

# **XENON High Performance Computing Solutions**

Create realistic simulations. Run larger dataset models faster. Solve new problems.

### **ENJOY AN AGILE CLUSTER FOR ANY WORKLOAD**

Creating a cluster with the right balance of CPU and GPU maximises compute power within budgetary constraints, and delivers an HPC Cluster that can handle any workload.

Artificial intelligence, scientific research, environmental modelling and resource exploration all find a home on a XENON HPC cluster designed with best of breed components.

XENON has been delivering HPC in Australia for over 25 years, leading the way with CPU and GPU clusters from the smallest two node requirements to 1,000+ nodes in the largest shared cluster in Australia. XENON is the leading Australian HPC specialist.

### **EXPLOIT HIGH PERFORMANCE STORAGE AND NETWORKING**

Where your data lives and how it gets to the cluster is critical to end user experience and overall HPC performance.

XENON has a long history in high performance storage and networking and assists customers with complex data workflows, backup and archive at exabyte scale.

Partner with XENON and gain access to the widest range of high performance vendors, including NVIDIA Networking (previously Mellanox), Weka, VAST, Quantum, Spectra and more.

Learn more about XENON's Storage Solutions » | Networking Solutions »







# LEVERAGE A MODERN CONTAINERISED ARCHITECTURE

Containerisation delivers a modern, flexible and modular stack for Linux HPC Clusters. XENON has created a bespoke Open Source container stack called XENON Cluster Stack (XCS) available for XENON clusters and with XENON HPC Services.

Containerisation lowers maintenance costs while making the cluster easy to use, expand and manage. Secure by design, while open for integration and collaboration, XCS delivers protection and integrity. Leverage XCS infrastructure-as-code to enable DevOps workflows with a high degree of scripting and automation.

XCS enables seamless integration of public clouds and private research cloud services delivering maximum flexibility for a variety of applications and workloads.

# XENON CLUSTER STACK COMPONENTS VM Hosts Compute **Shared Storage** Firewall **Docker Host VM** Node CPU/GPU Home Area Appliance Cluster Management Provisioning Nodes (Compute, Storage, Login) Configuration Management (Ansible) Login Node Scratch Area Monitoring Performance Analytics, Reporting Cluster Status Dashboard Remote Desktop Software Node Backups Job Management and Scheduling N+ Cluster Nodes **User Access** HTML5 VDI, SSH Console, Web GUI etc Node CPU/GPU Legend: Physical Machines & Hosts VMs

Learn more about XENON Cluster Stack »







# **GAIN AN ADVANTAGE WITH SERVICES**

**Designing a new cluster?** Engage with XENON to accurately assess requirements, repurpose existing infrastructure, create the most capable HPC solution within the budget.

**Managing an existing cluster?** XENON delivers HPC as a managed service across ANZ and in South East Asia looking after updates, security, job scheduling and all the tasks needed to keep clusters running.

XENON lives to enable our customers to solve great new problems. Engage with our team today to experience the difference the XENON solution focus delivers.

Learn more about XENON HPC Services »

# **RECENT HPC CUSTOMERS & CASE STUDIES**























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Contact an HPC Specialist

## Learn more



