Supply Chain Research · Cornerstone Reference

Point of Sale Systems:

What They Are, How to Evaluate

What Is a POS System, and How Does It Fit the Retail Supply Chain?

Point of sale is usually bought as a payment system and lived with as an inventory system. About 83 percent of US retail sales still transact in a store, which makes the point of sale the place where most inventory is actually consumed and where its accuracy is set.

CONTENTS

01 The short answer

A point of sale system is the software and hardware that records a retail transaction at the moment of sale, takes payment, applies pricing and promotions, and decrements inventory. In a supply chain context it matters less as a payment device than as the system that consumes inventory and, increasingly, originates and fulfills orders that did not start in the store. Because roughly 83 percent of US retail sales still transact in a physical location, the point of sale is where most inventory movement is recorded and where store-level inventory accuracy is either established or lost.

16.9%	4	51
of US retail sales were e-commerce in the first quarter of 2026, leaving the rest in store	distinct products are commonly sold under the name point of sale	PCI DSS requirements moved from best practice to mandatory in March 2025

Key takeaways

- **POS is an inventory system that also takes payment.** Treating it as a payment project is the most common scoping error in this category.
- **Four different products share the name.** Terminal hardware, the sale application, payment processing, and the store operations platform are separate purchases with separate suppliers.
- **Most retail still happens in the store.** US e-commerce was 16.9 percent of total retail sales in the first quarter of 2026, so the store remains the dominant point of inventory consumption.
- **Store fulfillment breaks assumptions the POS was built on.** Ship-from-store and collection require the system to accept work it did not originate.
- **Payment compliance is a dated obligation, not a feature.** Fifty-one PCI DSS requirements became mandatory on 31 March 2025 with no grace period.

02 What is a point of sale system, and what is actually in one?

The term covers at least four separable products, and buyers who do not specify which they are procuring end up with gaps or duplicate spend. First is terminal hardware: register, tablet, scanner, printer, card reader. Second is the sale application, holding the item file, pricing and promotion rules, tender handling, and returns. Third is payment processing: the gateway, acquirer relationship, and the encryption and tokenization that keep card data out of scope. Fourth is a store operations platform covering labor, task management, and customer-facing services such as clienteling.

These are sold in every combination. Some suppliers bundle all four, some sell the application and certify third-party hardware, and payment processing is often a separate contract with separate economics. So a comparison between two products both called point of sale systems is frequently not like for like, and the scope boundary needs writing down before pricing is requested.

Component	What it is	Typically supplied by	Why supply chain cares
Terminal hardware	Register, tablet, scanner, printer, card reader	Hardware vendor or POS supplier	Determines whether scanning is accurate and fast enough to keep inventory records clean
Sale application	Item file, pricing and promotions, tender handling, returns	POS software vendor	This is the system of record for the consumption event that drives replenishment
Payment processing	Gateway, acquirer, encryption, tokenization	Payment service provider or acquirer	Compliance scope and outage behavior; a payment failure stops the store trading
Store operations	Labor and task management, clienteling, endless aisle	POS suite or specialist vendor	Where store fulfillment tasks are actually issued, picked, and confirmed

Table 1. The four products commonly sold under the name point of sale. Scope disputes in this category almost always trace to two parties assuming different rows.

03 How does POS fit into the retail supply chain?

The point of sale is the consumption event. Every completed transaction decrements on-hand inventory at a location, and that decrement feeds store replenishment, network inventory position, and the demand history planning systems learn from. If the point of sale records the wrong item, records it late, or mishandles a shrink or markdown, every downstream system inherits the error and no amount of planning sophistication recovers it.

So the supply chain question about a POS is rarely about the checkout experience. It is about granularity, latency, and completeness. Does the system report at item and location level or only in aggregate. Does inventory update in near real time or overnight, which decides whether the store can be trusted as a fulfillment location during trading hours. Does it capture damages, transfers, and returns with the same discipline as sales.

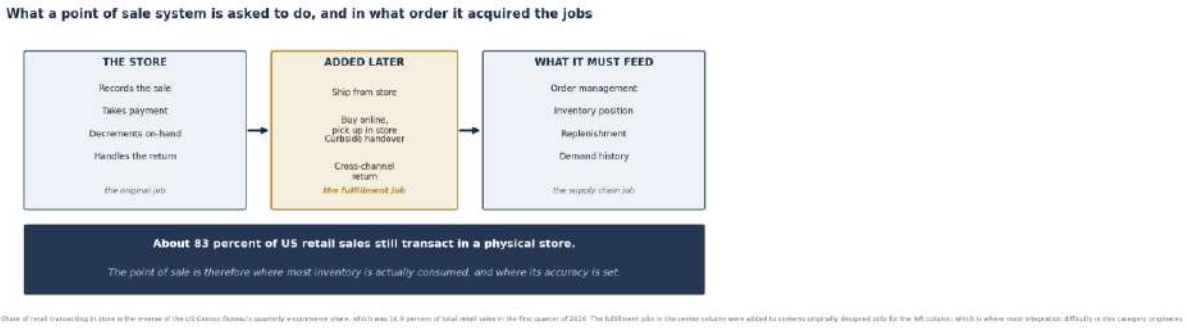

Figure 1. The point of sale acquired its jobs in sequence. It was designed for the left column, was later asked to perform the center column, and has always been expected to feed the right column. Most integration difficulty in this category originates in that history.

04 What changes when the store becomes a fulfillment node?

Ship-from-store, collection, and curbside handover invert an assumption built into most point of sale systems. The original design records a transaction beginning and ending at the register. Store fulfillment requires the system to accept an order line it did not originate, reserve stock against it, issue a pick task, stage the goods, and complete a handover that may involve no payment at all because the customer already paid online.

Three requirements follow, worth testing directly rather than accepting on a feature list. The store must expose accurate, near real time inventory to the order management system, because promising stock the store cannot find turns a service improvement into a cancellation. It needs a task interface workable on the floor rather than at the register. And returns must resolve across channels, so an item bought online and returned in store credits correctly and re-enters available inventory at the right location.

The fair case for treating this as a smaller problem is that many retailers run store fulfillment successfully with modest tooling, using a tablet application alongside an older point of sale. That holds where fulfillment is a small share of store activity. It stops holding once associates spend a meaningful part of a shift picking, because the task and inventory integration then carry real labor cost.

05 What does unified commerce actually require?

Unified commerce is a marketing term before a technical one, and no standards body defines it, so buyers should treat vendor use of it as a claim to test rather than a category. The distinction worth holding is between coordination and consolidation. Omnichannel generally means channels coordinated but retaining separate systems of record. Unified commerce means one record of inventory, one of the customer, and one of the order, wherever the transaction happened.

The useful test is which single system holds each record, and what happens when they disagree. If store inventory lives in the point of sale, online inventory in the e-commerce platform, and a reconciliation job runs between them, the deployment is coordinated rather than unified, whatever the proposal calls it. That is not wrong, since reconciliation is cheaper than replacement and works at moderate volume, but it should be a decision rather than a discovery made after signature.

06 How should I evaluate a POS system?

Five dimensions separate products here more reliably than feature counts. Offline resilience comes first: the store must keep trading when the network drops, so ask what degrades, for how long, and how transactions reconcile afterward. Payment compliance comes second, and it is a dated obligation rather than a preference. Of the 64 new requirements in PCI DSS version 4.0, 51 were future dated and became mandatory on 31 March 2025, with no grace period. Point-to-point encryption and tokenization reduce the number of systems in scope.

The remaining three are inventory integration, fulfillment task support, and commercial scope. For inventory, test granularity and latency against the fulfillment promises the business intends to make. For fulfillment, test the associate workflow on a device, on a floor, at volume, not in a demonstration environment. For commercial scope, establish which components in Table 1 are included and whether payment processing economics sit inside or outside the software agreement, because that boundary often moves multi-year cost more than the software price does.

07 Frequently asked questions

Is a POS system the same as an order management system?

No. The point of sale captures and completes a transaction at a location. An order management system decides where an order is served from across the network and tracks it to completion. They overlap when a store fulfills an online order, which is why the integration between them needs specifying rather than assuming.

Do we need a new POS to offer buy online, pick up in store?

Not always. Many retailers add collection using a separate task application alongside an existing point of sale. Replacement becomes justified when store inventory accuracy or update latency is the binding constraint, because a collection promise the store cannot reliably keep damages more than it earns.

Cloud or on-premise for store systems?

The deciding question is trading continuity, not hosting preference. Cloud deployments are common, but a store must keep selling through a connectivity outage, so what matters is local resilience design and reconciliation behavior afterward. Ask for the degraded-mode specification in writing.

Who is responsible for PCI compliance, us or the vendor?

Responsibility is shared and depends on architecture. Outsourcing card handling to a payment provider reduces scope but does not remove obligation, and merchants remain accountable for their own validation. Tokenization and point-to-point encryption cut the number of in-scope systems, the lever most retailers use.

How does POS data reach demand planning?

Through sales history at item and location level, usually aggregated daily. The quality issue is rarely the sales record but the treatment of returns, markdowns, promotions, and shrink, because a forecast trained on uncorrected history reproduces those distortions rather than underlying demand.

Does POS matter for a retailer that is mostly online?

Less as a payment system, more as an inventory node. If stores hold stock that the online channel can sell or that customers can collect, the point of sale governs whether that inventory is trustworthy. A retailer with no stock-holding stores can reasonably treat this category as out of scope.

How long does a POS replacement take?

Long enough that it is usually the pace of store rollout, not software configuration, that sets the schedule. Chains typically pilot in a small number of stores across formats before wider deployment. SCR does not publish a benchmark duration here because credible public data on this specific category does not exist.

08 Method, sources, and where to go deeper

Method

- Retail channel shares are taken from the US Census Bureau quarterly retail e-commerce release, a government statistical source. The in-store share used throughout is the arithmetic inverse of the published e-commerce share.
- Payment compliance dates and requirement counts are taken from the PCI Security Standards Council, the body that publishes the standard.
- Supply Chain Research is independent and vendor-neutral. We accept no payment from the vendors or categories covered, and we name no single best product in this category.

Caveats

- The Census e-commerce series was rebased in April 2025 to exclude nonemployer businesses, which restated the first quarter of 2025 from 16.2 percent to 16.0 percent. Comparisons across that boundary are not like for like, and part of any apparent acceleration is a benchmark artifact rather than a demand signal.
- Census e-commerce figures cover the United States only and measure where an order is placed, not where it is fulfilled. A store-fulfilled online order counts as e-commerce even though the inventory moves through a store.
- Unified commerce has no standardized definition, so the distinction drawn in section 05 is SCR's own framing rather than an industry standard. Table 1 is a structural decomposition, not a market segmentation.

Where to go deeper

Point of sale sits alongside two categories SCR covers at length. The order management guide addresses how an order is routed and served across locations, which is the system the store must integrate with once it becomes a fulfillment node. The retail planning guide addresses how sales history becomes forecast and replenishment, which is what the point of sale ultimately feeds. Readers scoping a wider program should start with the SCR supply chain software category map.

Sources

[1] US Census Bureau. Quarterly retail e-commerce sales. Government statistical source.

[2] US Census Bureau. Quarterly retail e-commerce sales, current release (CB26-81, 18 May 2026). First quarter 2026: e-commerce 16.9 percent of total retail sales.

[3] Federal Reserve Bank of St. Louis. E-commerce retail sales as a percent of total sales, series ECOMPCTSA. Republishes the Census series.

[4] PCI Security Standards Council. Now is the time to adopt the future-dated requirements of PCI DSS v4.x. 51 of 64 new requirements effective 31 March 2025.

[5] PCI Security Standards Council. Countdown to PCI DSS v4.0: transition dates and deadlines.

[6] PCI Security Standards Council. Guidance for PCI DSS e-commerce requirements effective after 31 March 2025.

[7] Association for Supply Chain Management. SCOR Digital Standard, used for the layer placement of point of sale within the order process.

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