



Open Network for Digital Commerce

# Building Trust in the ONDC Network

## Consultation Paper

September 29, 2022

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## Overview

Open Network for Digital Commerce (ONDC) is an initiative aimed at promoting open networks for all aspects of the exchange of goods and services over a digital network. ONDC is based on open specifications and open network protocols. It is a shift from the traditional paradigm of e-commerce in that it is not dependent on any specific platform and technology, but rather on a network of platforms/applications which are interoperable, as a result of which operational control is decentralised. In the ONDC network architecture, buyers and sellers can transact easily, irrespective of the platform/application they use to be digitally visible/available.

Decentralisation of operational control and open standards and interoperability will lead to greater competition among platforms/applications. This will push down the costs of participation in digital commerce (especially for retailers), which in turn is expected to lower entry barriers to e-commerce, especially for small retailers. One of the consequences of lowering entry barriers is that it will drive greater penetration of digital commerce. This will lead to greater choices for both buyers and sellers. Greater choice will lead to better matching of buyers with sellers, therefore, increasing willingness to transact, which in turn will create value.

Lower entry-barriers, and interoperability is also expected to encourage greater specialisation in different parts of the e-commerce value chain, thereby generating more business opportunities. Further, it will eliminate the need for greater vertical integration to achieve scale, which platform-based, closed networks tend to require.

One important question that arises is that if control is decentralised, what serves as the foundation for trust, which is essential for a thriving market? In the brick-and-mortar model of commerce, trust is built through in-person interactions and real-time exchange of goods for payment. In the platform-model, the in-person interaction and real-time exchange is absent, but the platform serves as the central store of trust. The platform gives assurances to all parties to a transaction that they will get what they are owed, on the basis of contracts with them all. Even issues/grievances which arise in a transaction are handled and resolved by the platform.

In ONDC's network architecture, where control is decentralised, building trust among market participants necessitates a different approach than the one taken by platforms. In this consultation paper, we outline the approach ONDC has taken to build trust among buyers and sellers, as well as the Network Participants (i.e. Buyer Apps, Seller Apps and Gateways). Given the novel nature of the enterprise, and pursuant to its principle of openness, ONDC is soliciting feedback from all stakeholders on the approach it is taking to building trust.

## Objectives of this consultation

The primary objective of this consultation is for ONDC to take stock of whether its approach for building trust is adequate and likely to have the intended outcome.

To that end this paper raises four questions:

1. Are the measures ONDC is taking sufficient to address the question of building trust among market participants?
2. If not, what actions can ONDC take to bridge the gap?
3. Which (if any) of the measures are likely to be counterproductive, and should be avoided?
4. And taken together, do these measures offer a level of trust amongst participants that is comparable to or greater than what the platforms are currently able to elicit?

To effectively make the transition from testing to opening up to the public, ONDC needs to put in place iron-clad mechanisms to build trust. It is therefore essential for ONDC to identify some immediate areas of improvement, over and above the current design for fostering trust in the network. The feedback ONDC gathers through this consultation exercise will be utilised for early course correction, before the ONDC Network is opened up to the public at large.

## How to submit a response

Interested persons can access the form for submitting responses at <https://forms.gle/7UNDUNiA5g1Lv2d36>.

This public consultation is open till 31st October 2022.

## Setting the context: Brick-and-mortar to open, interoperable network

Trust in any system of commerce is essential for potential buyers and sellers to actually be willing to transact. When it comes to trust in commerce, in general, the traditional brick-and-mortar model of commerce has shaped buyers' and sellers' standards and expectations. In-person interactions with counterparties in a transaction, and the ability to exchange goods for payment in real-time underpin trust in the brick-and-mortar model.

For instance, the buyer's trust is founded on his/her ability to examine a product before purchase and the potential for a custom sales offer and additional information required, if any. This is coupled with immediate delivery of product upon payment (most of the time). Further, if something goes wrong (e.g.: the product stops working or malfunctions etc.) they have physical access to the store location (whether it is the original seller's location or the OEM's location) and there are people whom they can speak to, in order to complain and either have the product replaced or get a refund.

The seller's trust is based on the fact that (most of the time) they receive payment for their product(s) in real-time - i.e., the customer takes possession of the product and pays for it immediately. Since the customer can be shown the product before the sale, there is little scope for the customer to defraud the seller by, for example, returning a counterfeit product or damaging a product and then returning it and claiming a refund. Similarly, if the customer changes their mind about a purchase, the product can go right back into storage and be offered to the next customer. So in brick-and-mortar commerce, the store has to build trust through good product-related services and buyers differentiate between stores based on their service levels and offerings. Services also take the form of warranties or other after-sales guarantees such as repair, maintenance, etc. These services/offerings play a crucial role in extending trust to the buyer, assuring him/her of the product quality over the product's lifecycle.

### What changed in e-commerce

A salient feature of e-commerce is the introduction of a commerce facilitator, typically a technology platform, that brings buyers and sellers together in the virtual world to transact. However, some key features of traditional brick-and-mortar-based commerce, described above, are largely absent from e-commerce. In e-commerce, the buyer and seller may never actually interact with each other at any point, and the physical store may be in a location that is not physically accessible to the buyer.

This shift from long-established practices of commerce, which were foundational to building trust, necessitated the creation of new systems and practices to foster trust.

## Trust in platform-based e-commerce

The predominant form of e-commerce today is platform-based. In platform-based e-commerce, a platform onboards many different sellers and gives them a digital store-front that buyers can access. The platform takes on the responsibility of building trust among both buyers and sellers. It is able to do so by exercising tight, central control over all aspects of the value chain, viz. product flow, operations, and the terms of trade. Effectively, the trust that a buyer traditionally placed in a seller is instead placed in the platform. For example, the platform provides assurances that the ordered product will reach the buyer, or that if the product is defective, the buyer will get a refund. Similarly, the trust that a seller traditionally places on being able to directly interact with the buyer, is now placed on the platform. For example, the seller is given assurances that they will get timely payments for the goods they sell, or that their product will be delivered safely to the buyer. The platform, therefore, becomes an intermediary providing trust: a “central store of trust”.

The buyer, therefore, doesn't necessarily have to trust the seller per se, but rather reposes their trust in the platform. Similarly, the seller doesn't necessarily have to trust the buyer per se, it only has to place its trust in the platform - the central store of trust. The central store of trust invests in one central entity with overwhelming bargaining power. Furthermore, a central store of trust necessarily requires a closed, proprietary network, which leads to platform lock-in for buyers and sellers. In turn, this can increase entry barriers for sellers.

So while the central store of trust model may have certain advantages, there are significant costs associated with it.

## ONDC and the need for fresh thinking on fostering trust

ONDC takes a very different approach to eCommerce as compared to the platform-based models observed so far. ONDC's aim is to build an open, interoperable network on which buyers and sellers can transact without needing to be present on the same platform. To that end, ONDC's network architecture does not depend on a centralised controller for operations and information flow. Instead at its foundation are open standards for interoperability and unbundling of the e-commerce value chain.

Interoperability allows different platforms to communicate with each other easily while unbundling allows the ONDC network to have multiple different types of Network Participants, each handling specific aspects of the e-commerce value chain. As an example, Buyer Apps are responsible for customer acquisition, search and discovery, and curating the customer experience. Seller Apps are responsible for onboarding sellers, managing their catalogues and managing order flow. Buyer Apps and Seller Apps coordinate with each other to collect, maintain and convey all the requisite information that needs to be passed to different stakeholders to complete and fulfil an order.

In this decentralised system, where responsibility and control is dispersed across multiple entities, establishing trust requires some fresh thinking and novel approaches.

In this consultation paper, we outline the efforts that ONDC has undertaken to build trust among buyers and sellers. The goal of this paper is to invite feedback on how ONDC can improve trust in the ONDC network. We invite all respondents to provide their feedback and proposals on the measures outlined in this paper.

The rest of the paper is structured as follows:

**Section 1** gives an overview of ONDC's architecture.

**Section 2** discusses the determinants of trust in e-commerce.

**Section 3** describes laws which impact trust in e-commerce.

**Section 4** describes what ONDC has done to foster trust in the Network

**Section 5** summarizes the overall approach to building trust in the Network

**Section 6** consolidates all Questions/Issues for consultation in one place for the reader's convenience.



# 1. Primer on ONDC Network's architecture

The ONDC Network's architecture is fundamentally different from that of the existing platform-based e-commerce models. In a platform model, the platform has an overwhelming influence over determining all the elements of the supply chain. The platform therefore sets the rules of engagement (i.e. terms of use/sale) and has a contractual relationship with all buyers and sellers, and also controls payment and settlement, very often. Thus, the platform serves as the "central store of trust".

In contrast, ONDC is a network of different entities coming together to offer products or services to buyers on one end, and manage sellers on the other end. Instead of a central entity monitoring and controlling operations, the network uses interoperability, common rules of engagement at the network-level and dynamic, digital contracts to allow Network Participants to coordinate their actions to successfully complete orders on the Network and fulfil them. The design of the entire system has some mechanisms built into it to ensure good behaviour and accountability.

There are three kinds of Network Participants on the ONDC Network:

1. **Buyer Apps (also known as Buyer Nodes)** - Buyer Apps are Network Participants that handle buyer-side operations such as buyer acquisition, search and discovery, and give functionality to the buyer to place orders on the Network.
2. **Seller Apps** - Seller Apps manage seller-side operations and can be of two types.
  - a. **Marketplace Seller Nodes (MSNs)** - MSNs are essentially aggregators. They allow sellers (who are not themselves network participants) to transact on the Network. MSNs do not hold any inventory, but rather function as pure-play marketplaces,
  - b. **Inventory Seller Nodes (ISNs)** - ISNs are themselves sellers who also are participants in the network.
3. **Gateways** - Gateways purely function as nodes for multicasting search queries and collecting results. Thus they play a crucial role in search and discovery.

Of these NP types, Buyer Nodes and Marketplace Seller nodes fall within the definition of Marketplace e-commerce entities under the e-Commerce Rules 2020. Inventory e-commerce entities fall within the definition of Inventory e-commerce entities. Gateways fall under the general definition of e-commerce entities.

Figure 1 summarises how ONDC's architecture establishes clear rights and obligations without compromising on its principle of decentralisation.

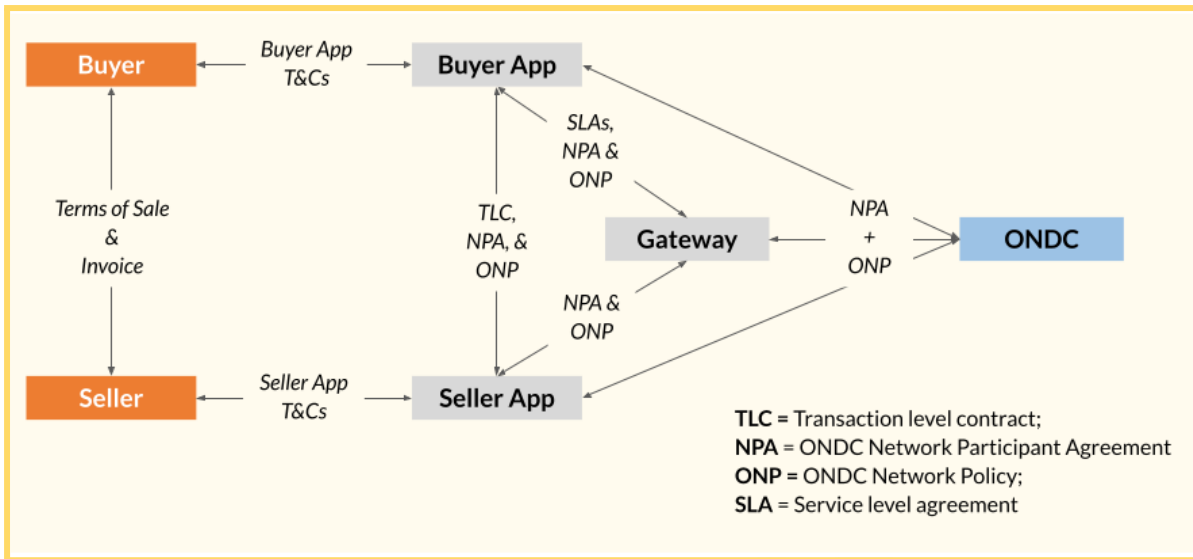
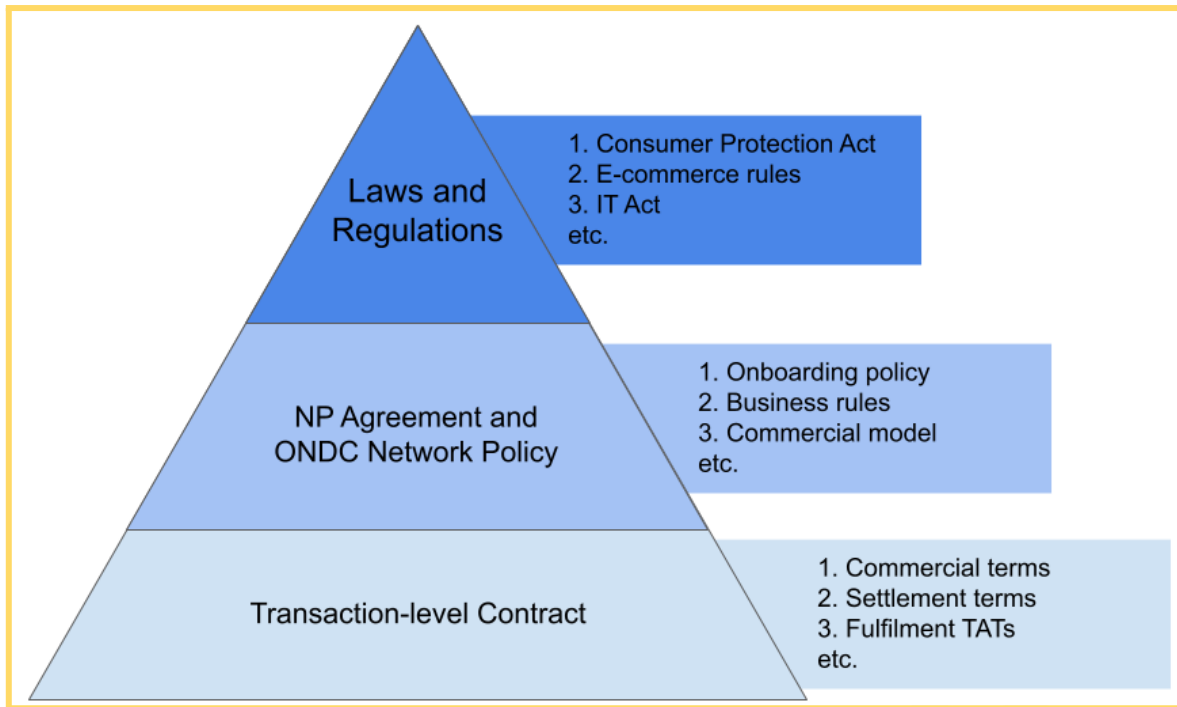


Figure 1: Legal relationships between participants in the ONDC Network

In any individual sale, the Buyer and Seller are bound by the terms of the sale, and the title for the goods is transferred from Seller to Buyer through the invoice. The Buyer has a pre-existing legal relationship with the Buyer App (through the Buyer App's terms & conditions), and the Seller has a pre-existing relationship with the Seller App (through the Seller App's merchant agreement, or terms & conditions). There is no direct legal relationship between a Buyer and Seller App, or Seller and Buyer App.

The Buyer App and Seller App have a pre-existing legal relationship only with ONDC, through the Network Participant Agreement (**NP Agreement**). While the NP Agreement creates the legal relationship, the ONDC Network Policy details the operational aspects for a participant to actually transact on the ONDC Network.

Going into a transaction, the Buyer App and Seller App have no pre-existing legal relationship. A legal relationship is created between them, on-the-fly, through the Transaction-level Contract, to facilitate a transaction between a Buyer and Seller. A Transaction-level Contract is a digital contract executed through the ONDC Protocol between the Buyer App and Seller App. ONDC is not a party to that transaction.



*Figure 2: Hierarchy of rules of engagement on the ONDC Network*

While the Transaction-level Contract governs the terms of a given transaction, the ONDC Network Policy governs the general rules of engagement on the Network, including what may or may not be included in the Transaction-level Contract. Further, while the entire ONDC construct operates within the confines of applicable laws, which themselves contain some measures to build trust between market participants, the ONDC Network Policy, along with the NP Agreement and Transaction-level Contract are the instruments that ensure participants behave in a fair, predictable, transparent and consistent manner.

While these attributes are necessary for a healthy business environment, what does it mean for any e-commerce system to foster trust? What does it encompass? What are the specific considerations for fostering trust in a network-based architecture like ONDC?

## 2. Determinants of trust in e-commerce

Participants' trust in an e-commerce system depends on how confident they feel that the other participants (including the platform/ intermediary) meet certain expectations regarding their behaviour and capacity. Existing literature on building trust in e-commerce indicates that meeting the following expectations is critical for participants to trust an e-commerce system:

- **Integrity:** The general expectation that other parties to the transaction will adhere to declared rules of operation.<sup>2,3</sup>
- **Ability:** The general competence of participants in a transaction to provide good quality goods and services.<sup>2</sup>
- **Benevolence:** The expectation that an e-commerce merchant genuinely believes in 'doing good' for the consumer, and doesn't merely prioritise making profits.<sup>2</sup> Benevolence may also be an expectation of a Seller, in that he/she expects the marketplace or the interfacing platform to act in the best interest of the Seller. The Seller will also expect that the interfacing app doesn't take unfair advantage of the Seller<sup>4</sup>.
- **Willingness to rectify** if the goods or services are not up to the mark of expectations of the buyer.<sup>3</sup>
- **Responsiveness:** The ability of the platform/seller to adequately and effectively address customer grievances.<sup>2</sup>
- **Tangibles:** The confidence that the system offers a stable technology experience, which includes little to no downtime, ease-of-use, and the clarity of the purchase procedures.<sup>2</sup>
- **Predictability:** The expectation that a party will behave consistently with forecasted behaviour.<sup>5</sup>

If these expectations are met, participants are more likely to repose their trust in the e-commerce system. The benefits of building and preserving trust are numerous. Participants that trust an e-commerce system show a greater willingness to transact using it<sup>6,7</sup>. If buyers trust an e-commerce system/platform, they have a higher likelihood of making a repeat purchase on the platform<sup>8</sup>, which in turn can build greater trust towards specific Sellers on the platform<sup>9</sup>. Consequently, this leads to greater earnings for Sellers.<sup>10</sup> Greater trust helps to evoke a feeling of satisfaction amongst buyers after making a purchase<sup>11</sup>. It reduces the risk perception of e-commerce amongst buyers, which in turn can lead to a greater willingness to engage with sellers with whom the buyer has never transacted before<sup>12</sup>.

While the aforementioned factors contribute to trust in an e-commerce system in general, the buyer and seller have some considerations that are unique to them. So clearly understanding the determinants of trust for buyers and sellers is critical for building a system that actually fosters trust, rather than merely having the appearance of trust.

### 2.1 Determinants of trust for a buyer

A study in 2022 by the Indian Institute of Public Administration on the kinds of consumer disputes filed by customers of e-commerce platforms gives some insights into what customers are most frequently dissatisfied by when it comes to e-commerce transactions. The study

found that issues with Delivery of Defective/Wrong/Damaged products and issues with failed refunds were the most common kinds of consumer complaints (24% each).<sup>13</sup> These were followed by complaints related to non-delivery or delayed delivery (18%), and deficient services (14%), followed by complaints about the product being missing or missing certain accessories (6%), followed by other complaints.

The distribution of the nature of grievances gives us some clues about the typical pain points for a buyer in an e-commerce transaction. For a typical buyer, whether they trust an e-commerce system will be based on the following considerations<sup>14</sup>:

**1. Transparency, and accurate information -**

Transparency in the terms and conditions of sale, and adequate, accurate information is critical for a buyer to be able to make an informed choice. This in turn has an effect on their trust. A buyer would assess whether the information they are provided is accurate and complete based on answers to questions like - Is the product description accurate? Are there any hidden charges or conditions? Is the buyer being provided with customer reviews/ratings to discern between two similar products? Does the buyer have access to information on sellers regarding their track record on customer satisfaction?

**2. Performance assurances -**

These considerations relate to questions of product quality, guarantee/assurance of fulfilment and willingness of the market participants to honour refund/replacement/cancellation terms. A buyer would assess the quality of performance assurances on the basis of answers to the questions like - Will the buyer consistently get genuine products? After paying for a product, will the buyer receive the product in the promised time, and in good condition? If something goes wrong (there is a delay in delivery or the product is damaged/defective/deficient), will the buyer be able to cancel/return the product and/or get a refund/replacement without much trouble?

**3. Fair treatment -**

Concerns related to fair treatment relate to whether the buyer feels like they are being manipulated into making a particular purchase without their knowledge. The manipulation could take the form of practices such as price manipulation or search results manipulation. A buyer would assess whether they are being treated fairly based on answers to questions like - Is the seller actually offering a discount or is the list price being artificially inflated to nudge the buyer to buy the product? Are the products being displayed to the buyer the most relevant to their search parameters or the best fit for them, or have they sponsored results?

**4. Safe environment -**

These considerations pertain to how secure a buyer feels in engaging with the e-commerce system. This includes elements like privacy and data protection, stability and security of the platform(s), and whether the system has any mechanism to block or remove bad actors. An assessment of consistency and security would be made by answering questions like - Is the buyer's personal data maintained in a safe and secure manner? Does the platform remove or block sellers who engage in misconduct/fraud?

## 5. Customer service and issue resolution -

This typology of considerations pertains to services after an order has been placed. This includes basic customer support as well as grievance redressal and dispute resolution. An assessment of whether these considerations are addressed depends on answers to questions like - If the buyer needs assistance on an order they have placed, such as checking the status or requesting a change of address, will they have a point of contact or interface to do so? If there is a problem with any of the products/services will somebody hear and resolve the buyer's complaint in a timely manner?

The more of these questions that are answered in favour of the buyer, the greater the buyer is likely to trust the e-commerce system in question. With greater trust will come greater usage of the system and greater value-creation for all parties involved.

## 2.2 Determinants of trust for a seller

While there is some overlap between the determinants of trust for a seller and a buyer, there are several considerations that the seller has that are distinct from the buyer's considerations. For a seller, the concerns are mainly rooted in how well the e-commerce system protects their business interests. For a typical seller, the primary concerns, about an e-commerce system will be based on the following considerations<sup>14</sup>:

### 1. Fair business environment -

Whether an e-commerce system provides a level-playing field is a critical consideration for a seller. Fairness in this context is determined on the basis of factors such as a fair chance of being discovered, transparency in the terms and conditions for participating in the e-commerce system, the amount of bargaining power relative to the platform(s), and the rules of engagement maintaining a balance between the interests of buyers and sellers. The assessment of whether a business environment is fair would be based on answers to questions such as - Do the sellers have access to information about the algorithms used for search and discovery, and can a seller take some measures to reliably improve their chances of being discovered? Are the terms and conditions for conducting business clear and declared upfront? Will the seller have any say in determining the terms or will the terms be dictated by the platform? For instance, will sellers have a say in bearing the cost of discounts that the platform wants to offer to buyers? Are the terms of sale sensitive to the interests of the seller as they are of the buyer's interests? For example, are sellers mandated to take product returns free-of-cost and no-questions-asked?

### 2. Performance assurances -

Performance assurances in this context pertain to on-time payment and assurances regarding the fulfilment of an order. The assessment will be based on answers to questions such as - Will the seller be paid on time? If the payouts are based on milestones, will the seller have access to easy credit options to meet cash flow requirements? Will the product dispatched by the seller reach the customer safely? And if there is a return, will the product be returned safely to the seller?

### 3. **Efficient grievance redress -**

This set of considerations relates to handling exceptional situations, i.e. when processes do not work as they ideally should. The seller needs to have some assurance that if there is a problem with any transaction, or they have been wronged by another market participant, there will be a forum that they can approach for relief. Also, if they are charged by another stakeholder of wrongdoing, they will get a fair chance to defend themselves.

### 4. **Choice and viability -**

Whether a seller joins and remains on an e-commerce system is heavily dependent on whether the e-commerce system offers them a viable business model. Viability is partly dependent on the ability of the seller to negotiate favourable terms of business with counterparties, in this case, the platform(s). One aspect that can greatly boost negotiating power is choice, competition and substitutability. In the context of e-commerce, this would mean a scenario where a seller is able to easily switch from one platform to another, without much disruption in business. They can then choose their interfacing platforms/applications on the basis of who offers them the most suitable terms, and leave a platform if it is no longer viable. This, of course, requires that there be actually viable options for the seller to port to.

Overall, for a seller, trust is underpinned by predictability in business conditions, the viability of the business model, some autonomy/bargaining-power, and an assurance that all other parties in the transaction (e.g.: delivery persons, payment aggregators etc.) perform their obligations as promised.

This understanding of what drives trust among buyers and sellers, gives us a framework to perform a normative assessment of the fitness of any given e-commerce system to build trust. Next we need to establish what already exists in the country to address these concerns, including systems that are external to the e-commerce platforms. The first and most prominent mechanism among these is the law. In the next section, we describe which existing laws have a bearing on buyers' and sellers' trust in e-commerce, and how.



### 3. Laws governing trust in e-commerce

Laws, rules and regulations create a bounding box within which all e-commerce has to operate. They apply irrespective of the model of e-commerce in question. Much of the legislation that intersects with trust-related concerns focus on consumer protection, i.e. buyers' trust. While there exists legislation that would affect sellers' trust, there isn't specific legislation directed towards building trust among sellers, whether in the e-commerce context or otherwise.

A swathe of existing laws, rules and regulations tackle the issue of trust for the buyer. These statutes are underpinned by consumer protection concerns. Among the most important ones are the following:

- 1. Consumer Protection Act, 2019 (CPA)**

The CPA is designed to protect consumers against misconduct by businesses from whom they purchase goods and services. The CPA provides some ex-ante protection to consumers by banning unfair trade practices (such as misleading advertising) and unfair contracts and sets out the liability for different parties in a transaction. E.g.: Product liability is always with the seller of the product. The CPA also defines the grounds on which a consumer can raise complaints against a business, and provides for a forum for the same, namely the consumer courts.

- 2. Consumer Protection (E-Commerce) Rules, 2020**

These rules, made under the CPA, lay down the specific duties and obligations of e-commerce entities and sellers transacting through them with respect to consumer protection. The E-Commerce Rules make it mandatory for certain disclosures to be made to the consumer to allow the consumer to make informed decisions about a purchase (e.g.: displaying the product price, country of origin, manufacturing date etc.). The Rules also cast an obligation on the E-Commerce entity to ensure that the information provided to a buyer is accurate and complete. The E-Commerce Rules further require the e-commerce entity and a seller transacting through it, to establish a grievance redressal mechanism. They further mandate fair treatment of buyers by prohibiting price manipulation and price discrimination.

- 3. Legal Metrology (Packaged Commodity) Rules, 2011**

These Rules make it mandatory for a seller and the e-commerce entity to display certain information to allow the buyer to make informed decisions, with respect to purchasing packaged goods. For example, the buyer must be informed of the quantity of the goods being sold, the date of manufacturing, the retail sale price, the size of the commodity etc.

- 4. Information Technology (Reasonable security practices and procedures and sensitive personal data or information) Rules, 2011 [abbreviated as Intermediary Rules, 2011]**

The Intermediary Rules 2011 apply to all entities that act as intermediaries in the exchange of information through telecommunication networks (including the internet). It contains provisions intended to protect all users of any websites or online resources from misleading them for financial gain and prohibits anyone from compromising/breaching the security of computer resources to which they are not



supposed to have access. Further, the Rules also require data intermediaries to create an adequate grievance redress mechanism to handle complaints regarding such violations.

#### **5. Payments and Settlements Systems Act, 2007**

The Act sets the rules for all payment systems in India. E-Commerce entities engage with Payment Aggregators (PA) or Payment Gateways (PG) to enable payments collection, on the basis of the Guidelines on Regulation of Payment Aggregators and Payment Gateways, 2020 (PA/PG Guidelines, 2020) issued by the Reserve Bank of India under the Payments and Settlements Act, 2007. These guidelines form the bedrock of the existing mechanisms used for payments and settlements in e-commerce. The Guidelines allow for two transacting parties to mutually determine settlement terms, which enables trust-building mechanisms such as trigger-based payouts, the ability to withhold part of the payment, the ability to claw back a payment made in error or in case of a contractual breach etc.

In addition to the laws and regulations mentioned above, there are several sectoral laws and regulations that aim to foster trust in the systems they govern. As an example, laws and regulations governing financial products [e.g.: Securities and Exchange Board of India, 1992; SEBI (Prevention of Fraudulent and Unfair Trade Practices) Regulations, 2003 etc.] typically contain provisions for protecting consumers as well as for setting up mechanisms to maintain trust in their respective markets by preventing misconduct.

These laws are administered and enforced by various regulators and administrative departments. As an example, the Central Consumer Protection Authority is a regulatory authority set up under Section 10(1) of the Consumer Protection Act, 2019 to regulate matters affecting the rights of consumers. Another example is the Securities and Exchange Board of India, which regulates the securities markets, and is responsible for ensuring market participants do not lose trust in markets.

These laws (and many others) create a bounding box within which e-commerce businesses must operate. Below the layer of laws, are the policies and processes that e-commerce businesses put in place. The policies do two things (1) ensure that the participants and the e-commerce business comply with existing laws, and (2) set out the rules of engagement for that particular e-commerce system. In the next section we describe the policies, processes and other mechanisms instituted by ONDC to foster trust among buyers and sellers.

## 4. Trust-building measures by ONDC

ONDC fundamentally uses 3 levers to affect any outcome on the ONDC Network. The first lever is the ONDC Network Policy. The Network Policy lays down the overall rules of engagement and places some distinct responsibilities on the different network participants depending on the functions they perform. For details about the ONDC Network Policy see [Appendix A](#).

The second lever is the ONDC Protocol Specification (“**Spec**”). The Spec is the interoperability standard that all Network Participants have to follow to interact with each other on the ONDC Network. While ONDC does not dictate each individual instance of communication using the Spec, it does dictate the design of the Spec, which in turn determines what is possible to do through it.

The third lever is the Transaction-level Contract (“**TLC**”). The TLC is a digital contract between a Buyer App and Seller App to facilitate the purchase of goods/services on the Network. For details of the TLC please refer to [Appendix B](#). A large part of the Transaction Level Contract is part of the Spec, and the contract itself is executed through the Protocol.

ONDC uses these three levers to ensure Network Participants conform to a certain standard of good behaviour and to create binding contracts between parties. To understand how these three levers work on an operational level, it is necessary to cast them in the context of the life-cycle of a transaction on the ONDC Network. To that end, in this section, we delineate the life-cycle of a transaction and explain what measures ONDC has taken to foster trust at each stage. Simultaneously we also pose some specific questions on which we are seeking feedback from the reader.

The stages in the life-cycle of a transaction are:

1. **Search and discovery** - In this stage, the buyer searches for a product and receives a list of sellers selling that product.
2. **Placing an order** - In this stage, the buyer selects a product, adds it to their cart and confirms the order
3. **Fulfilment** - This stage involves delivering the product to the buyer, and includes the process of finalising the arrangements to execute the delivery.  
In the platform-based model, this stage typically only includes the actual execution of the delivery. In the ONDC Network it works slightly differently. The process of finalising fulfilment arrangements overlaps with the order placement process.
4. **Payment and settlement** - In this stage, the buyer completes payment for their purchase, and the entities involved in the transaction get paid their dues.  
Strictly speaking, in most cases, payment precedes order confirmation, and settlement usually happens on some date well after the payment is completed. However, breaking the process down in this manner makes for an easier explanation.

5. **Returns/ refunds/ cancellations** - Strictly speaking, this is not a stage in the life-cycle of a transaction. However, these events happen often enough that they require a systematic model, policy and process to handle them efficiently.
6. **Issue and grievance management** - This is not a stage in the life-cycle of a transaction, but rather an exception-handling process. It can kick in at any stage of the transaction, but most frequently it comes in after an order has been confirmed and paid for.

These stages are agnostic of the category/domain of the product/service being purchased/sold. The logic applies more or less equally to everything from retail transactions involving groceries, to travel and mobility.

The rest of the trust-building measures we discuss do not directly map onto discrete stages of the life-cycle of a transaction, but rather cut across them all or apply at a layer distinct from the transaction layer.

## 4.1 Search and discovery

From a buyer’s point of view, the search functionality will be functionally identical to what takes place on existing e-commerce platforms. Where the process differs is in what happens in the background, i.e. how the search is broadcasted and how responses are collected. The display of responses to buyers, again will be nearly identical to how it takes place on existing e-commerce platforms. Figure 3 summarises the search and response process on ONDC.

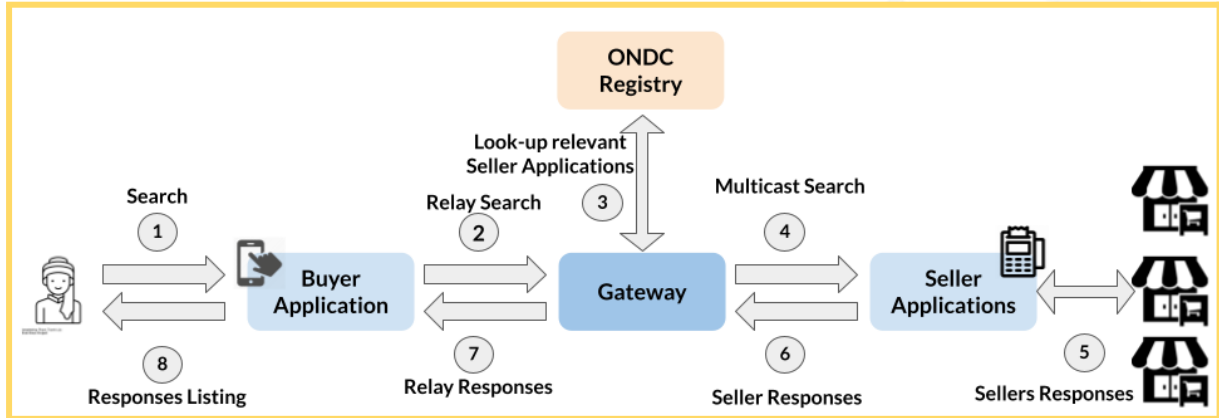


Figure 3: Search and response on ONDC Network

The process begins with the buyer initiating a search. The search could be for a product/service or for a store and could happen through a website, a smart-phone application, a kiosk or any other interface. The search could be initiated either by entering a search query in a search bar or by clicking on a recommendation or featured listing on the Buyer App’s homepage.

The Buyer App then relays this search query to the Gateway. The Gateway performs a look-up on the ONDC Registry to identify Seller NPs who have sellers that sell the product/service matching the search criteria. The Gateway then multi-casts the search query to all such Seller Apps. The Seller Apps, in turn, query their respective sellers to check whether the product is in stock or not, gather responses from all sellers who sent a valid response and pass those

responses on to the Gateway. The Gateway relays the responses to the Buyer App, which displays them to the buyer.

#### 4.1.1 Trust considerations in search and discovery

There are several points in this process where questions of trust come up. First, what stops a Gateway from selectively sending out search requests to Seller Apps of its choice? The ONDC Network Policy has explicit provisions against such behaviour. The Gateway must send requests to all relevant Seller Apps, and must return all responses, without any filtering or exclusions. To further guard against such behaviour, entities which operate Gateways are forbidden from operating a Buyer App or Seller App. To further ensure that the Buyer App does not selectively send search requests to Seller Apps/sellers of its choice, the ONDC Network Policy makes it compulsory for every search request to be sent to the Gateway (even if the Buyer App has cached results from previous searches).

If the Buyer App operates an e-commerce marketplace outside the network, it is forbidden from sending a search exclusively to its closed user group / captive sellers. Thus, all sellers on ONDC always receive search requests for which they are eligible to respond. Furthermore, under the ONDC Network Policy, such a Buyer App is also required to, eventually, participate on the network as a Seller App, i.e. it has to bring its sellers onto the ONDC Network, under the reciprocal participation requirements.

The next question that arises is with respect to the listing of search responses. A Buyer App is permitted to have some minimum standards for the quality of responses that they will display to the buyer (e.g.: a minimum of 3 high-resolution photographs of the product). However, the ONDC Network Policy makes it mandatory for them to publish any such standards so that sellers and Seller Apps are aware of how they need to maintain their catalogues. This maintenance of catalogue quality is essential for the buyer to have a good and consistent buying experience.

On the same lines, the Buyer App is permitted to apply proprietary algorithms to sort the sellers in the response listing, however, it is required to publish the broad parameters/factors it uses for such sorting, and also publish general guidance for sellers who wish to be ranked higher in the priority. In cases where the Buyer App has captive sellers on its marketplace off the ONDC Network, it is forbidden from prioritising responses from such captive sellers simply because they are part of the Buyer App's closed user group. It must treat its captive sellers and sellers from ONDC equally, as per the ONDC Network Policy.

For transparency towards the buyer, under the ONDC Network Policy, Seller Apps have an obligation to ensure that all information sent by their sellers is complete and accurate, and the Buyer App has the obligation to display that information faithfully. It cannot, therefore, refuse to display some information from some sellers arbitrarily. Further, if the Buyer App allows sellers to boost their rankings in the priority of listing (whether for payment or otherwise), any such results which are boosted/sponsored have to be clearly marked as such for the benefit of the buyer.

Thus, throughout the entire search and discovery process, ONDC has tried to ensure that it preserves the trust of both buyers and sellers.

### 4.1.2 Questions/Issues for consultation (search and discovery)

- a. What more can ONDC do to make the process of search and discovery fair for both the buyer and seller?
- b. What is the best way for ONDC to enforce its algorithmic accountability requirements from Buyer Apps?
- c. To what degree of detail should Buyer Apps be required to publish their listing prioritisation algorithms?

## 4.2 Placing an order

The process of placing an order begins after the buyer has received responses for a search. As with search and discovery, from the buyer’s point of view, add-to-cart and placing and confirming the order are functionally identical to what takes place on existing e-commerce platforms. Again, where the process differs is in what happens in the background, between the Buyer Application and Seller Application. Figure 4 summarises the selection and add-to-cart process.

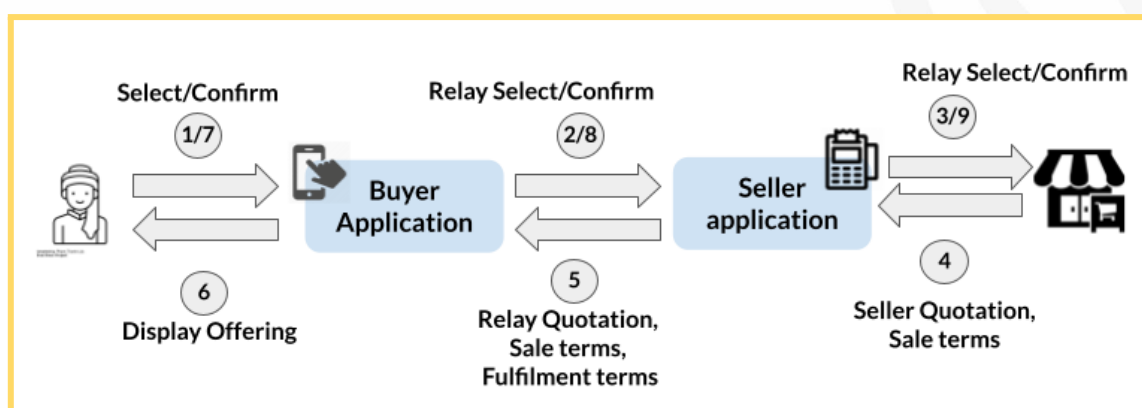


Figure 4: Order Placement on ONDC Network

After the buyer has received responses to their search, they can click on a listing to navigate to its product page. When the buyer does that, the Buyer App then relays this request to the relevant Seller App, who in turn relays it to the seller, and receives a quotation (i.e. product price, offers, discounts etc.) and terms of sale from the seller. The Seller App relays the quotation and terms of sale, along with their fulfilment terms to the Buyer App, the Buyer App displays to the buyer.

It should be noted that the Protocol allows the Buyer App to deliver the order if it so chooses. In such a case, the Buyer App will offer fulfilment terms to the buyer, not the Seller App. In practice, however, we expect the Seller Apps to offer fulfilment terms, in most cases, and that is the process flow shown in the diagram. Fulfilment terms include details of whether the item can be delivered or whether the buyer has to arrange for a pick-up, and if delivery is possible, then what will be the turnaround time.

The buyer can then add that item to their shopping cart. At this point the buyer will be informed of the logistics/delivery charges, convenience fees, and packing charges, if any.

The buyer then completes payment and confirms the order. As a part of the order confirmation, a Transaction-level Contract is created and digitally signed by the Buyer App and Seller App. This contract contains all the rights and obligations of both Network Participants in relation to that order, including settlement terms and commissions.

This stage of the transaction i.e order confirmation and payment completion will progress into the final stage of the order completion i.e fulfilment. As per the terms of the logistics contract agreed between the Logistics Buyer and the Logistics Provider, the Logistics Provider will pick up the shipment from the Seller and deliver it to the Buyer. In certain cases, where the Buyer has chosen Cash On Delivery (CoD) as the payment method, the Logistics Provider will be responsible for collecting payment from the Buyer in exchange for handing over the shipment.

#### 4.2.1 Trust considerations in order placement

The page for search responses can only display a limited amount of information about any given product. So all the crucial information that a buyer needs to make a purchase decision actually resides in the quotation, terms of sale and fulfilment terms. This includes elements like the declared price of the product, product description, offers/discounts, minimum order quantity, logistics costs, terms and conditions for returns/refunds/cancellations (if permitted), delivery time for the product etc.

Through the Network Policy, ONDC mandates the Seller App to report accurate and complete information. First, Seller Apps have to ensure that the product description is accurate and complete. Second, they have to ensure that the terms and conditions for returns/ refunds/ cancellations are clearly declared. Third, they have to clearly specify the price declared by the seller (which cannot be greater than the MRP), separate from any other charges such as convenience fees, packing charges etc. Fourth, the fulfilment terms such as delivery time and delivery charges have to be clearly mentioned. The Buyer App in turn has to faithfully display all the information it receives from the Seller App without modification or obfuscation.

The Transaction-level Contract is an innovation introduced by ONDC. It allows Network Participants who have no preexisting relationships (contractual or otherwise) to enter into binding contracts to facilitate purchases over the ONDC Network. Trust between their respective end-users is created by the fact that both the Network Participants are bound by this contract to facilitate the completion and fulfilment of the order.

#### 4.2.2 Questions/Issues for consultation (order placement)

- a. What are the considerations in selection and order placement that ONDC has not considered?
- b. What are the disclosures, other than prices/ fees/ charges, that are necessary to be made to the buyer?
- c. Which of the proposed measures can be further improved and how?



### 4.3 Fulfilment

In the ONDC context, the fulfilment stage overlaps with the order placement stage. The buyer selects a product from the search results and lands on the product page. On the product page the buyer has to be informed whether the product can be delivered or the buyer has to arrange for a pick-up. There is no mandate or restriction on who can take on the responsibility of delivery. The protocol allows both Buyer App or Seller App to deliver the product, however in practice, we expect the Seller Apps (themselves or their sellers) to take on the responsibility.

If either Seller App or Buyer App chooses to take the responsibility of delivering the product to the buyer, they have the freedom to decide what arrangements they want to make to actually execute the delivery. They can use their own employees or agents, or engage the services of a firm that provides logistics services. If they do not have a pre-existing agreement with a logistics services firm at the time of agreeing to deliver the product, the ONDC Network allows the Network Participant to procure logistics services through the ONDC Network itself to fulfil the order in question. Figure 5 shows the process for procuring on-network logistics.

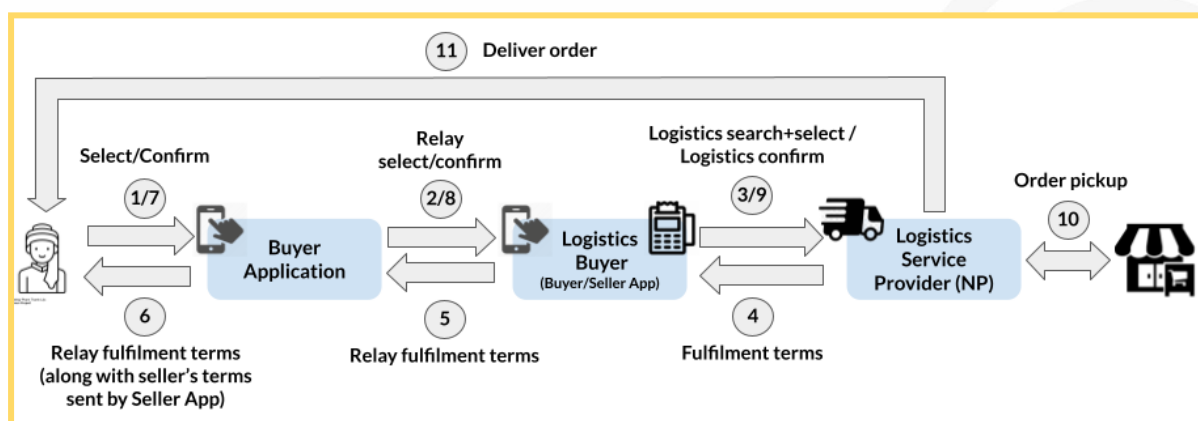


Figure 5: On-network logistics on ONDC Network

The logic of the transaction is the same as that of a buyer purchasing something on the Network. Logistics Service Providers are Seller Apps whose sellers sell logistics services. The Logistics Service Provider could be a Marketplace Seller Node who has logistics sellers (i.e. delivery agents), or it could itself be the logistics seller, similar to how a retail seller can be an Network Participant as an Inventory Seller Node.

So a Logistics Buyer (i.e. Seller App or Buyer App that is part of an ongoing transaction) searches for logistics services on the ONDC Network. Similar to the search for a product seller, the Logistics Buyer receives quotations from Logistics Service Providers who are willing to deliver that order. The Logistics Buyer then passes on the price and turn-around time for logistics to the Buyer App, who then relays it to the buyer.

When the buyer confirms their order on the Buyer App, the Logistics Buyer parallelly confirms the logistics order. The two orders are linked to each other through a common reference id. Also, some terms of the buyer’s order (e.g.: address, delivery instructions etc.) are propagated to the logistics order, and some elements of the logistics order (e.g.: TATs, details of the delivery agent, tracking link etc.) are propagated to the buyer’s order. Similar to what happens between

a Buyer App and Seller App, the Logistics Buyer and Logistics Service Provider sign a Transaction-level Contract for logistics services.

### 4.3.1 Trust considerations in fulfilment

ONDC's architecture gives Buyer Apps and Seller Apps the freedom to decide how they want to manage order fulfilment. Allowing this flexibility and choice is an important aspect of building trust among Network Participants as well as sellers, since it gives them the ability to conduct their business on their own terms. Also, for sellers who are too small, or have too low a transaction volume to get into any long term contractual arrangement with a logistics provider, the on-network logistics mechanism provides a convenient way to fulfil their orders.

The mandate, under the ONDC Network Policy, to provide accurate and complete information to buyers applies to Logistics Service Providers, since they are effectively Seller Apps. So Logistics Service Providers must provide accurate and complete information regarding their terms and conditions to the Logistics Buyer. Further, the Logistics Buyer has to ensure that the buyer is informed of the logistics charges as a clear, separate line item in their bill.

The provision of on-network logistics is an innovation that ONDC has introduced. This will enable sellers to deliver orders, even if they do not have any logistics setup of their own. Further, the terms of the logistics services are bound by a contract between the Seller App and Logistics Service Provider. This will engender additional confidence among sellers that their shipments will be safely delivered to their buyers. Additionally, where possible, ONDC policies require the NP responsible for logistics to give the buyer the facility to check the status of the delivery.

### 4.3.2 Questions/Issues for consultation (fulfilment)

- a. What are the concerns around the linked orders and on-network logistics that ONDC should be aware of?
- b. How can both the buyer and seller's interests be fairly protected in such back-to-back contractual arrangements?

## 4.4 Payment and settlement

Typically, sellers in an e-commerce system are assured of receiving payment for their goods by the single central platform that collects and settles all payments. As a result of unbundling of the e-commerce value chain which is at the heart of the ONDC model, the responsibility of facilitating and resolving payments and settlements is dispersed across multiple entities that wish to perform those functions. Figure 6 summarises the payment and settlement construct on the ONDC Network.

The Collector NP in this scenario can be either the Buyer App or Seller App. In the case of a Cash on Delivery payment, the NP which procured logistics (whether on-network or off-network) will be the Collector. The process does not change as a result. The Recipient NPs will be the other NPs involved in the transaction such as the counterparty NP and Logistics Service Provider.



In order to ensure timely and smooth settlement between the Collector NP and the other Recipient NP, ONDC has defined a settlements flow to streamline reconciliation and settlements for a multi-party and multi-time frame settlement schedule without having a centralised reconciliation or settlement agency. The construct requires two types of entities, namely, Reconciliation Service Providers (**RSP**) and Settlement Agencies. The Network Participants may perform these roles themselves or avail the services of specialised service providers.

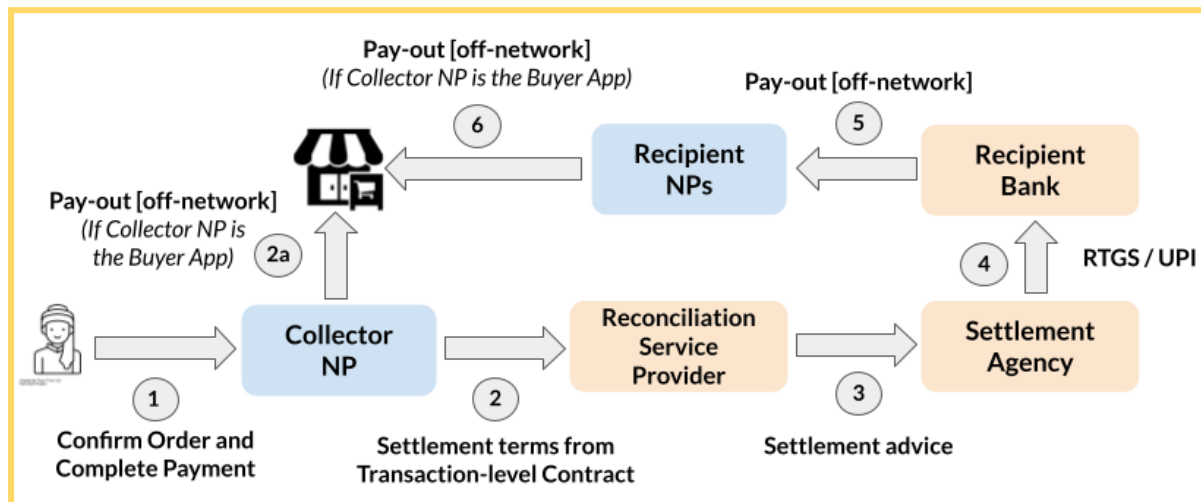


Figure 6: Payment and settlement process on ONDC Network

When a transaction is complete - i.e. the order is confirmed and the buyer has completed the payment, the RSP will receive the settlement terms and amounts from the Transactional-level contract signed between the concerned Network Participants. One Network Participant out of those will be the Collector, and the rest will be Receivers. On the basis of the settlement terms and amounts received from the Collectors, the RSP will prepare a settlement advice which it will forward to the Collector's appointed Settlement Agency. The Settlement Agency will initiate settlement to the Recipient NPs through the Recipient's Bank, as per the settlement advice received from the RSP.<sup>1</sup>

#### 4.4.1 Trust considerations in payment and settlement

A sound settlement system has to meet two objectives. First, prevent misuse of collected funds and ensure timely settlement.

On the first count, the system has to ensure that the collecting entity only uses the collected funds to settle with the counterparty based on the settlement terms. In order to ensure that funds collected are not used for any other purpose (such as making capital expenses, marketing expenses, paying employee salaries, or simply being siphoned off etc.) the settlement system employs a special type of bank account (similar to a Nodal Account), which ensures that funds collected are only paid out according to specific, system-generated triggers, which are governed by the settlement terms in the Transaction-level Contract. Under no circumstances

<sup>1</sup> For more details, refer to the supplementary readings, namely the explainer on the Decentralised Payments and Settlements system.

can the funds be withdrawn or used for other purposes. Further, the ONDC Network Policy requires all Network Participants to maintain such an account, and follow the prescribed process for settling payments.

On the point of timely settlement, ONDC's Payment and Settlement Protocol requires all downstream settlements, as per the agreed settlement terms, to be performed within 24 hrs of the settlement event being triggered. The settlement terms being a private agreement between the Collector and Recipient(s), allows for flexibility in payment terms and settlement triggers. At the same time, sanctifying the terms through the Transaction-level Contract makes them legally binding and programmatically enforceable.

The mutually agreed upon settlement terms are also applicable in the processing of full or partial refunds. The buyer will receive their refunds from the Collector NP, as per the refund terms in the sale terms.

On the seller's side, the Seller App will settle payments with sellers as per their mutually agreed upon terms. The comfort that the seller has is that even if the Buyer App collects payment, they will be assured of settlement on the terms they agreed to with their Seller App.

#### 4.4.2 Questions/Issues for consultation (payment and settlement)

- a. What are the issues in the system proposed by ONDC for payments and settlements?
- b. What, if any, are the risks of allowing these intermediaries to participate in the process?
- c. How can these risks, if any, be mitigated?

### 4.5 Returns, refunds and cancellations

Returns, refunds and cancellations play a significant role in cultivating trust in an e-commerce network, given that the entire notion of physically examining the product before purchase is moot, and also logistics may be outside the control of the buyer. The requests and responses for returns, refunds and cancellations work much in the same way as for placing an order. The key difference is that the return, refund or cancellation request will be processed on the basis of the terms of sale offered by the seller at the time of the sale.

For instance, if the seller had declared upfront that the product is not returnable, the return will not be processed, unless the product is defective or damaged. Even when a product is returnable, the seller may choose to issue a refund rather than initiating a return. Similarly, cancellations will only be processed if the seller had indicated upfront the order is cancellable.

The logistics for a return, will work in a similar fashion to forward logistics, but with the flow inverted. The seller or seller app will place a logistics order for the reverse pickup, if that was the commitment given in the returns policy and the return was initiated within the return window.

## 4.5.1 Trust considerations in returns, refunds and cancellations

ONDC tackles the issues of trust in returns, refunds and cancellations mainly through transparency and mutual agreement between buyers and sellers. As explained earlier, the seller has to disclose their terms with respect to returns, refunds and cancellations, upfront at the time of making an offer to the buyer. This is a requirement under the Network Policy. Further, the actual terms themselves are coded into the Transaction-level Contract.

Allowing sellers to declare their terms and letting buyers transact with sellers whose terms they find acceptable is an inherently more balanced approach than a centralised entity dictating what the terms of sale should be. This will allow for greater differentiation in service levels offered by different sellers and allow for better price discovery, while at the same time, giving buyers the option of choosing to deal with sellers who offer terms that are acceptable in their reckoning.

Further, once the terms are set, a clear contractual commitment is created between the buyer and seller, and between their interfacing NPs who are facilitating the transaction. Any violation can then become grounds for filing a grievance/dispute, and repeated violations can result in disciplinary action on the respective Network Participant.

Beyond making the parties declare their terms upfront, and casting an obligation on all parties to abide by their pre-declared commitments, ONDC does not prescribe anything specific with respect to how returns, refunds and cancellations are to be handled. This is keeping in line with ONDC's principle of being a facilitator, not a regulator.

## 4.5.2 Questions/Issues for consultation (returns, refunds, cancellations)

- a. What, if any, are the issues in the proposed approach to returns, refunds and cancellations?
- b. What mechanisms can ONDC and Network Participants put in place to avoid issues related to returns, refunds and cancellations from escalating into disputes?

## 4.6 Issue and grievance management (IGM)

Issue and grievance management is a critical component of building trust among both buyers and sellers, as discussed earlier in this paper. In a platform model, the centralised platform decides the rules for grievance management, including any standard practices to be followed in certain situations. Further, the centralised control allows for easy coordination of communication and allows for the creation of a consistent experience for the complainant.

ONDC, in keeping with the principle of unbundling and decentralisation, has taken a different approach to issue and grievance management. Instead of assuming the role of a controller, ONDC is putting in place processes to encourage (and in some cases compel) Network Participants and sellers to own their piece in consumer service, and consequently fulfil their responsibility in redressing the grievance. The Issue and Grievance Management (IGM) system will allow Network Participants and end-users resolve any issues, grievances and disputes in a timely manner. Figure 7 summarises the entire IGM process.

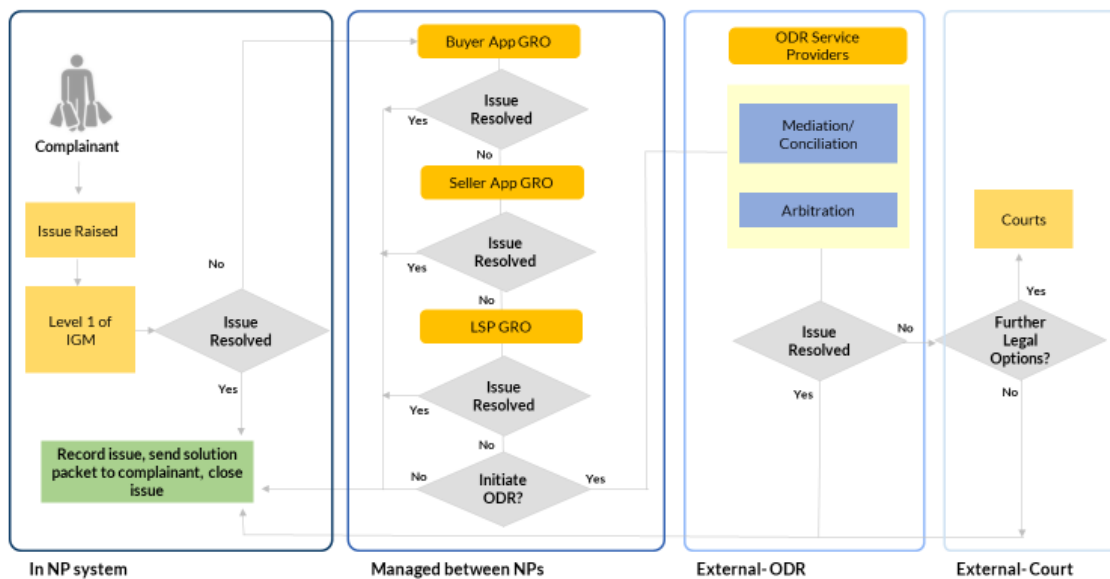


Figure 7: Issue and grievance management process on ONDC Network

The process shown here applies to complaints filed by buyers and sellers. All queries and complaints on the ONDC Network start as an issue. Any query that remains unanswered or a complaint that is not resolved is escalated to a grievance. A grievance if unresolved in time, or not satisfactorily resolved, can be escalated to a dispute. ONDC’s IGM system is designed to resolve issues in 3 phases corresponding to these three levels of the complaint:

1. **Network Participant’s Internal Issue Resolution:** The first level of issue resolution attempts to resolve issues internally. The resolution may be offered through an automated solution (such as a chatbot) or by a customer service person, or through a hybrid model. At this level, a resolution must be offered within 24 hrs of the issue being filed. An unsatisfactory resolution or lack of resolution is grounds for the complainant to escalate the issue to a grievance, which has to be resolved by the Grievance Redressal Officer.  
In such an escalation all information regarding the issue and its resolution, that will be relevant for the next stage of escalation, is passed onto the Grievance Redress Officer.
2. **Issue Resolution between Grievance Redressal Officers:** Grievance Redressal Officers (GRO) are designated roles amongst all the Network Participants, specifically to resolve grievances raised against them. While under the law, this designated entity is only expected to resolve consumer grievances, in the ONDC system we co-opt it to resolve all grievances raised against the Network Participant. Level 2 of the IGM construct requires the GRO of each Network Participant to evaluate the liability of their respective app towards the issue raised and accordingly resolve the issue, if liability can be clearly ascribed to a particular Network Participant. This entire process has to be completed in 7 days from the time of the issue being filed. If none of the Network Participants take liability for a particular issue, the complainant may escalate the grievance to a dispute, at which point an Online Dispute Resolution mechanism

kicks in.

As with the first escalation, all information regarding the grievance and the attempted resolution, that will be relevant for the next stage of escalation, is passed onto the ODR Service Provider.

3. **Issue Resolution through ODR Service Providers:** ODR Service Providers will be Network Participants who will provide dispute resolution methods such as mediation, conciliation and arbitration. The details of how ODR as a service would be made available on the Network is currently being worked upon.

After this, if the dispute is still unresolved, the complainant may approach a court with the appropriate jurisdiction.

#### 4.6.1 Trust considerations in IGM

ONDC, as the orchestrator, has no direct role in (or even visibility of) any transaction. In the IGM process, the responsibility being placed on the individual Network Participants, instead of a third-party intermediary (i.e. ONDC), will ensure a speedier response to the consumer, and a deeper sense of ownership and responsibility amongst the NPs.

With regards to the process itself, under the ONDC Network Policy, Network Participants are required to provide an interface or a convenient mechanism to file and track issues. Further, NPs involved in a transaction are required to coordinate to provide resolution in a time-bound manner. Further, the ONDC Protocol will allow for easy sharing of transaction-related information that can have evidentiary value in relation to a grievance/dispute (such as transaction and other logs, shipment details, photos of the product taken by delivery agents, etc.), streamlining the entire process. Failing to provide timely resolution can lead to the NPs having to face disciplinary action or a drop in ratings in the scoring and badging system or both.

Further, the quality of grievance/dispute resolution (in terms of timeliness, satisfactory resolution, pendency rate etc.) will be published under ONDC's Open Data Initiative, with an appropriate degree of anonymisation.

#### 4.6.2 Questions/Issues for consultation (issue and grievance management)

- a. What, if any, are the gaps or issues in the proposed IGM system?
- b. What mechanisms can ONDC and Network Participants put in place to avoid issues from being escalated to disputes in the first place?
- c. What are the challenges in implementing and getting redressal from the system being designed by ONDC?

### 4.7 Other network-wide initiatives for building trust

In this section, we briefly describe other elements of the network that ONDC is building to foster trust among buyers and sellers. The features described in this section often cut across multiple stages of the transaction life-cycle.

### 4.7.1 KYC of Network Participants

The ONDC Network will be available for any prospective Network Participants to join. However, even an open network needs to put in place some common sense controls on who is allowed to participate. At the same time, these eligibility criteria cannot be so restrictive that they shut out small retailers.

The onboarding requirements under the ONDC Network Policy seek to find just this balance. All prospective Network Participants undergo a basic validation of their credentials before they are allowed to join the Network. In the present scenario, ONDC requires prospective NPs to submit their Legal Entity Name, PAN number, TAN Number, GST Number and a Bank Account Number. ONDC then uses APIs provided by GSTN and other public digital infrastructure providers to validate the information provided by the prospective NP.

Going forward, ONDC will conduct two more validations as part of the KYC process, namely, a penny drop test to ensure that the Bank Account reported is valid and belongs to the NP; and verification of whether the NP has a Nodal-like Account required to settle payments as per ONDC's settlement protocol.

### 4.7.2 ONDC's Common Taxonomy

A product taxonomy is a framework to systematically classify products. A product taxonomy is critical for efficiently searching for products, especially in the ONDC context, where a single Buyer App may be expected to perform searches across dozens of domains. Simultaneously, it provides guidance for any Seller interfacing app to classify the products being sold by Sellers on the app. Sellers can tie their respective catalogues to the taxonomy adopted by the Seller App.

The taxonomy forms the foundation on which search and discoverability is operationalised. Any common taxonomy must be built on standards and benchmarks from established, commonly accepted practices amongst sellers, buyers and e-commerce entities. A Common Taxonomy will allow for the buyer's search intent to be relayed accurately, which is essential for a search to return relevant responses. This in turn, can boost the discoverability of sellers.

A Common Taxonomy will also allow sellers to easily port to a different Seller App without significantly changing its inventory and order management practices. This ability to be able to port will give sellers greater bargaining power in setting their terms of engagement with their respective Seller Apps, thus increasing their trust in the network.

### 4.7.3 Cataloguing as a service

A catalogue refers to a repository of all the Stock Keeping Units (SKUs), with their visual representation and description. When a seller responds to a search query, essentially what they respond with is an amalgamation of an extract of the catalogue (product name, photos, description etc.) and some of their own data (price, availability etc.)



Building high-quality catalogues is a complex exercise, and sellers (especially small retailers) often find it an insurmountable challenge. A consistent and high-quality catalogue enables better discoverability for sellers, and it also enhances a potential buyer's willingness to buy. High-quality images, and complete and accurate product information, tend to increase Buyers' confidence in the quality of the offering. Conversely, poorly constructed catalogues can open avenues for fraud and can lead buyers to lose confidence in the seller, which in turn can cause the seller to lose trust in the network itself. Further, providing incomplete information in the course of the transaction may also result in violations of mandatory information disclosure requirements under various laws, such as the E-Commerce Rules 2020, Legal Metrology Act etc. This can expose the Seller App listing that product to liability.

For a large, centralised platform, building and maintaining a high-quality catalogue may not be difficult. However, in ONDC's network, where we are expecting even local Kirana Stores to participate in e-commerce, providing some support for catalogue management will be essential. To that end, the construct of Cataloguing as a Service (CaaS) will provide an enabling framework for Sellers or Seller Apps to download and use catalogues created and curated for specific categories. Cataloguing as a Service will be provided by specialised Technology Service Providers (TSPs) of which there could be many. Such CaaS TSPs will also be responsible for updating the catalogue(s) based on updated product information.

#### 4.7.4 Scoring and badging system

The scoring and badging system is a user-driven system to rate the quality of the product, and the performance of Sellers and Logistics Service Providers. It will inform other users about the Seller's and Logistics Service Provider's track record with respect to the quality of service.

Buyer Apps and Seller Apps will share ratings data with an independent scoring/badging agency that will then compute scores for a Seller, Logistics Service Providers, Seller App and a Buyer App, on the basis of their past score and their history of disputes (including whether the satisfactory resolution was offered), using a standard formula. These scoring/badging agencies will function in a manner similar to credit rating agencies.

Scoring and Badging is an important mechanism to help provide an indicator of the trustworthiness of any Network Participant. It provides a condensed metric for a buyer, seller or another Network Participant to decide whether to do business with the Network Participant in question. The Scoring/Badging System will also create an incentive for Sellers to provide better service, without having to mandate them to do so.

The Scoring and Badging will be network-wide and portable. That means, if a seller wants to migrate from their current Seller App to another one which is offering them better terms, they can make that switch without losing all the goodwill and reputation they may have generated over time. This feature along with the open, interoperable standards, and common taxonomy grant a great deal of bargaining power to sellers. This in turn will allow them to transact on their own terms, and thus foster trust in the network.

#### 4.7.5 Questions/Issues for consultation (other elements)

- a. How can ONDC effectively drive the adoption of a common taxonomy?

- b. What systems can be put in place to make the taxonomy extensible and adaptable, and yet stable and reliable?
- c. How can ONDC encourage better catalogue management among sellers?
- d. What mechanisms should be put in place in the scoring and badging system to avoid/remove fake reviews and scores?
- e. What other elements, beyond what has been highlighted here, should be built or considered?

## 4.8 Enforcement and compliance framework

ONDC will require Network Participants to be compliant on two counts. First, the Network Participant's application has to be technically compliant and able to integrate with the Network. Second, the Participant must comply with the Network Policy, which, as we have seen, is critical to the governance of the ONDC Network.

Technical compliance will be ensured through a certification process at the time of onboarding. Currently, the certification is being done by ONDC itself, however, in the future, it will be done by empanelled certification agencies. The Network Participants may choose from any of the empanelled agencies.

ONDC will also require Network Participants to get recertified every time the Network Participant introduces a significant update/patch, or when ONDC introduces a newer version of the Protocol Specification. Network Participants may also have to undergo an audit in case of any suspicion/reports of their application being non-compliant, or after a major technical incident (such as a security breach).

For compliance with policies, the process will be slightly more complicated. ONDC will require an undertaking from Network Participants, at the time of onboarding, that they will comply with the Network Policy (in its entirety). Compliance with the Network Policy (e.g.: fairness in listing search results, privacy protection, resolving issues within prescribed timelines etc.) will be tested once the Network Participant has started conducting regular transactions on the Network, typically 1-3 months after they have completed their onboarding.

Policy compliance will also be assessed through regular compliance audits, performed by empaneled auditing agencies, and social audits performed by research organisations. Audits may also be required if ONDC gets reports regarding a Network Participant being non-compliant.

The consequences of non-compliance may range from a simple warning to termination of the Network Participant Agreement, which means a complete ban from the Network. For breaches that are serious but do not warrant a termination, the Network Participant may be suspended for a limited period.

All decisions related to any disciplinary action will follow the due process laid out in the ONDC Network Policy, and will be conducted by an independent disciplinary body composed of experts in e-commerce and trade, persons with adequate knowledge of the law (such as eminent advocates and retired judges), retired government officers with a technical background, and one representative of ONDC.



Finally, ONDC will publish certain data-sets as open, public data for the purposes of transparency and encouraging good behaviour from Network Participants. As an example, data on the quality of the grievance redress provided by Network Participants will be published regularly. This will give customers more inputs to make informed decisions, and also incentivise network participants to perform better. ONDC will put in place mechanisms to ensure that no personally identifiable information is shared.

#### 4.8.1 Questions/Issues for consultation (enforcement and compliance)

- a. How can ONDC streamline policy compliance monitoring and enforcement without centralising responsibilities and power within itself?
- b. What kinds of data should ONDC publish to cultivate transparency and trust?

### 4.9 Community governance and network evolution

Keeping in line with its core principles, ONDC is instituting a participant-driven approach for network governance, and for continual evolution of the Network to respond to the needs of users. To formalise a mechanism to involve Network Participants, and other stakeholders, in the governance and evolution of the Network (beyond consultations), ONDC will constitute a 'User Council' consisting of representatives of Network Participants and members of civil society. The User Council will decide its own rules of business, and meet regularly to take stock

The User Council will perform the following functions:

- i. Regularly review existing policies and processes and advise on changes/amendments
- ii. Provide guidance on instituting new policies and procedures
- iii. Provide guidance to ONDC on conducting compliance audits, and social audits (including mystery shopper surveys)
- iv. Provide guidance on developing new functionalities on the Network
- v. Provide any other guidance and advise as in relation to governance, technology and policy that ONDC may ask for

While the User Council is still being set up, ONDC did undertake and will continue to undertake extensive consultations with Network Participants in the course of development of both the protocol, and the Network Policy. The ONDC Protocol which forms the backbone of the Network has already undergone several rounds of versioning and updates, based on the feedback and inputs received from Network Participants. Similarly, the Network Policy has undergone significant changes following consultations with Network Participants.

Regular consultations and the User Council will form the bedrock of ONDC's responsive and participatory governance framework.

#### 4.9.1 Questions/Issues for consultation (community governance)

- a. How can ONDC better engage with stakeholders, bearing in mind that it itself is a small organisation?
- b. What other functions should the User Council perform for greater participation and responsiveness?

## 5. Summary

How people conduct commercial transactions has evolved rapidly in the last two decades, from brick-and-mortar stores to e-commerce. E-commerce platforms that have been central to this development, had to think long and hard about how to solve the issue of cultivating trust in an environment where the buyer never meets the seller, and vice versa. The solution that has worked so far is for the central platform to control every aspect of the value chain and become the central store of trust. This centralised approach, however, is not without its drawbacks (for example, potential competition issues, high entry barriers etc.).

The ONDC Network was created to democratise e-commerce, and fundamentally reimagine it. The paradigm shift that the ONDC Network introduces, namely, interoperability, decentralisation and unbundling the e-commerce value-chain, necessitates yet another rethink of the question of fostering trust. In this document we have explained how ONDC is tackling the question of fostering trust among buyers, sellers and Network Participants.

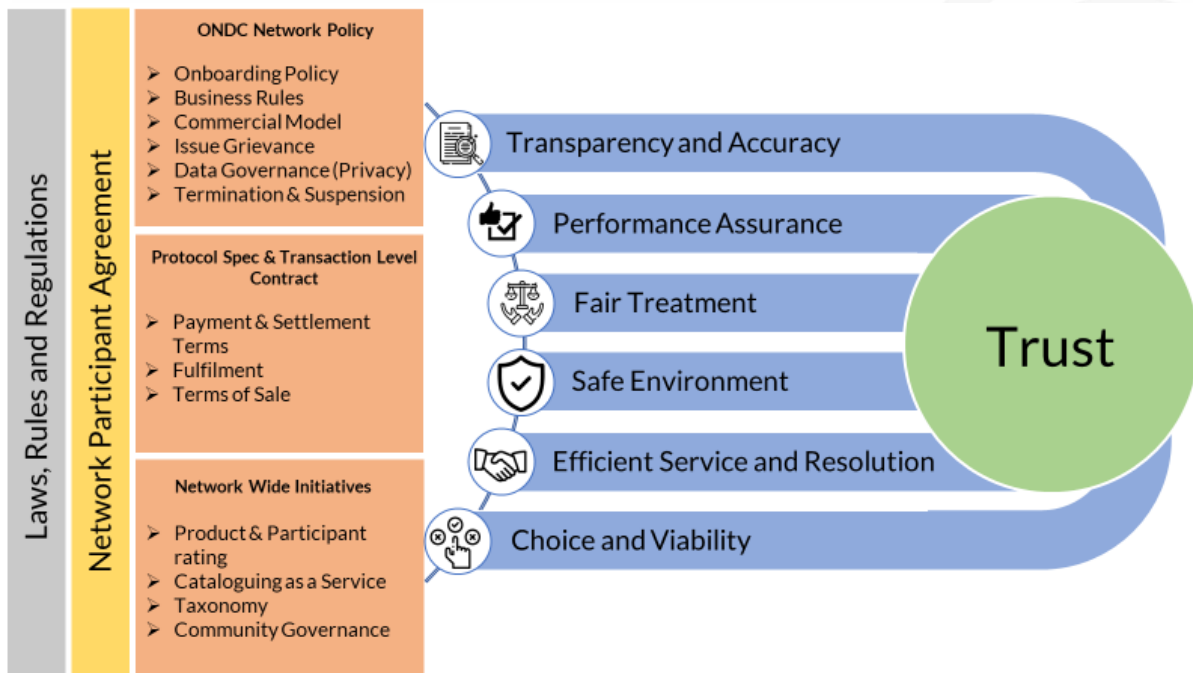


Figure 8: Building Blocks of Trust on ONDC

ONDC uses a combination of rule-making (Network Policy), enabling dynamic contracting (Transaction-level Contract), and capacity-enhancement (Network-wide initiatives), all designed within the confines of existing laws, to achieve the goal of fostering trust (Figure 8).

Through this consultation, ONDC invites the public at large to participate in the process of building trust, by identifying opportunities for improvements at this early stage of implementation.

## 6. Consolidated list of Questions/Issues for consultation

### 4.1.2 Search and discovery

- a. What more can ONDC do to make the process of search and discovery fair for both the buyer and seller?
- b. What is the best way for ONDC to enforce its algorithmic accountability requirements from Buyer Apps?
- c. To what degree of detail should Buyer Apps be required to publish their listing prioritisation algorithms?

### 4.2.2 Placing an order

- a. What are the considerations in select and order placement that ONDC has not considered?
- b. What are the disclosures, other than prices/ fees/ charges, that are necessary to be made to the buyer?
- c. Which of the proposed measures can be further improved and how?

### 4.3.2 Fulfilment

- a. What are the concerns around the linked orders and on-network logistics that ONDC should be aware of?
- b. How can both the buyer and seller's interests be fairly protected in such back-to-back contractual arrangements?

### 4.4.2 Payment and settlement

- a. What are the issues in the system proposed by ONDC for payments and settlements?
- b. What, if any, are the risks of allowing these intermediaries (reconciliation service providers, settlement agencies) to participate in the process?
- c. How can these risks, if any, be mitigated?

### 4.5.2 Returns, refunds and cancellations

- a. What, if any, are the gaps or issues in the proposed approach to returns, refunds and cancellations?
- b. What mechanisms can ONDC and Network Participants put in place to avoid issues related to returns, refunds and cancellations from escalating into disputes?

### 4.6.2 Issue and grievance management

- a. What, if any, are the gaps or issues in the proposed IGM system?
- b. What mechanisms can ONDC and Network Participants put in place to avoid issues from being escalated to disputes in the first place?
- c. What are the challenges in implementing and getting redressal from the system being designed by ONDC?

## 4.7.5 Other network-wide initiatives

- a. How can ONDC effectively drive the adoption of a common taxonomy?
- b. What systems can be put in place to make the taxonomy extensible and adaptable, and yet stable and reliable?
- c. How can ONDC encourage better catalogue management among sellers?
- d. What mechanisms should be put in place in the scoring and badging system to avoid/remove fake reviews and scores?

## 4.8.1 Enforcement and compliance

- a. How can ONDC streamline policy compliance monitoring and enforcement without centralising responsibilities and power within itself?
- b. What kinds of data should ONDC publish to cultivate transparency and trust?

## 4.9.1 Community governance and network evolution

- a. How can ONDC better engage with stakeholders, bearing in mind that it is a small organisation?
- b. What other functions should the User Council perform for greater participation and responsiveness?

## Guidance for respondents

While ONDC welcomes all feedback, it is bound by certain core principles. Therefore, any proposals would be evaluated on the basis of whether they align with or run counter to the core principles.

The core principles of ONDC are as follows:

### ONDC Principles

**Facilitator not an operator** - ONDC will play the role of an enabler, and help facilitate participating businesses to join the Network. ONDC will not operate any platforms, or interface with end-users and to that end it will be a lean organisation. ONDC will facilitate the creation of an open governance framework.

**Decentralised** - ONDC will make persistent efforts to decentralise facilities and control. ONDC will institute mechanisms to ensure decision-making in the domains of operations, technology, and policies/ governance is driven by ecosystem participants rather than by one central entity. It will ensure that the value derived by participants is not locked in any single platform or node.

**Open & Interoperable** - The ONDC Network will use open standards (non-rivalrous and non-exclusive) to enable interoperability. The ONDC Standards and Specifications will be designed to be technology-agnostic. The specifications will be open to extensions, adaptations and contributions by users. The ONDC Network will leverage existing digital public infrastructure to provide seamless services on the network.

**Participant-centric** - Access to the Network will be non-discriminatory, inclusive, and offer choice and agency to all participants. ONDC shall set up mechanisms to continually evolve the Network and the policies governing it, in a manner that is participatory and responsive. In order to strengthen the Network, ONDC shall encourage the formation of communities to develop and refine policies.

**Privacy preserving** - Security and privacy shall be integral to ONDC's design principles. This will include data minimisation, protection of personally identifiable information (PII) and sensitive personal identifiable information (SPI) including business data, and robust consent frameworks, among others, to ensure every participant's choice & privacy are respected.

**Foster Innovation** - ONDC shall support and encourage innovation in the ecosystem, to continually evolve and scale the Network. ONDC shall strive to ensure there are appropriate support-structures and ecosystem-enablers put in place to take ideas from thought to finish.

**Sustainable** - ONDC shall ensure there is adequate value creation for every node on the network, thereby helping the participants grow sustainably. This shall help fuel the growth of the network and thereby enhance the penetration and adoption of digital commerce.

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## Appendix A: ONDC Network Policy

“ONDC Network Policy” refers to the compilation of all the rules, created by ONDC, which govern the operations of the ONDC Network. The ONDC Network Policy, together with the ONDC Network Participant Agreement and the Transaction-level contract (executed through the ONDC Protocol), constitute the entire agreement between Network Participants in any given transaction on the ONDC Network.

The Network Policy is organised thematically into Chapters. Each Chapter covers a specific aspect of the functioning of the ONDC Network. However, the ONDC Network Policy is a continually evolving document. It will be amended over time as the ONDC Network grows and matures, and expands to include a wider range of products and services.

The ONDC Network Policy is being developed and will be managed through a participatory process which will take on board inputs from all Network Participants, and eventually, the public at large.

We have given, below, a broad overview of the individual chapters of the ONDC Network Policy.

### Finalised Network Policy Chapters

**i. Chapter 1: Onboarding, compliance requirements and certification requirements**

The Onboarding Policy gives information to a prospective Network Participant how to join the Network. It specifies the eligibility conditions for Network Participants to join and operate on the Network, as well as the actual process and compliance requirements to join the Network. The requirements have been broadly categorised based on the functional role (Seller Side Apps, Buyer Side Apps or Gateways) a Network Participant intends to play on the Network.

**ii. Chapter 2: Business Rules**

This Chapter delineates the roles and responsibilities of the different categories of Network Participants viz. - Buyer Nodes, Marketplace Seller Nodes, Inventory Seller Nodes and Gateways. This Chapter specifies how Network Participants need to align with existing laws and regulations, and prescribes how some of the processes and systems the Network Participants need to set up to encourage healthy competition and to ensure entities participating in the Network are treated in a non-discriminatory manner.

**iii. Chapter 3: Commercial Model**

The Chapter on Commercial Model defines the commission structure and various commercial components for a transaction on the Network. The Chapter describes the flow for the completion of an order, the processing of cancellation and refunds and how payment and settlements will take place on the Network.

**iv. Chapter 4: Code of Conduct and Ethics**

Code of Conduct and Ethics prescribes general rules regarding good behaviour that are

essential for the health and integrity of the ONDC Network. This includes forbidding Network Participants from engaging in bribery, mandating them to protect confidential information, avoiding conflicts of interest, and ensuring Network Participants or their affiliates do not engage in behaviour that can harm other Network Participants or the ONDC Network.

**v. Chapter 5: Branding Guidelines**

The Chapter on Branding Guidelines lays down the terms and conditions for the use of ONDC's logo, trade name and trademarks by Network Participants and other related entities. The Branding Guidelines specify how and for what purpose the aforementioned intellectual property may be used, and also prescribes the specifications to be followed to use it.

## Chapters under development

**i. Chapter 6: Issue and Grievance Management Policy**

The Chapter on Issue and Grievance Management lays down the mechanisms for Network Participants to manage and resolve grievances filed against them by Buyers, Sellers and other Network Participants. This Chapter also describes the process for escalation of unresolved grievances and ONDC's Online Dispute Resolution mechanism.

**ii. Chapter 7: Network Data Governance Policy**

This Chapter lays down the obligations of Network Participants with respect to protection of personal information.

**iii. Chapter 8: Network Technology Governance**

This Chapter lays down a framework for audits and certifications that will allow ONDC to ensure that Network Participants comply with all prescribed technical standards, the Network Policy and any operational parameters that may be prescribed. It also contains provisions for ONDC to conduct audits on the basis of reports of malfeasance, court orders or other triggers.

**iv. Chapter 9: Termination and Suspension Policy**

This Chapter will detail the process that will be followed for any disciplinary action that may be taken against a Network Participant for any breach of the Network Participant Agreement or the ONDC Network Policy. The chapter will contain procedures for suspension and termination, as well as the framework for less serious disciplinary action such as fines and penalties.

**v. Annexure A: Governance structure for Network Policies**

This Chapter will describe the framework that will govern all policy-making activities. This chapter will describe the process that will be followed for creating new policies and for amending existing policies. The chapter will also describe the composition of the User Council - a body consisting of representatives of Network Participants - which will play a critical role in policy-related matters.

## Appendix B: Transaction-level Contract

In the traditional model of e-commerce, typically, all entities have a contractual relationship with the platform. The terms of those respective contracts govern all transactions conducted by the entities. In the ONDC construct, Network Participants do not have any pre-existing contractual relationship. A contractual relationship is created for each individual transaction. The Buyer Side and Seller Side Apps that are involved in any given transaction execute a contract to facilitate that transaction.

This contract is a purely digital artefact that is executed through the ONDC Protocol and forms a binding agreement between the Buyer Side and Seller Side Apps with respect to one single transaction. That means, in the future, if the same Network Participants are involved in another transaction (even if it is between the same buyer and seller), a fresh Transaction-level contract will be signed between the Network Participants.

The Transaction-level Contract consists of two parts:

### 1. Reference terms

The Reference Terms are terms which are typically highly standard across commercial contracts for the facilitation of sale of goods. This includes clauses related to:

- a. Indemnity from certain kinds of claims (e.g.: fraud/misconduct, breach of representations/warranties, violation of laws etc.)
- b. Exclusion of liability arising from consequential and/or punitive damages
- c. Understanding that the contract will be governed by the laws of India
- d. Certain standard representations and warranties (e.g.: having the authority to enter into the said contract, being a duly incorporated entity, committing to remain compliant with laws and regulations, representation regarding the accuracy of information provided in order to execute the agreement etc.)

The Reference Terms will be accessible on a static URL hosted by ONDC. For the time-being, it is compulsory for Network Participants to use the Reference Terms provided by ONDC. As the Network expands and grows to allow a greater variety of products and services, the Reference Terms may be revised, or ONDC may create multiple versions of Reference Terms.

The Reference Terms are incorporated into the (digital) Transaction-level contract by reference.

### 2. Configurable terms

The configurable terms are terms which are present in a vast majority of commercial contracts, but unlike the Reference Terms, the contracting parties need to be able to customise these terms. However, their standard nature allows for the terms to be easily converted into a template that can be converted into a digital contract. Thus, the

contracting Network Participants get the freedom to define these terms, but the whole system can be automated and streamlined to a great extent.

Some of the most important configurable clauses with respect to trust are as follows:

- a. Settlement terms:
  - i. Settlement window from the time of completion of certain milestones (such as delivery, or expiry of the return period),
  - ii. Settlement method (UPI, RTGS or NEFT),
  - iii. Withholding amount (if any)
- b. The amount of commission the buyer app will charge for a successful transaction
- c. The TAT for delivery
- d. Penalty to be levied in case of delayed delivery
- e. Interest rate on delayed payments
- f. Maximum liability in case of a claim against one of the parties
- g. Which courts will have jurisdiction over disputes
- h. Whether both parties agree to mandatory arbitration

All of these parameters can be mutually determined by the buyer and seller side apps. For some fields (such as court jurisdiction) they have to pick an option from a list, while for some fields, they can input a number (e.g.: TAT for delivery), while in some other fields they can define the value in terms of a reference value (e.g.: maximum liability as 1x of the transaction value).

The configurable terms are set through the ONDC Protocol. The final digital contract is basically a digital document (a JSON object) that is digitally signed by all Network Participants involved in the transaction.