

✦ BLUEPRINT · COMMERCE AI

Commerce AI Blueprint

Search and recommendations, catalog enrichment, inventory forecasting, dealer and B2B ordering, and AI-assisted support for retailers, brands and marketplaces.

FORMAT	LEVEL	READ TIME	UPDATED
Blueprint	Intermediate	18 min	Mar 2026

OVERVIEW

What this blueprint covers

Commerce AI is won or lost on product data. Search cannot find what the catalog does not describe, recommendations cannot help when inventory is wrong, and a support assistant cannot answer without order context. This blueprint lays out the use cases that matter for D2C brands, marketplaces and B2B distributors, a layered architecture centered on clean product and order data, the compliance rules to respect, an ROI framework and a phased plan.

KEY TAKEAWAYS

- Fix catalog data first; AI enrichment makes it fast, but humans approve what customers see.
- Hybrid search with business-aware ranking beats either keyword or vector search alone.
- Forecasts are useful only when they feed a replenishment decision someone owns.
- B2B buyers want speed and accuracy: reorder, quote and order status through any channel.
- Measure every change with controlled experiments, not before-and-after comparisons.

WHO IT'S FOR

- Heads of e-commerce and digital
- Marketplace and D2C founders
- B2B distribution and dealer network leaders
- Product, data and engineering teams

HOW TO USE IT

Use sections 01–02 to scope and agree the architecture, 03 for compliance, then 04–06 for the business case, delivery plan and launch checklist.

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01 / USE CASES

High-value use cases

Five areas cover most of the value. They share the same product, customer and order data, so building one makes the next cheaper.

DISCOVERY

Search and recommendations

Understands natural queries, typos and synonyms, and ranks by relevance, availability and margin rules.

CATALOG

Catalog enrichment

Extracts attributes from supplier sheets and images, writes descriptions and normalizes categories for review.

SUPPLY

Inventory forecasting

Forecasts demand by item and location and proposes replenishment quantities for planners.

B2B

Dealer and B2B ordering

Lets dealers reorder, check prices and stock, and request quotes through portals or messaging.

SERVICE

Support assistant

Answers order, delivery, return and product questions with live order data, escalating exceptions.

OPS

Seller and merchandiser tools

Drafts listings, flags pricing anomalies and summarizes reviews for merchandisers.

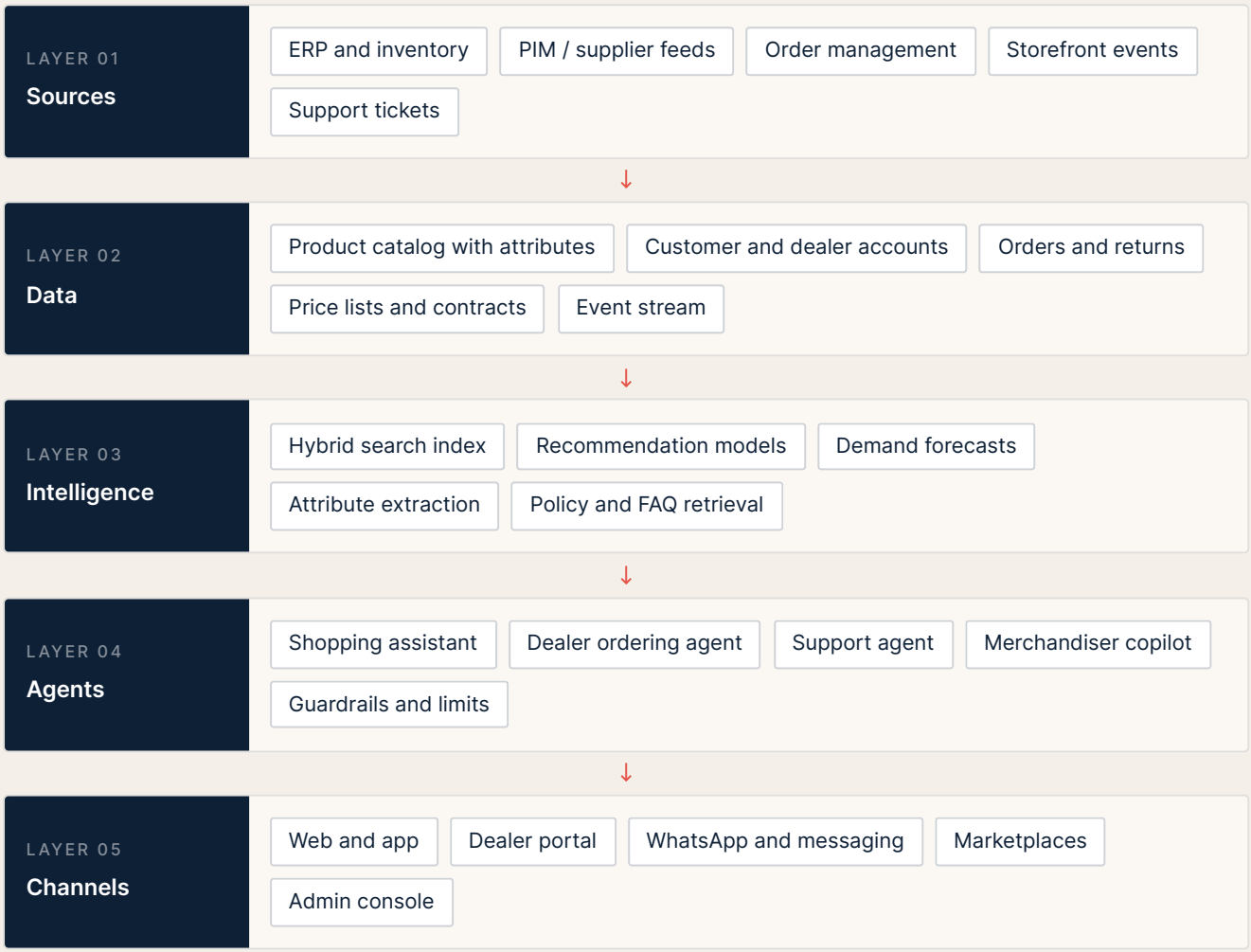
Where to start

USE CASE	DATA NEEDED	TIME TO VALUE	DEPENDENCY
Catalog enrichment	Product feeds, images	Short	None — often the first step
Search	Clean catalog, query logs	Short to medium	Catalog attributes
Support assistant	Orders, policies, FAQs	Short to medium	Order system APIs
Recommendations	Behavior and order history	Medium	Event tracking
Forecasting	Sales history, stock, promotions	Medium to long	Clean inventory data

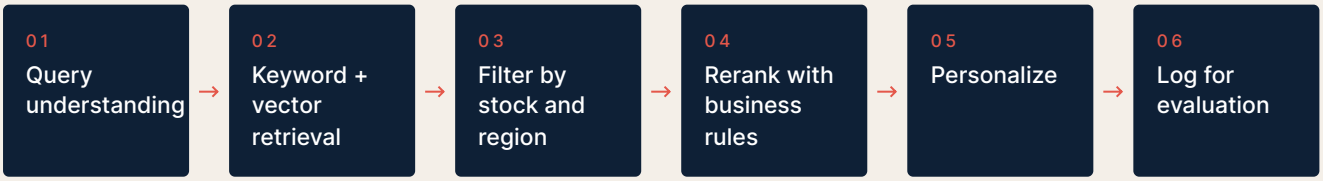
02 / ARCHITECTURE

Reference architecture

Product and order data sit at the center. AI services read from them through well-defined APIs and write back only through review or business rules.



Search request



AGENT WITH FREE REIN
Can promise prices or discounts
Places orders without confirmation
Invents delivery dates
No audit of actions taken

AGENT WITH GUARDRAILS
Prices only from the price service
Orders confirmed by the buyer
Dates from the logistics system
Every action logged and reversible

03 / COMPLIANCE

Data and compliance considerations

Commerce AI touches personal data, payments and consumer protection. These rules shape what the system may collect and how it may persuade.

AREA	RULES TO CONSIDER	DESIGN IMPLICATIONS
Personal data	India's DPDP Act 2023; GDPR; US state laws such as the CCPA / CPRA	Notice and consent for personalization, purpose limits, deletion on request
Payments	PCI DSS	Tokenized payments through a compliant gateway; no card data in prompts or logs
Marketplaces (India)	Consumer Protection (E-Commerce) Rules 2020	Seller and product disclosures, return and grievance mechanisms
Persuasion design	India's Guidelines for Prevention and Regulation of Dark Patterns, 2023	No false urgency, drip pricing or forced action in AI-driven journeys

- Label sponsored placements and keep paid ranking separate from relevance ranking.
- Generated product content must be accurate to the specification; never let AI invent claims, certifications or ingredients.
- B2B price lists and contract terms are confidential per account — enforce account scoping in retrieval and agents.

✦ 04 / BUSINESS CASE

An ROI model framework

Commerce has good instrumentation, so ROI can be measured directly. Estimate from your own funnel data, then confirm each driver with an A/B test.

DRIVER	FORMULA	HOW TO VALIDATE
Search conversion	Search sessions × change in conversion × average order value × margin	A/B test against current search
Recommendation revenue	Sessions with recommendations × incremental items per order × margin	Holdout group without recommendations
Catalog throughput	SKUs per month × minutes saved per listing × staff cost	Time per listing before and after
Inventory cost	Change in stockouts × lost margin + change in excess stock × holding cost	Forecast accuracy versus current method
Support deflection	Contacts per month × share resolved × cost per contact	Resolution and re-contact rates

Net value = sum of validated drivers − (build + model and infrastructure usage + review effort + support). Watch for cannibalization: a recommendation that shifts a sale from one product to another is not new revenue.

✦ 05 / DELIVERY

A phased implementation plan

Sequence the work so that each phase cleans data the next one depends on.

01 **Catalog foundation**

Define the attribute model per category, enrich existing SKUs with AI, and route changes through merchandiser review.

02 **Search and support**

Launch hybrid search and an order-aware support assistant, both with evaluation sets built from real queries.

03 **Personalization**

Add event tracking and recommendations, measured against a holdout.

04 **B2B and dealer channel**

Expose account-scoped ordering, quoting and order status through the portal and messaging.

05 **Forecasting and replenishment**

Forecast demand and propose orders for planners to approve, then automate low-risk lines.

BloomCommerce, our commerce platform for marketplace, B2B and D2C models, follows this order: a structured catalog first, then search, assistants and dealer ordering built on the same product and order services.

✦ 06 / RISKS

Pitfalls and launch checklist

Commerce AI mistakes are public and expensive. Plan for these before launch.

01

AI over bad data

Search and recommendations amplify catalog gaps; enrich and validate attributes first.

02

Unbounded agents

Assistants that can quote prices or confirm orders need hard limits and confirmations.

03

Forecasts nobody uses

Without an owner and a replenishment workflow, a forecast is only a chart.

04

Vanity metrics

Click-through can rise while margin falls; measure revenue and margin per session.

DATA

- [ ] Attribute model defined per category

- [ ] AI-generated content reviewed before publishing
- [ ] Stock and price read live, never cached in prompts

EXPERIENCE

- [ ] Search evaluated on real query logs
- [ ] Agents confirm orders and cite policies
- [ ] Sponsored results clearly labeled

OPERATIONS

- [ ] A/B testing in place for every ranking change
- [ ] Agent actions logged and reversible
- [ ] Cost per session monitored

✦ GET IN TOUCH

Let's Talk

We build commerce AI for retailers, brands, marketplaces and distributors — catalog enrichment, search, assistants, dealer ordering and forecasting on one data foundation.

- ✦ A catalog and data readiness review
- ✦ Architecture for your channels and systems
- ✦ An experiment plan to prove ROI
- ✦ A phased roadmap from catalog to forecasting

BOOK AN AI STRATEGY SESSION →

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