



Supermicro SuperCluster with IBM Scale Storage

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AGENDA



- Introduction to Supermicro
- Partnership Overview – Why SMC and IBM
- Solution Overview
- Questions

About Supermicro



Revenue

~\$40B (FY2026 Forecast)
~\$22B (FY2025 Guidance)
\$14.9B (FY2024)
\$7.1B (FY2023)
\$5.2B (FY2022)

Worldwide Presence

6M+ Sq ft. Facilities Worldwide
1. Silicon Valley (HQ),
2. Taiwan,
3. The Netherlands,
4. Malaysia and others

Production

\$50B/yr Production Capacity (CY25)
~5000 Air-cooled Server Racks/mo.
~3000 Liquid-cooled Server Rack/mo.

Human Resource in 4 Campuses

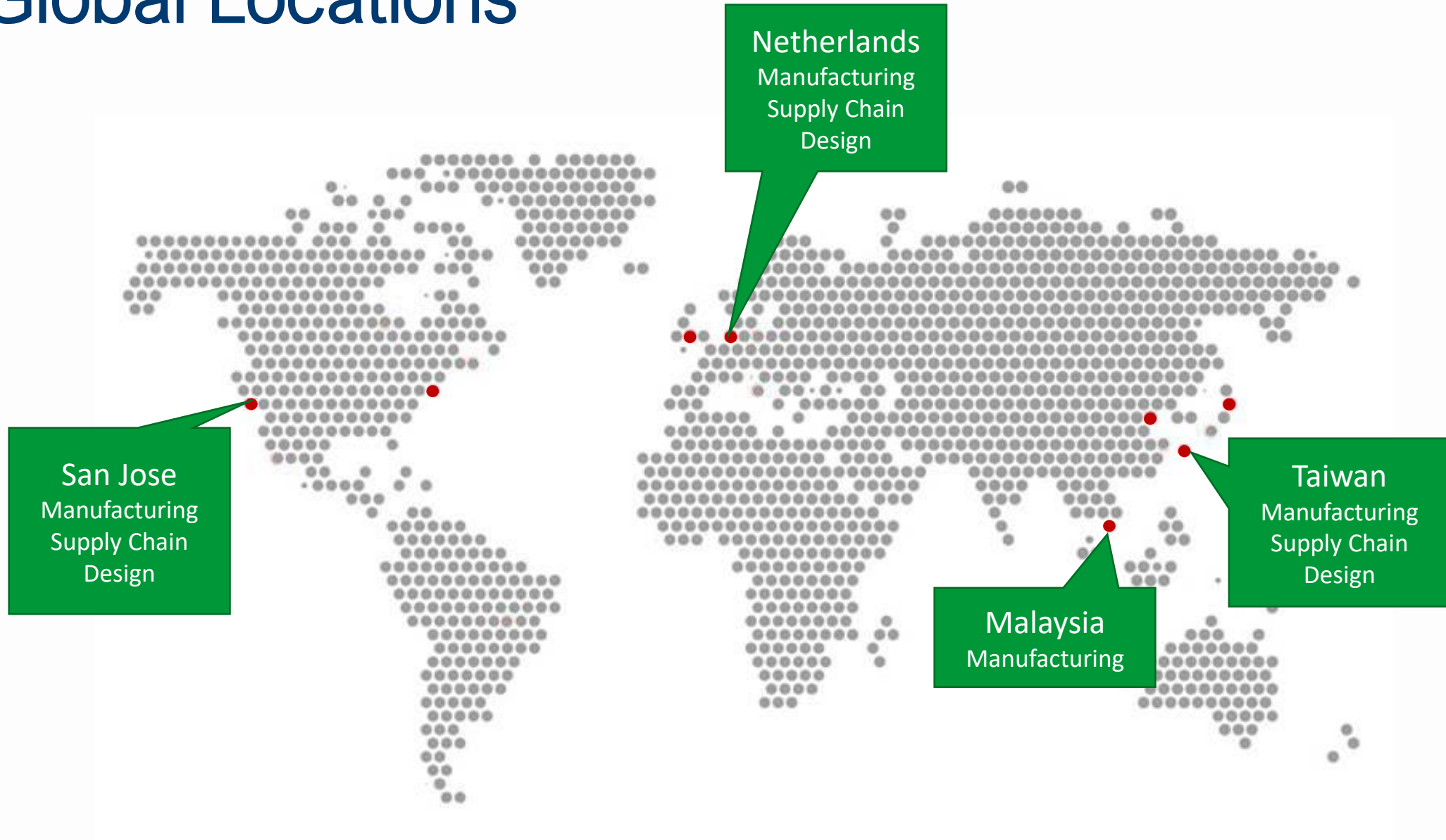
7000+ headcount Worldwide,
~50% Technical / R&D

Key Growth Matrix

#1 in Generative AI and LLM Platforms
500%+ YoY Growth in Accel. Computing



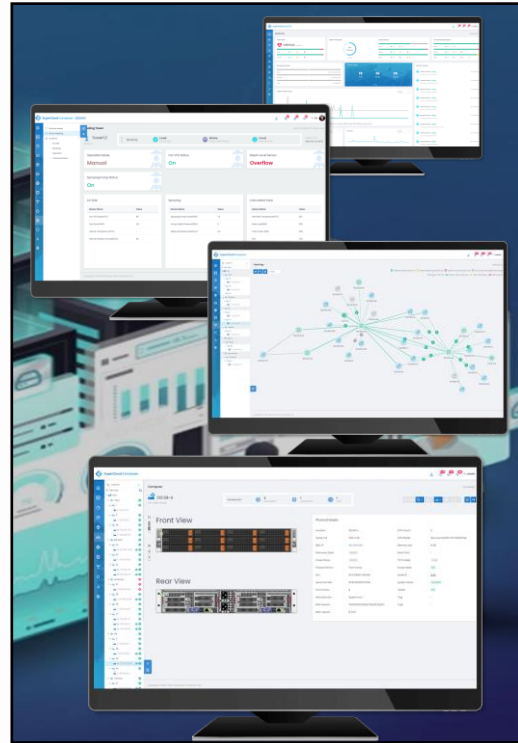
Global Locations



DATACENTER BUILDING BLOCKS

Rack-Scale PnP Solutions

Based on application optimized system building blocks

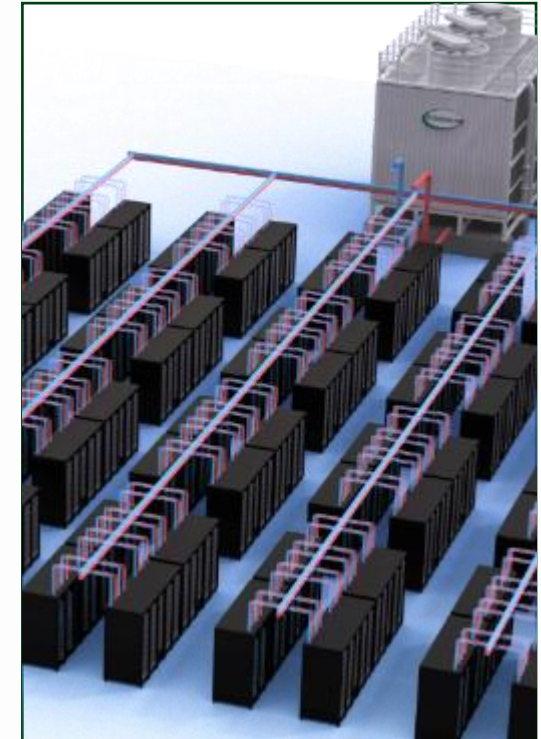


Software Solutions

DC management, control disaggregated infrastructure, security, optimized TCO

Network Solutions

Switching, routing, cabling, virtualization, network management and security



Infrastructure Solutions

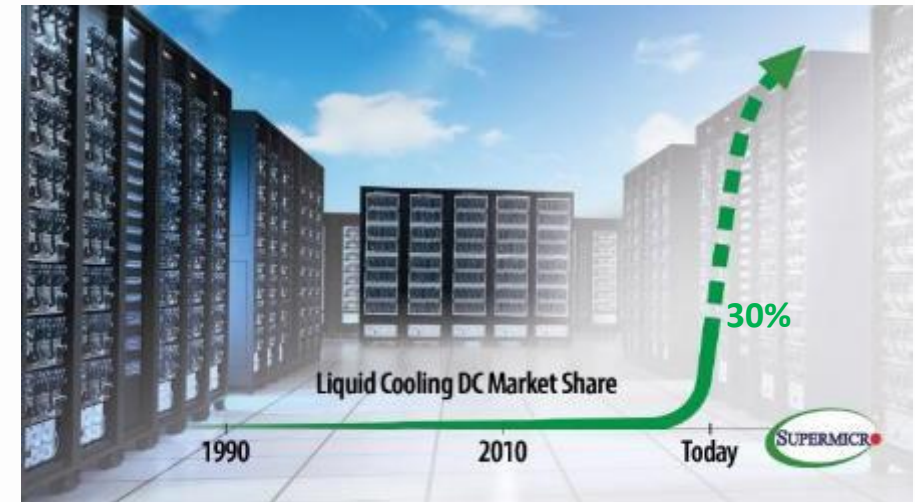
CDU, Water tower, Dry-towers, Chilled doors, A/C, piping, modular containers, T/N Generators and more...

RACK-SCALE PnP 2024

OPTIMIZED AIR & DLC RACK-SCALE SOLUTIONS



5,000 Racks per month production NOW
2,000 DLC Racks per month
150kW Racks ship in volume (250, 500kW soon)
20MW Facilities today (**30MW** online soon)



Powering the most powerful AI training/Inference cluster in the world

On-Site Deployment of SuperCluster



Project Capabilities

- Timeline for Deployment
- Data Center Layout
- Logistics
- Cabling, labeling: # of cables
- Inventory Tracking
- Material Management Support
- Software Installations
- Port Mapping

Supermicro and IBM Storage Partnership



Supermicro and IBM Storage have partnered on several solutions.

1. Turnkey AI Rack Solution – Reference architecture for full rack deployment of AI inferencing / training solution “Plug and Play”.



2. IBM Contant Aware Storage (CAS) solution on SMC HW – In development.

3. IBM CEPH Ready Nodes.



HDD High Capacity



Flash High Performance
and Capacity



Multi-Node High Performance

SMC SuperCluster with IBM SSS6000 Storage Solution



Why Supermicro and IBM



**Fully integrated solution
Turnkey plug and play
(All Networking, Storage,
Software*) Installation
And Support**



**Utilizing Supermicro's
Industry leading GPU
Servers (Air-cooled and
Liquid-cooled**) And
IBM High-performance
Storage**



**Single Support
Call,
Supermicro
Takes the first
Call**





**Supermicro will perform
Discovery with the
customer
For Installation and
Deployment - reduced from
Months to weeks**

- ** Liquid Cooling or LC2 design can be requested; default solution is Air Cooled


Supermicro Turnkey AI SuperCluster with NVIDIA HGX™ B200 platform, and IBM Storage® Scale System 6000





AI SuperCluster		AI SuperCluster	
Server System	5-rack AI SuperCluster (128) (2x EMS nodes, 5x Management servers)	Server System	9-rack AI SuperCluster (256) (2x EMS nodes, 5x Management servers)
GPU	16x NVIDIA HGX™ B200 Platform (8-GPU)	GPU	32x NVIDIA HGX™ B200 Platform (8-GPU)
Storage	1x IBM SSS6000	Storage	2x IBM SSS6000
Storage NVMe	1 PB Usable Flash Storage	Storage NVMe	2 PB Usable Flash Storage
CPU	6th Gen Intel® Xeon® Scalable Processors	CPU	6th Gen Intel® Xeon® Scalable Processors
Network	8x NVIDIA MQM9700 InfiniBand NDR - compute/storage, 2x 100GB/s Ethernet (SN3700C) - in-band mgmt, 2x 10GB/s Ethernet (X3348TR) - out-of- band mgmt.	Network	17x NVIDIA MQM9700 InfiniBand NDR - compute/storage 2x 100GB/s Ethernet (SN3700C) - in-band mgmt 2x 10GB/s Ethernet (X3348TR) - out-of- band mgmt.
Power	~252kW	Power	~475kW
Weight	~2883kg (6356lbs)	Weight	~5612kg (12373lbs)

Supermicro Turnkey AI SuperCluster with NVIDIA HGX™ B200 platform, and IBM Storage® Scale System 6000



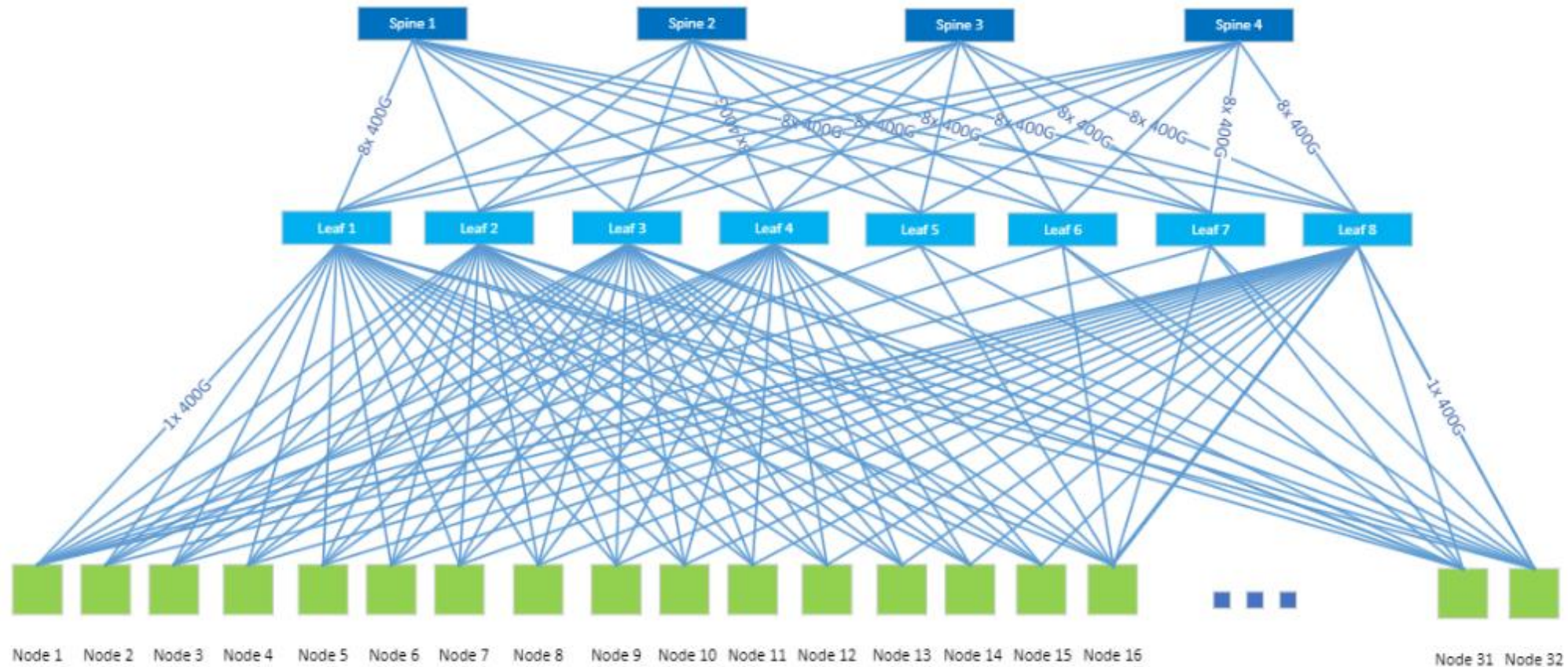
AI SuperCluster	
Server System	1 Rack AI SuperCluster (32) 1x EMS node
GPU	4x NVIDIA HGX™ B200 Platform (8-GPU)
Storage	1x IBM SSS6000
Storage NVMe	.5 PB Usable Flash Storage
CPU	6 th Gen Intel Xeon Scalable Processors
Network	8x NVIDIA MQM9700 InfiniBand NDR-compute/storage, 2x 100GB/s Ethernet (SNS3700C) – in-band mgmt., 2x 10GB/s Ethernet (X3348TR) – out-of-band mgmt.
Power	~55KW
Weight	~600kg

The Key Components

Server		SSS6000	
Server System	Supermicro SYS-A22GA-NBRT	Storage System	IBM SSS6000
Storage Media NVMe	NVMe	Storage	1 PB or 2 PB Usable Flash
GPU	NVIDIA HGX™ B200 8-GPU Platform	Storage Media NVMe	U.2 G4 NVMe (24 and 48 drives) NVMe: 3.84TB, 7.6TB, 15TB, 30TB FCM: 19TB and 38 TB
CPU	6th Gen Intel® Xeon® Scalable Processors	Storage CPU	Dual 4th Gen AMD EPYC™ 48 Cores
Memory	up to 6TB	Memory	768GB or 1536GB per canister
Network	NVIDIA MQM9700 InfiniBand NDR - compute/storage 100GB/s Ethernet, in-band mgmt 10GB/s Ethernet, out-of-band mgmt.	Network	400GB single port x16 Gen5 200GB VPI dual port x16 Gen5
Power	~10kW	IOPS	13M IOPs 310GB/s read, 155GB/s write
Weight	~62kg (135lbs)	Power	Up to 3.2kW Under Load 97GB/s-per-kW

Contact IBM2sales@supermicro.com

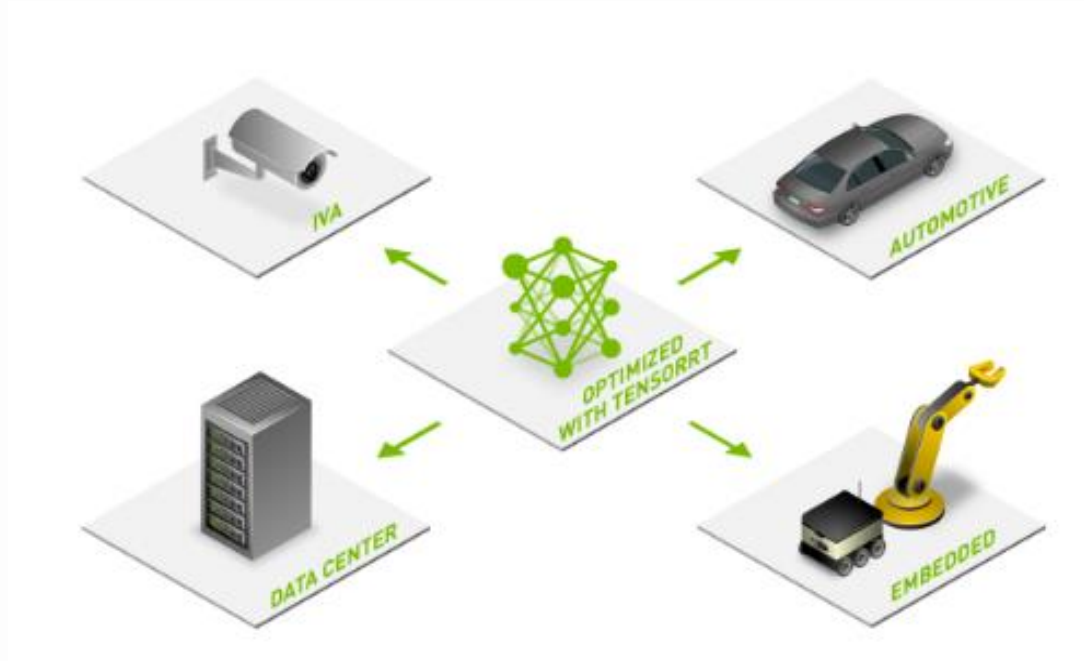
Rail-Optimized Compute Network Topology (32-Node SU)



Customer Types that Benefit from this Solution

<u>Technology companies</u> <ul style="list-style-type: none">• AI/ ML startups: for model training and inference.• Big Tech: to scale cloud services and platforms	<u>Financial Services</u> <ul style="list-style-type: none">• Banks and Investment firms: real-time trading risk simulation, fraud detection• Insurance Companies: Risk modeling, actuarial predictions	<u>Healthcare and Lifesciences</u> <ul style="list-style-type: none">• Biotech and Pharma: Genomics processing, drug discovery.• Hospitals: EHR management and AI driven medical imaging
<u>Media and Entertainment</u> <ul style="list-style-type: none">• Streaming platforms: Content recommendations, video data storage.• Studios: Rendering special effects and AI driven editing	<u>Energy and Manufacturing</u> <ul style="list-style-type: none">• Oil and Gas: Seismic analysis, reservoir modeling• Manufacturing: Product design simulations and digital twins	<u>Retails and Ecommerce</u> <ul style="list-style-type: none">• Recommendation Engines: Personalized customer experiences• Inventory Management: Demand forecasting logistics

AI Training / Inference Full-Stack Solution



Faster, More Accurate AI Inference

Questions?

Join Forces with Industry Leaders. Explore the Benefits of Integrating IBM Storage with Supermicro Servers. Schedule a Consultation Today!

**THANK
YOU**



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