Lenovo Hybrid AI Advantage™ with NVIDIA solutions

Data Orchestration with Centific AI Data Foundry

Organizations implementing AI solutions face significant challenges, starting with the complexity of managing vast amounts of structured, unstructured, and semi-structured data — ranging from text and video to audio and images — while ensuring efficient ingestion, processing, and storage.

Scalability and performance bottlenecks make it difficult to transition from proof-of-concept to full-scale deployment without compromising efficiency. AI model deployment demands **intricate infrastructure configurations, specialized expertise, and high operational costs** for integration, maintenance, and optimization. Security, compliance, and risk management further complicate adoption, particularly in industries like retail, public safety, and media, where strict measures are needed to prevent unauthorized access and ensure regulatory adherence.

Additionally, real-time AI applications — such as surveillance, digital asset tagging, and smart retail solutions — require low-latency processing across edge and cloud environments. **Without an optimized AI infrastructure, businesses risk inefficiencies, delays, and rising costs, ultimately hindering AI adoption.**

Why the need for data orchestration for AI?

As organizations scale AI adoption, they face growing challenges in managing complex data pipelines, integrating AI workflows, and ensuring real-time processing across diverse environments. AI-powered data orchestration provides essential capabilities to streamline these processes, optimize infrastructure, and enhance AI-driven decision-making. However, businesses must overcome key hurdles to fully leverage these technologies.

Challenges:

- **Complex AI data management:** AI applications must handle vast amounts of structured, unstructured, and semi-structured data — ranging from video and audio to text and images — requiring efficient ingestion, pre-processing, and storage. Without an optimized data orchestration layer, businesses face inefficiencies and delays in AI-driven insights.
- **Scalability and deployment bottlenecks:** Many organizations struggle to transition AI models from proof-of-concept to full-scale deployment due to infrastructure complexities, high operational costs, and the need for specialized expertise. AIOps-driven orchestration enables automated scaling, resource allocation, and streamlined deployment across edge, data center, and cloud environments.
- **Real-time AI processing and optimization:** AI applications in security, retail, and media demand real-time analytics, such as surveillance monitoring, digital asset tagging, and multilingual speech recognition. Without a well-integrated orchestration layer, businesses risk performance bottlenecks, increased latency, and reduced AI effectiveness in mission-critical scenarios.

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Lenovo, Centific and NVIDIA for AI-driven data orchestration

By integrating Centific AI Data Foundry with Lenovo's high-performance AI infrastructure and **NVIDIA Enterprise AI,** businesses can accelerate AI adoption, reduce deployment risks, and unlock new revenue opportunities through intelligent automation and deep insights.

Key benefits:

- **Scalability and performance:** Manage large-scale AI deployments with high-performance hardware for real-time data processing.
- **Data complexity management:** Efficiently handle diverse data types, including structured, unstructured, and semi-structured data.
- **Enhanced real-time AI capabilities:** Support real-time video analysis, multilingual speech recognition, and content automation — perfect AI-driven security.
- **Improved security and compliance:** Designed with enterprise-grade security features, data privacy mechanisms, and compliance frameworks.
- **Flexible and customizable models:** T-shirt sizing model (S, M, L) tailored to customer requirements for scalable AI solutions.
- **Simplified deployment:** Pre-validated configurations streamline implementation, reducing time and effort.

The joint solution is based on **Lenovo Validated Design and NVIDIA's accelerated computing technology** for AI acceleration and different sizing models (small, medium, large, custom) **tailored to customer requirements.** Typical use cases include multimodal AI (LLMs, VLMs, ASR), computer vision for retail, public safety, and hospitality applications.

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Building an AI-orchestrated workflow with Lenovo and NVIDIA

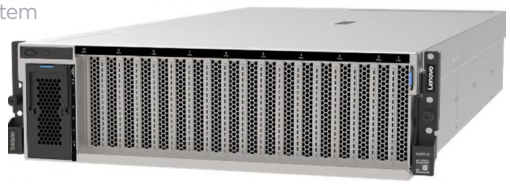
By integrating Centific AI Data Foundry with Lenovo's high-performance AI infrastructure and NVIDIA Enterprise AI, businesses can **accelerate AI adoption, reduce deployment risks, and unlock new revenue opportunities** through intelligent automation and deep insights. This pre-tested, scalable solution built with **Lenovo Validated Design (LVD)** fuses Lenovo's cutting-edge **Lenovo ThinkSystem** servers and NVIDIA accelerated computing technology with Centific's innovative AI platform to **conquer data complexity and accelerate insights.**

Lenovo delivers a high-performance infrastructure stack — featuring **Lenovo ThinkSystem SR675 V3** GPU-rich servers, SR635 V3 control nodes, advanced NVIDIA networking and NVIDIA's accelerated computing technology that ensure seamless scalability. Optimized for real-time video, speech, and multimodal analytics. Centific brings its AI Data Foundry, a modular, enterprise-grade platform built to streamline data pipelines, enhance model deployment, and drive generative AI innovation.

Together, Lenovo, NVIDIA and Centific offer a cost-effective, secure, and rapid path to AI adoption — reducing deployment risks, boosting efficiency, and transforming industries like retail, security, and media with actionable intelligence.

Lenovo's hybrid AI factory, in collaboration with NVIDIA and Centific, **accelerates AI development across various fields.** This solution manages large-scale AI deployments, handles diverse data types, and provides real-time insights for industries like retail and public safety. Leveraging **NVIDIA Metropolis, NeMo™ Retriever, and NVIDIA Inferencing Microservices (NIM™),** Centific's AI data foundry transforms video data into actionable insights. Additionally, Centific integrates **NVIDIA AI Blueprint** for video search and summarization, building visual AI agents to enhance city operations.

Lenovo ThinkSystem SR675 V3 Server



Lenovo Validated Designs with NVIDIA

- Speed deployment
- Mitigate risks
- Scale efficiently
- Accelerate ROI

Lenovo Hybrid AI Advantage™ with NVIDIA

Lenovo AI Library	Data Orchestration	
Services	Lenovo & partners Discovery, advisory, deployment, integration & managed services	
Models & Software	Centific AI Data Foundry	NVIDIA AI Enterprise
Data Management	Lenovo ThinkSystem® DM & Lenovo ThinkSystem® DG Storage	Centific AI Data Foundry Data processing, orchestration, AIOps
Infrastructure & Devices	← Small/Medium/Large → Lenovo ThinkEdge™ NVIDIA-Certified CPU / GPU / Networking	Lenovo ThinkSystem® servers NVIDIA-Certified CPU / GPU / Networking

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Why Lenovo and NVIDIA for enterprise AI?

Productivity
Accelerate business value from AI

Agility
Build and operate your Hybrid AI efficiently

Trust
Manage and protect all your AI and data

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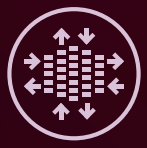

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Lenovo AI Library
Deploy, adopt and manage proven AI agents and AI use cases optimized with NVIDIA

Hybrid AI Factory
Optimize for performance and energy-efficiency with Lenovo Validated Designs and platforms based on NVIDIA-Certified systems and Enterprise Reference Architectures

Lenovo AI Innovators
Access Lenovo-validated AI ISVs and our partner ecosystem with NVIDIA

Optimize AI workflow with Lenovo and NVIDIA

Transform your AI operations with data orchestration-driven solutions. **Contact us** to explore how AI can elevate your business efficiency.

www.lenovo.com/hybridai

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