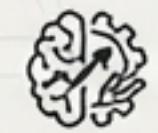
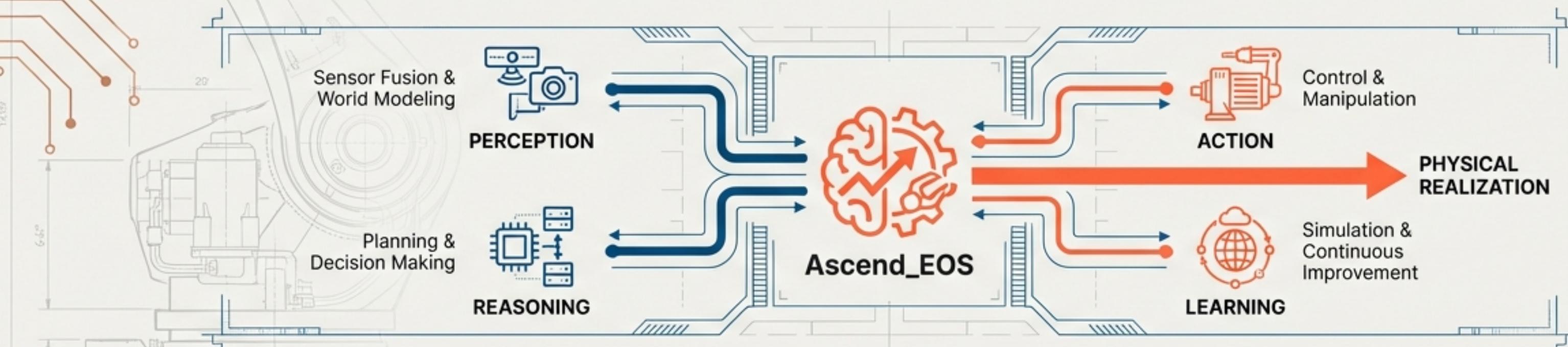


Ascend_EOS: Engineering the Physical AI Agent

The converged platform for AI that understands, reasons, and acts in the physical world.



Ascend_EOS



Microsoft
Azure



A New Class of AI is Emerging

We are moving beyond pattern recognition to create AI agents that can truly understand, reason, and make decisions in complex environments. This is the dawn of **Physical AI**.



Physical World Reasoning

Leveraging prior knowledge and physics to understand complex scenarios.



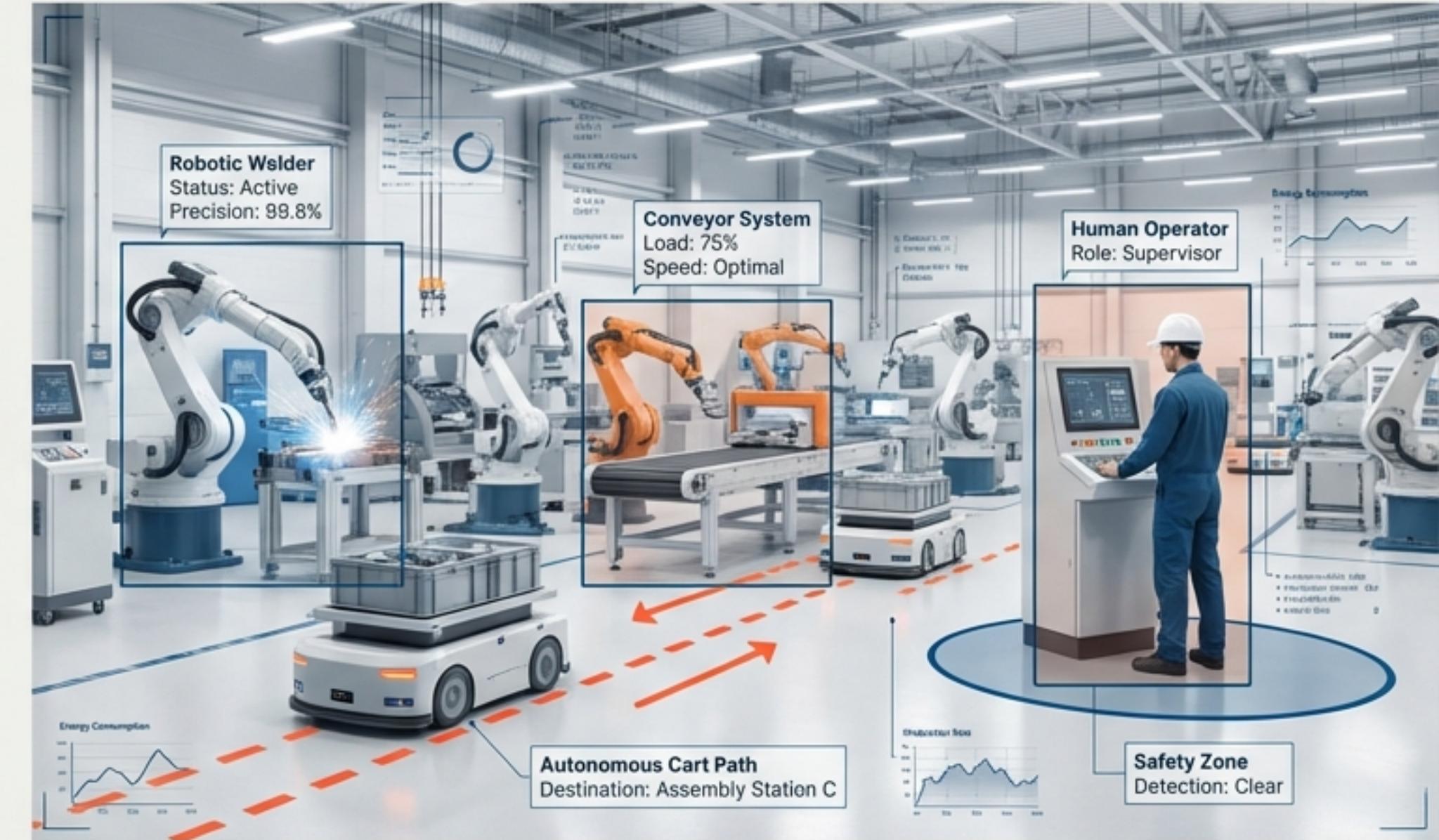
World State Generation

Creating physics-aware, controllable world simulations from multimodal data.



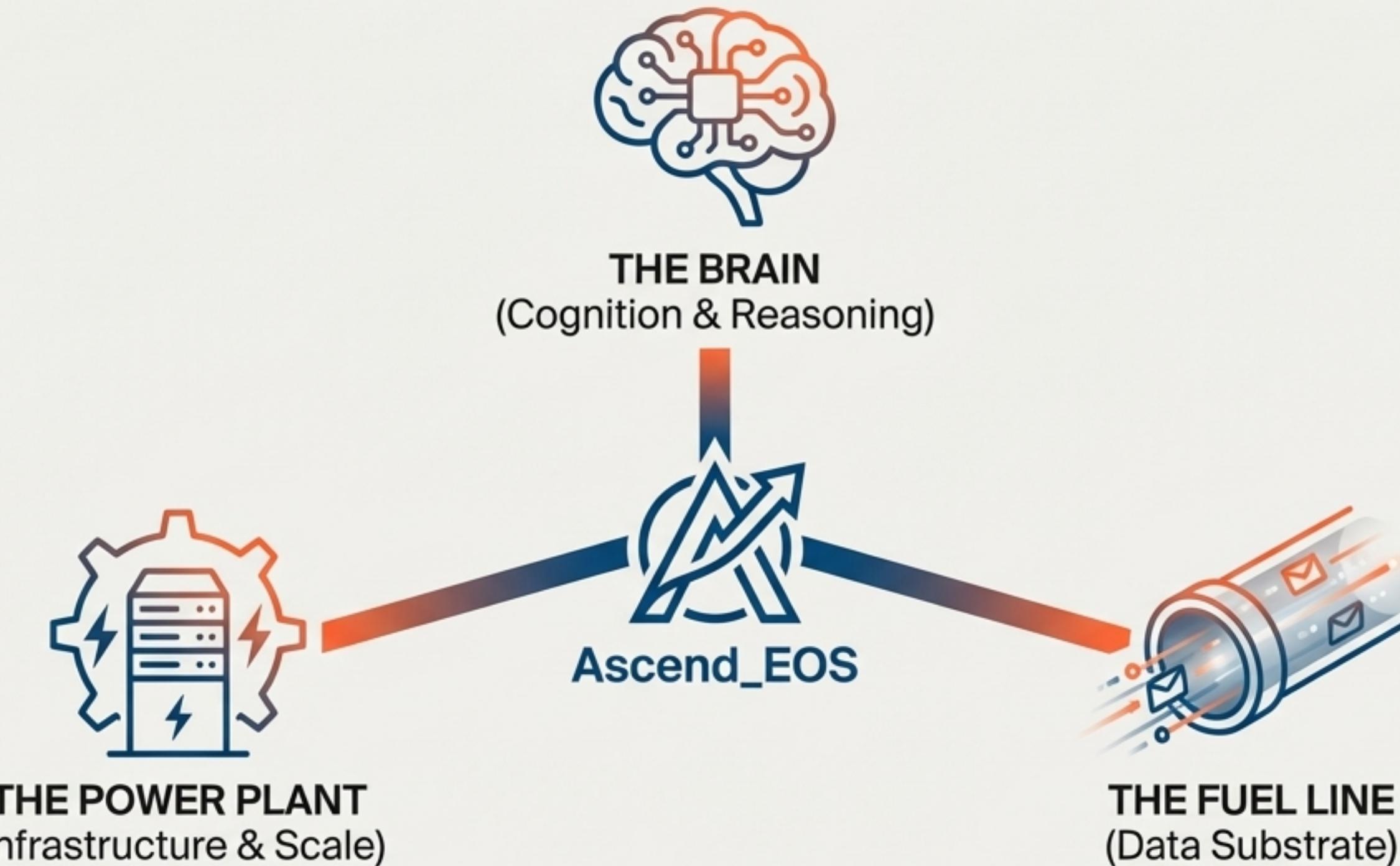
Decision Making

Enabling agents to perform complex tasks, from autonomous navigation to safety protocol verification.



"This model transforms how AI and robotics interact with the real world giving your systems the power to not just see and describe, but truly understand, reason, and make decisions..."

The Anatomy of a Physical AI System



Building this vision requires a synergistic architecture where each component is engineered for maximum performance and integration.



THE BRAIN: NVIDIA AI Reasoning and Understanding the Physical World

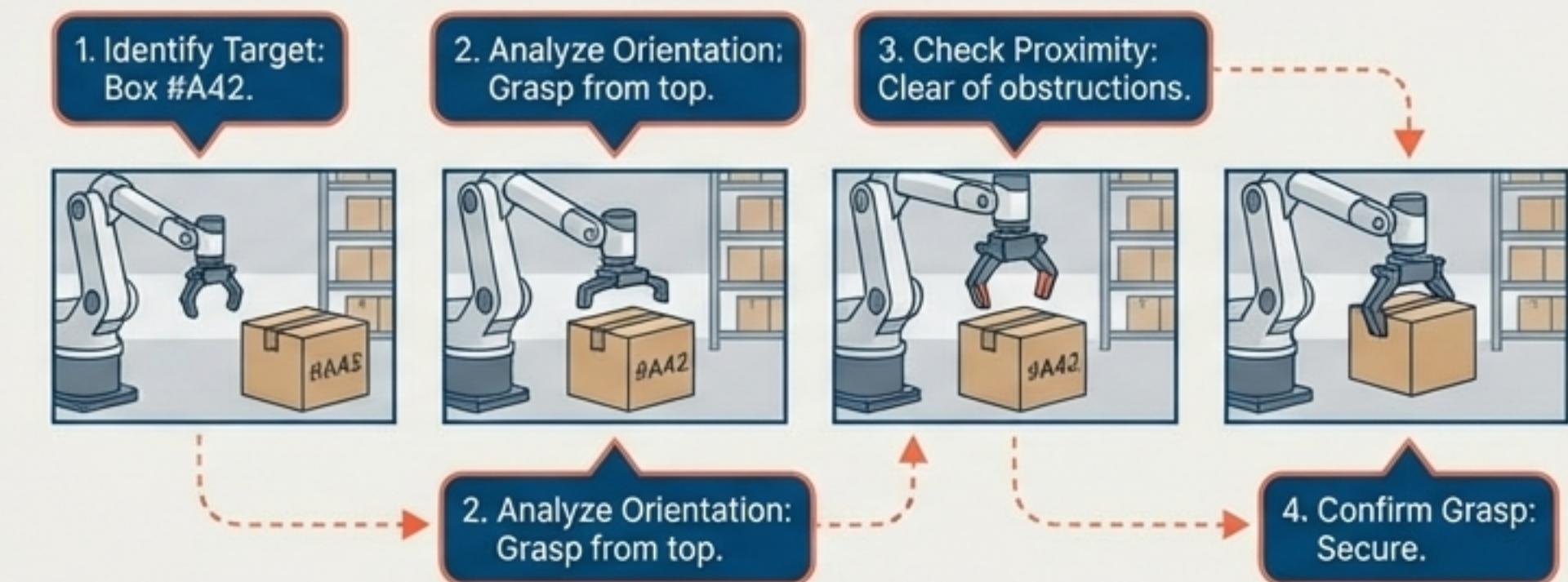
Chain-of-Thought (CoT) Reasoning

Delivers contextual, step-by-step analysis for robust decision-making.

Flexible Multimodal Input

Handles images, video (up to 30 seconds, 1080p), and text within a 16k context window.

NVIDIA Cosmos Reason1-7B



Physical World Understanding

Purpose-built for robotics, autonomous systems, and embodied agents that understand physics and motion.

Compact & Deployable

An efficient 7B parameter architecture that can run from the edge to the cloud.



THE POWER PLANT: Azure Infrastructure & AI Services

The Enterprise-Grade Foundation for Mission-Critical AI



Security & Compliance

Protect applications and data with a Zero Trust approach.

Features: Azure Defender for advanced threat protection, Azure Security Benchmark for best practices.



Governance & Control

Maintain control over applications and resources at scale.

Features: Azure Policy for guardrails, Azure Blueprints for compliant environments.



Scalable Performance

Dynamically provision resources for the most demanding workloads.

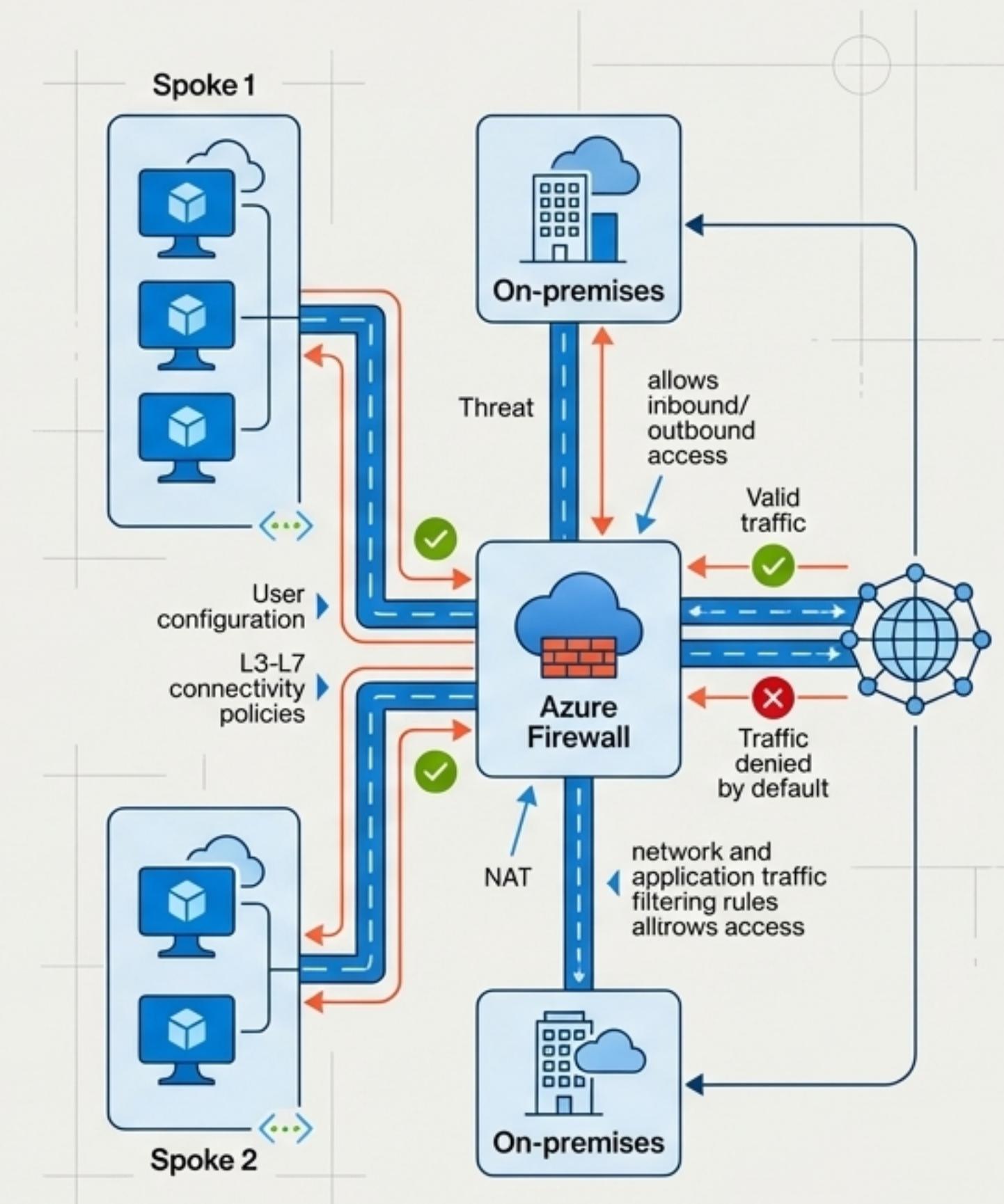
Features: N-Series VMs for GPU acceleration, HPC capabilities, Virtual Machine Scale Sets.



Unified Management

A single control plane for hybrid, multicloud, and edge environments.

Feature: Azure Arc.

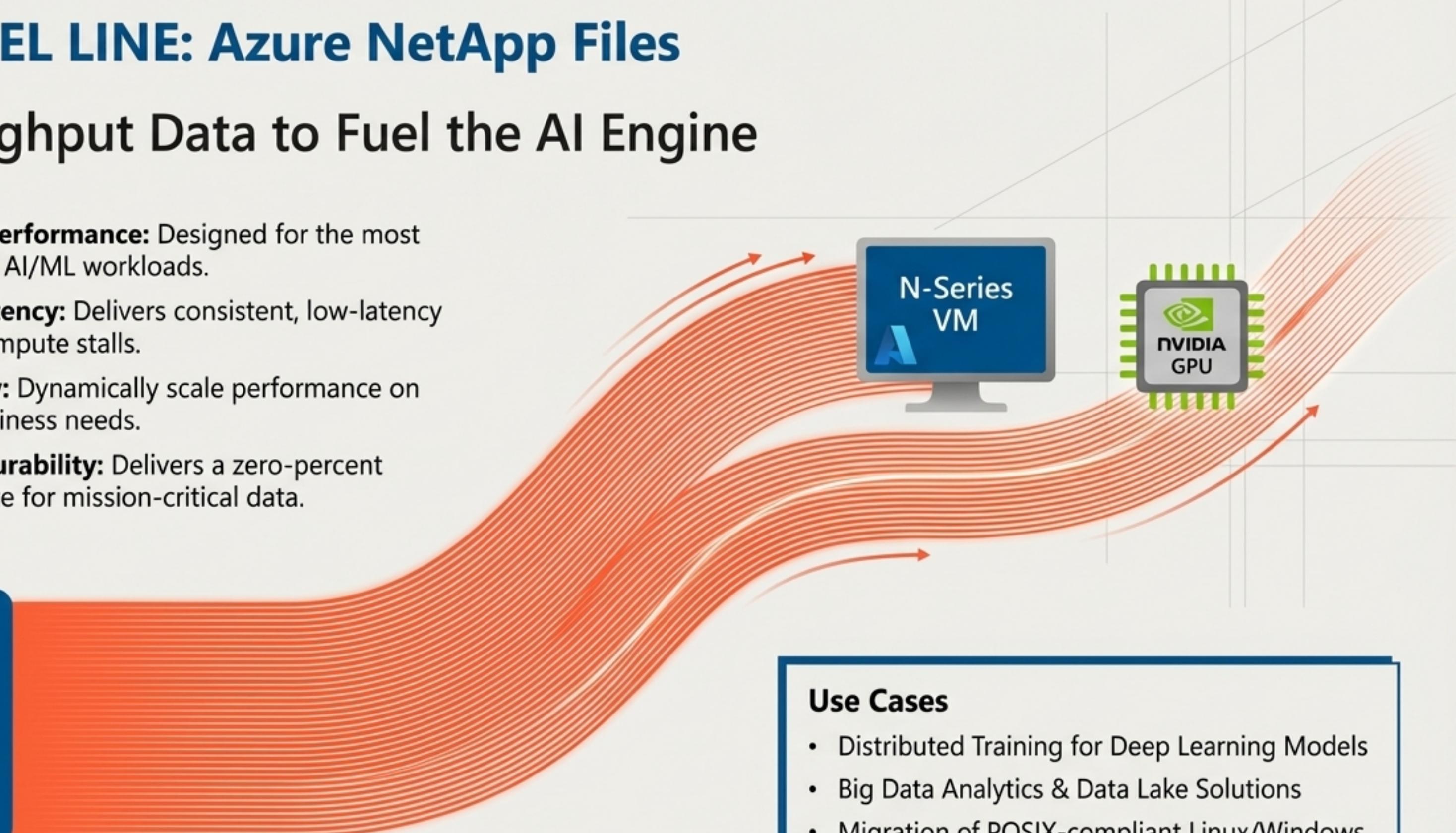




THE FUEL LINE: Azure NetApp Files

High-Throughput Data to Fuel the AI Engine

- **Massively Parallel Performance:** Designed for the most demanding HPC and AI/ML workloads.
- **Sub-Millisecond Latency:** Delivers consistent, low-latency access to prevent compute stalls.
- **Seamless Scalability:** Dynamically scale performance on demand to meet business needs.
- **Enterprise-Grade Durability:** Delivers a zero-percent annualized failure rate for mission-critical data.

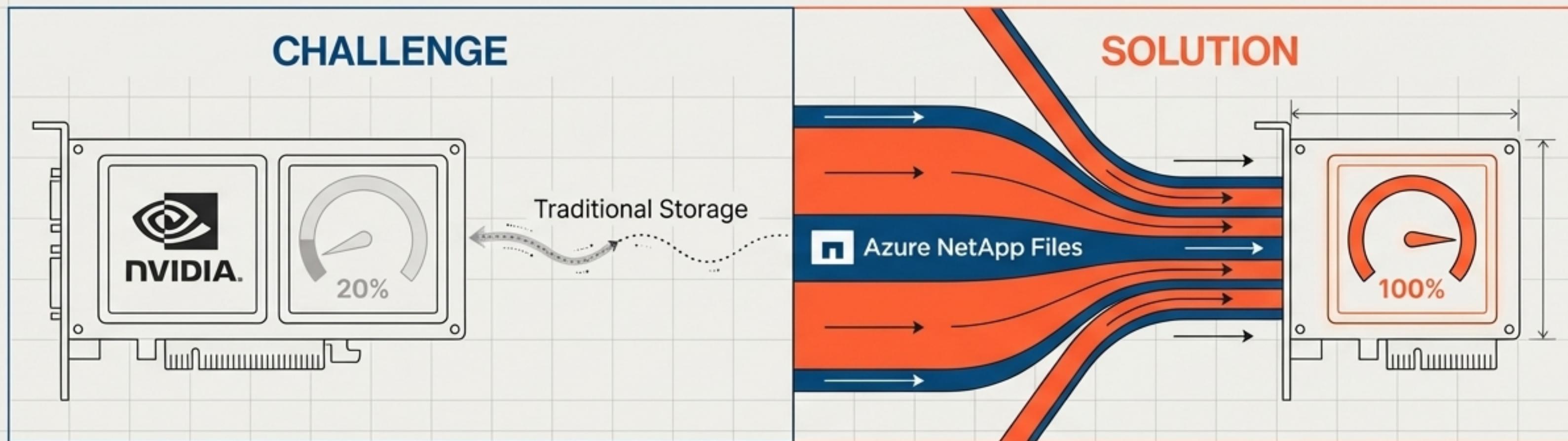


Use Cases

- Distributed Training for Deep Learning Models
- Big Data Analytics & Data Lake Solutions
- Migration of POSIX-compliant Linux/Windows applications

Synergy 1: Preventing GPU Starvation

Compute-hungry NVIDIA GPUs require a constant, high-throughput stream of data to operate at peak efficiency. Data access bottlenecks are the primary limiter of AI workload performance.

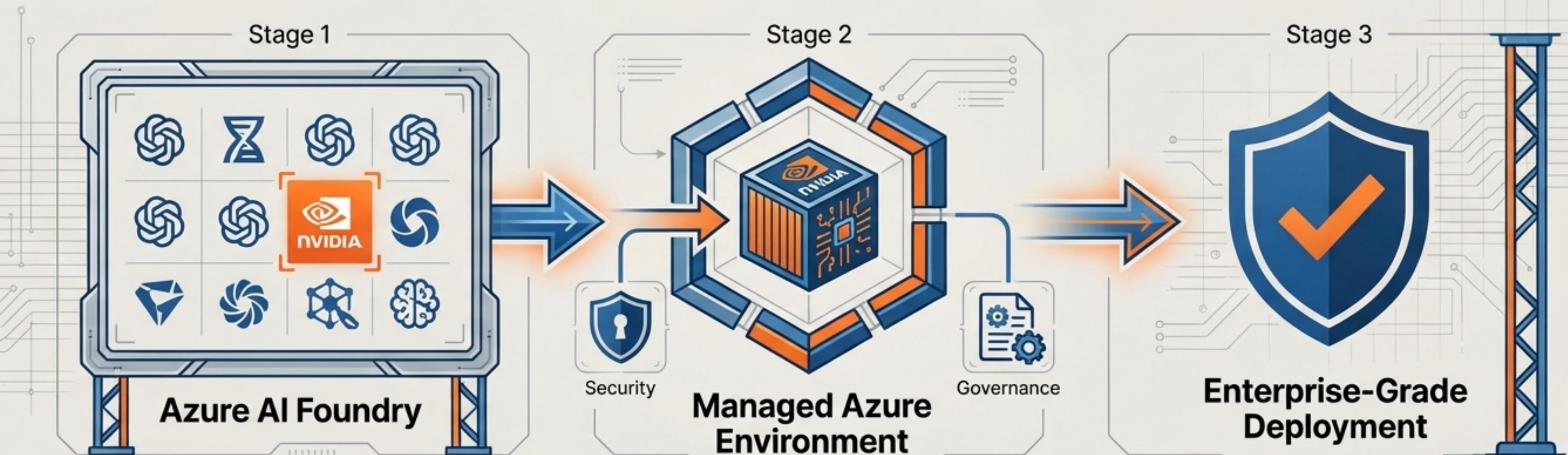


Enables acceleration of end-to-end ML and data analytics workflows built on NVIDIA RAPIDS and Dask, which run entirely on GPUs.



Synergy 2: From Powerful Model to Trusted System

Advanced AI models are only valuable when they can be deployed, managed, and governed within an enterprise framework that ensures security, reliability, and transparency.

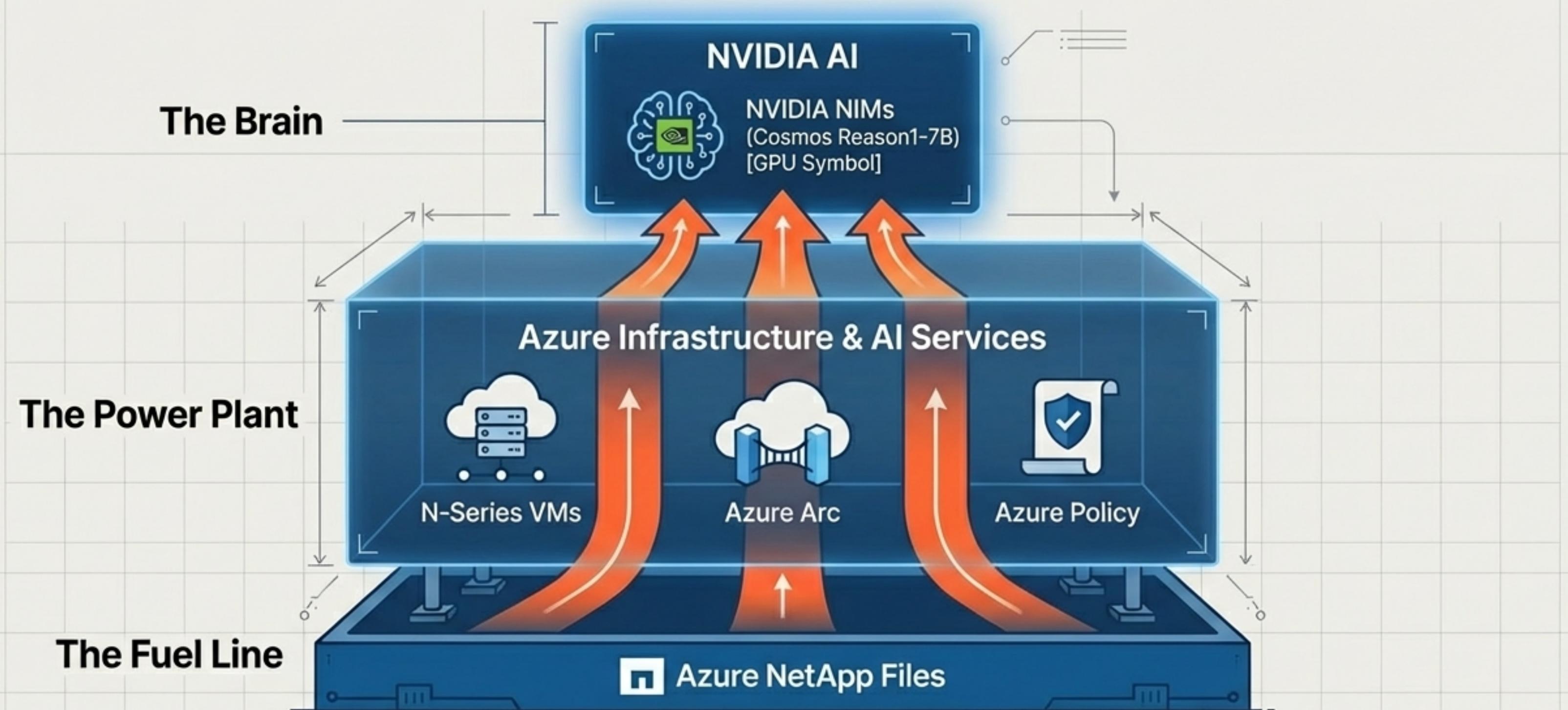


NVIDIA NIMs on Azure AI Foundry:
Provides a direct, optimized path to deploy NVIDIA's models as secure, scalable microservices.

Enterprise-Grade Deployment:
Azure delivers the managed compute, security, and governance backing every NIM deployment.

Trustworthy AI: Deployments are backed by Microsoft's Responsible AI principles and Secure Future Initiative, ensuring fairness and reliability for agentic AI workflows.

The Converged Platform for the Ascend_EOS System



This seamless integration of best-in-class components is what makes a system like Ascend_EOS not just possible, but practical and powerful.

Ascend_EOS: Putting Physical AI to Work



Intelligent Operations: Empower AI agents to analyze millions of live video streams, instantly verifying safety protocols and detecting risks in factories, cities, and industrial sites.



Robotics & Automation: Accelerate robotics innovation with advanced reasoning, enabling robots to understand environments, make methodical decisions, and perform complex tasks.



Autonomous Systems: Enable autonomous vehicles to navigate busy streets by interpreting complex, dynamic scenarios in real-time.

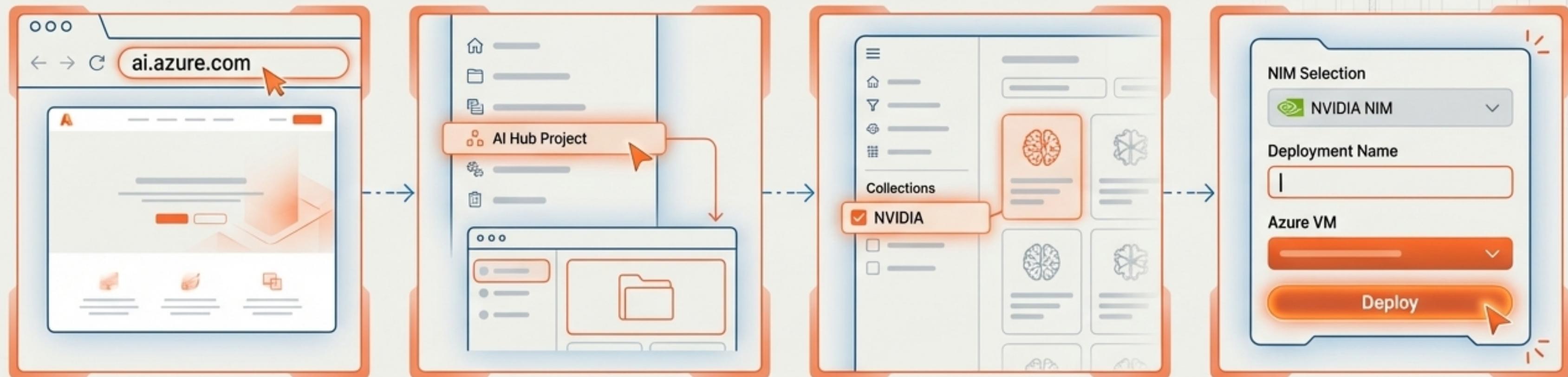


Smarter Data Curation: Automate the selection, labeling, and critiquing of massive datasets to fuel the next generation of AI with high-quality training data.



Your Path to Deployment Starts in Azure AI Foundry

A simple, streamlined process to deploy NVIDIA NIM microservices.



1. Navigate

Access the Azure AI Foundry portal at ai.azure.com.

2. Select

Choose your AI Hub Project.

3. Discover

Filter the Model Catalog by the 'NVIDIA' collection.

4. Deploy

Select a NIM, name the deployment, and choose your Azure VM (quota permitting).

Start building smarter, more capable AI agents today.

Physical AI is Not a Future Concept. It is an Engineered Reality.

The Ascend_EOS system demonstrates that the era of intelligent agents that can reason about and interact with the physical world is here.



This new reality is made possible by the unique, synergistic combination of three essential pillars:

 NVIDIA's reasoning AI

 Azure's enterprise-grade cloud

 Azure NetApp Files' high-performance data platform