

Shopping Around: How Dell PowerScale Sells Retailers on the Benefits of AI

Retailers are rapidly accelerating AI usage, especially for sales and customer engagement. By harnessing the power of AI, retailers see big gains in higher conversion rates; better inventory management; and lower customer acquisition costs.

Powering AI with the proper infrastructure is vital to leveraging its benefits. The biggest challenge in retail AI is not just deploying models - it's managing and feeding enormous amounts of fragmented, fast-moving data (ie: product images and videos, customer behavior data, POS transactions, loyalty program data, clickstream analytics, security video, supplier files, search queries, reviews and social content) across ecommerce platforms, stores, warehouses, customer interactions, product catalogs, video feeds, and supply chains.

Dell PowerScale can serve as the core AI data platform that enables personalization, inventory intelligence, customer analytics, computer vision, and generative AI initiatives at scale. PowerScale is designed specifically for large-scale unstructured data and AI workloads, making it highly relevant for modern omnichannel retail.

USE CASES

Personalized Shopping & Recommendation Engines	Retail Search & GenAI Shopping Assistants	Inventory Forecasting & Supply Chain AI
<p><i>Retailers use AI to:</i></p> <ul style="list-style-type: none"> personalize search recommend products generate offers predict purchase behavior optimize promotions 	<p><i>Retailers are rapidly deploying:</i></p> <ul style="list-style-type: none"> AI chat shopping assistants conversational commerce semantic product search retrieval-augmented generation (RAG) 	<p><i>AI models increasingly predict:</i></p> <ul style="list-style-type: none"> demand spikes regional buying behavior stock shortages replenishment timing supply chain disruptions
<p><i>Powerscale helps by:</i></p> <ul style="list-style-type: none"> centralizing customer & product data feeding recommendation models supporting real-time inferencing scaling AI pipelines as traffic grows 	<p><i>PowerScale helps by:</i></p> <ul style="list-style-type: none"> store and index massive product catalogs support vectorized AI search accelerate RAG pipelines scale multimodal AI workloads 	<p><i>PowerScale supports:</i></p> <ul style="list-style-type: none"> large-scale analytics datasets AI forecasting pipelines high-throughput training environments hybrid cloud retail operations
<p><i>Example:</i> An ecommerce company could use PowerScale to support:</p> <ul style="list-style-type: none"> recommendation engines GenAI shopping assistants personalized email generation dynamic homepage customization 	<p><i>Example:</i> A customer asks "Show me lightweight waterproof hiking shoes under \$150 for Iceland in June." That requires:</p> <ul style="list-style-type: none"> vector databases product metadata image embeddings customer preference data real-time retrieval systems 	<p><i>Business Impact:</i></p> <ul style="list-style-type: none"> lower overstocks reduced stockouts better margins faster fulfillment

USE CASES CONTINUED

Computer Vision & Smart Store AI	AI Content Creation for Ecommerce	Omnichannel Retail AI
<p>Retailers are deploying AI for:</p> <ul style="list-style-type: none"> • loss prevention • self-checkout monitoring • shelf analytics • customer traffic analysis • warehouse automation 	<p>Retailers are using GenAI for:</p> <ul style="list-style-type: none"> • product descriptions • ad copy • social content • localization • image/video generation 	<p>Modern retailers operate across:</p> <ul style="list-style-type: none"> • ecommerce • mobile • stores • marketplaces • fulfillment centers • customer service platforms
<p>PowerScale helps by:</p> <ul style="list-style-type: none"> • storing massive video datasets • supporting edge-to-edge AI workflows • enabling model training from store footage • managing distributed retail data 	<p>PowerScale helps by:</p> <ul style="list-style-type: none"> • large creative repositories • AI media pipelines • fast content retrieval • scalable collaboration environments 	<p>PowerScale enables:</p> <ul style="list-style-type: none"> • centralized unstructured data management • hybrid cloud architectures • edge integration • scalable AI operations across distributed retail environments
<p>Example: A retailer with 500 stores may process:</p> <ul style="list-style-type: none"> • thousands of cameras • edge AI inferencing • and centralized AI analytics simultaneously 	<p>Marketing teams generate enormous multimedia datasets.</p> <p>Dell specifically calls out AI-driven content creation and multimodal data management as major AI growth area.</p>	<p>The challenge is creating a unified AI-ready data layer across all channels.</p> <p>Dell's retail AI messaging strongly emphasizes omnichannel and edge-enables retail transformation.</p>

Typical Retail AI Architecture with PowerScale Dell markets this under it's broader Dell AI Factory with NVIDIA



LAYER	EXAMPLE
Data Platform	Dell PowerScale
Compute	Dell PowerEdge + NVIDIA + GPUs
Edge AI	Dell NativeEdge

The Strategic Value for Retailers

The long-term advantage is not simply automating tasks. It is transforming retail data into a competitive intelligence engine. PowerScale's role is fundamentally to make retail data usable for AI at scale - securely, efficiently, and fast enough to support real-time commerce experiences.

Eastern Computer Exchange is a Dell Titanium Partner and NVIDIA Partner. Contact us to learn more. www.ecei.com



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