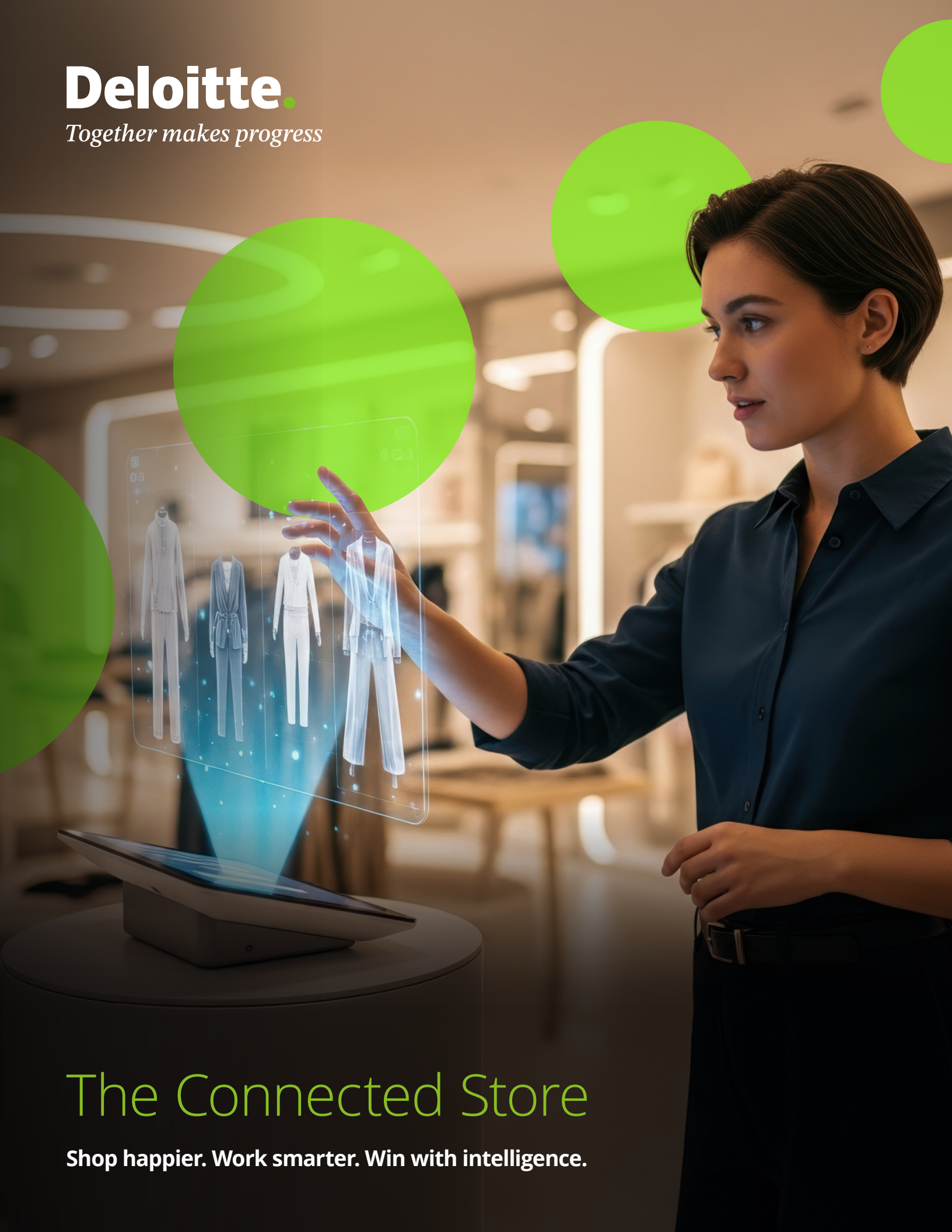


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Together makes progress



The Connected Store

Shop happier. Work smarter. Win with intelligence.

Contents

Introduction	3
What a 'Connected Store' entails	4
Why it matters now	4
What good looks like—in the aisle	5
Value—by stakeholder	5
Maturity path and practical sequencing	6
Working with retailers across each phase of the maturity curve	7
Embarking on the journey	8
Where to get started	9

Executive summary

As the digital and physical worlds converge, in-store operations are being reshaped by economic pressure, labor constraints, rising customer expectations, and the rapid adoption of AI. To compete, retailers must move beyond fragmented store systems and adopt a **Connected Store operating model**—one that turns store signals into actionable intelligence across

Retailers who win with the Connected Store do three things differently. First, they treat the store as a real-time operating system, not a collection of point solutions, evolving existing systems by layering new capabilities that unlock intelligence and extract greater value from investments already made. Second, they deliberately connect customer, associate, and enterprise experiences to move the P&L, not just to improve moments in the aisle. And finally, they sequence transformation pragmatically, progressing along the Connected Store maturity curve to compound value over time. **In the new retail era, evolution is not optional; it is the difference between leading and falling behind.**



What a 'Connected Store' entails

A Connected Store is not defined by a single technology or platform. It is an operating model that drives revenue, margin, and productivity by intentionally connecting customer, associate, and enterprise capabilities across the retail ecosystem.

At its core, the Connected Store delivers value through three integrated dimensions:

- **Customer experience (CX)**—*The quality of every interaction a shopper has across digital and physical touchpoints—defined by ease, speed, relevance, and personalization.*
- **Associate experience (AX)**—*How effectively associates are supported with clear priorities, intuitive tools, and live insight, reducing manual effort and enabling more time for customer engagement.*
- **Enterprise experience (EX)**—*The retailer's ability to operate as a coordinated, intelligent enterprise through integrated systems, trusted data, and faster, more automated decision-making.*

Together, the next-gen capabilities of CX, AX, and EX connect stores into a coordinated operating system. The aim is simple: smooth journeys for customers, clearer guidance for associates, and enterprise-wide visibility.

Why it matters now

This moment marks a structural shift in how retail operations are run. AI is moving rapidly from insight generation to agentic execution—directing labor, optimizing inventory, managing exceptions, and personalizing experiences at scale. But AI cannot operate in fragmented environments. Its value depends on connected systems, trusted data, and real-time signals from the store. Retailers are already moving in this direction: The global Internet of Things (IoT) retail market is projected to exceed \$350 billion by 2032, growing at a CAGR of 25.9%.¹

We believe the store is now the largest remaining frontier of untapped productivity, margin, and working capital. As digital commerce and supply chains have largely already matured, competitive advantage is shifting to in-store execution.

Delaying no longer preserves optionality. In an AI-driven operating model, disconnected systems don't just slow progress—they block it. Each additional point solution increases complexity, raises the cost of future integration, and limits the ability to automate. Retailers that wait will not simply adopt AI later; they will first have to unwind years of fragmentation before AI can deliver value. Retailers that connect systems now will compound returns from every automation, intelligence, and agentic capability that follows.



What good looks like—in the aisle

Imagine a customer planning a routine shopping trip. Before leaving home, they check the retailer's app and see confirmed availability, powered by connected inventory, not estimates. Confidence replaces uncertainty, reducing abandoned trips and lost sales before the customer ever enters the store.

When the customer arrives, the store already knows what matters. The system anticipates demand, ensures shelves are stocked, directs associates only where action is needed, and opens checkout lanes before lines form—eliminating manual audits, reactive firefighting, and unnecessary wait time. The result is higher conversion, better labor utilization, and protected margin without adding headcount. The store is no longer a black box at the end of the supply chain; it becomes an engine for revenue, margin, and working capital optimization.

This is the Connected Store in action—not a collection of new technologies, but a connected operating system that senses, decides, acts, and learns. The experience is seamless for customers, manageable for associates, and measurable on the P&L.

Value—by stakeholder

Journeys that customers can feel

Connected Stores remove the uncertainty that frustrates shoppers. Customers have confidence in what's in stock before they leave home, find what they need quickly, and move through checkout without friction. The result is higher confidence at the shelf, larger basket sizes, and stronger loyalty—reflected in the fact that 83% of customers are more likely to stay loyal to brands that deliver personalized, connected experiences.²

Tools associates can trust

Connected Stores make it clear where associates should focus—and where they shouldn't have to. Instead of manual checks and constant firefighting, associates receive prioritized, real-time guidance on what needs attention now. With fewer distractions and clearer priorities, associates work more efficiently, feel more confident, and deliver better service throughout the day.

Visibility that enables enterprise decision confidence and supply chain adaptability

Connected Stores turn daily store activity into reliable signals the enterprise can act on. Retailers can gain live visibility into inventory, labor, fulfillment, and execution, replacing lagging reports with operational truth. This enables tighter inventory positions, more accurate replenishment, smarter labor planning, and more targeted promotions. Stores become flexible, connected parts of the network, improving margin, freeing working capital, and strengthening supply chain resilience.



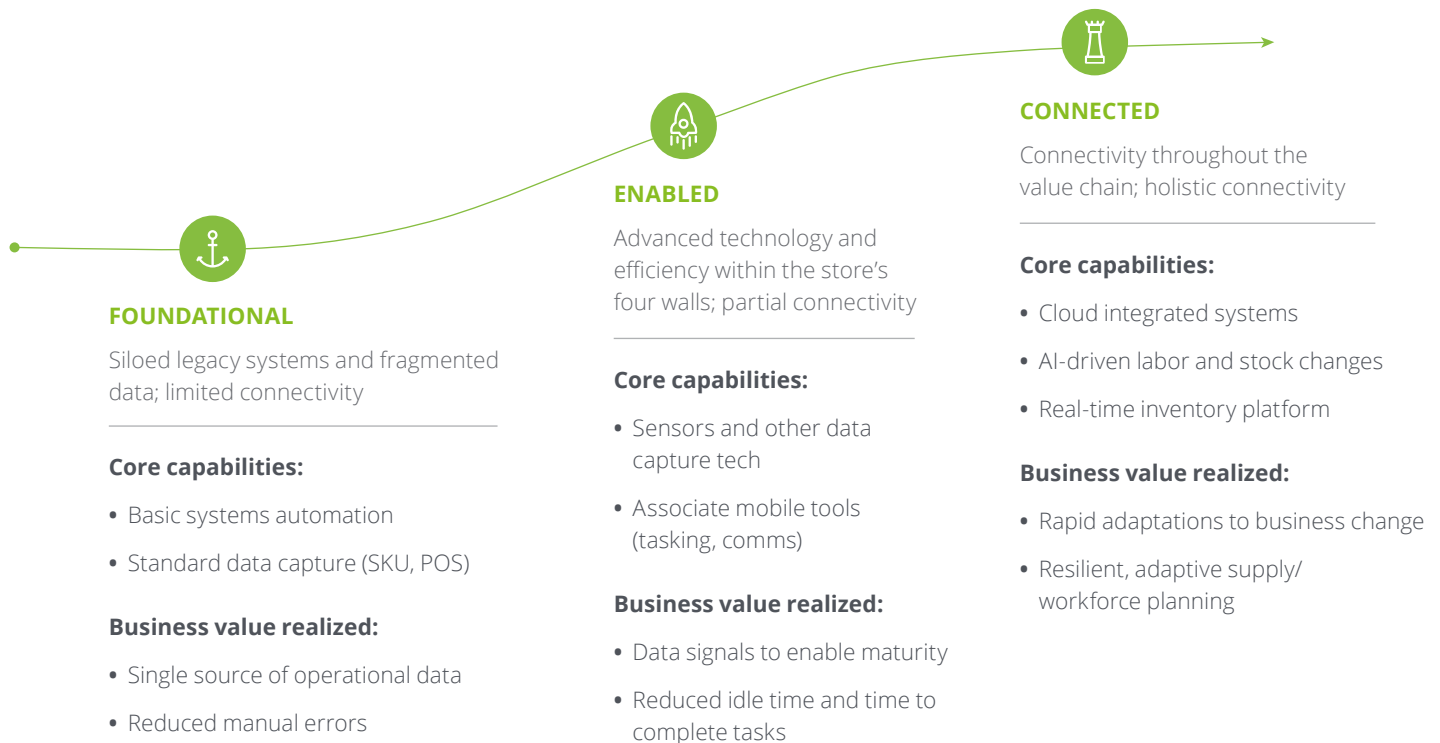
Maturity path and practical sequencing

Retailers should use a deliberate, phased approach to advance from foundational capabilities to fully connected operations. The goal is not to leap to an end state; it is to **sequence deliberately** and scale what demonstrably moves the P&L. Each maturity stage strengthens the connection between CX, AX, and EX.

It's not about leaping to the end—it's about **building solid foundations in each step**, guided by a clear vision

Evolving to the fully Connected Store

As retailers progress along the Connected Store journey, they shift from isolated technology to enterprise-wide intelligence that drives bottom-line impact—and some capabilities are must-haves regardless of where they are now



Working with retailers across each phase of the maturity curve

Retailers do not need to wait for a future-state transformation to begin realizing the benefits of a Connected Store. In practice, most are already partway along the journey, operating with legacy systems in place but lacking the connective intelligence that turns data into action. What distinguishes retail leaders is not how much technology they deploy, but how effectively they connect what they already have with layered intelligence.

Across our retail clients, we see consistent progress when organizations focus on connection first, unifying operational systems, enabling real-time visibility, and introducing orchestration that makes the store increasingly intelligent over time.

From foundational to enabled: Turning stores into live data environments

At the foundational stage, retailers focus on eliminating blind spots and establishing operational truth. Stores move from static environments into live, observable systems where inventory, pricing, and activity can be trusted.

Grocery and essential retail formats are often ahead at this stage because their economics demand it. High SKU counts, frequent replenishment, thin margins, and spoilage risk make real-time visibility a necessity, not a nice-to-have.

What leading retailers are doing:

- Connecting existing assets such as POS, inventory systems, ESLs, RFID, cameras, and workforce tools into a shared data fabric
- Improving price accuracy, on-shelf availability, and inventory confidence without replacing core platforms
- Reducing manual audits and reactive firefighting

The potential results:

- Customers encounter fewer friction points and greater confidence in availability (CX)
- Associates spend less time validating data and more time serving shoppers (AX)
- Enterprises gain a reliable operational baseline to act decisively (EX)

Better yet, this phase is often self-funded, with efficiency gains covering the cost of progress.

From enabled to connected: Layering intelligence and orchestration

Once data is connected and trusted, retailers begin layering intelligence. This is where the Connected Store moves beyond visibility into coordinated execution across the store.

Mass merchants and big-box retailers tend to excel at this stage. Their scale, labor complexity, and traffic variability create strong incentives to orchestrate work dynamically and automate routine decisions.

What we see in the market:

- Workforce, inventory, tasking, and service signals unified into a single orchestration layer
- AI-driven prioritization that dynamically directs work to the right associate at the right moment
- Automated responses to operational exceptions such as OSA risk, queue buildup, shrink exposure, and markdown timing

At this stage, retailers begin achieving outcomes often associated with an “agentic” store manager, without replacing their existing technology stack.

How the impact compounds:

- Customers experience faster service, better availability, and smoother checkout (CX)
- Associates receive clear, prioritized guidance instead of static task lists (AX)
- Enterprises shift from lagging reports to real-time operational control (EX)

Retail leaders consistently describe this phase as unlocking further value from investments they have already made.

From connected to continuously optimizing

At higher maturity, the Connected Store becomes a learning system—continuously sensing, deciding, acting, and improving.

Digitally native retailers and advanced omnichannel leaders are often furthest along here, driven by rapid experimentation, tighter feedback loops, and strong alignment between digital and physical operations.

What retailers are doing:

- Using closed-loop feedback to refine labor models, assortment, pricing, and execution
- Operating stores in different “modes” based on mission (conversion-led, fulfillment-led, margin protection)
- Scaling best-performing behaviors across the fleet automatically

The Connected Store evolves into a living ecosystem—aligning customer journeys, associate execution, and enterprise decisions in real time.

Embarking on the journey

Retailers don't need to transform everything at once. The journey begins by investing in a few high-impact, foundational capabilities—those that remove friction and generate measurable value on day one. Layering a virtual store manager on top allows these early wins to be orchestrated intelligently, proving the model while building the connective tissue for what comes next. As these capabilities accumulate and learn from one another, they evolve into a fully Connected Store: A system where data flows freely, automation adapts in real time, and every decision sharpens performance. This is how retailers build the resilience and intelligence the next decade will demand.



Where to get started

Deloitte's Retail Consulting team can help you accelerate toward a Connected Store ecosystem, wherever you are on the journey, through our cross-functional strategic offerings:

- Rapid diagnostic of current store tech stack, data flows, and associate tools, identifying quick-win and longer-tail investment opportunities
- Immersive Future of Store Greenhouse Lab focused on cutting-edge capabilities that are on top competitor's roadmaps
- High-impact insights delivered through our HundredX collaborations that validate and prioritize what capabilities truly move the needle for customers, associates, and the enterprise



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Endnotes

1. Fortune Business Insights, [*IoT in Retail Market Size, Share & Industry Analysis, By Component \(Hardware, Platform, and Services\), By Application \(Operations Management, Customer Experience Optimization, Asset Management, and Advertising & Marketing\), By Deployment Mode \(On-premises and Cloud\), By Retail Format \(Brick-and-Mortar Stores and E-commerce\), and Regional Forecast, 2026–2034*](#), February 16, 2026.
2. Nancy Cardona, [*“Must know omnichannel statistics for marketers \(2025\)”*](#), UniformMarket, April 25, 2025.



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