

Smarter technology for all

# AI for All

Lenovo brings AI to your Data

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**Lenovo**



# The Future is Now

Unified XPU Architecture



Decentralized Computing



AI cloud-to-edge



Confidential AI Solutions



NEW METAVERSE



Spatial Computing



Inclusive Interactions

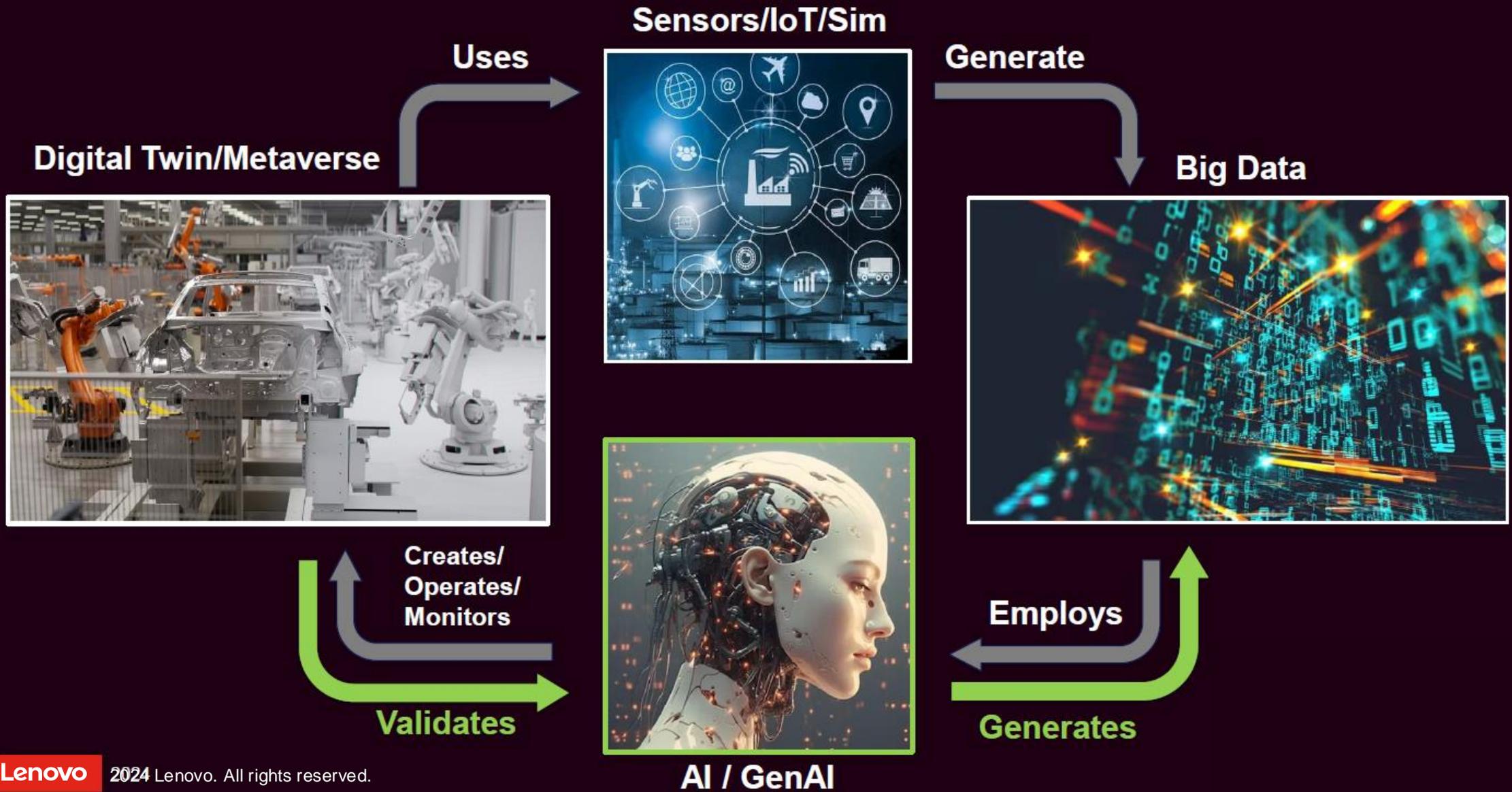


Physically Accurate Simulations



Realistic Interactive Virtual Entities

# The Intertwined Nature of Metaverse and AI



# A new wave of AI innovation drives competitive advantage for businesses across many vertical markets.

## Manufacturing

- Predictive Maintenance **reducing downtime by up to 40%**
- Quality Control / Visual Inspection
- Production line, robotics & process optimization, digital twins

## Retail

- Boost retail productivity by as much as **+59%** by 2035.
- Check-out automation / loss prevention
- Shopping recommendation / Customer Engagement

## Finance

- Automobile lending companies in the U.S. bringing AI on board cut losses by **23%** annually
- Fraud Detection & Threat Intelligence
- Personalized banking/customer service

## Healthcare

- By 2025, **90%** of hospitals will adopt AI-driven technology for remote patient monitoring and early diagnostics.
- Medical Imaging/diagnosis treatment
- Clinical Decision Support (CDS)

## Smart Cities

- Crowd Management, Parking systems
- Security and Access Management
- Public Safety, Traffic Management

# Tomorrow's Venues for Fans with AI

- Crowd Analytics
- Queue wait time
- Mobile app venue guidance for visitors



Lenovo  
**AI Discover**  
Center of Excellence

Lenovo  
**AI Innovators**

Custom AI Models  
Exploring New Ideas

Provides certified  
AI solutions,  
and helps customers build  
their own through our  
AI Discover Labs



- AI Concierge for Wolfpack fans
- Provides detailed facility information for fans
- Conversational AI Kiosk to naturally interact with fans at entry points in the stadium

- Automated checkout and payment
- Secure payment integration

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**TruScale**

# The government office of the Future

- Data Security
- Video & Audio Recognition
- Fraud Prevention & Security



- CX Focused Transaction Zones
- Smart Devices for Customer Service



- AI Ready Servers
- Virtual Assistants
- Remote Conferencing
- Edge Computing



- Smart Kiosks
- Assisted Online business
- Automation
- Digital Twins



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**AI Discover**  
Launch Workshops

Lenovo  
**AI Research**

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# Retail experience today with AI

The retail store of the future.



Personalized & dynamic advertising  
Digital dynamic displays, dynamic pricing (ESL)



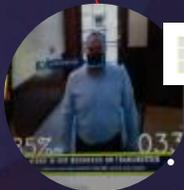
Customer & Store analytics



Label scanning  
Logistics Analytics



Behavior analysis  
Employee metrics  
Customer journey  
Front & back of store analytics



People Counting  
Mask & Density Monitoring  
Proximity and Infection index



**everseen**

Visual AI platform for retail  
Checkout intelligence  
Loss prevention



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Lenovo  
**AI Discover**  
Launch Workshops

Lenovo  
**AI Research**

Lenovo  
**TruScale**

# The Lenovo Solution

# AI for All

Bring AI to your data where and when you need it the most – from pocket to the cloud – with a hybrid approach

Competitive Requirement

Data Insights

Location Matters

LLMs & Beyond

Responsible AI



**Personal**



**Private**



**Public**

# Lenovo Hybrid AI: Delivering the Promise of AI for All

**\$2B**

AI Revenue: Cloud & Enterprise, CAPEX or TruScale

**11**

of the top 20 Quick Serve Rest. run Lenovo AI

**10K+**

Retail stores run Lenovo AI

**15M+**

Deliveries a day enabled by Lenovo AI

**\$1B+**

**AI Investment**

Over next 3yrs

**>2K**

AI-Expert Staff available to our customers

**80+**

AI-Ready platforms  
Pocket to cloud

**50+**

Lenovo AI Innovators

**165+**

Proven Enterprise AI Solutions

**50+**

GenAI POCs  
On-going now



Strategic AI Partnerships



# Start Anywhere



Personal

Private

Public

## Enterprise to Edge AI

Edge AI-ready solutions for fast deployment

## Metaverse

AI-enabled digital twins speed time-to-market

## Generative AI

Build On-Prem for data sovereignty

## Responsible AI

Conduct AI ethically and responsibly

**Lenovo and our global partner ecosystem accelerate your AI journey, no matter what project you are considering, across any industry. So, let's get started today!**



Finance



Healthcare



Manufacturing



Retail

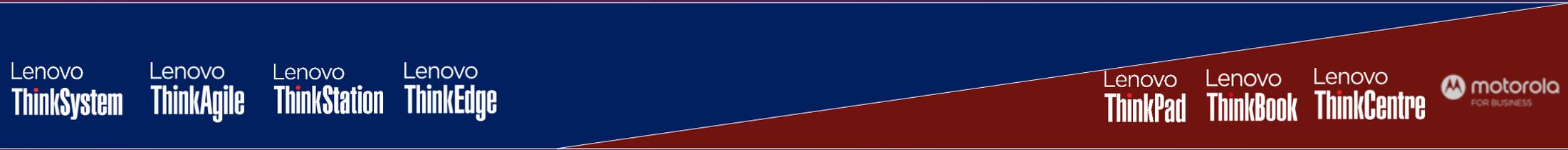


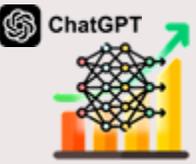
Smart Cities

# For AI developers to content creators and consumers

Model Creation

Model Utilization



Category:	Execution	Data Science	Training	Inferencing (Creator)			Inferencing (General)	
<b>Capability:</b>	<ul style="list-style-type: none"> <li>LLM Model Training &amp; Development</li> </ul>	<ul style="list-style-type: none"> <li>Data Loading</li> <li>Data Cleansing</li> <li>Data Visualization</li> <li>Model Selection</li> </ul>	<ul style="list-style-type: none"> <li>Model Training</li> <li>Model Tuning</li> <li>Hyper Parameter Tuning</li> </ul>	Generative AI: Large Language Models (LLM)	Generative AI: Diffusion Models	Throughput/Performance, Periodic	Basic/Latency Sensitive Inferencing	Sustained Inferencing
<b>Sample Use Cases:</b>	 <p>Large Language Models</p>	 <p>AI Framework Development</p>	 <p>Tuning Parameters</p>	 <p>LLM / Natural Language</p>	 <p>TXT to Image Creation</p>	 <p>Style Transfers</p>	 <p>Dynamic Noise Suppression</p>	 <p>Background Segmentations</p>

# AI: PC → Workstation → Cloud

	PC	Workstation	Datacenter / Cloud
Device	 <p>UX / Consumption / Inference</p>	 <p>AI Dev. + Tuning / Training / Inference</p>	 <p>Large Scale Training / Execution</p>
Use	<p><b>Run Local Models</b></p> <ul style="list-style-type: none"> <li>• Windows Client OS</li> <li>• Security &amp; Privacy</li> <li>• NPU AI Accelerators</li> </ul>	<p><b>Development</b></p> <ul style="list-style-type: none"> <li>• Windows &amp; Linux Client OS</li> <li>• Secure Sandbox / Gateway to DC or Cloud</li> <li>• Workstation CPU + GPU</li> </ul>	<p><b>Training &amp; Execution</b></p> <ul style="list-style-type: none"> <li>• Extreme Data Sets (LLM)</li> <li>• <i>Unlimited</i> Sources</li> <li>• Data Center CPU + GPU</li> </ul>
Considerations	<ul style="list-style-type: none"> <li>• Low Power Consumption</li> <li>• Low Latency Results</li> <li>• Form Factor</li> </ul>	<ul style="list-style-type: none"> <li>• Price vs. Performance</li> <li>• On Prem &amp; Low Acoustic Footprint</li> <li>• Time to Insight / Location to Data</li> <li>• Truly Personal – Direct Access + Agility</li> <li>• Develop/Train w/Small - Medium Data Sets</li> </ul>	<ul style="list-style-type: none"> <li>• Performance @ Scale</li> <li>• Performance vs. Price</li> <li>• Data Center Environment</li> <li>• Custom Infrastructure</li> </ul>
	<p>~ <b>40 TOPS</b><sup>1</sup> Performance</p>	<p>~ <b>5,828 TFLOPS</b> (4x NVIDIA 6000 Ada GPU) ~ <b>500 TOPS</b> (2x Xeon SP CPU)      Performance</p>	<p>~ <b>31,664 TFLOPS</b> (8x NVIDIA H100 GPU) Performance</p>

# Your AI Partner for Scale



it takes a **ecosystem to deploy cognitive solutions** that deliver business value.



Reduced complexity, quicker deployments and time to value



Complementing cutting edge tech with world class supply and supports chains



Combined AI expertise across technology stacks, industries and research



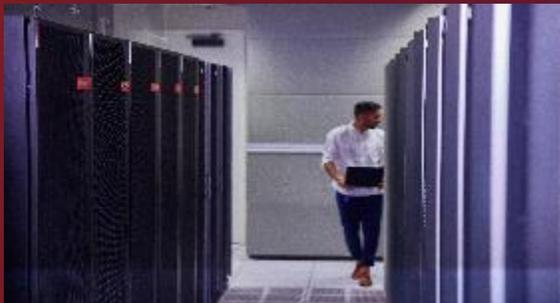
Support from PoC to Blitzscale, locally or worldwide

# Lenovo Sustainable Solutions



## Lenovo Neptune™

Up to 40% reduction in power costs resulting from a 3.5x improvement in thermal efficiencies vs. air cooled



## Lenovo TruScale

Avoids over-provisioning, reducing energy consumption for a lower carbon footprint



## Factory Integrated Racks

Saving 3.5 million pounds of cardboard and 1.8 million pounds of plastic over 5 years



## CO2 Offset Services

Carbon offset credits fund projects, including reforestation, renewable energy, and solar



## More Sustainable Packaging

Including the use of 90%+ recycled foam and bags made from 30% ocean bound plastic



## Lenovo Asset Recovery

15 years experience in asset recycling and more than 1M+ assets properly disposed

# thanks.

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technology  
for all

Lenovo

