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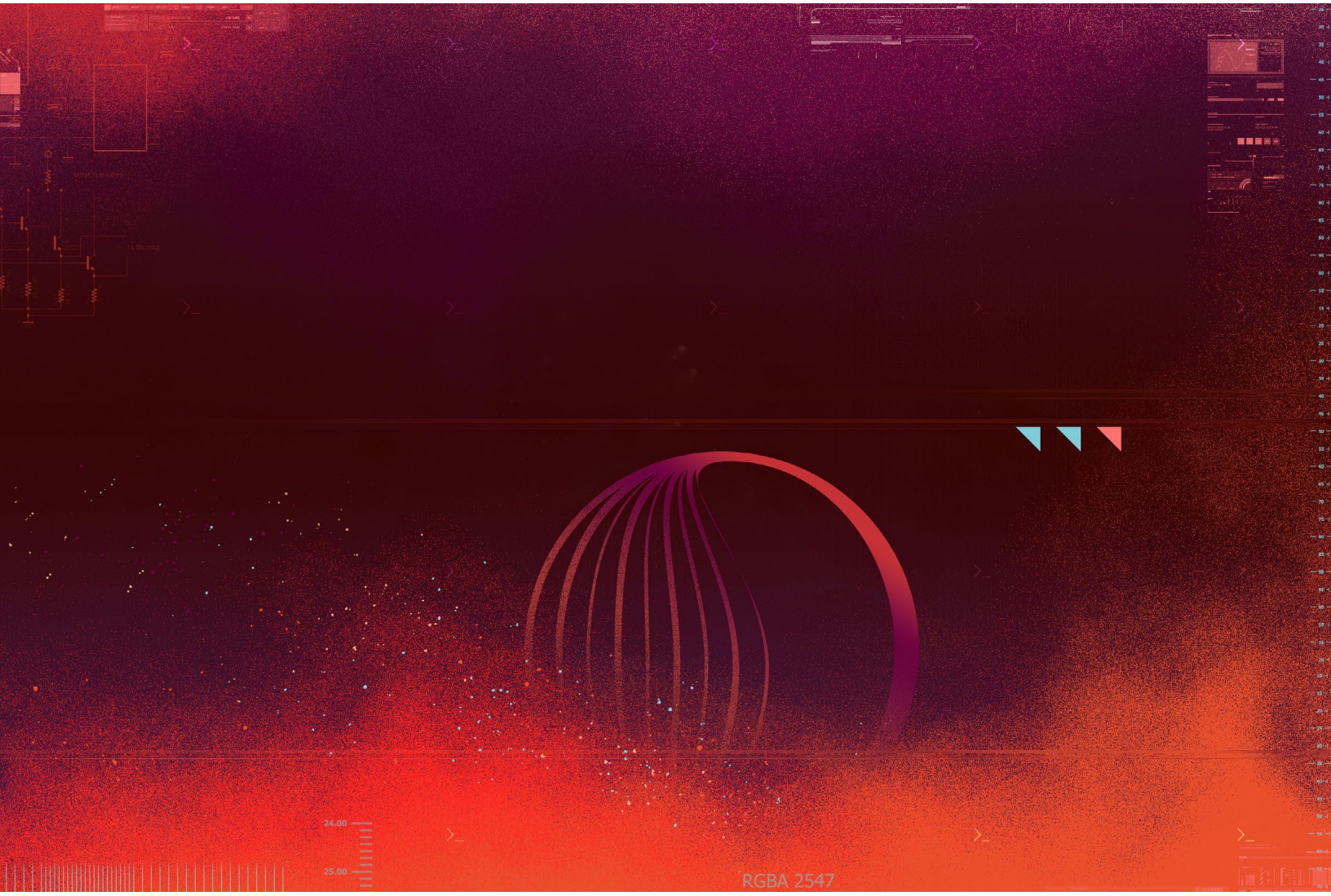

Lenovo xIQ Agent Platform Enhances Retail in the AI Era with Lenovo Super Agent for Retail

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Executive Summary

As AI agents become increasingly capable of addressing complex business challenges, the retail industry has emerged as a key sector poised to benefit from AI technologies. Futurum Research has previously identified the retail sector as a top industry vertical in projected AI software and tools revenue, with a strong anticipated ROI through operational efficiency, customer satisfaction, revenue growth, and cost management[1]. Currently, Futurum Research projects retail and e-commerce to comprise roughly 10% of the total AI platform market by 2030. Retail organizations attempting to build custom AI solutions from scratch face several challenges, including technical complexity, data security, and ongoing agent monitoring.

The Lenovo AI Library is a curated catalogue of prebuilt agents and validated use cases built on hundreds of proven Hybrid AI solutions. Development, customization, and management of prebuilt enterprise-grade agents is made possible with the Lenovo xIQ Agent Platform, an AI-native, no-code environment with automated configuration capabilities and governance by design.

Futurum Research shows that 93.8% of retail organizations are considering agentic AI. Despite this, the majority of these organizations are only in research or POC phases, with only 16.9% achieving a scaled, autonomous solution.

To address core agentic challenges, Lenovo has developed the Lenovo xIQ Agent Platform. To further address retail-specific needs, Lenovo has developed the Lenovo Super Agent for Retail solution – comprising sub-agents tuned for specific agentic retail workflows: Retail Online Shopping Assistant, Retail Floor Assistant, Retail Research Assistant, Retail Customer Support Assistant – built on the Lenovo xIQ Agent Platform.

Signal65 evaluated both the Lenovo xIQ Agent Platform and the Lenovo Super Agent for Retail solution and found several key benefits:

Retail business value – The Lenovo xIQ Agent Platform provides a set of customizable prebuilt agents designed to address common enterprise challenges across industries, including chatbots, research assistants, and knowledge assistants. Building on this foundation, Lenovo Super Agent for Retail extends these capabilities with a library of retail-specific agents optimized for common retail use cases: Retail Online Shopping Assistant, Retail Floor Assistant, Retail Research Assistant, Retail Customer Support Assistant. **These four agents solve real world retail business challenges, improve customer experience, increase sales opportunities, and enhance competitive positioning – and are fully customizable to meet the unique needs of specific retail organizations.**

[1] Futurum Research, "2H 2024 AI Software & Tools Market Sizing & Five-Year Forecast: A Global Study of the Key Product Segments within the AI Software & Tools Market." Analyst(s): Nick Patience, Varun Shitole. Published: January 23, 2025. Document #: 2H24MSFAINP202501. The Futurum Group, LLC. Available at: https://app.futurumgroup.com/

Time to value – The Lenovo xIQ Agent Platform presents a unified, ready-to-use agentic AI platform. Upon reviewing the solution, Signal65 believes enterprise organizations can begin deploying production-ready agents in as little as one week. **Compared to an estimated six months to develop a custom solution, this represents 24× faster time to value, accelerating the rollout of AI-driven capabilities across retail operations.**[2]

Ease of use – The Lenovo xIQ Agent Platform enables users to create agents with no coding or in-depth technical knowledge required. **Signal65 found that new agents could be created on the platform in under five minutes - enabling retailers to rapidly scale AI capabilities across online, in-store, and internal operations**.

Accuracy and Maintainability – The Lenovo xIQ Agent Platform provides tools to create highly accurate, enterprise-grade agents. Once deployed, the Lenovo xIQ Agent Platform provides ongoing monitoring to identify drift and maintain agent accuracy. Additional improvements from ongoing data ingestion, custom prompting, and built-in data glossaries provide highly accurate and maintainable agents suitable for enterprise use and customer facing retail applications. **Utilizing the built-in automation tools of the Lenovo xIQ Agent Platform, Signal65 was able to increase agent accuracy by more than 20% (from a baseline of 75.33% to 91.33%.)**

Security and Governance – Futurum Research found data privacy, alongside data integration, to be the top overall concern for retail organizations adopting generative AI. The Lenovo xIQ Agent Platform is managed through a centralized control plane with built-in data access controls. The platform additionally enables a fully on-premises deployment, maintaining strict control over internal data.

The Role of Agentic AI in Retail Environments

Intelligent AI applications have the potential to significantly impact virtually all industries. Retail, in particular, has been identified as a sector that will benefit highly from integrating AI agents. The retail sector is well positioned to integrate AI in several different ways, ranging from internal applications, such as competitive research agents, to customer-facing applications, both online and in physical stores.

Retail environments are uniquely well-suited for AI agent deployment. Many common retail tasks involve a large number of highly repetitive operational activities, particularly those centered around direct customer interaction. These tasks are strong candidates for automation. However, unlike traditional automation targets, retail interactions are inherently dynamic and context-dependent. Customers expect fast, accurate responses that often require access to real-time information across multiple systems, including product inventories, order tracking systems, and customer data platforms.

Consider a customer asking whether a specific product is available in their preferred size and when it will be restocked if not. Answering this question accurately may require live inventory visibility, warehouse data, and restock timelines—all accessed in real time. Personalizing the response further,

[2] Based on Signal65's assessment of custom enterprise AI agent development, informed by industry estimates that place custom build timelines at 3–6 months for business-grade solutions, with enterprise deployments often extending beyond that range.

by incorporating loyalty history, purchase preferences, or previous transactions, requires coordinating additional customer data sources. These types of interactions are precisely the scenarios AI agents are designed to address: tasks that are repetitive enough to automate at scale, yet context-dependent enough to require intelligent retrieval and coordination across connected systems.

By combining automation with intelligent information retrieval and orchestration across diverse data sources, AI agents can dynamically gather relevant information, personalize responses, and support complex customer interactions in real time. When effectively deployed, these capabilities can significantly transform retail operations by improving operational efficiency, reducing costs, increasing sales opportunities, and delivering faster, more personalized customer experiences.

For retail organizations, integrating AI agents can provide real business value and a tangible return on investment, however, actually building, deploying, and maintaining these agentic solutions often proves to be a significant challenge. Creating and deploying successful AI solutions is complex, with several critical components. Key challenges include:

Real-time inference performance – Retail-focused AI agents, such as customer shopping assistants, often require real-time inference performance. In conversational applications, response latency above a few seconds can significantly degrade user experience. Achieving this requires high-performance GPU servers capable of running various models and scaling to meet customer demand, while maintaining sub-second response latency.

Continuous data ingestion – Retail applications typically need additional, organization-specific data, such as product information, customer preferences, inventory, or supplier information to successfully complete the desired tasks. This introduces significant complexity, requiring data pipelines capable of continuously ingesting, classifying, and embedding data for agent retrieval. In enterprise environments, this can involve processing millions of files while ingesting and embedding new data within minutes to maintain data freshness.

Enterprise security and governance – Enterprise retail systems must comply with strict governance and privacy requirements, including regulatory frameworks such as GDPR and SOC2. While agents may require access to internal data, organizations must maintain strict control over what information agents provide to users and ensure that sensitive data is not exposed to external model providers.

Agent lifecycle management – Once deployed, agents still require ongoing management to ensure they remain accurate and do not experience significant drift. Additionally, factors such as cost and performance need to be monitored and maintained over time. Without automated tools for monitoring agents and evaluating underlying models, assessing agent behavior can range from a time-consuming manual process to being effectively opaque.

Multi-agent scalability – While initial AI creation is already complex, many organizations will need to scale to a fleet of agents to support multiple retail use cases. As user demand grows and new applications emerge, organizations must be able to create and manage additional agents efficiently without introducing significant technical complexity.

For many organizations, the combined complexity of these challenges makes building agentic solutions a substantial undertaking, often requiring months of development and producing systems that are difficult to manage, maintain, or replicate.

Lenovo xIQ Agent Platform and Lenovo Super Agent for Retail

To address the growing need for AI agents in retail environments, along with the complexity involved in building these solutions, Lenovo has created Lenovo Super Agent for Retail – a suite of retail-focused AI agents built on the Lenovo xIQ Agent Platform.

The Lenovo xIQ Agent Platform enables organizations to easily create, deploy, and manage agents utilizing their own data. The foundation of this platform is Lenovo hardware with NVIDIA GPUs and AI services, capable of meeting the demanding performance requirements of AI workloads. Beyond infrastructure, Lenovo xIQ provides a unified platform for ingesting and classifying data, running AI queries, evaluating performance, and monitoring agent health.

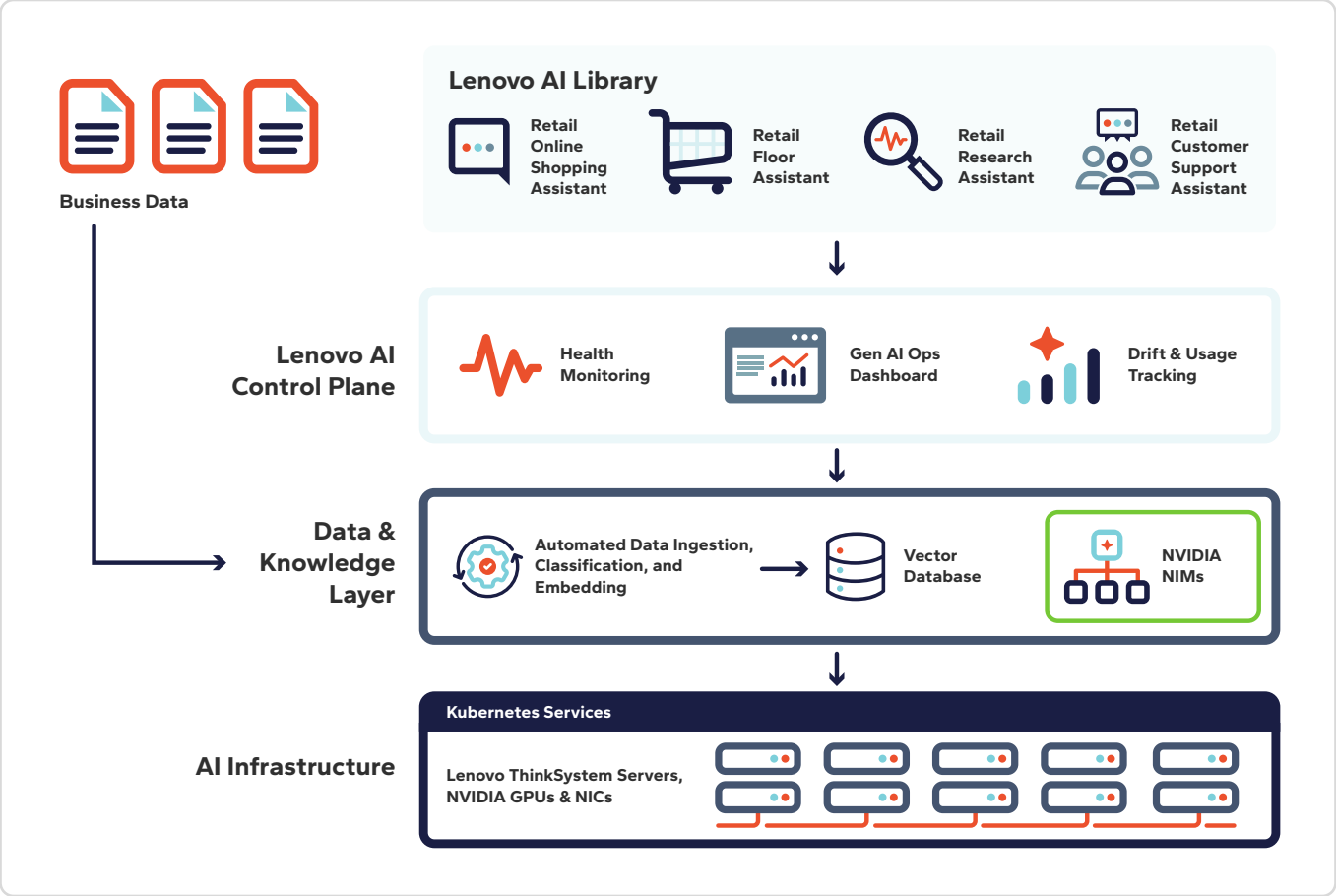

Figure 1: *Lenovo xIQ Agent Platform Overview*

The Lenovo Super Agent for Retail solution is deployed on the Lenovo xIQ Agent Platform to provide retail-specific AI solutions. Signal65 evaluated four retail-specific agents included in the Lenovo Super Agent for Retail suite, each designed to address common retail challenges and fully customizable to meet specific business requirements. These agents represent a ready-to-deploy starting point within the broader Lenovo xIQ Agent Platform, which supports the rapid creation of additional custom agents and provides access to cross-industry pre-built agents from the Lenovo AI Library. The agents evaluated by Signal65 include:

- **Retail Online Shopping Assistant** – A digital assistant to enhance online retail shopping experiences. The Retail Online Shopping Assistant understands both text and image-based prompts while utilizing product information and customer preferences to help customers find and purchase items.
- **Retail Floor Assistant** – An in-store AI assistant hosted in a physical kiosk capable of interacting with customers and answering questions. The Retail Floor Assistant can answer product specific questions, provide up-to-date inventory information, and assist customers in navigating through the store.
- **Retail Research Assistant** – A research assistant that provides retail organizations with in-depth information on competitive products and strategies. This agent can leverage web search capabilities alongside internal documentation to automate research and provide detailed competitive analysis.
- **Retail Customer Support Assistant** – A knowledge assistant integrated into customer support systems to assist customers with support issues. The Retail Customer Support Assistant can pull relevant, up-to-date information from various structured and unstructured data sources to inform customers and resolve issues.

Signal65 Comment *: These four agents represent the retail-specific starting point within a broader ecosystem. The Lenovo xIQ Agent Platform enables organizations to rapidly build and deploy additional custom agents — in under five minutes — and provides access to cross-industry prebuilt agents from the broader Lenovo AI Library that retail customers can leverage beyond these four solutions.*

Key Benefits of Lenovo Super Agent for Retail

Signal65 reviewed and evaluated the Lenovo Super Agent for Retail solution to understand the time, complexity, and business advantages it can bring to retail organizations.

Centralized Multi-Agent Management

As organizations expand their use of AI agents, managing multiple agents across different business functions becomes increasingly complex. Retail organizations may have a diverse set of agents to support various use cases, such as customer shopping assistance, customer support, product research and internal knowledge retrieval. Without centralized management tools, maintaining consistency, monitoring performance, and updating agents across these deployments can quickly become difficult and resource intensive.

The Lenovo xIQ Agent Platform simplifies multi-agent management by providing a centralized environment for creating, deploying, and maintaining agents. Administrators can manage multiple

agents through a unified interface, enabling consistent configuration, monitoring, and updates across deployments. Shared infrastructure components, including model access, data pipelines, security policies, and monitoring tools, allow organizations to efficiently scale from a single agent to a broader ecosystem of coordinated agents without significantly increasing operational complexity.

This centralized management capability is particularly important in retail environments where new use cases and customer interaction channels emerge rapidly. By simplifying the creation and maintenance of additional agents, organizations can more easily expand their agent deployments while maintaining operational oversight and system reliability.

Time to Value

The Lenovo Super Agent for Retail solution enables organizations to deploy production-ready AI agents in as little as one week — from hardware setup to live agent operation — without requiring dedicated AI engineering resources. The Lenovo xIQ Agent Platform features an automated install process which can reasonably be completed in a single day. Accounting for the time required for additional training, troubleshooting, and data ingestion, the Lenovo xIQ Agent Platform and the Lenovo Super Agent for Retail solution can realistically be deployed, installed, and operational within a single week.

This presents a massive increase in time to value for retail organizations. Alternatively, organizations attempting to build and deploy agentic solutions independently will face much more complexity and need far greater time for implementation. Signal65 estimates that comparative retail agents, built without a unified platform like the Lenovo xIQ Agent Platform, would reasonably take most organizations six months or more to implement[2]. With the Lenovo xIQ Agent Platform, Lenovo can rapidly reduce the complexity for its customers by providing all required hardware, software, and services needed to rapidly deploy effective retail agents.

In total, this represents ***24x faster time to value*** *for retail organizations deploying AI agents.*

Ease of Use

In addition to the initial deployment, the Lenovo xIQ Agent Platform enables rapid creation of new agents, with no coding or advanced technical expertise required. To create intelligent, context-aware agents, organizations can easily upload their data into agent-accessible knowledgebases, without managing complex data integration. As data changes, it can be automatically ingested into the system to ensure that the agent leverages up-to-date information. This is achieved through a directory-watching mechanism: when a data domain is created, the Lenovo xIQ Agent Platform establishes a corresponding directory on the server and scans it at a configurable interval — as frequently as every five minutes — automatically validating and ingesting any new files without manual intervention.

Signal65 stepped through the knowledgebase and agent creation process to verify the speed and simplicity.

[2] Based on Signal65's assessment of custom enterprise AI agent development, informed by industry estimates that place custom build timelines at 3–6 months for business-grade solutions, with enterprise deployments often extending beyond that range.

It was found that the Lenovo xIQ Agent Platform ***enabled agent creation in less than 5 minutes****, with no coding or advanced technical knowledge required.*

For retail organizations, this speed and simplicity removes a major technical barrier. New agents can be built and scaled quickly to address business requirements, without requiring dedicated AI or data engineering staff.

Accuracy and Maintainability

For real-world retail agent deployments, creating and maintaining accurate agents is critical. These agents are often customer-facing and can have a direct impact on sales, customer experience, and brand reputation. The Lenovo xIQ Agent Platform provides tools that enable organizations to build highly accurate agents while also simplifying ongoing monitoring and maintenance.

Research consistently shows that the majority of effort required to deploy AI agents falls not on model engineering, but on operational challenges such as data integration, validation, governance, drift monitoring, and ensuring economic value.[3] This pattern has been observed across deployments, with some analyses finding the ratio as stark as 80% operational effort to just 20% engineering and model development.[4] In addition to addressing data integration and governance challenges, as discussed in previous sections, the Lenovo xIQ Agent Platform includes integrated management and monitoring capabilities designed to address operational challenges and maintain agent accuracy.

When determining which model to use for an agent, multiple LLMs can easily be compared side by side. Evaluation templates can be created with a set list of questions and run against multiple models to evaluate accuracy, performance, and token cost. Once an agent is deployed, the platform automatically monitors drift to allow organizations to ensure ongoing accuracy. Additionally, commonly asked questions are grouped together for administrators to easily understand what questions are being asked, and how well the system is responding. This question-grouping capability delivers a meaningful efficiency advantage over manual approaches. Manually reviewing thousands of user queries to identify problem areas could take several hours; xIQ's embedding-based clustering allows administrators to surface the most common questions with negative feedback in under 60 seconds.

To monitor drift, a baseline is established with a set of questions and answers that are human reviewed as accurate. xIQ then re-runs those same questions daily, passing both the baseline and new responses to an AI model that detects divergence between the answers. Any significant divergence is flagged, and the agent owner is notified to further evaluate. This enables automated monitoring, while ensuring human oversight is maintained as the ultimate judgment of accuracy. Administrators can additionally configure subject matter, bias, and prompt injection questionnaires for continuous monitoring, providing comprehensive protection against model drift and adversarial inputs.

[3] Google Cloud and National Research Group. "**The ROI of AI 2025: How Agents Are Delivering for Business**." Published: September 4, 2025. Survey of 3,466 senior enterprise leaders across 24 countries. Available at: https://cloud.google.com/resources/content/roi-of-ai-2025

[4] Gallifant, Jack, et al. "**A Field Guide to Deploying AI Agents in Clinical Practice.**" arXiv preprint arXiv:2509.26153, 2025. Available at: https://arxiv.org/abs/2509.26153. Note: findings are drawn from clinical AI deployments; the operational-to-engineering effort ratio is cited here as illustrative of a broader pattern corroborated by enterprise research.

In addition to functionality that allows power users to monitor potential drift or inaccuracies, agents can easily be maintained or improved through the Lenovo xIQ Agent Platform. Inaccuracies can be mitigated with additional data integrated into the system, custom prompting, new model selection, or adding domain-specific information through data glossaries. Data glossaries allow uncommon or domain-specific terms, phrases, or acronyms to be defined and incorporated into the agent's knowledge base to improve understanding and response quality.

To test the accuracy and maintainability of the system, Signal65 conducted an experiment creating an agent with internal documents. In total, the agent was provided 92 documents and was graded against a series of 150 questions. All questions required information from the provided documents, and ranged in difficulty, with many questions requiring the agent to identify specific statistics or comparative product information. These questions align with what might be required for many real-world retail product or research assistants.

To gauge the accuracy of the agent, all questions were tested using two different models: llama-3.1-nemotron-nano-vl-8b-v1 and nemotron-3-nano. The first model, llama-3.1-nemotron-nano-vl-8b-v1, achieved an accuracy of 75.33% while the second model achieved a much higher accuracy at 87.33%. The Lenovo xIQ Agent Platform enabled an easy comparison between these models and enabled the agent to seamlessly switch from a relatively poor performing model to a model that improved accuracy by 12 percentage points, resulting in a 15.93% relative increase in agentic accuracy. The accuracy was then further tuned by adding an additional data glossary and prompt instructions. These adjustments were fairly minimal yet resulted in a total accuracy of 91.33%.

In total, the Lenovo xIQ Agent Platform enabled ***a relative increase in agent accuracy of 21.24%****, without requiring any complex AI knowledge or technical skills.*

Signal65 Comment *: It should be noted that the 91.33% final accuracy achieved in this experiment is not a definitive limit, but rather serves as an example of a significant accuracy gain achieved in a short amount of time with minimal tuning. Agents can be further enhanced with far more data than was utilized in this testing and evaluated across a much broader set of model comparisons to achieve even higher accuracies.*

A further transparency capability in the Lenovo xIQ Agent Platform is source attribution. When an agent returns a response, users can navigate directly to the specific document and passage from which the information was retrieved. This audit trail capability is particularly valuable for enterprise deployments where accuracy accountability and data governance are critical requirements.

Security and Governance

Lenovo Super Agent for Retail presents a secure AI offering that enables retail organizations to maintain full control over their own data. Signal65 observed the platform's built-in access controls, which enables agents to restrict information according to three levels – public, internal, or restricted.

To illustrate how this works in practice: a retailer could make standard product and operations manuals available to all employees through the public access tier, while restricting a version containing pricing details or internal policies to authorized staff only. All users interact with the same agent interface, but the system silently filters retrieved content based on each user's assigned access level — enabling a single deployment to serve the entire organization without risk of confidential data surfacing in the wrong context. This benefits both the end user — who receives seamless, role-appropriate responses without friction — and IT administrators, who maintain a single deployment and update cycle rather than managing separate agents for each access tier.

This focus on security and data control addresses a growing concern around enterprise AI. The solution can be run entirely on-premises, with no dependency on public cloud infrastructure or external LLM APIs, ensuring that proprietary business data or confidential customer information never leaves the organization's environment.

Retail Business Value

Signal65 additionally reviewed and evaluated each of the four retail-specific agents created by Lenovo, which were determined to provide significant potential business value to retail organizations. Beyond the benefits of individual agents, organizations can deploy coordinated sets of agents to support multiple areas of the business, including online channels, in-store experiences, and internal operations.

Retail Online Shopping Assistant

The Retail Online Shopping Assistant delivers personalized product recommendations and targeted upsell opportunities. Signal65 observed how the agent could recommend products given specific requests – such as finding formal attire for an event – or provide alternative recommendations based on expressed preferences. The agent additionally has advanced functionality to recognize image-based prompts and conduct image-based searches for items.

Signal65 believes that this agent can significantly improve and enhance customer shopping experience, while additionally increasing sales for retail organizations.

Previous experiments in online retail have shown that generative AI tools, particularly customer service and sales assistants, can increase sales ***by up to 16.3%*** [5]

The Retail Online Shopping Assistant creates an interactive and engaging shopping experience that can utilize both product information and customer knowledge to present appealing options and expedite purchases. For customers, this reduces friction in the shopping process while for retailers, this drives more targeted sales and presents significant upsell opportunities.

[5] Fang, Lu, et al. "**Generative AI and Firm Productivity: Field Experiments in Online Retail.**" arXiv preprint arXiv:2510.12049, 2025. Available at: https://arxiv.org/abs/2510.12049.

Retail Floor Assistant

The Retail Floor Assistant enables similar benefits to the Retail Online Shopping Assistant, but enables this AI-powered assistance to be leveraged in physical retail locations. By utilizing an in-store, AI-powered kiosk, the Retail Floor Assistant blends online and offline customer interactions to create a unified shopping experience.

Consider a customer who placed an online order and arrives in-store for pickup, only to find the item is unavailable. Rather than requiring staff intervention, the Retail Floor Assistant can access the order management system in real time, confirm the inventory gap, surface available alternatives on the shelf, and initiate a reorder or in-store substitution — all within a single, natural conversation. This kind of OMO resolution, where the agent bridges a customer's digital history with their in-person experience, is increasingly expected by modern shoppers and difficult to deliver consistently without integrated AI assistance.

Signal65 observed how customers can interact with the AI-powered assistant kiosk using natural speech, and receive intelligent, helpful responses. The agent demonstrated an ability to provide up-to-date inventory information, help customers locate products within the store, and suggest additional products. The agent was integrated with store-specific information including live inventory data, the store map, and specific store policies.

While AI agents are often fully online solutions, the Retail Floor Assistant bridges the gap between physical retail and digital technology. This agent brings clear benefits of enhanced shopping experiences and increased upselling, while additionally providing physical stores an efficient way to augment customer service staff. For retail locations with limited staff, the Retail Floor Assistant can provide a cost-effective approach to enhance their existing staff to support heavy inflows of customer traffic during peak hours or holiday seasons.

To illustrate the financial potential, consider a mid-sized retailer operating 20 locations, each averaging 500 customer interactions per day. If the Retail Floor Assistant autonomously handles 30% of those interactions — routine questions about inventory, product location, and store policy — this frees roughly 3,000 staff-hours per day across the chain. At a blended labor cost of $18/hour, that represents approximately $19.7 million in annual operational savings, before accounting for revenue uplift from faster, more accurate customer service during peak periods. While actual results will depend on deployment configuration and adoption rates, this model illustrates the meaningful efficiency and cost case for physical-store AI deployment.

Retail Research Assistant

In contrast to other retail agents which are primarily customer facing, the Retail Research Assistant provides an internal-facing agent that retail organizations can leverage to conduct comparative research. This agent automates time-consuming research of the market, leveraging web search capabilities alongside internal documentation to automate research and provide detailed competitive analysis.

The Retail Research Assistant can dramatically reduce the time spent on competitive analysis, automating hours of manual effort into minutes while providing accurate, up-to-date information. For

example, a retail merchandising team evaluating a competitor's newly released product line might traditionally spend several hours reviewing product listings, pricing pages, and product specifications across multiple websites. The Retail Research Assistant agent can instead retrieve and summarize this information in minutes, highlighting key details such as pricing differences, feature comparisons, and promotional strategies. Leveraging this agent can enable organizations to navigate the competitive landscape with agility – quickly identifying advantages and disadvantages to rapidly implement competitive strategies.

Retail Customer Support Assistant

The Retail Customer Support Assistant integrates into customer service systems to provide automated customer support interactions, while leveraging internal knowledge bases. Use of the Retail Customer Support Assistant can rapidly parallelize customer support interactions, reducing customer wait times, and expediting the time required to remediate customer problems. Futurum Research notes customer service automation as the top AI use case for retail, as identified by 72% of retail organizations.

By integrating the agent with an organization's internal data via the xIQ platform, the Retail Customer Support Assistant can leverage product information and store policies to provide accurate assistance to customer challenges. For retailers, effective automation of customer support can provide significant cost benefits. Utilizing intelligent AI agents enables organizations to quickly and efficiently address customer concerns, even with limited staff dedicated to customer support.

The operational cost impact of customer service automation is significant. Retail organizations deploying AI customer service agents see ticket deflection rates above 50%[6] — meaning more than half of routine customer inquiries are resolved without human intervention. Combined with industry estimates that place the cost of an AI-handled interaction at under $1, compared to $8–$15 for a live agent interaction, effective customer support automation can represent one of the highest-ROI applications in retail AI.[7]

[6] Freshworks. "**How AI Is Unlocking ROI in Customer Service: 58 Stats and Key Insights for 2025**." Freshworks, Inc., 2025. Data sourced from Freshworks Customer Service Benchmark Report 2025. Available at: https://www.freshworks.com/How-AI-is-unlocking-ROI-in-customer-service/

[7] NexGenCloud. "**How AI and RAG Chatbots Cut Customer Service Costs by Millions.**" NexGenCloud, 2024–2025. Available at: https://www.nexgencloud.com/blog/case-studies/how-ai-and-rag-chatbots-cut-customer-service-costs-by-millions

Final Thoughts – Enhancing Retail in the AI Era

Agentic AI applications will increasingly be deployed to enhance and accelerate processes, ranging from simple everyday tasks to strategic corporate initiatives. The retail sector, in particular, presents an industry with clear opportunities to immediately leverage AI technology. When empowered with the right data, AI agents can intelligently automate intricate customer interactions, as well as assist retail organizations with competitive analysis.

Futurum Research shows clear momentum for agentic AI within the retail sector, with 56.9% of retail organizations actively researching or piloting agentic AI solutions and 20% currently deploying agents into production. Only 16.9%, however, state they have achieved a solution that is fully scaled or integrated into their organization.[8]

This momentum is driven by significant value gains – increased sales, reduced costs, and enhanced customer engagement. However, building agentic AI solutions is complex. Organizations developing AI solutions, either entirely from scratch or from a combination of disparate solutions, are faced with immense technical challenges and a time-consuming process, ultimately delaying time to value. Beyond developing the solution, these custom approaches can easily fail due to an inability to monitor, maintain, and scale agentic solutions.

The contrast with the Lenovo xIQ Agent Platform is stark. Where a custom build requires assembling separate solutions for hardware, data pipelines, model evaluation, drift monitoring, and agent management — a process that typically spans months and demands dedicated AI engineering resources — the Lenovo xIQ Agent Platform delivers all of these capabilities as a single, integrated stack, deployable in under a week without specialized expertise. Lenovo offers a single platform, encompassing hardware, software, data integration, and monitoring, that can be securely hosted and maintained on-premises.

Developed on the Lenovo xIQ Agent Platform, Lenovo has built the Lenovo Super Agent for Retail solution, with specific agents that can be readily deployed to enhance various retail operations. Signal65 has evaluated these solutions and identified significant potential business value. Individually, each of the four solutions offers its own benefits in automating or enhancing common retail operations, while used in combination they present retailers with a full suite of modern, AI-automated capabilities. While this library of pre-built agents serves as a strong starting point for retail organizations, each agent can further be customized and tailored to fit the specific needs of retail environments.

Upon evaluating the Lenovo Super Agent for Retail solution and the Lenovo xIQ Agent Platform, Signal65 recognizes several impactful operational and business benefits. The platform can dramatically reduce time to value with the deployment of a fully integrated system in as little as one

[8] Futurum Research, "**1H 2026 Enterprise Software Decision Maker Survey.**" Analyst: Keith Kirkpatrick. Published: January 2026. Document #: 1H26DMESKK202602. Data filtered by Retail/eTail vertical (N=830). The Futurum Group, LLC. Available at: https://app.futurumgroup.com/

week. Individual agents can be created in five minutes, with no technical expertise required and integrated with securely maintained data.

Signal65 further demonstrated that agent performance can be accurately tuned, monitored, and maintained over time. Taken together, these capabilities represent a compelling multi-dimensional ROI: a 24x acceleration in deployment time over custom builds,[2] agent accuracy gains of up to 21% through built-in tuning tools, documented sales uplift potential of up to 16.3% from AI-powered shopping assistance,[5] and the operational leverage of managing an entire retail agent fleet from a single, governed platform — all without requiring dedicated AI engineering staff.

For retail organizations, embracing AI agents is a critical strategic move to keep pace in an increasingly digital landscape. The Lenovo Super Agent for Retail solution provides a straightforward, easily manageable approach for retail organizations to enhance their operations with AI. The customizable solutions enable retail organizations to leverage their own data to provide enhanced customer experiences and accelerate their brand into the AI era.

While the broader agentic AI market includes horizontal platforms from major enterprise vendors, none currently offer a retail-specific agent suite combined with an on-premises, hardware-integrated deployment model and independently validated performance metrics. The Lenovo Super Agent for Retail solution occupies a distinct position in this landscape: a purpose-built retail offering that Signal65 has evaluated end-to-end, with measured results for deployment speed, agent creation time, and accuracy improvement. For retail organizations evaluating this space, that combination of retail specificity, data sovereignty, and third-party validation represents a meaningful point of differentiation in a market where most organizations are still in research or pilot phases.

[2] Based on Signal65's assessment of custom enterprise AI agent development, informed by industry estimates that place custom build timelines at 3–6 months for business-grade solutions, with enterprise deployments often extending beyond that range.

[5] Fang, Lu, et al. "**Generative AI and Firm Productivity: Field Experiments in Online Retail.**" arXiv preprint arXiv:2510.12049, 2025. Available at: https://arxiv.org/abs/2510.12049.

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