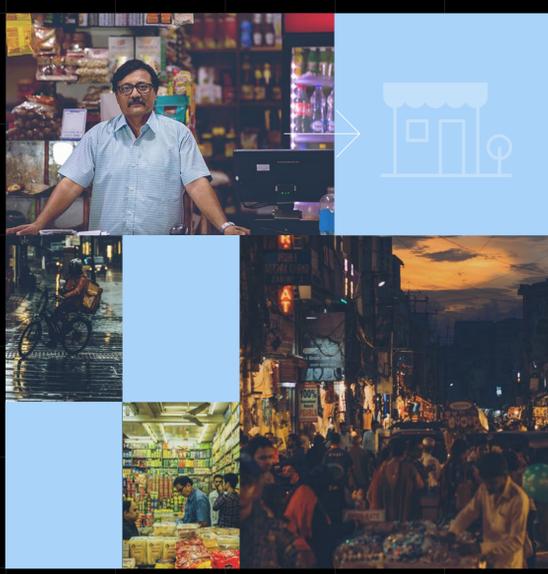# beckn

Imagining eKirana with Beckn

Concept paper

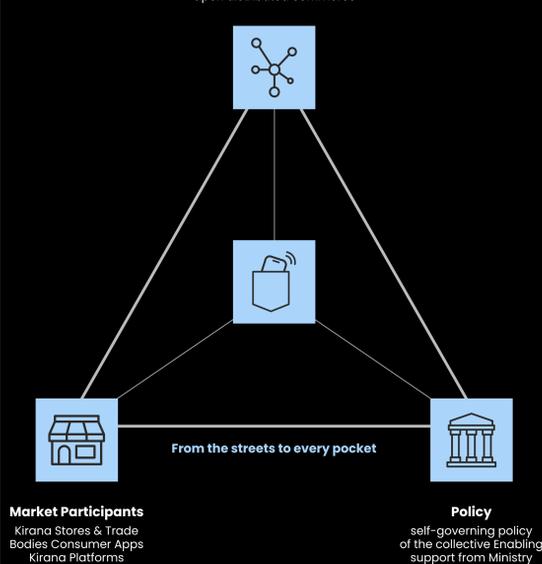## Imagining eKirana Open Network in India

The ever-easily accessible kirana stores across the country are facing an unprecedented crisis today, due to the COVID-19 pandemic and the resulting lockdown/social distancing. To enable customers to continue to access them, kirana stores are taking efforts to bring themselves online. However the vast scale, variety (store/inventory size, category variety) of the kirana stores warrant a common way of discovery of orders while factoring the inherent diversity and the scale. Bringing kirana stores online at a massive scale requires three things to happen in tandem.

Alignment of incentives of market participants across the value chain - Kirana Stores, Kirana Platforms, Consumer Apps, logistics and final mile delivery platforms has to be enabled with policy or commonly agreed upon rules for fair and transparent market participation, using some form of formal or informal institutional structure. But this alone would not suffice. Market engagement requires orchestration through an enabling yet minimal technology infrastructure. eKirana Open Network using Beckn protocol is one such example.

eKirana Open Network can allow a variety of network participants like the trade bodies, local kirana stores, grocery SaaS platforms, logistics and final mile delivery service providers to join hands together and unlock the challenges of access and outreach especially during the Covid-19 pandemic and enable consumers to buy essential supplies from the local grocery stores online through mainstream consumer apps.

eKirana Open Network, based on an open and interoperable Beckn Protocol, can integrate the technology platforms and solutions of the participating members seamlessly.

Public infrastructure
*Open eKirana Network
on Beckn Protocol*
Rapid expansion of reach
Open distributed commerce

From the streets to every pocket

Market Participants
Kirana Stores & Trade
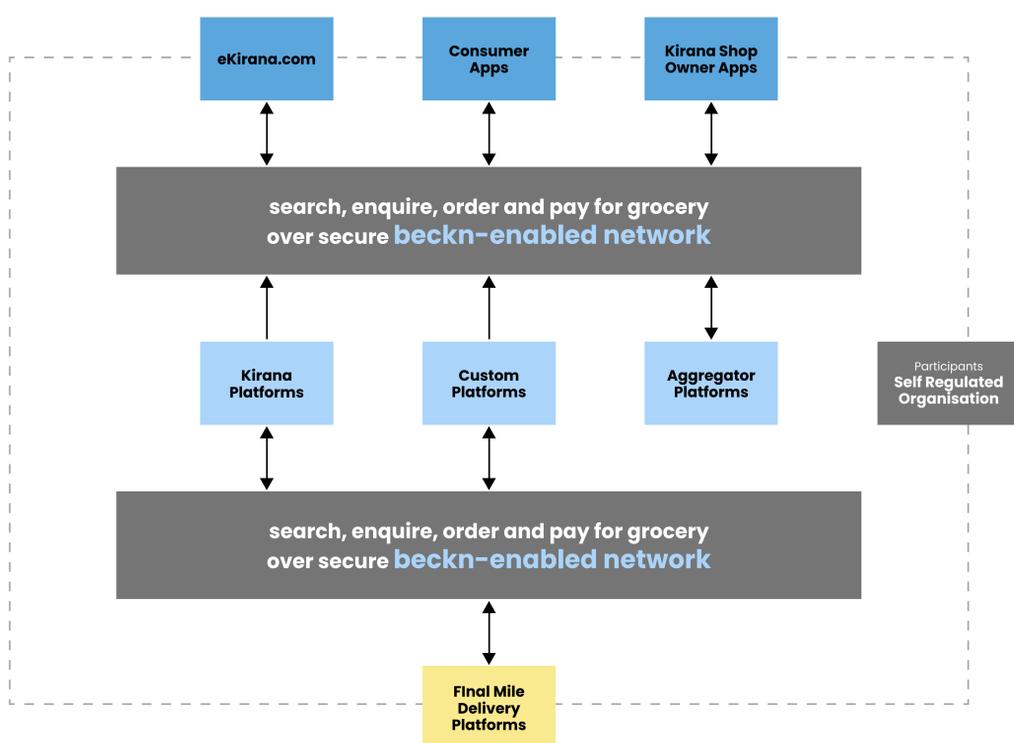Bodies Consumer Apps
Kirana Platforms

Policy
self-governing policy
of the collective Enabling
support from Ministry

Imagining the ecosystem model for eKirana Open Network

eKirana Open Network can be implemented as an open network that adopts open APIs of Beckn Protocol to integrate the consumer applications on one hand and the kirana store provider side on the other hand, to enable the end-to-end search-order-payment-and -delivery cycle:

1. A consumer can use any Beckn eKirana enabled application to search for neighbourhood kirana stores

2. All the neighbourhood kirana stores, that are brought online using their respective online platform providers built on Beckn eKirana protocol, can be discovered by the consumer end application

3. The consumer can select, order and optionally pay for the items from the selected kirana store and the orders will be received and confirmed by the selected kirana store using their own application

4. The kirana store provider platform, if it chooses to use third party delivery partners on eKirana network, can then use the same eKirana Open Network APIs to search for final mile delivery service providers and place an order for pickup and delivery to the consumer

The eKirana Open Network APIs also provide online visibility on the orders, payment receipts, tracking and confirmation of deliveries. A sample of such a network is illustrated below:

eKirana Open Network allows any consumer app to play the role of a 'Beckn App' for searching, inquiring, ordering and paying for grocery from the neighbourhood eKirana stores. Using the same network, the eKirana stores can search, order, pay and track services of the final-mile hyperlocal delivery providers and thus, allow the entire order-to-fulfillment cycle to be enabled within the same network.

The network participants can co-opt to help create the following for the network:

1. Contribute and help adopt Beckn eKirana open schema as a standard for the network

2. Define rules around participant registration, pricing structure across the transaction value chain, revenue settlement rules (for online and COD payments), rules on fair and transparent exchanges across the network, framework for creation and application open data for aggregated anonymised datasets to improve and grow the economy on the network

3. Setup the eKirana Beckn Gateway(s), including registry, by representatives/service providers

4. Interface with government functionaries /regulators for enabling policy support and formalisation of the network as a legal entity in future

Using Beckn protocol, participants can transmit and apply these policies digitally, instantly and consistently. It allows dynamic real-time updates on policies; thus, allowing for rapid testing and evolution of policy, and enabling natural compliance.

Beckn protocol specifications include features like open registries, form-agnostic data elements & structure with concerns of security and privacy addressed in the design.

Every transaction conducted on the network is digitally signed by the application and the provider to ensure non repudiability and digital audits. This allows the ecosystem to come up with appropriate rules for any charges, grievance redressal mechanism, and independent audits of the network participants to ensure overall adherence and fair play by all participants of the network.

eKirana Open Network, as an open digital infrastructure, retains the agency of the kirana stores and offers the choice to have their own preferred kirana platform providers and similarly, allows consumers to exercise their choice on the consumer apps to search and order for groceries.

Kirana Stores in this way, can beckn a new future and continue to retain their position as an essential lever in the nation's economy.