Imagining with Beckn

Concept paper



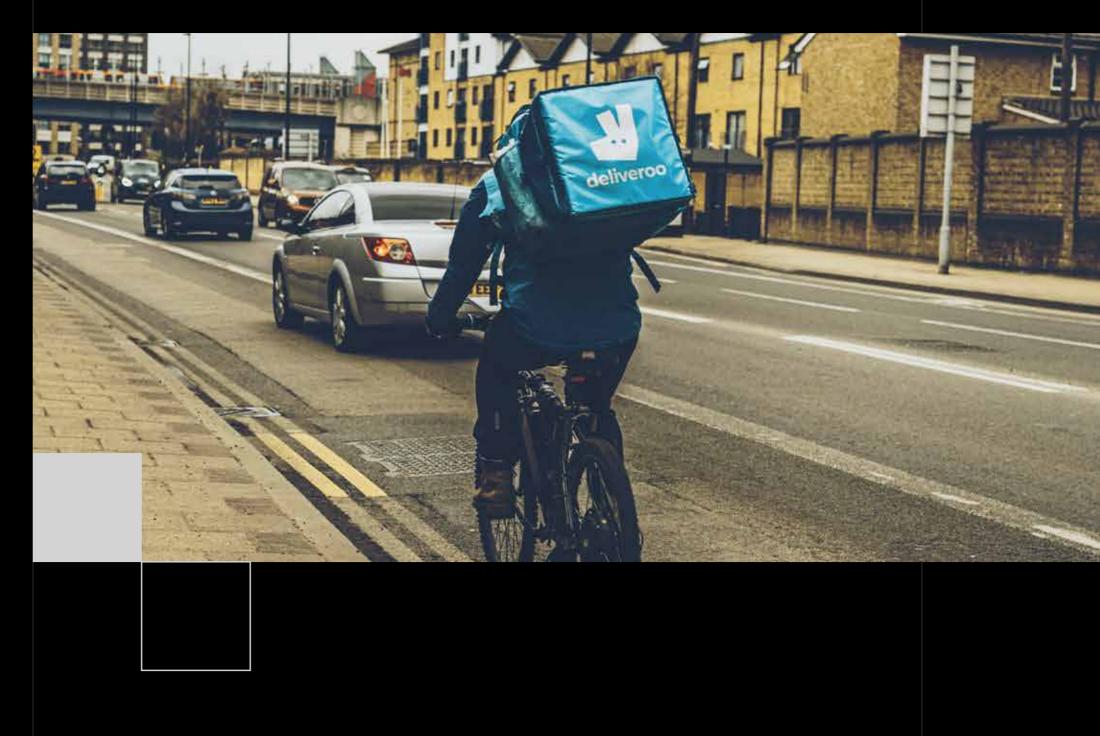
Beckn ushers a new way to bring everyone together.

What is Beckn?

Beckn is an open protocol that enables location-aware local commerce across industries. The protocol is a set of recommendations and rules that outline specific technical standards that can be adopted for an industry, in a region or a market among its participants to enable open interoperable interactions between them. The specifications allow Beckn to act as a transaction protocol that allows discovery, ordering, fulfilment and payment between buyers and sellers (consumers and providers in the digital marketplace.

Beckn for digital commerce is what HTTP is for the World Wide Web and SMTP is for emails. It is a common way that allows basic interoperability of the commerce interactions on a digital medium. Plainly speaking and at the risk of oversimplification, Beckn protocol allows a computer to "understand and speak" commerce like 'select an item from menu', 'place an order' with a another computer anywhere on the internet by exchanging open, standardised, machine-readable information. Beckn specifically caters to location-aware local commerce businesses that are small and severally available within a region like a city. Examples of such business include mobility, final mile delivery, restaurants, hotels and healthcare. Beckn by design however could cater to potentially any commercial or non-commercial interactions in a gig economy.



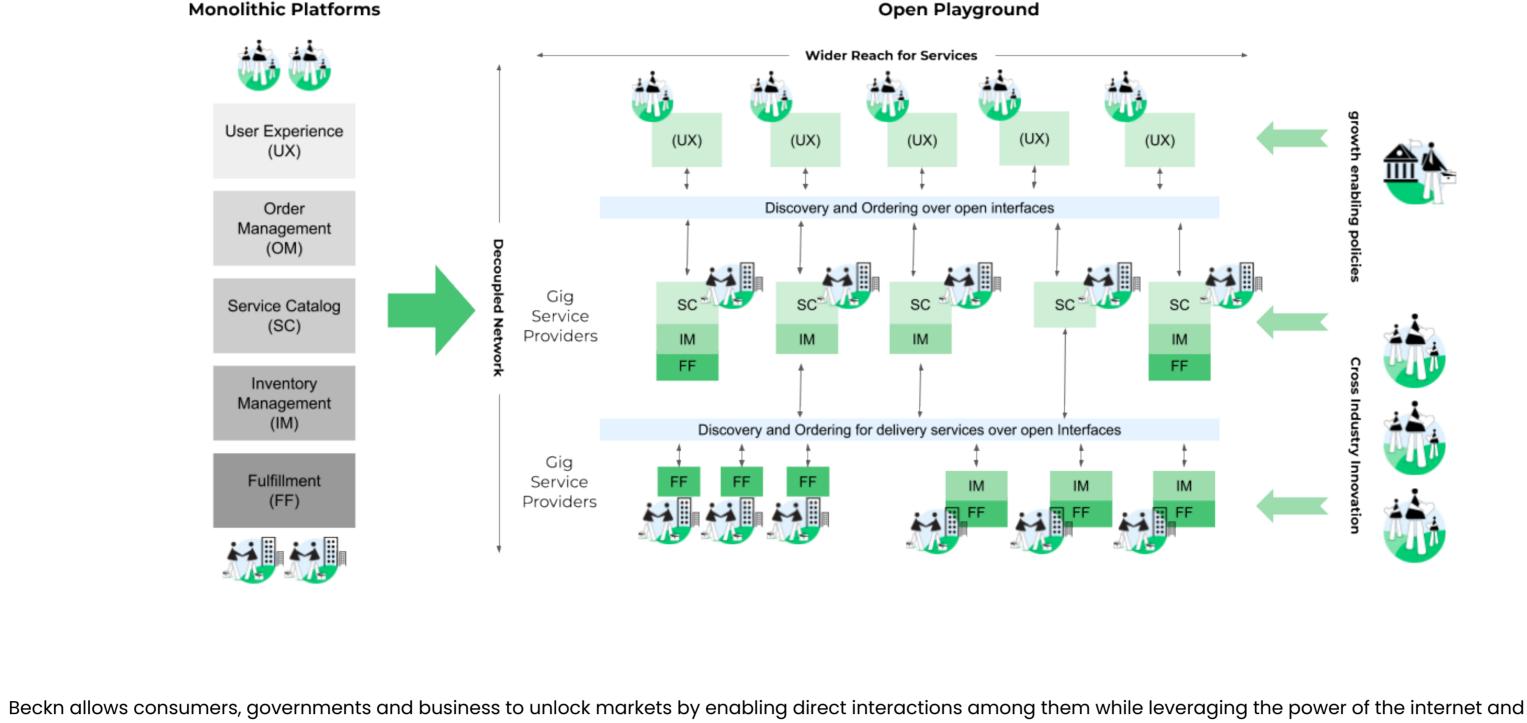


Today as much as the web is an open infrastructure, the economy on the web is not. Beckn is an endeavour to create an open network economy that doesn't centralise

Monolithic Platforms

Creating open playgrounds

intelligence, influence and control and instead distributes them to the end beneficiaries - the customers, small and big businesses and governments. Therefore in an era of platform-centric marketplaces, Beckn is an open digital infrastructure that allows creation of an unbundled and decentralised digital market more like an open playground that is free and fair instead of being closed, rivalrous and non-inclusive.



hand and offers ease of doing business for providers of goods and services on the other.

other digital infrastructure. Beckn takes minimal footprint, as an open infrastructure, extracts no value or power of itself but acts as force multiplier to the beneficiaries it

serves to. Beckn allows progress, restores agency to the end beneficiaries, expands, not stifles, innovation - all towards achieving a better quality for people on the one

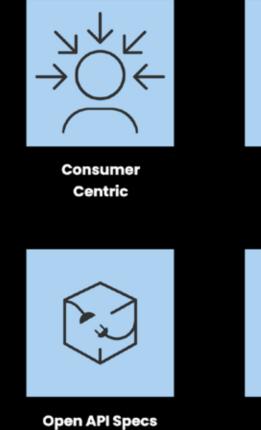
Beckn's approach to enabling an open networked economy is much like the Internet and less like a Stock Exchange which is also an open marketplace for buyers and sellers of securities but with a more centralised governance. The Internet reference made here is specific to the Internet as a packet communication infrastructure and not to the World Wide Web that runs on top of it, as also popularly referred to the Internet that includes both the application service - the Web itself and the underlying packet communication infrastructure.

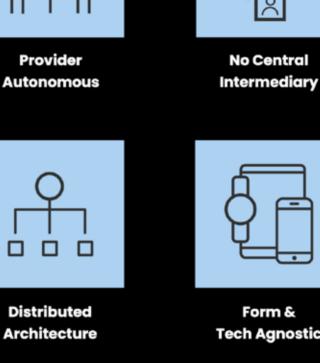
Design of Beckn

What is Beckn?



design principles of the Internet: .







The design of Beckn is therefore inspired by the key

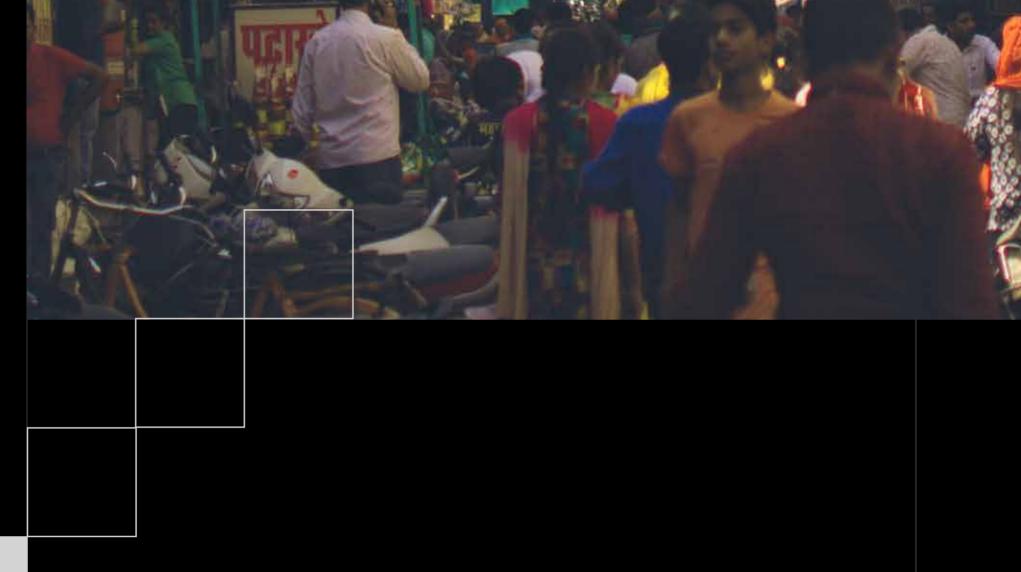
community around Beckn for its continuous evolution in the future. Openness is not just towards the use of specifications, but also towards the ability to extend, adapt and contribute back to the process of open specifications

Openness

development, across the dimensions of architecture, APIs, data and governance.

Beckn specifications are not private and proprietary but made open under

Creative Commons license and the Foundation intends to build an open





End-to-end principle Beckn's architecture realises a network among the end-user/participants with

no centralised intelligence. Instead the intelligence, influence and control are

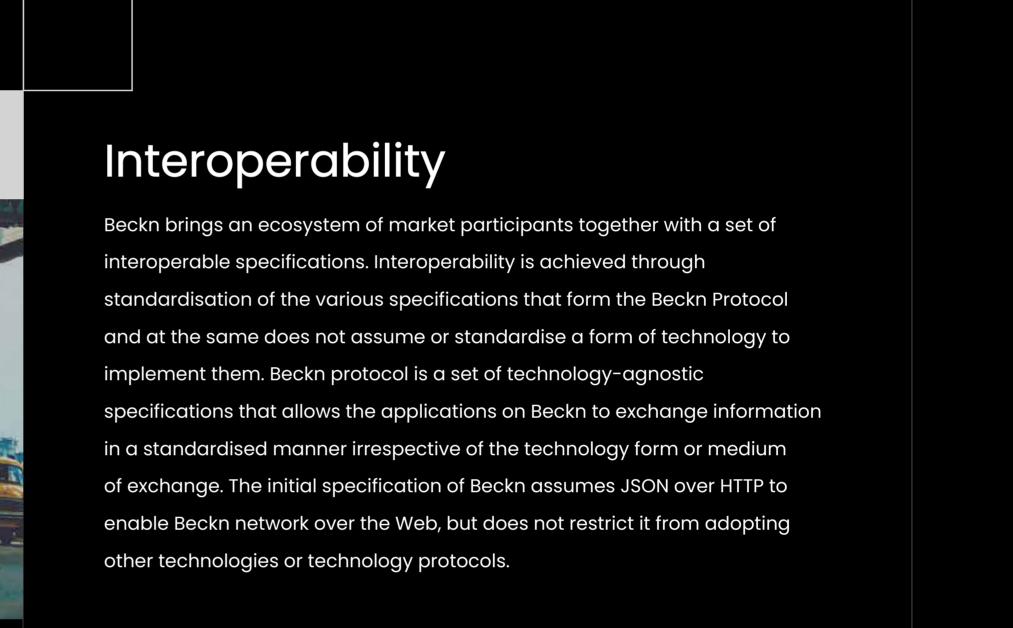
distributed to the end-users and the network by itself is not governed by one

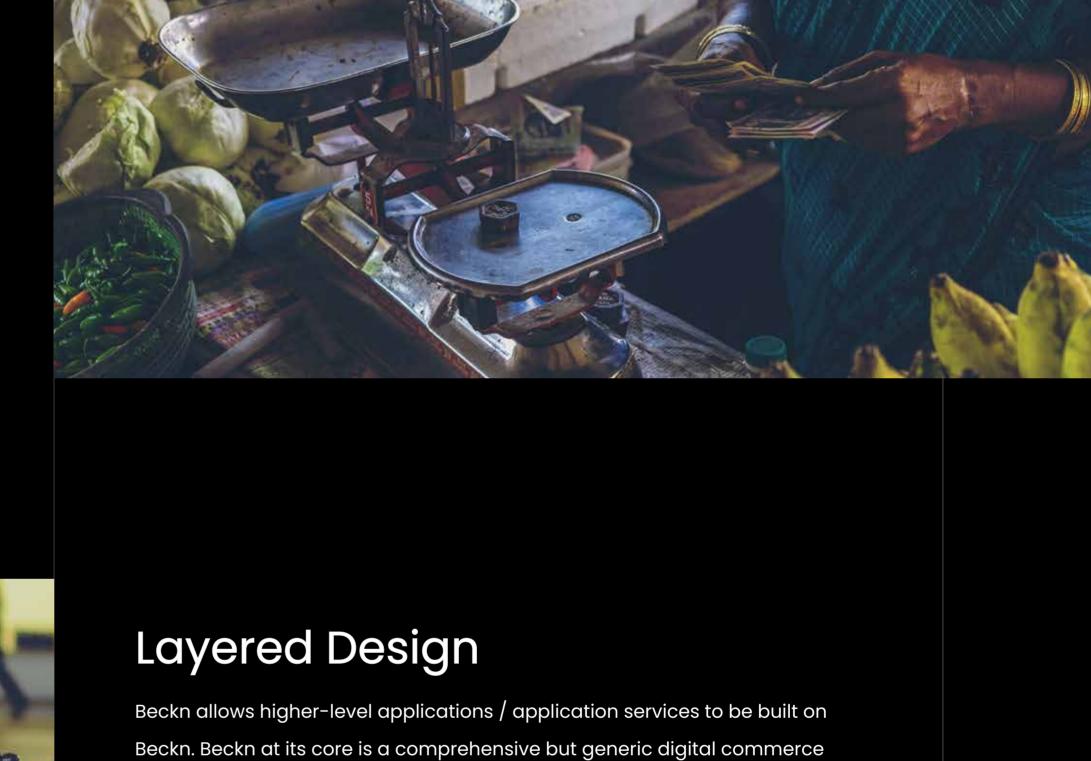
agency. This is the key feature of Beckn and acts as a departure from the

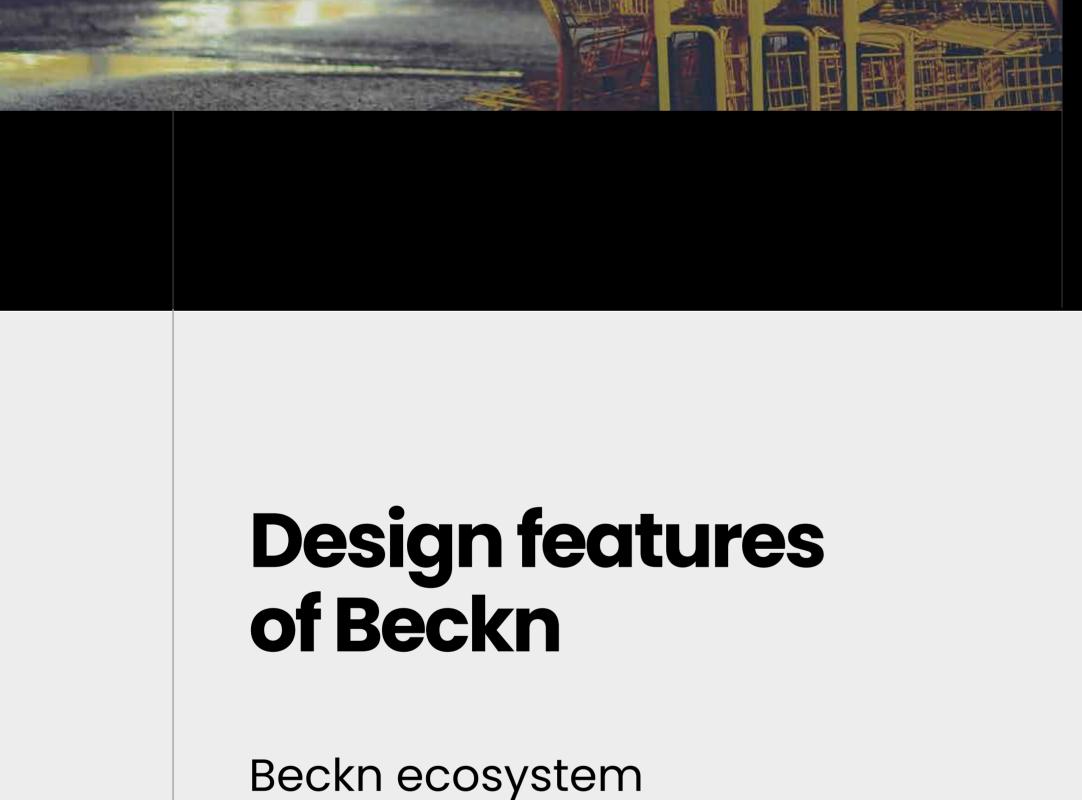
conventional platform-centric digital commerce approach.

(called Beckn Gateway, see "Beckn Ecosystem") allowing redundancy as

a key feature of the architecture.







transaction ledger on the network.

protocol that can be extended into sector-specific applications like mobility

transmission layer of machine-readable commerce messages exchanged

between the end-participants. Beckn enables the creation of additional

layers like one for transmission of policies governing the Beckn network

implemented by a specific market or a region and creation of an open

using Beckn compliant schemas of that sector (see 'Beckn Specification

Layers'). Beckn unbundles the experience layer from the packet

This approach of Beckn proposed here does not mandate Beckn to become the only arrangement for the provision of commercial services in the cities. It is complementary to the individual efforts of service providers who can choose to continue with their existing model and infrastructure to offer their services to the users. Some may find it beneficial to offer their services only via Beckn. Beckn Protocol is a shared resource among the participants in a region or market, with the regional government setting up the enabling policies for its adoption. Beckn uncovers several opportunities for all the participants – customers, Beckn Providers (BP), City government, Beckn Apps Providers and even infrastructure providers as Beckn Gateway Providers (BG).

The market ecosystem of consumers and providers can be on the Beckn open network as end-beneficiaries with each of them implementing their end of the Beckn

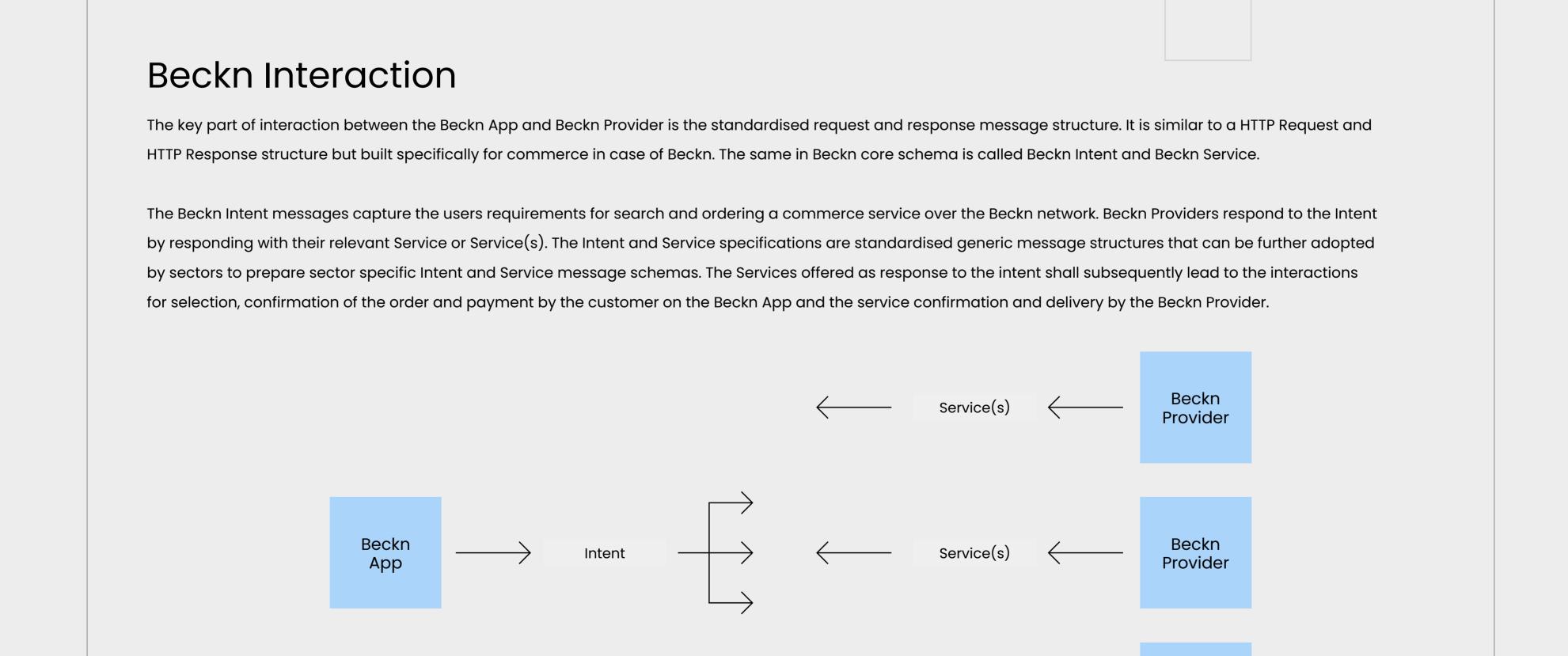
protocol APIs. The demand side and supply side digital interfaces and systems exchange and interact the way similar to how such end-points on the Web interact

using HTTP. The HTTP client application sends a request via Internet nodes to reach the destination and the destination routes the response back to the client using

similar nodes on the Internet. These nodesact as routing utilities. In case of Beckn, the consumer side or demand side search and order requests are generated and

sent using consumer interface applications, identified as "Beckn Apps" to routing utilities called "Beckn Gateways" who in turn relay the request to the provider

interface applications identified as "Beckn Providers". "Beckn Providers" respond with service details that can fulfill the consumer order requests.



Beckn Specification Layers As explained earlier, the Beckn provides a generic set of APIs and Core Schema (data structure) that can be extended to fit the sector specific requirements. Applying the principle of layered design, the Beckn Core Schema provides easy extensibility to the higher level application categories like Mobility, Final Mile Delivery, Restaurants and Healthcare businesses. The higher level application category schemes shall use the core schema guidelines to customise and expand the schema further to handle the sector category specific requirements of interoperability. Beckn specifications include features like open registries, form-agnostic data elements & structure with concer

erns of security and privacy addressed in the design
Mobility Schema Final Mile Delivery Schema Food Schema Grocery Schema
Beckn Beckn Beckn Core Core Core Schema Schema Schema Schema Schema
Beckn Beckn Beckn APIs APIs APIs

The Foundation shall encourage participation and active contribution from the open community to evolve the schemas at both core level and the higher level application level categories. Please visit https://developers.becknprotocol.io for more information on the Beckn specifications.

In summary, Beckn acts as an open digital infrastructure that is shared publicly among all participants obviating the need for a central platform, central control or

of the Beckn network and becomes discoverable at their own command. Beckn is not a platform or an app. It's an open protocol specification, that allows fair and

authority to enable commerce interactions among the participants. Each participant, by virtue of implementing their end of the protocol APIs, naturally becomes part

transparent rules of play for the market participants. It works like a digital infrastructure. It enables policy adoption on it but doesn't prescribe or influence policies for creating and operating the open playground enabled over Beckn.



open collective

Beckn in a nutshell

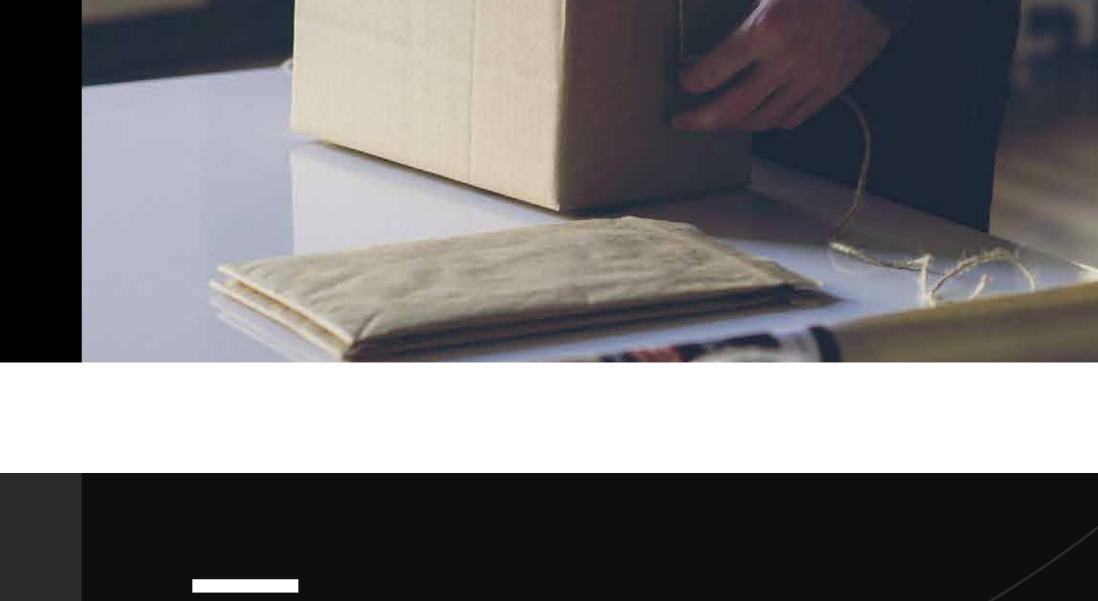
co-operation predicated on voluntary participation from all the players

in the ecosystem. Beckn as an easy-to-adopt open digital commerce

Beckn protocol offers the possibility to set up a win-win based

infrastructure amplifies the potential and unlocks

the market for the market participants.



A collective Intention to