organizations to run risk management, fraud detection, and generative AI (GenAI) workflows at scale, with confidence in the security, flexibility, and reliability of their infrastructure

Contact Novatech at saleseng@novatech.co.uk or Graid Technology at info@graidtech.com to learn more.

About Novatech

Novatech Limited is a UK-based company that specialises in providing custom built computer hardware, and IT managed services to businesses and individuals. The company was founded in 1987 and is headquartered in Portsmouth, UK. We are trusted by some of the largest businesses in the UK to deliver their requirements, including custom designed high performance computing solutions with wrap around project management and lifecycle management services. Our hugely experienced engineering team can deliver a wide variety of custom solutions to meet your specific needs. From deep learning and AI GPU compute workstations to complex rack solutions to power simulators for world leading defence and aviation companies. You can learn more at www.novatech.co.uk and in this case study.

About Graid Technology

Graid Technology is led by a dedicated team of experts with decades of experience in the SDS, ASIC, and storage industries, and continues to push boundaries in data storage innovation by protecting NVMe-based data from the desktop to the cloud. Cutting-edge SupremeRAID™ GPU-based RAID removes the traditional RAID bottleneck to deliver maximum SSD performance without consuming CPU cycles or creating throughput bottlenecks, delivering unmatched flexibility, performance, and value. With headquarters in Silicon Valley supported by a robust R&D center in Taiwan, we are globally committed to spearheading advancements in storage solutions. For detailed product information, visit our website, or connect with us on LinkedIn.

Graid Technology Inc. | novatech

Learn more at graidtech.com