

The Retailers' Integrations Playbook

How modern retailers connect systems, elevate CX, and unlock growth.



Why Integrations Matter Now More Than Ever

Modern retail runs on hundreds of apps, including e-commerce, POS, ERP, WMS, loyalty, marketing automation, finance, support...the list keeps growing. And it isn't slowing down. [Salesforce research shows](#) organisations now use over 1,000 applications, increasing by roughly 10% each year. Yet most of these systems still operate as silos, leading to duplicated effort, delays, and inconsistent customer experiences across channels. In fact, only 29% of apps are integrated at all, and surprise-surprise 80% of IT leaders say integration challenges are slowing digital transformation.

This playbook is our answer to that reality. As integration specialists, the SenseMaker team at MakeSense put this guide together to help retailers get on top of the escalating complexity and unlock the benefits that professional, API-led integrations deliver. We've seen first-hand how a unified integration layer can reduce time-to-change, improve service resolution, and lift conversion and loyalty, without tearing out the systems you already rely on.

What you'll find inside is practical and outcomes-focused. We outline the API-led approach (System, Process, and Experience APIs), the integration patterns that consistently move the needle, including Customer 360, real-time inventory and order orchestration, unified loyalty and promotions, returns and service automation, and scalable self-service, and a phased delivery plan you can start executing immediately. We also show how to modernise legacy platforms without disruption using a "wrap and extend" strategy, so you can move fast without risking day-to-day operations.

Finally, we ground it all in the real world. You'll see how retailers like T2 and Nikon turned integration into a strategic advantage: from unified customer experiences and omnichannel agility to zero-downtime legacy migrations under tight deadlines. If you're tasked with improving CX, reducing cost-to-serve, or accelerating digital initiatives, this playbook will help you focus on the few integration moves that matter most and ship value quickly.

[Source - Salesforce, Connectivity Report](#)



The API-led backbone for Retail

What “API-led” means in plain English

Think of APIs as standard plugs and sockets between systems. Rather than custom wiring each time, you set up three simple layers that the whole business can reuse.

The Three Layers

System APIs

Provide safe, standard access to your core systems (e.g., products, stock, orders, customers). Like labelled shelves in a storeroom: you know exactly where to get things.

Process APIs

Apply business rules that combine information (e.g., “Where is the nearest stock to fulfil this order?” “Is this customer eligible for this offer?”). This is like your store playbook, which tells staff what to do in each scenario.

Experience APIs

Shape information for each channel or team (web, app, store, tablet, partner portal, contact centre). Like different storefronts showing the same products correctly for each audience.

This structure stops one-off integrations from multiplying and gives you building blocks that can be used again and again.

How does this show up day-to-day?

Click & Collect that keeps its promise

Your website checks real-time store stock, reserves the item, and pings the right store so customers pick up when expected and staff see tasks on their devices.

Promotions and loyalty that match everywhere

The same rules apply online and in-store, so customers see one price, one balance, and one set of perks, no more “it worked online but not at the till.”

Customer service with full context

Agents see orders, returns, preferences, and issues in one place, so they resolve queries quickly without transferring or guessing.



Why leaders choose this model

- **Faster change:** New initiatives assemble existing blocks in weeks, not months.
- **Consistent CX:** One set of rules across every channel.
- **Lower risk:** Clear contracts between systems reduce outages and rework.
- **Better ROI:** Each API becomes an asset that's reused across projects.

What to do first

1. Pick 1–2 high-value journeys (e.g., Click & Collect, returns, Customer 360 for service).
2. Stand up the basics: a small catalogue of System APIs (ERP/stock, orders, customers).
3. Add a Process API for a core rule (availability/ATP or order routing).
4. Expose an Experience API to the channel that needs it most (web checkout or agent desktop).
5. Measure impact and iterate.

Measures that should move

- Promise accuracy for Click & Collect/delivery
- Conversion rate and order cancellation rate
- Self-service completion and case deflection
- Average handling time (AHT) and first-contact resolution (FCR)
- Repeat purchase and loyalty engagement
- Time-to-launch for new offers/flows

Pitfalls to avoid

- Custom one-offs that can't be reused
- Rules hidden in channels (leads to inconsistent pricing or loyalty)
- Exposing raw system quirks to other teams (creates confusion and errors)
- Everything synchronous - mix in events/notifications so systems don't block each other



→ Bottom line

API-led connectivity turns integration into a repeatable capability. Your teams move faster, customers get a smoother experience, and every new project starts further ahead.

Retail integration patterns (with quick wins)

These are the repeatable plays that move the dial fastest in retail. Each pattern has been proven across multiple brands and channels, and crucially, doesn't require ripping out core systems. Think of them as modular upgrades you can layer onto your current stack to improve promise accuracy, conversion, and cost-to-serve within a single quarter.

How to choose where to start

Pick one or two patterns that (1) touch a high-traffic journey, (2) rely on systems you already have, and (3) are easy to measure. Good first bets are Customer 360 for your service team and real-time availability (ATP) for checkout and Click & Collect. Both surface immediate value to customers and staff, and they build APIs you can reuse in marketing, stores, and partner channels.

What “quick win” really means

A focused slice delivered in 4–8 weeks: a handful of System APIs, one Process API for the business logic, and a single Experience API for the channel that benefits most. You'll instrument 2–3 KPIs (e.g., promise accuracy, case deflection, conversion), launch to a subset of users or stores, and expand once the numbers move.

Risk-aware by design

Every pattern follows a design-first contract, security by default, and a clear rollback path. That keeps day-to-day trading safe while you modernise behind the scenes.

Now onto the quick wins!



Quick Wins

Customer 360 & unified identity

Challenge

Customer data is scattered across CRM, ecommerce, POS, marketing, support, and billing, creating fragmented profiles.

Solution

Use System APIs to standardise access to each source, a Process API to resolve identities and merge profiles, and an Experience API to serve a single, trusted view to sales, service, and marketing tools.

Outcomes

- Personalised offers and content based on real behaviour
- Faster service with full context (orders, returns, preferences)
- Higher repeat purchase and CLV

88% of customers say they're more likely to buy again after a positive service experience; organisations report a 360° view reduces costs and drives sales.

Modernising Legacy Systems Without Disruption

Challenge

Critical data lives in legacy platforms not built for today's digital demands. Full replacement is risky, slow, and expensive; leaving them isolated stalls innovation, drives maintenance costs, and blocks cloud/app integrations.

Solution

Use MuleSoft to wrap and extend legacy systems. Expose mainframes, older ERPs, and bespoke databases via System APIs; orchestrate processes with Process APIs; surface capabilities to modern channels with Experience APIs. This modernises access without disrupting day-to-day operations.

Outcomes

- Faster delivery by reusing legacy capabilities safely through APIs
- Lower risk and cost versus rip-and-replace; fewer outages and rollbacks
- Immediate connectivity with cloud apps while planning phased modernisation

McKinsey reports modernisation programs drive 20–30% gains in IT productivity, 30–40% higher employee motivation, and 40–60% faster time-to-market.

Quick Wins

Real-time inventory & order orchestration

Challenge

Stock visibility is delayed; orders route inefficiently; Click & Collect promises break.

Solution

Use System APIs to expose ERP/WMS/POS inventory; a single Process API aggregates availability (ATP) and applies routing/reservation rules (ship-from-store, split, reserve-on-scan); Experience APIs feed PDP, cart, and store-associate apps with accurate, fast responses.

Outcomes

- Fewer stockouts and cancellations
- Higher conversion and promise accuracy for C&C/delivery
- Faster fulfilment and lower shipping costs through optimal routing

Retailers consistently see conversion lift when real-time availability is shown at checkout, and cancel rates drop when ATP powers order decisions.

Omnichannel promotions & loyalty

Challenge

Promo eligibility and loyalty balances are inconsistent across channels, confusing customers and teams.

Solution

Connect CRM/loyalty engines via System APIs. A Process API standardises promotion rules and loyalty earn/burn. Experience APIs surface consistent offers and balances for POS, e-commerce, and service.

Outcomes

- Consistent pricing, offers, and benefits everywhere
- Higher redemption and increased average order value (AOV)
- Fewer promo-related service contacts and refunds

Centralising rules in one service produces a measurable uplift in redemption and reduces disputes caused by channel inconsistencies.

Quick Wins

Returns & service automation

Challenge

Disconnected RMA steps create manual effort, slow refunds, and poor customer experiences.

Solution

Link ecommerce, WMS, finance, and carriers via System APIs; a Process API orchestrates the RMA lifecycle (authorise > ship > receive > inspect > refund) and emits status events; an Experience API exposes self-service returns and a full agent view.

Outcomes

- Faster refunds and clearer status for customers
- Lower cost-to-serve through self-initiated returns
- Improved CSAT/NPS from transparent, predictable journeys

Automating returns and surfacing status in self-service cuts “where is my refund?” contacts and shortens turnaround times.

Unified digital self-service

Challenge

Portals can't reach all the data and processes behind the scenes, so users abandon tasks or flood support.

Solution

Use Experience APIs to power a single portal/app; Process APIs assemble orders, deliveries, invoices, returns, and support cases in real time; System APIs connect the underlying systems securely.

Outcomes

- Higher task completion and ticket deflection
- Shorter handling times and better first-contact resolution
- Higher satisfaction and loyalty through control and transparency

Most customers attempt self-service before contacting support; effective, integrated portals reduce support demand while improving experience.

The Retail Integration Blueprint

(what “good” looks like)

A high-performing retail integration landscape has four building blocks that fit together. Think of this as the store blueprint for your digital estate: simple, reusable, and easy to explain to your board.



Channels

Web, mobile app, in-store tablets, partner/wholesale portals, and the contact centre. Every channel should draw from the same facts so customers get one story everywhere.



Experience APIs

These are tailored “menus” for each channel, including Customer 360, Orders, Inventory, Loyalty, Promotions, and Returns, so teams see exactly what they need, in the format they need it. No hunting across systems.



Process APIs

Your business rules in one place: identity resolution, order orchestration, available-to-promise (ATP), pricing & promotions, returns (RMA), notifications. Centralising rules stops inconsistent behaviour across web vs. POS and speeds up change.



System APIs

Clean, secure access to core systems: ERP (orders, items, stock), POS, WMS/3PL, ecommerce, PIM, CRM, marketing, payments, loyalty. These hide system quirks and provide a stable foundation for everything above.

→ How this helps leaders

You remove duplication, centralise rules once, and unlock faster change because teams compose from proven parts rather than inventing from scratch.

Deliver value fast: a pragmatic 90-day plan (and what follows)

Days 0–30: Foundations you can see

- Stand up the platform basics (access control, gateway, logging/monitoring).
- Agree on the first two use cases (e.g., Click & Collect promise accuracy and Service Customer 360).
- Deliver 3–4 System APIs (ERP/stock, orders, customers, ecommerce).
- Launch an Agent Desktop (Customer 360) experience with real orders/returns context.

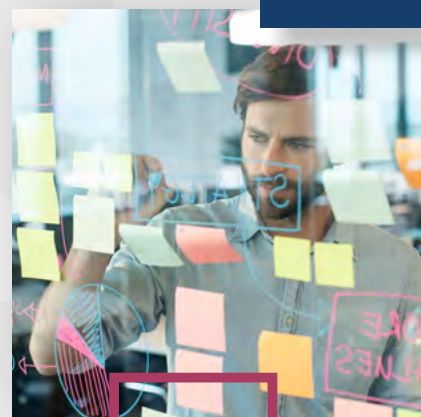
Days 31–90: Omnichannel core

- Ship Availability (ATP) and Order Orchestration as Process APIs; connect to web checkout and store tablets.
- Unify promotions & loyalty rules so online and POS behave the same.
- Switch on self-service for order status, invoices, and returns.
- Put KPIs and alerts on a shared dashboard; rehearse incident playbooks.
- Launch an Agent Desktop (Customer 360) experience with real orders/returns context.

After 90 days: Scale with confidence

- Add returns automation, proactive notifications, and event streaming.
- Extend Customer 360 to marketing personalisation and journeys.
- Open selected APIs to partners/marketplaces; productise and govern reuse.
- Formalise an API catalogue and review guild to keep quality high without slowing delivery.

What you get: visible wins in service and conversion, fewer cancellations, and a platform that supports the next 10 initiatives, not just this quarter's project.



Measure what matters (and why it moves)



Promise accuracy (C&C/delivery)

Better stock signals and orchestration reduce broken promises and cancellations.



Conversion rate & cancel rat

Real-time availability and consistent promos lift conversion and cut "out-of-stock at checkout.



Case deflection & self-service completion

Surfacing orders/invoices/returns in one place lowers cost-to-serve.



AHT & first-contact resolution

Agents resolve faster with full context; fewer transfers.



Repeat purchase & loyalty engagement

Personalised follow-ups and consistent earn/burn increase CLV.



Time-to-launch

Reuse of APIs turns new ideas into live experiences in weeks.

→ Make these targets part of quarterly goals and review them weekly using the same dashboard used by product, ops, and IT.

T2 - Customer 360 & Omnichannel Agility (from silos to a single conversation with the customer)

Starting point

Data was scattered across e-commerce, POS, ERP, loyalty, and fulfilment. Customers moved between online and stores, but the systems didn't. Staff lacked context, loyalty balances lagged, and Click & Collect promises occasionally broke under stock uncertainty.

Objectives

- Give every team the same, up-to-date view of the customer (orders, preferences, loyalty).
- Improve promise accuracy for C&C and delivery, and reduce cancellations.
- Enable personalised follow-ups without manual exports or guesswork.

Integration scope

- Salesforce Commerce Cloud, POS, ERP, loyalty platform, fulfilment/3PL, and Salesforce Marketing Cloud.
- System APIs standardised access to orders, inventory, customers, and loyalty.
- Process APIs handled identity resolution, availability (ATP), order orchestration, and loyalty earn/burn.
- Experience APIs powered web checkout, store-associate tablets, and service agent desktop.

What changed (MakeSense + MuleSoft)

- **Real-time profiles:** Every purchase (online/in-store) updated the single view immediately; loyalty balances were recalculated on the spot.
- **Reliable availability:** Store-level and warehouse stock were composed into an accurate ATP signal for PDP/checkout and store tasks.
- **C&C that keeps its promise:** Orders were routed to the optimal store; associates received pick tasks and status updates automatically.
- **Personalised journeys:** Behavioural triggers from Process APIs fed Marketing Cloud for timely, relevant follow-ups.

Operational improvements

- Store staff gained visibility into online orders and loyalty context, enabling boutique-level service at scale.
- Contact-centre agents handled queries faster with full order and return history in one place.
- Reusable APIs shortened the time to launch new offers and campaigns.

Outcomes

- Double-digit online sales growth and a sharp rise in repeat purchases.
- Higher C&C promises accuracy and fewer order cancellations.
- Faster resolution times and improved customer satisfaction scores.

Leadership takeaway

The win wasn't "integration for integration's sake." It was a consistent conversation with the customer across channels, all powered by a backbone the business can reuse for the next initiative.



→ [To learn more about the T2 Transformation, you can read the full case study here.](#)

Nikon - Seamless Legacy Migration Under Deadline (modernisation without business disruption)

Starting point

Legacy middleware (Jitterbit) had become unstable and hard to maintain. Integrations were undocumented, behaviours varied by flow, and peak-season trading meant any outage would be costly and visible. A full migration to MuleSoft had to be delivered in six weeks over the Australian holiday period with zero downtime.

Objectives

- Stabilise mission-critical integrations across finance, logistics, ecommerce, and support.
- Move to a modern, scalable, API-led platform without disrupting daily operations.
- Establish clear contracts, monitoring, and a path for faster future change.

Integration scope

- Reverse-engineered all active Jitterbit flows and dependencies.
- Introduced System APIs to standardise access to ERP, ecommerce, logistics, and support systems.
- Added Process APIs for order, fulfilment, and data sync orchestration.
- Implemented dashboards, alerting, and runbooks for peak trading.

What changed (MakeSense + MuleSoft)

- **API-led redesign:** Replaced brittle point-to-point logic with versioned contracts and reusable services.
- **Cutover playbook:** Blue/green deployments, canary releases, and rehearsed rollback checkpoints ensured safe switchover.
- **Operational readiness:** End-to-end validation, live monitoring, and on-call support throughout the holiday window.

Operational improvements

- Clear ownership and visibility across teams via contracts and dashboards.
- Reduced maintenance burden; changes shipped predictably with lower risk.
- Foundation in place for new integrations without rework.

Outcomes

- Zero downtime during migration, orders processed, finance reconciled, and customer support uninterrupted.
- Improved stability and maintainability, with faster time to deliver new integrations.
- A future-ready integration layer that supports growth and reduces risk.

Leadership takeaway

Modernising legacy isn't about ripping and replacing core systems. With the right approach, you wrap and extend, migrate safely, and gain agility immediately.



→ [To learn more about the Nikon migration, you can read the full case study here.](#)

Why MakeSense (and why now)

The use cases in this playbook make one thing clear: integration is no longer just a technical necessity; it's a strategic enabler of agility, customer experience, and competitive advantage. But turning that potential into results takes more than software. It takes the right expertise, approach, and partner. That's where MakeSense comes in.

As one of the leading MuleSoft consulting partners in the Asia-Pacific region, we've helped enterprises large and small solve complex integration challenges from unifying legacy systems to launching partner-facing APIs. Our focus is on practical outcomes and scalable architectures that keep delivering long after go-live.

Wherever you are in your journey, MakeSense meets you there:

Starting from scratch?

We define your integration roadmap, establish best practices, and stand up the platform right the first time.

Struggling with silos?

We design API architectures that connect the dots across cloud, on-prem, and legacy systems.

Already using MuleSoft?

We accelerate time-to-value with reusable frameworks, governance models, and hands-on enablement.

Our strength isn't just technical delivery; it's aligning integration to measurable business outcomes like faster onboarding, lower cost-to-serve, higher conversion, and improved retention. With a certified team, a proven delivery methodology, and cross-industry expertise, MakeSense has earned its reputation as the go-to partner for organisations that want more than middleware; they want momentum.

Whether you're modernising, scaling, or transforming, let's Make Sense (we had to!) of it all and turn integration into innovation.



Ready to unlock the full value of MuleSoft?

Let's Talk