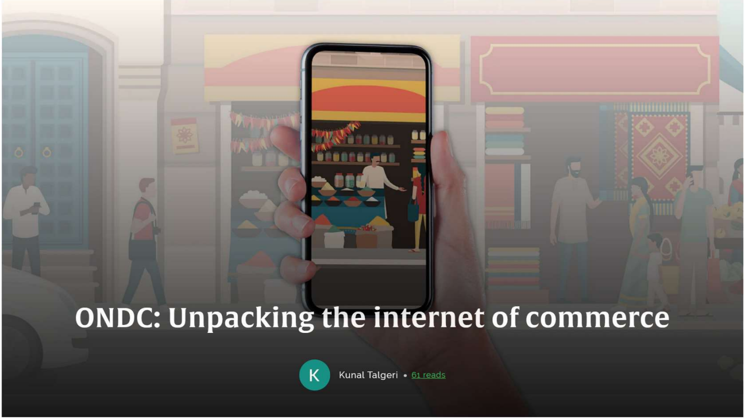

ONDC: Unpacking the internet of commerce

K Kunal Talgeri • 61 reads

Investors have put more than $30 billion in ecommerce and $10 billion in India's logistics firms over 7 years. Yet, sellers on the largest platforms feel short-changed. Find out how Open Network for Digital Commerce, which has raised $20 million from 17 banks and other entities, plans to change that

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Early next month, Shillong, the capital of Meghalaya, will see payments app Paytm trial transactions involving groceries as well as food and beverages with Bengaluru-based seller platform eSamudaay. During the three-day trial, the two distinct technology platforms will operate directly with each other. It will enable nearly 50 sellers in Shillong onboarded by eSamudaay to be visible to select Paytm users in that city.

Similar trials involving other such partnerships between technology applications will play out in Delhi, Bengaluru, Bhopal and Coimbatore. The hope is that these varied platforms will be able to work with each other seamlessly, thanks to the Open Network for Digital Commerce (ONDC).

So, for instance, in the Shillong pilot, when a Paytm user searches for 'biryani', the app will display food sellers from eSamudaay. Paytm will thus be able to increase its revenue through a new category consisting of sellers from eSamudaay during the trial, and from other such ONDC network participants later. eSamudaay's sellers, meanwhile, will get more orders, thanks to Paytm.

eSamudaay is providing last-mile delivery for the Shillong trial. But in the foreseeable future, ONDC's technology protocols will enable sellers to find location-specific logistics service providers.

Just as the Unified Payments Interface (UPI) enables peer-to-peer instant payments, ONDC's protocols promise to help shopkeepers discover customers across multiple apps, along with options for logistics and fulfilment.

As Nandan Nilekani, co-founder of Beckn Foundation, which first developed the protocols, put it during the 2022 India Innovation Week: "Suppliers producing products will get access to a whole new set of consumers through ONDC. Small retailers can participate on an equal footing. A whole set of delivery companies can come up specialised in delivering. Innovations will happen independent of the supply chain."

Clearly, there is a lot riding on ONDC's protocols. And that perhaps explains why banks are lining up to get a piece of the action. In the final weeks of financial year 2022, five major lenders informed stock exchanges about their investments in ONDC, a not-for-profit company that was incorporated on December 30, 2021.

Axis Bank, Kotak Mahindra Bank and HDFC Bank took 7.84% each in ONDC. ICICI Bank took a little over 6% and PNB a shade under 6%.

"ONDC is engaged in creating an open public digital infrastructure to develop and transform the Indian digital commerce ecosystem for both goods and services, and to expand alternatives for both buyers and sellers to engage in the digital commerce space," stated a BSE filing by Axis Bank on March 23.

In all, 17 institutions, including NABARD, State Bank of India, Protean (erstwhile NSDL eGov), and the QCI (Quality Council of India), as well as stock exchanges BSE and NSE are stakeholders in ONDC, and have raised Rs 155 crore ($20 million) to date. Eventually, each of 20 stakeholders will have 5% of the company.

But what's the *raison d'etre* for ONDC?

The Open Network For Digital Commerce

ONDC unbundles each of the ecommerce-platform functions to open the sellers-ecosystem to services available in the market.

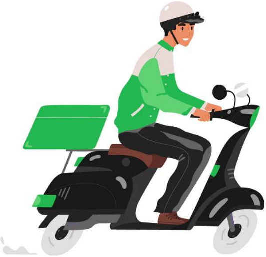
FOR SELLERS:

Access to more buyers from B2C apps.

Higher discoverability of business.

Platform portability possible, while building a reputation score on ONDC.

Wider and location-specific options for services like logistics and delivery.

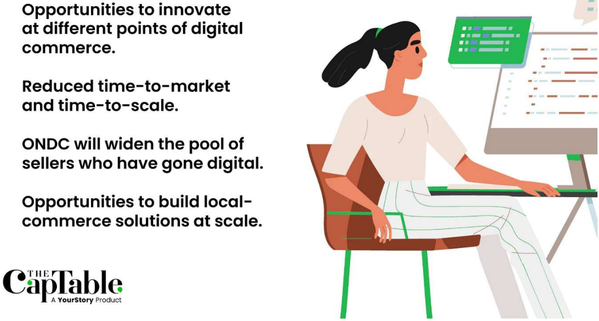


FOR LOGISTICS AND DELIVERY SERVICE PROVIDERS:

Location-specific demand for small fleet operators.

Greater choice of sellers to do business with.

FOR SOFTWARE DEVELOPERS:



Opportunities to innovate at different points of digital commerce.

Reduced time-to-market and time-to-scale.

ONDC will widen the pool of sellers who have gone digital.

Opportunities to build local-commerce solutions at scale.

Graphic: Winona Laisram

“We expect commerce in India to move from single-digit digital penetration to between 30% and 40%,” Thampy Koshy, CEO and managing director of ONDC, told **The CapTable** in early April. “It is going to be a game-changer for both buyers and sellers,” he asserts, adding that the time for ONDC-enabled buyer-seller transactions to reach a state of maturity is three to five years.

ONDC will drive this shift with an open protocol, or a common vocabulary of application programming interfaces (APIs), for a variety of buyer and seller applications to communicate with each other.

“An open network based on the open protocol will enable location-aware, local commerce across industries to be discovered and engaged by any network-enabled application,” states an ONDC consultation paper dated January 2022.

How ONDC Protocol Came To Be

In October 2019, Beckn Foundation — genesis author of the open protocols for ONDC — launched an open protocol for mobility. At the time, the location-specific protocol was envisaged to enable mobility applications for Metro Rail, auto-rickshaws and taxis, an Uber or a Bounce to talk to each other. “We immediately started getting requests outside of mobility — could we use it for delivery and other things,” recalls Sujith Nair, its CEO and co-founder.

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> We built the protocol in such a way that if there are multiple business platforms, how could we make them talk to each other? Protocol essentially is the vocabulary.
>
> - **Sujith Nair**, Co-founder and CEO, Beckn Foundation

So, the Beckn Foundation team went back to the drawing board. Between October 2019 and April 2020, they started unbundling the protocol to open it from mobility to all things commerce, says Nair.

"We built the protocol in such a way that if there are multiple business platforms, how could we make them talk to each other? Protocol essentially is the vocabulary," explains Nair.

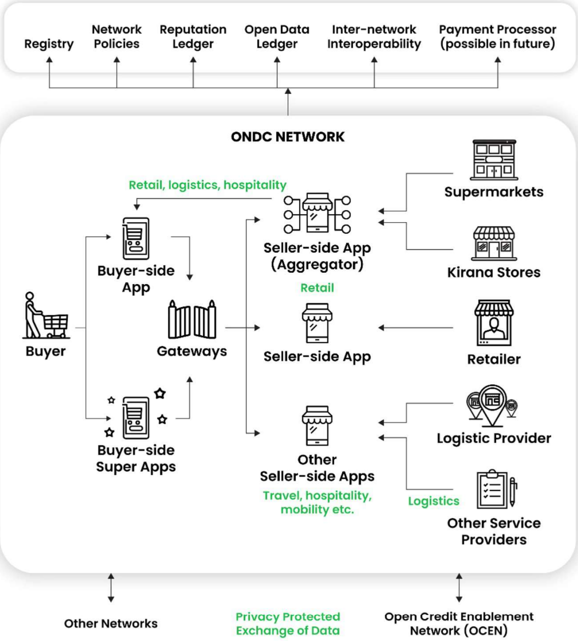
On April 17, 2020, in the middle of the first COVID-19 wave, Beckn published the updated specs — a universal commerce protocol.

The Covid-19 pandemic would, in fact, become the inflection point for ONDC.

Turning Point

The universal commerce protocol drew the interest of the Department for Promotion of Industry and Internal Trade (DPIIT) by December 2020, as the government had realised that sellers who were not on any digital platforms were in the doldrums during the nationwide lockdowns.

"When Covid struck, the government tried to reach out to customers who were stuck in containment zones and tried to connect them with the suppliers of essential commodities," Anil Agrawal, Additional Secretary, DPIIT, told TiECon Delhi-NCR in March 2022. "Sellers today get only those customers who are onboarded on certain platforms," he noted. "But if you have a central registry, for example, if a seller gets registered on ONDC, then sellers get the opportunity to be visible on more than one platform."



The ONDC Workflow In A Mature Stage

ONDC will be the network facilitator. Within the network, demand generated on buyer-side apps can be addressed by local vendors via seller-side apps using third-party logistics services for delivery.

Graphic: Winona Laisram

In mid-2020, companies such as Dunzo Digital, Shadowfax Technologies, and Delhivery began to participate in Beckn's open community conversations on Zoom. By July, Beckn also saw interest from the local retail community — ventures such as Peppo, Paisool, ShopX, and HumBhiOnline.

“We were having conversations with mobility players, logistics players and retail players,” Nair says. “So, we factored in some of these sector-specific attributes and made the protocol more exhaustive.”

The ONDC protocols have been built over the Beckn protocol.

Externally, the lockdowns induced by the pandemic caused shopkeepers to consider going online, and get acquainted with the idea of hyperlocal delivery, to participate in the demand generated by Amazon, Flipkart, and BigBasket.

According to Amazon India, at least 4.5 lakh sellers on its marketplace were added since January 2020, taking its overall tally to 10 lakh sellers in two years.

A Win-Win-Win Situation

If an ecommerce platform, logistics aggregator, and seller platform are compliant with the ONDC protocol, a user on an ecommerce platform can choose a brand or product from visible sellers, use the ecommerce platform's logistics service, or choose a logistics option in the vicinity of the seller after buying the product.

This has three advantages for the ecommerce and logistics industries. First, the ecommerce platform has a reduced timeline and expense related to onboarding sellers. It will help startups and late entrants in ecommerce such as Paytm and Reliance's JioMart become or grow as digital commerce platforms faster.

Flipkart and Amazon have 90,000 and 100,000 active sellers on their ecommerce marketplaces, respectively, notwithstanding the churn during the pandemic. The existing ecommerce players' onboarding of sellers will be faster if they choose to adopt the ONDC protocol.

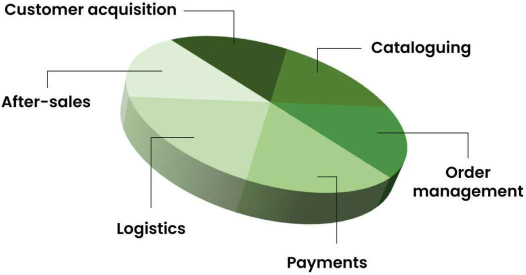
Two, sellers will be able to select logistics options if a logistics aggregator uses the ONDC protocol for last-mile delivery. Logistics aggregators will thus potentially have a larger volume of hyperlocal deliveries to cater to after ONDC adoption matures. Hyperlocal app Dunzo and regional logistics platform LoadShare Networks are already in advanced stages of integrating the protocol.

Platforms Approach

The e-commerce industry has a transacting user-base of 200 million, which is still less than 24% of India's 834-million internet subscribers.

Paytm zomato Myntra SWIGGY
Flipkart amazon NYKAA

EACH PLATFORM BUNDLES THESE FUNCTIONS:



Graphic: *Winona Laisram*

But others are in wait-and-watch mode, as the buyer-seller transaction volume needs to go live. “We have to understand it more in depth, which we intend to do after two quarters,” says Pranav Goel, CEO and Co-founder of Porter, a marketplace for intra-city logistics. A Dunzo spokesperson said the company continues to be in discussions with ONDC stakeholders.

Three, the protocol gives sellers the means to expand their business beyond the storefront. “The success of a platform is when there is commerce happening for its sellers,” says Anup Pai, Co-founder and CEO of eSamudaay, which has helped digitise more than 200 sellers in tier-2 and tier-3 cities. “Getting the sellers is easy to begin with. But then, sellers start losing patience when no customers come to them.”

“The ONDC model is built for ‘flow of value’ rather than being a ‘store of value’,” notes Kumar Vembu, founder and CEO of GoFrugal, a retail software firm and one of the earliest ONDC network participants. “They will not store the data of transactions, but will transport the data — I liked that network model,” he explains.

As sellers get customers from ONDC-compliant B2C apps, the cost of acquiring customers (CAC) is expected to be lower than if seller platforms opted to find customers themselves.

Even a payments company such as Paytm or PhonePe can become a platform where commerce transactions take place. “We have more than 25 million *kirana* stores across the country that we have tied up with for payments,” says Sameer Nigam, CEO of PhonePe. “ONDC is trying to have digitisation for a broader base than what the current ecommerce or foodtech platforms have. The small sellers that don’t make it on those platforms may get visible on a PhonePe or GPay,” he notes.

PhonePe is evaluating tie-ups with seller platforms, or ways to give access to its sellers on the digital commerce side. “It’s still exploratory,” Nigam says, emphasising that PhonePe will never get into logistics. “If ONDC brings all the hyperlocal logistics players, or if our merchants say they will take care of their delivery, then we can at least facilitate order-booking for them.”

“The thing about ecommerce is you are selling products, and they have to be delivered,” notes a Delhi-based venture-capital investor, who requested anonymity. “While sellers will get more orders (because of ONDC), they still need a reliable capability to deliver. This will be a challenge. At the end of the day, if food has to reach in 35 minutes, the seller needs to have the ability to deliver in 35 minutes.”

Of course, sellers’ first option may very well be an Amazon or a Flipkart, simply because the e-commerce companies bundle cataloguing, order management, and fulfilment (logistics and payments) for their sellers. In contrast, ONDC has unbundled each of those functions to open the market to the informal sector across logistics, seller platforms and B2C apps.

The transition for local commerce to happen at scale for ONDC-ready participants will take at least a year to 18 months, which is pretty much the time it took UPI apps to become mainstream (between mid-2015 and 2017).

Registering with ONDC will help make sellers’ catalogues visible on other apps. “From cataloguing to inventory management, it is standardised on the open network,” says Agrawal of DPIIT. “Think of it as the 'internet of commerce'."

While ecommerce has established trust and convenience for buyers or customers in India, ONDC has been designed to help more sellers go digital and expand the ecommerce market in terms of choice and value.

It will usher in more ecommerce platforms, and increase competition from just being a two-horse race involving Amazon and Flipkart.

When the National Payments Corporation of India introduced UPI in 2015, YES Bank was the first commercial bank to adopt it, and PhonePe developed the B2C app.

The demonetisation of large-currency denominations in November 2016, followed by the launch of the BHIM starter-app, saw digital payments go mainstream.

In April 2017, UPI had 18 million transactions worth Rs 6,947 crore ($905 million). That skyrocketed to nearly 46 billion UPI transactions worth Rs 84.2 lakh-crore ($1.1 trillion) in FY 2022.

This stupendous achievement would not have been possible without the tech backbone that supports billions of transactions involving the exchange of trillions of rupees. The ONDC protocols are expected to have a similar, exponential impact on digital commerce, as brands such as Paytm and JioMart take on Amazon and Flipkart to increase the volume and value of orders from kirana stores.

Note: In Part 2 later this week, we explore the complexities of ecommerce in India that ONDC will operate in. Will the ONDC regime lead to fair competition?

ONDC E-COMMERCE NANDAN NILENKANI AMAZON FLIPKART PAYTM ESAMUDAAY

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