Smarter technology for all

Lenovo Storage Scale User Group

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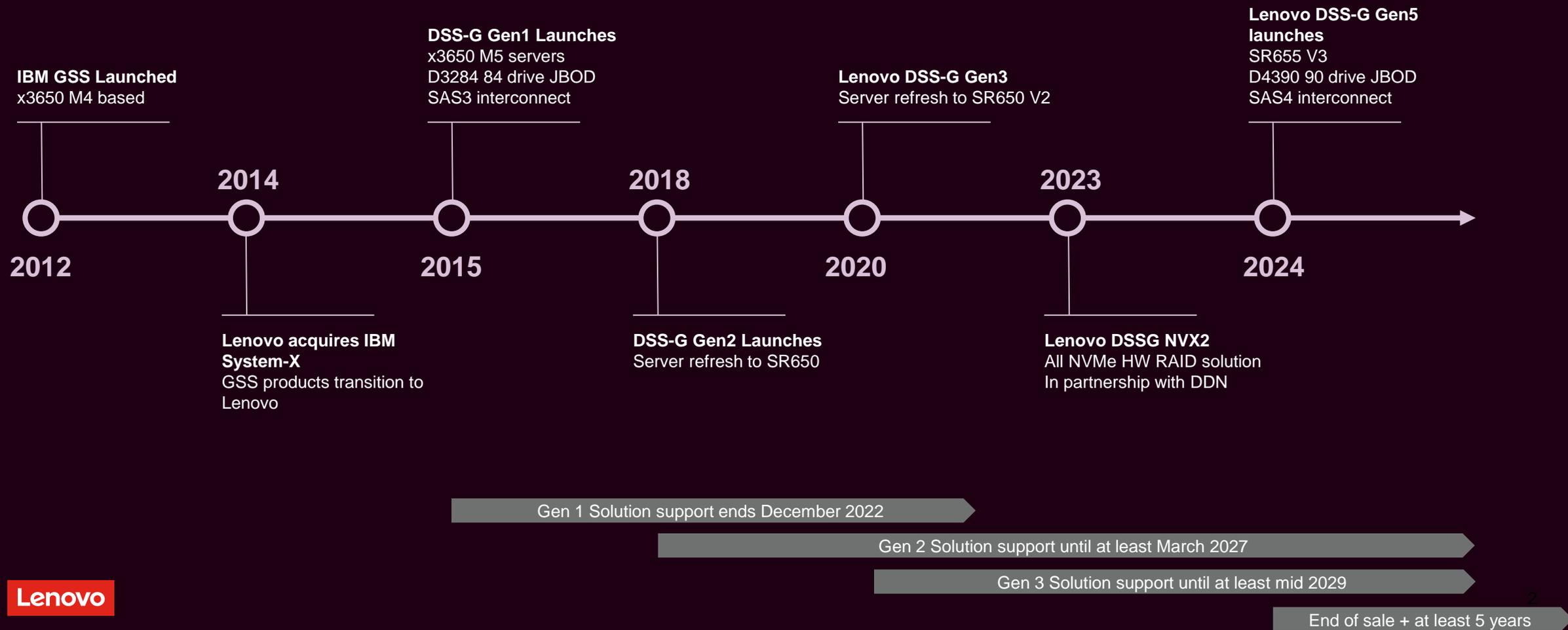
Lenovo   AMD   intel.   NVIDIA.

Over a decade of DSS-G heritage

Delivering continuous Solution Innovation

IBM GSS Launched
x3650 M4 based

DSS-G Gen1 Launches
x3650 M5 servers
D3284 84 drive JBOD
SAS3 interconnect

Lenovo DSS-G Gen3
Server refresh to SR650 V2

Lenovo DSS-G Gen5 launches
SR655 V3
D4390 90 drive JBOD
SAS4 interconnect

2014

2018

2023

2012

2015

2020

2024

Lenovo acquires IBM System-X
GSS products transition to Lenovo

DSS-G Gen2 Launches
Server refresh to SR650

Lenovo DSSG NVX2
All NVMe HW RAID solution
In partnership with DDN

Gen 1 Solution support ends December 2022

Gen 2 Solution support until at least March 2027

Gen 3 Solution support until at least mid 2029

End of sale + at least 5 years
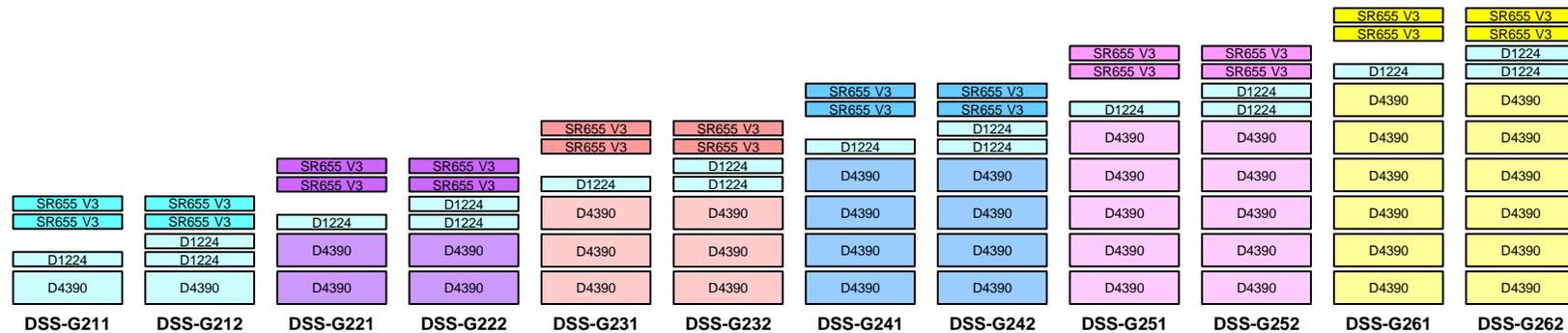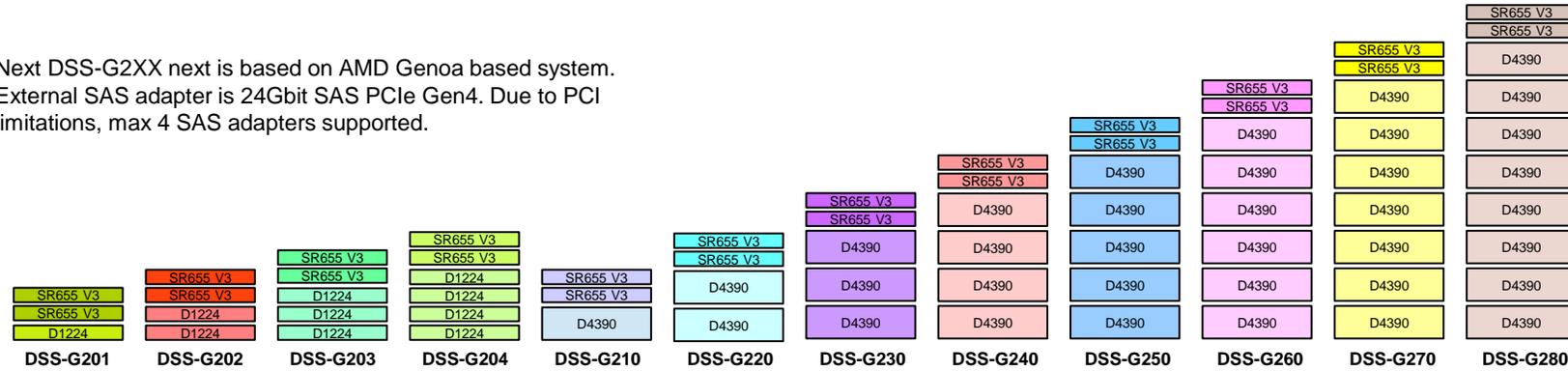
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DSS-G Simplified Upgrades

- Most firmware updates deployed prior to "upgrade" process
  - Previous updates forced firmware even if applied
- New pre-flight checks to verify system stability
- New rolling upgrade without full OS redeployment (within DSS-G 5.x series)
  - Automate updates with single tool to DSS-G building block IO servers
  - Rolling upgrade of servers
  - Manage RG fail over, cluster manager fail over etc when placed on IO server

- Do NOT (yet)
  - Enclosure firmware
  - Drive firmware
  - Update RG/FS levels

- Might require the customer to have IO server nodes subscribed to RHEL or to have local sync copy of EUS repositories

Lenovo

Lenovo DSS-G Gen5 Configurations (Genoa)

Ship Support: Planned release with DSS-G Q1/2024

There is only one model number for ECE: DSS-G100.

But a Lenovo ECE solution will consist of multiple ECE servers where each one will be configured with at least 6 but not more than 32 servers. Storage solutions can be a hybrid mix of DSS-G and ECE Here are 3 examples.
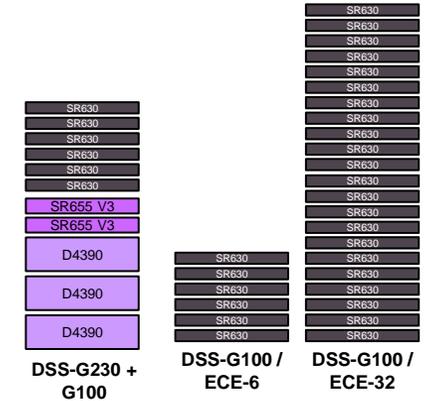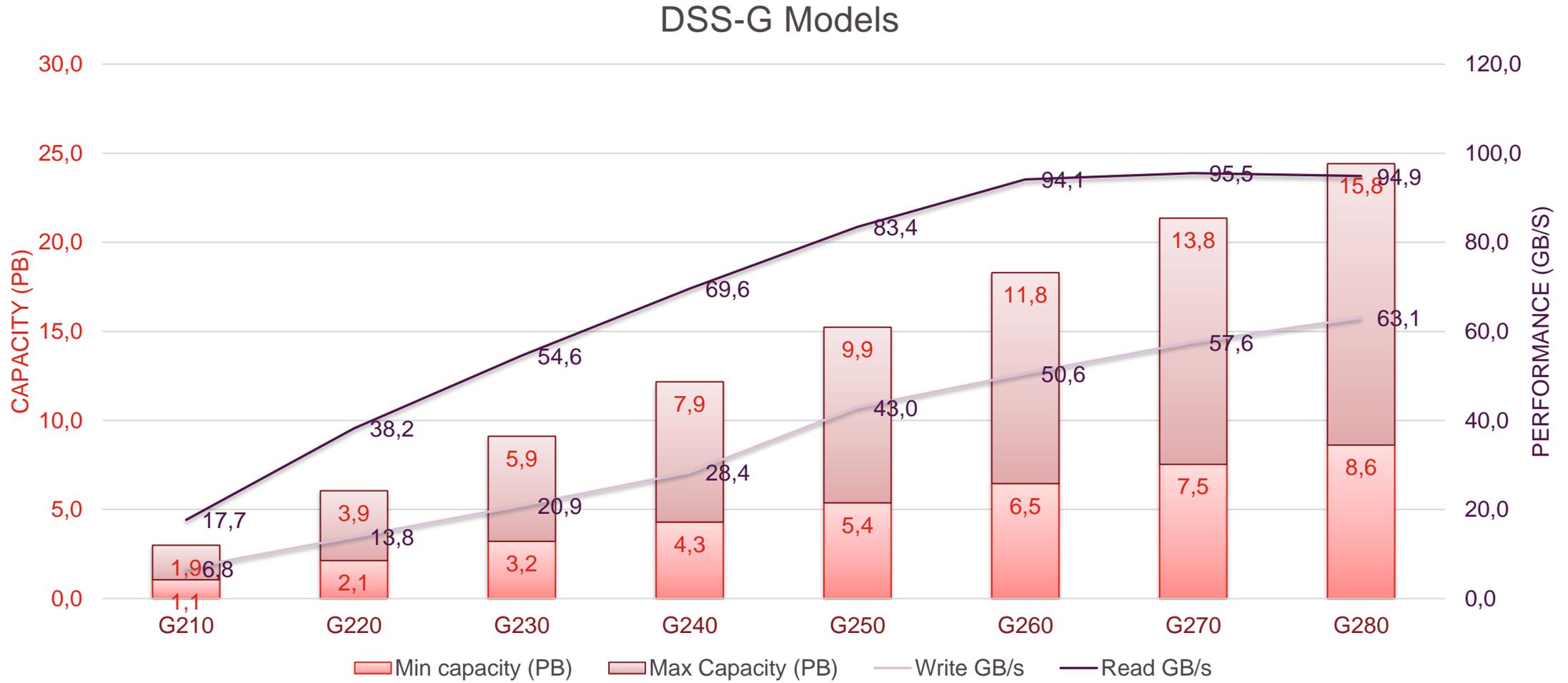
There are 12 homogeneous and 12 mixed model numbers for JBOD configurations:

Next DSS-G2XX next is based on AMD Genoa based system. External SAS adapter is 24Gbit SAS PCIe Gen4. Due to PCI limitations, max 4 SAS adapters supported.

DSS-G201 · **DSS-G202** · **DSS-G203** · **DSS-G204** · **DSS-G210** · **DSS-G220** · **DSS-G230** · **DSS-G240** · **DSS-G250** · **DSS-G260** · **DSS-G270** · **DSS-G280**

DSS-G211 · **DSS-G212** · **DSS-G221** · **DSS-G222** · **DSS-G231** · **DSS-G232** · **DSS-G241** · **DSS-G242** · **DSS-G251** · **DSS-G252** · **DSS-G261** · **DSS-G262**

DSS-G230 + G100 · **DSS-G100 / ECE-6** · **DSS-G100 / ECE-32**

Footnotes:
1. Fits in 48U rack.
2. Requires 2 racks.

DSS-G model capacity and performance

DSS-G Models

Legend: Min capacity (PB) | Max Capacity (PB) | Write GB/s | Read GB/s

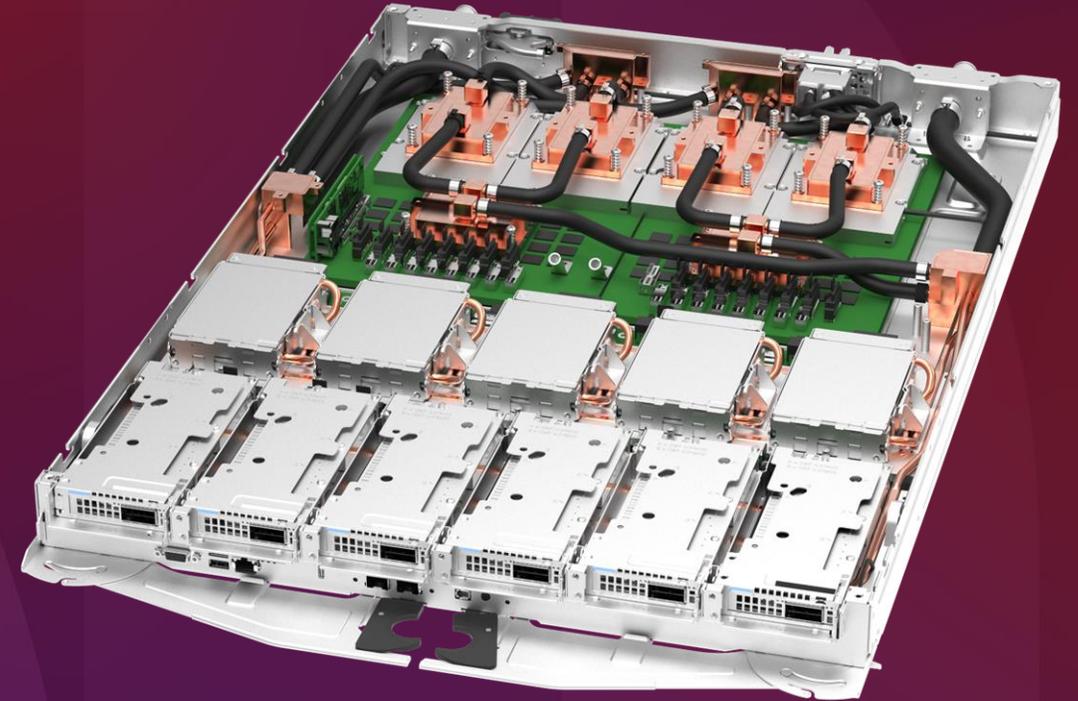| Model	Min capacity (PB)	Max Capacity (PB)	Read GB/s	Write GB/s
G210	1,1	1,9	17,7	6,8
G220	2,1	3,9	38,2	13,8
G230	3,2	5,9	54,6	20,9
G240	4,3	7,9	69,6	28,4
G250	5,4	9,9	83,4	43,0
G260	6,5	11,8	94,1	50,6
G270	7,5	13,8	95,5	57,6
G280	8,6	15,8	94,9	63,1

- Raw capacity, usable dependent on RAID code selected
- Optimised streaming IO performance measured on pre-production code within Lenovo HPC performance lab
- Numbers do not represent a performance commitment

Lenovo

Lenovo ThinkSystem SC777 V4

Neptune®

- 4 GPUs per Tray
  - 2x NVIDIA Grace and 4x NVIDIA Blackwell
  - ~1TB memory (LPDDR5 + HBM3e)
  - Up to 8x E3.S 1T local storage + 2x OS
  - Up to 6x x16 Gen5 LP (or 3x x32)
  - 2x 25GbE + 1x 1GbE LOM
  - DC-SCM w/ Lenovo xClarity Controller

- Lenovo Neptune
  - Zero airflow design, 100% direct water cooled
  - Copper, Stainless Steel and EPDM quality
  - Up to 45°C Inlet Water temperature
  - Lenovo in-house designed coldplates

thanks.

Lenovo　　AMD　　intel　　NVIDIA