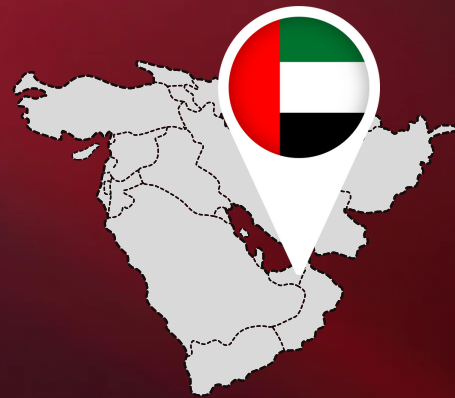


High Performance Compute as a Service (HPCaaS) Data Center



Middle-East's 1st water-cooled HPC Data Centre

Physically located at Sharjah Research
Technology and Innovation Park



NVIDIA

NVIDIA A100 GPUs

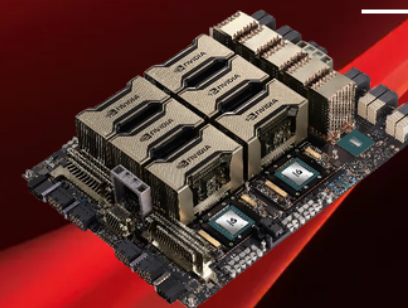
Each GPU equipped with
80 GB memory

Lenovo



Lenovo Support

Container-based web portal to simplify
the use of resources



Supercomputing performance

1.3 petaFlops compute system with over
3 petaBytes of storage



GPFS Storage Solution

High performance storage using IBM's
General Parallel File System



Sustainable structure

1.1 PUE consumes 20% lesser power and
50% lesser floor space

Optimized

98% lower latency, 2:1 data reduction,
and 9 times more performance
compared to traditional data centres

Performance-oriented setup

Bare metal servers provide greater
performance power alongside
consistent network I/O



Workload Performance Intelligence

Leading Security and Compliance

Software Licensing

Financial Controls

Operating System and File System

Technical Support

Compilers and Libraries

Resource Optimization

R&D Workflows

Multi-Team and Access Controls



Management and Support Services

- Cluster Management - LiCO
- Software Installation and Licensing
- Job Scheduling and Queueing - Slurm
- Performance Monitoring and Optimization - LiCO
- Technical Support - In house expert team
- Data Transfer and Migration
- Data Analytics and Visualization - VDI

Infrastructure and Computing Services

- HPC Cluster - CPU, GPU, Memory and Storage
- Cloud HPC On-Demand
- Pay-as-you-go pricing
- Bare Metal Servers - Dedicated Resources

Benefits of LiCO

- Web-based portal to deploy, monitor, and manage
- Direct browser access to Jupyter notebook instances
- Lenovo accelerated AI pre-defined training
- Integrated TensorFlow visualization tools
- Management of private space on shared storage
- Standard and customizable job templates
- Monitoring of job progress and log access

Computer Node

Node Model	Lenovo ThinkSystem SD650 V2 Node
Processors	2 x Intel Xeon Platinum 8358 32C 250W 2.6Ghz Processor
Memory	16 x ThinkSystem 16GB TruDDR4 3200 MHz (2Rx8 1.2V) RDIMM
Internal Drives	2 x ThinkSystems 2.5" 7mm S4520 960GB Read Intensive SATA 6GB Trayless SSD
Ethernet Ports	ThinkSystem 25G LOM
InfiniBand Ports	ThinkSystem Mellanox ConnectX-6 HDR/200GbE 1-Port PCIe 4 VPI Adapter (SharedIO) DWC ThinkSystem Mellanox HDR/200GbE 2 x PCIe Aux Kit

GPU Node

Node Model	Lenovo ThinkSystem SD650 V2 Node
Processors	2 x Intel Xeon Gold 6336Y 24C 185W 2.4Ghz Processor NVIDIA HGX A100 80GB 500W 4-GPU Board
Memory	16 x ThinkSystem 32GB TruDDR4 3200 MHz (2Rx4 1.2V) RDIMM
Internal Drives	2 x ThinkSystems 2.5" 7mm S4520 960GB Read Intensive SATA 6GB Trayless SSD
Ethernet Ports	ThinkSystem 25G LOM
InfiniBand Ports	ThinkSystem Mellanox ConnectX-6 HDR/200GbE QSFP56 1-Port PCIe 4 VPI Adapter DWC ThinkSystem Mellanox HDR/200GbE 2 x PCIe Aux Kit