

# Drive agility across the retail value chain

Thrive in challenging times with an end-to-end AI platform

Consumer buying behavior is putting significant pressure on supply chains, store operations, and the customer and employee experience. Successfully competing in this environment requires the agility to respond to market demand and opportunities in real time. AI has a proven track record of helping retailers improve agility at every stage of the value chain. WWT and NVIDIA have partnered to deliver a powerful end-to-end AI platform that provides real-time insights at the edge, and scaled business intelligence in the data center and cloud.

## Common retail use cases

- Store analytics and simulation
- Autonomous shopping
- Demand forecasting and assortment planning
- Intelligent warehouses
- Recommendation systems and personalized search
- Fraud, cybersecurity and asset protection

## Increase agility through innovation

AI increases agility by driving innovation in every area of retail from manufacturing and supply chains to staffing and merchandising. Leading retailers are using AI to accurately predict demand, automate fulfillment, implement contactless checkout, reduce shrinkage, ensure efficient last-mile delivery and a lot more.

The NVIDIA AI platform leverages powerful infrastructure including NVIDIA DGX SuperPOD™ with NVIDIA DGX™ H100 systems to provide retailers with an extensive library of application frameworks. This library supports the creation of smart retail applications that enable innovation at every stage of the value chain. Ready-to-use-solutions for intelligent stores, omnichannel management, supply chain optimization and more allow retailers to quickly adapt to changing customer behaviors and deliver faster, more personalized service.

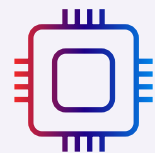
## NVIDIA DGX H100: The gold standard for AI infrastructure



**NVIDIA DGX H100 systems** are architected to deliver the performance and scale required for rapid ROI on transformative retail AI use cases.

### 8x NVIDIA H100 GPUs with 640 GB of total GPU memory

18x NVIDIA® NVLink® connections per GPU; 900 GBps of bidirectional GPU-to-GPU bandwidth



### 4x NVIDIA NVSwitch™ chips

7.2 TBps of bidirectional GPU-to-GPU bandwidth; 1.5X more than previous generation

### 10x NVIDIA ConnectX®-7 400 Gbps network interface

1 TBps of peak bidirectional network bandwidth

### Dual x86 CPUs and 2 TB of system memory

Powerful CPUs for the most intensive AI jobs

### 30 TB NVMe SSD

High-speed storage for maximum performance

Source: AIF

## Enhance the customer experience

Building virtual worlds with NVIDIA Omniverse™ enables retailers to explore how they can enhance the customer experience in their stores. Omniverse uses digital twins, simulation and advanced tools to optimize store layouts, checkout processes and more.

## Reduce labor and cost challenges

Labor has been an incredible challenge for retailers in recent years, with a 6.2% reduction in the labor force. Using the NVIDIA AI platform to automate manual work can address this labor shortage and save companies millions of dollars.

Frameworks for conversational AI enable retailers to automate order taking, customer checkout, order fulfillment and other tasks. AI can also be used to reduce labor and cost challenges at manufacturing plants.

## Leverage a secure and scalable infrastructure

Together, WWT and NVIDIA deliver the most robust security posture for intelligent retail, with a multi-layered approach that secures all major hardware and software components.

The combination of GPU-accelerated compute with state-of-the-art networking means the NVIDIA AI platform can scale to thousands of nodes to meet the biggest challenges, including conversational AI and large-scale image classification.

## Benefit from unmatched AI expertise

The NVIDIA AI platform is backed by thousands of AI-fluent practitioners who offer guidance and design expertise to fast-track AI transformation. Extensive AI experience gained from numerous retail deployments maximizes the value of AI investments by ensuring applications are implemented quickly for dramatically improved time to insights.

WWT’s world-class consulting services combined with NVIDIA hardware and software empower retailers to drive the agility required to succeed in today’s challenging environment.

### Solution components

#### NVIDIA Metropolis

Application framework, developer tools and partner ecosystem for improving operational efficiency and safety.

#### NVIDIA RAPIDS

Open-source software libraries and APIs that significantly reduce process times by executing data science pipelines on GPUs.

#### NVIDIA Merlin

Open-source library for accelerating recommender systems on NVIDIA GPUs.

#### NVIDIA Riva

Application framework for multimodal conversational AI services that delivers real-time performance on GPUs.

#### NVIDIA Omniverse

Extensible platform based on universal scene description (USD) that accelerates complex 3D workflows.

