

1 ONDC's report-card at mid-2025

Indicator	Jun 2024	Mar 2025	Comment
Cumulative transactions	10 cr	20.4 cr	doubled in nine months (retail.economictimes.indiatimes.com (https://retail.economictimes.indiatimes.com/news/e-commerce/e-tailing/ondc-crosses-20-4-cr-transactions-in-march-2025/120308007))
Monthly retail orders	65 lakh (Oct '24)	46 lakh (Feb '25)	–29 %; incentives withdrawn (finshots.in (https://finshots.in/archive/has-the-ondc-experiment-failed-nrai-rapido-t-koshy-swiggy-zomato-food-delivery/)), economictimes.indiatimes.com (https://economictimes.indiatimes.com/tech/technology/ekart-goes-live-on-ondc-network-for-ecommerce-logistics/articleshow/121599651.cms))
Share of mobility in total txns	40 %	56 %	ride-hailing is the growth engine (finshots.in (https://finshots.in/archive/has-the-ondc-experiment-failed-nrai-rapido-t-koshy-swiggy-zomato-food-delivery/)), policycircle.org (https://www.policycircle.org/industry/ondc-faces-growth-pangs-e-commerce/))
Sellers onboarded	≈ 7 lakh	7.6 lakh	80 % are MSMEs (retail.economictimes.indiatimes.com (https://retail.economictimes.indiatimes.com/news/e-commerce/e-tailing/ondc-crosses-20-4-cr-transactions-in-march-2025/120308007)), policycircle.org (https://www.policycircle.org/industry/ondc-faces-growth-pangs-e-commerce/))
Buyer apps	9	22	still patchy UI consistency (policycircle.org (https://www.policycircle.org/industry/ondc-faces-growth-pangs-e-commerce/)), pankajuk.medium.com (https://pankajuk.medium.com/is-open-network-for-digital-commerce-ondc-showing-signs-of-fatigue-e148d2062062))
Market share vs Amazon + Flipkart	—	≈ 4.3 %	negligible dent so far (policycircle.org (https://www.policycircle.org/industry/ondc-faces-growth-pangs-e-commerce/))

Strengths

- Proven “network plumbing” across >1 200 cities, multi-sector reach (food, mobility, logistics, now mutual funds) ([policycircle.org \(https://www.policycircle.org/industry/ondc-faces-growth-pangs-e-commerce/\)](https://www.policycircle.org/industry/ondc-faces-growth-pangs-e-commerce/)), [livemint.com \(https://www.livemint.com/money/personal-finance/fintechs-ondc-low-cost-mutual-fund-sip-11749357156085.html\)](https://www.livemint.com/money/personal-finance/fintechs-ondc-low-cost-mutual-fund-sip-11749357156085.html))
- Magnet for important rails: Ekart, Ola, Namma Yatri, Axis MF etc. ([economictimes.indiatimes.com \(https://economictimes.indiatimes.com/tech/technology/ekart-goes-live-on-ondc-network-for-ecommerce-logistics/articleshow/121599651.cms\)](https://economictimes.indiatimes.com/tech/technology/ekart-goes-live-on-ondc-network-for-ecommerce-logistics/articleshow/121599651.cms)), [livemint.com \(https://www.livemint.com/money/personal-finance/fintechs-ondc-low-cost-mutual-fund-sip-11749357156085.html\)](https://www.livemint.com/money/personal-finance/fintechs-ondc-low-cost-mutual-fund-sip-11749357156085.html))
- Governmental legitimacy and open-protocol DNA.

Chronic pain-points

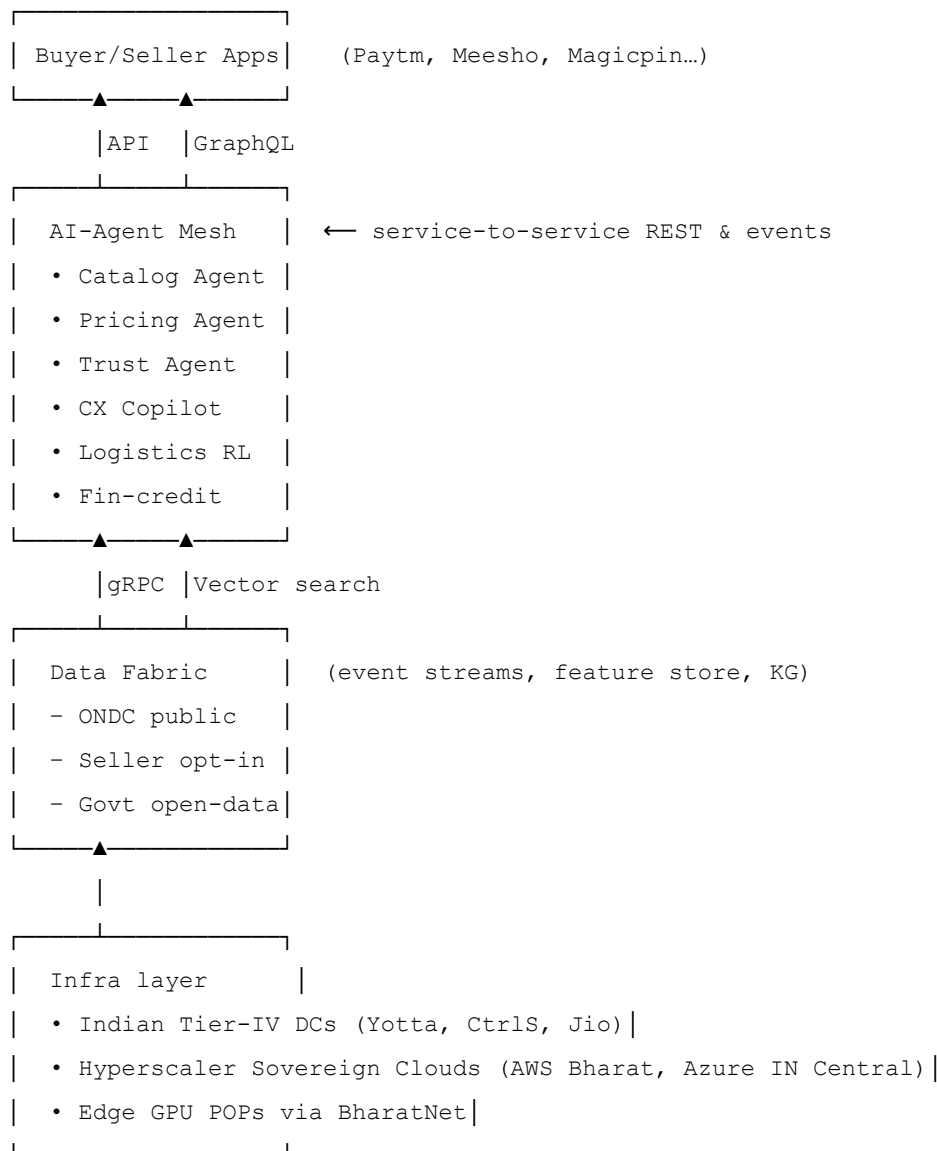
1. **Consumer experience** – 54 % users find the journey “cumbersome”; fragmented support and high failure/return rates. ([pankajuk.medium.com \(https://pankajuk.medium.com/is-open-network-for-digital-commerce-ondc-showing-signs-of-fatigue-e148d2062062\)\)](https://pankajuk.medium.com/is-open-network-for-digital-commerce-ondc-showing-signs-of-fatigue-e148d2062062))
 2. **Seller fatigue** – low discoverability without paid ads, complex multi-app ops, dwindling subsidies. ([pankajuk.medium.com \(https://pankajuk.medium.com/is-open-network-for-digital-commerce-ondc-showing-signs-of-fatigue-e148d2062062\)\)](https://pankajuk.medium.com/is-open-network-for-digital-commerce-ondc-showing-signs-of-fatigue-e148d2062062))
 3. **Leadership churn + strategy drift** – three C-suite exits in six months; unclear north-star metrics. ([pankajuk.medium.com \(https://pankajuk.medium.com/is-open-network-for-digital-commerce-ondc-showing-signs-of-fatigue-e148d2062062\)\)](https://pankajuk.medium.com/is-open-network-for-digital-commerce-ondc-showing-signs-of-fatigue-e148d2062062))
 4. **Network effects stalled** – no “cash-back moment” equivalent to UPI; retail volumes retreating. ([finshots.in \(https://finshots.in/archive/has-the-ondc-experiment-failed-nrai-rapido-t-koshy-swiggy-zomato-food-delivery/\)](https://finshots.in/archive/has-the-ondc-experiment-failed-nrai-rapido-t-koshy-swiggy-zomato-food-delivery/))
-

2 Why AI agents & open-source LLMs are the missing flywheel

Pain-point	How an agentic layer fixes it
Messy catalogue images, missing attributes	Vision-language Catalog Enrichment Agent auto-labels SKUs, standardises sizes, translates into 11 Indian languages.
Thin seller data & fake reviews	Trust & Reputation Agent runs graph-based anomaly detection + sentiment analysis in real-time.
Slow manual onboarding (avg 11 days)	Onboarding Copilot ingests GST, MSME Udyam, KYC docs via OCR, generates storefront JSON in minutes.
Price wars & margin squeeze	Dynamic Pricing Agent benchmarks against public ONDC feed + competitor sites, suggests floor/ceiling compliant with Competition Act.
Customer churn due to uneven UX	Conversational Commerce Agent (voice/text, Hinglish first) offers one unified helpdesk across all buyer apps.
Fragmented logistics	Supply-chain Optimizer Agent uses LLM-based reasoning + geospatial reinforcement learning to re-route parcels across Ekart/India Post/Delhivery nodes.

3 Blueprint: “ONDC-AI 2.0” (model-agnostic, open & sovereign)

3.1 Architecture at a glance



Agents talk to any local or cloud-hosted LLM via a **“Model Router”** (OpenAI API, Hugging-Face Inference Endpoints, Ollama on-prem). Swap LLama-3-70B, Falcon-180B, or Mistral 8x22B with no code change.

3.2 Key design principles

Principle	Implementation lever
Open-model	Adopt the unix-style MLI (Model-Language Interface) spec – thin HTTP+JSON wrapper so any Hugging-Face model or proprietary endpoint plugs in.
Low-latency	Colocate vector DB + GPUs inside Indian DCs (< 30 ms p95); use quantised 4-bit weights + LoRA adapters for each vertical.
Data trust	Differential-privacy layer at event ingestion; immutable audit logs on ONDC’s Hyperledger instance.
Cost-aware	Use mixture-of-experts switch to route 80 % calls to 7-B light models; fallback to 70-B only for complex reasoning.

3.3 Roles for hyperscalers & DC operators

- 1. **GPU capacity marketplaces** – Yotta, AdaniConneX list idle H100 clusters; ONDC agents bid spot prices.
- 2. **Sovereign foundation-model hubs** – AWS Bedrock India, Azure AI Studio host curated OSS models fine-tuned on Indic data; buyers pay in rupees via UPI autopay.
- 3. **Edge inferencing POPs** at BharatNet exchanges for voice agents in Tier-3 towns.

4 Policy & product shifts needed to unlock the 10× flywheel

Axis	Current state	Change required	Lead owner
Standards	ONDC API specs focus on order orchestration	Publish Agent-Interop standard v0.1 (schema + security profile)	ONDC Tech Council + BIS
Governance	Disparate consumer-grievance paths	One Network-wide CX desk powered by LLM Copilot; SLA-linked fines auto-debited	DPIIT
Incentives	Flat ₹1.5 fee; shrinking subsidies	Shift to performance-based credits : +₹2 to buyer-app for CSAT > 4.5, –₹2 for returns > 8 %	ONDC Board
Data-sharing	Limited event telemetry	Open Commerce Data Lake (anonymised, opt-in) so AI builders can fine-tune agents	MeitY
Skill-building	MSMEs struggle with tech	“ONDC-in-a-Box” Raspberry-Pi gateway preloaded with catalog + voice agent in local language	SIDBI, CSC SPV
Capital	₹750 cr corpus, burn rising	Launch ONDC-AI Innovation Fund (₹1 000 cr, blended) to seed agent startups	DPIIT + SIDBI

5 Execution timeline (fast-track)

Phase	Horizon	Milestones
Pilot	0-6 m	Ship Agent-Interop spec; run catalog-agent pilot with 500 kiranans in Hindi-belt.
Scale	6-18 m	Integrate Trust & CX agents across all buyer apps; API metering via usage-based fees.
Maturity	18-36 m	90 % orders auto-resolved by agents; ONDC share 20 % of India e-commerce GMV; seller NPS +25.

6 Bottom line

ONDC has proved the plumbing works, but the taps are barely dripping in retail. An **agentic, open-source LLM layer** can give every MSME the same algorithmic muscle that Amazon's or Swiggy's billion-dollar stacks enjoy—catalogs that write themselves, pricing that adapts in real time, and a multilingual concierge that never sleeps. The technology is here, the GPU capacity is in place, and the policy levers sit with the same institutions that turned UPI into a verb. What's needed now is a decisive shift from *protocol-only* thinking to a **public-AI utility** mindset. Do that, and the promise of a truly level digital marketplace becomes not just credible but inevitable.