

NEBIUS

Nebius for physical AI

Cloud infrastructure built for the robotics era. Train perception models. Run digital twins. Deploy intelligent systems at scale — on AI infrastructure purpose-built for physical AI and robotics.

Try a PoC



What you can do



Generate and augment multimodal data

Scalable, high-performance storage for real-world sensor data. Synthetic data generation powered by NVIDIA Cosmos World Foundation Models augments data by 1,000x.



Train robot and world foundation models

NVIDIA Blackwell clusters for vision-language-action (VLA) model training. Cut training time and focus on models — not infrastructure.



Simulate before you deploy

Instances with NVIDIA RTX PRO 6000 Blackwell Server Edition for large-scale simulation built with NVIDIA Isaac Sim and NVIDIA Cosmos. De-risk robot training through virtual environments.



Accelerate the full robotics workflow

NVIDIA OSMO Managed by Nebius connects synthetic data, training, simulation and deployment in one orchestrated pipeline — eliminating DevOps overhead.

Why Nebius

Purpose-built AI-infrastructure cloud

Vertically integrated cloud platform optimized for physical AI workloads

Production-ready inference

Cost-effective platform to scale models from prototype to production



Jointly engineered by Nebius and NVIDIA

Deep collaboration with NVIDIA on AI factories powering inference and agentic AI



Physical AI innovators on Nebius



Building robo-labor to elevate humans beyond dull, dirty and dangerous work.

Cut setup time by more than 70%.

Generates thousands of scenario variations with Nebius and NVIDIA.

Eliminated manual handoffs in physical AI workflows.



Global leader in video management software and computer vision.

Cost-effectively transforms real-world footage into trained models.

Leverages weeks of sustained access to AI infrastructure, data pipelines and workflow orchestrators.

Technical infrastructure

Built for physical AI workloads — from simulation to production.

Challenge

Nebius solution

VLA training stalls on network bottlenecks

- 3.2 Tbps InfiniBand
- Linear scaling to 512+ GPUs

Spiraling simulation costs

- Competitive pricing on instances with ray-tracing cores
- 60% savings on preemptible instances

Multimodal data pipelines choking GPUs

- Up to 1 TB/s of storage throughput
- Zero data starvation

Training runs interrupted by infrastructure failures

- Auto node health monitoring
- Intelligent restarts

Complex orchestration slowing dev

- Soperator by Nebius: native Slurm on Kubernetes
- Use both Slurm for training and Kubernetes for inference

AI infrastructure capabilities

Compute

- NVIDIA HGX H100, H200, B200, B300, and GB200 NVL72 clusters
- NVIDIA RTX PRO 6000 Blackwell Server Edition instances for simulation
- Bare-metal performance and cloud flexibility

Storage

- Choice of SSDs for performance, reliability and price
- Enhanced Object Storage for multimodal ingestion
- Object storage intelligent tiering for petabyte-scale storage

Networking

- 3.2 Tbps NVIDIA Quantum-2 InfiniBand
- Deterministic latency for distributed training and simulation
- Rail-optimized topology to eliminate jitter

Orchestration

- Soperator (Slurm on Kubernetes) by Nebius
- Gang scheduling with Kubeflow and Volcano
- Anyscale, dstack, NVIDIA Run:ai and SkyPilot integration

Trusted by hyperscalers and frontier AI labs



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