ONDC
Open Network for Digital Commerce

<u>**Revision History**</u>

| <u>Version</u>	<u>Date</u>	<u>Changes</u>
0.1	8th Sept 2022	a. Draft version
0.2	3rd Oct 2022	a. Added reference of API contract

<u>**Overview**</u>

The objective of this note is to propose a **Reconciliation Service Provider (RSP)** framework for Network Participants (NP), such as Buyer Platforms, Seller Platforms, Logistics Platform etc, on ONDC. The construct defined will provide a framework for participants to settle funds against transactions to respective parties and create an audit trail of transactions. Following are the enumerated design principles for RSP framework:

1) Enable seamless settlement of funds collected by participants
2) Non-repudiable information dissemination all through network entities
3) Maintaining Audit trail to ensure evidence security
4) Defining Standards of message communication for transparency, efficiency and machine readability of Information
5) Building Trust through safeguarding fund flow for a transaction through Well defined triggers for money withdrawal from Nodal Like account
6) Ensuring non-repudiability through digital signatures and payload authentication
7) Seamless integration using RSP framework with all stakeholders including Settlement agency, RSP and participants.

Standardising the money flow as per RBI guidelines shall ensure transparency and trust in the ONDC network. The RSP framework shall provide assistance to the Network Participants to settle funds collected on behalf of counterparties at defined intervals. The generation of the recon file will be in batches which will have to be run at defined intervals as per their banking relationship requirements and or as per RBI guidelines. The framework primarily entails the following stages, three of which are pertinent from ONDC network perspective. A schematic depicting the framework is shown below:

Decentralized Recon & Settlement Process Flow
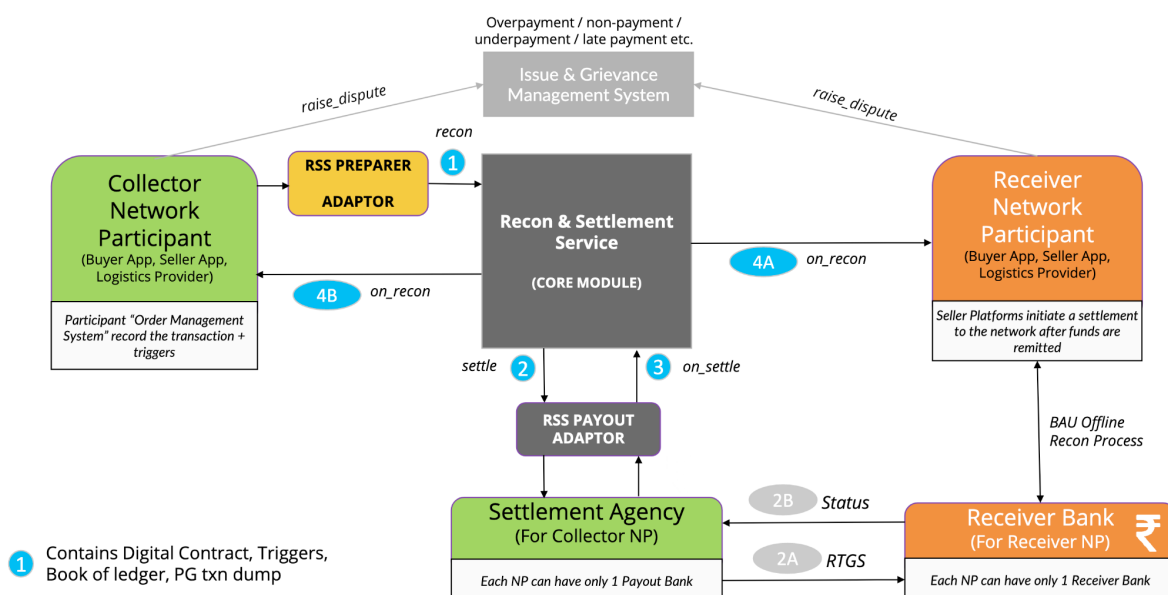
a. Collection and Collation: Each NP would be expected to be able to collect and collate a record of all their transactions with the intent of creating what money is owed to which entity and by when. This function can be provided by the RSP. The collation could be across 3 elements
   i. PA/PG/Cash Collection report
   ii. Books of account / Bank Statement
   iii. Order details / Transaction triggers (e.g. order dispatched, order delivered etc.)
b. Preparation of the Settlement Advice: This is a statement which will provide an amalgamated advice that can be consumed by a bank which will contain order-wise settlement details and this will be defined in the /recon API. Each settlement advice to be sent to the bank will also have a detailing for each counterparty specific report that would be needed to be sent to the counterparty so that they can tally up their accounts.
c. Routing: the above mentioned Settlement Advice would be either sent back to the Network Participant who would in turn send it to their bank or NPCI, or the RSP can send it directly to the bank or NPCI as per the standing instructions of the Network Participant.
d. Actual settlement: Based on the Settlement Advice shared with the bank, money will be moved within T+1 days of receipt of the settlement advice. Confirmation of the above will be sent back to the Network Participant using /settle API which in turn can also be shared with the counterparty.
e. An optional reconciliation step by receivers against recon file received from collectors is also envisioned, whereby the receivers of the funds may update their recon status against each transaction. The same recon file along with recon status may be cascaded back to respective collectors through an **/on_recon** call.

Each of the aforementioned topics will be detailed below.

1. **3-Way Recon and Preparation of Reconciliation**

   Preparation of a recon statement is a pertinent step in the settlement process. In this step, a participant is expected to collect three statements (as applicable), namely, Bank account statement, Payment aggregator or Payment Gateway (PA/PG) report and Books of accounts and perform payment credit confirmation in the respective nodal like account managed by the

banker, with reference to books of accounts (BoA). Once a 3 way reconciliation is performed, a recon statement is created.

It is important to note that a recon file can be generated as many times in a day incrementally. It is expected that the settlement file is generated at least once everyday. The preparation phase shall be subjected to contracting terms agreed during the dynamic digital contract signed at the time of recording of statements. The amount details that are being transacted along with any previous amount already settled and balance, along with other required details are to be captured in the recon statement. The recon statement schema is defined and is released on GitHub by ONDC.

2. Reconciliation Statement

Following preparation and 3-way reconciliation, a recon statement will be generated, which is to be prepared in summary for each order, counterparty-wise, that is recorded after the last cycle of reconciliation by the collecting participant. The Protocol provides adequate placeholders for all the information that is needed for generation of settlement statements for settlement agencies to move funds between respective bank accounts. It is pertinent to note that a recon statement must follow the preparation phase. Services of an RSP may be obtained from certified Reconciliation Service Providers (RSPs) or participants can build the RSP framework on their own. The order details in the recon statement should clearly mention the counterparty beneficiary and their bank account details.

There are two types of fund movements that may take place as part of this process and there are sections defined in the recon file :

1. Forward flow - normal flow as per the business flow which can also incorporate a potential correction flow (error from previous transaction(s), error by RSP etc.)
2. Reverse flow - as a result of a return / cancellation or either due to a grievance raised or due to a correction flow requested by the initial collecting party.

The resulting reconciliation file prepared in this step, shall be shared with the RSP on **/recon** API. The idea behind preparation of this file is to separate out the preparation stage from recon stage, as preparation of data may be driven through network agnostic contracts between the Collector platform and reconciliation agencies.

3. Settlement

The Settlement Advice as per the schema released will be shared with the bank either directly by the RSP or via the NP. Settlement reports shall be created for each counterparty, consolidated along with their bank details which will contain how much money is being remitted against which order ID and when. An important point to note here is that there is no netting allowed at this stage by the collector. In case of any cross settlement, the receiver shall need to issue a recon statement identifying the type of remittance back to the collector. RSP is expected to call the settle API of a notified settlement agency such as banks, NPCI, RBI or any other agency as may be notified by regulators. Settlement agency shall process the settlement file received on /settle API and attempt to settle the amount to respective receiver's accounts. The settlement agency shall ensure sufficient mechanism to ensure the money is settled in the respective bank accounts with use of retries - as per the existing method and as per RBI guidelines.

Once settlement status of funds is reported back by the settlement agency to the RSP framework along with the globally referential bank reference code (UTR) and the status of settlement (whether successful or failure), the participant is expected to update the recon file with status and reference code against each order considered in the current cycle of settlement.

After processing the settlement status, the RSP shall ensure that the counter-party wise recon file is cascaded to both, collector and receiver on /on_recon API.

The Settlement Agency will be responsible for verifying the bank account and comply with RBI guidelines on KYC requirements of a particular account before remitting money. The remittance status should be properly captured and cascaded back in recon status. Post successful account validation, the Settlement Agency may keep a record of such accounts for future remittance.

4. **Receiver Side Reconciliation**

Optionally, the receiver may perform an additional reconciliation on their end and update the status in the same recon file and cascade back to each collector. This will ensure the closure of transactions on both sides, and will also serve as an early indicator of any possible issue in the settlement. If the collector receives the status of reconciliation as not reconciled, the collector may raise an issue in their internal ticketing system and perform investigation. There are three scenarios in this case that needs to be handled as part of API Contract:

   a. **Counterparty Reconciliation:** As part of counterparty reconciliation status as received by the collector as non-reconciled, the collector may raise a ticket with their internal ticketing system. Upon investigation if the collector finds a settlement anomaly, respective attributes in the following recon file's "correction" status will be filled, and settlement will happen at gross level. Should the ticket result in money due from receiver, Collector will raise a ticket using IGM flow and receiver may return money in following recon cycle through correction flow

   b. **Self Realisation of issue:** In case collector identifies an issue in settlement on their own accord, they will raise an issue reference in their own CRM and publish the correction section of /recon flow.

   c. **Correction against Issue:** Either collector or Receiver may have issues with payment settlement and they are required to raise an issue through Issue and Grievance Management (IGM) APIs and protocols and respective party may perform investigation at their end. Once the anomaly is established, the correction section of recon shall be filled by the concerned participant and same will flow in next recon cycle. The participant responsible for amount disbursement will assume a role of a collector.

5. **Payment Grievances**

In case of any grievance by either parties, collector or receiver, Issue and Grievance Management flow established in the ONDC protocol shall be used. A reference for such an issue may be created at each counterparty and may be passed as part of IGM APIs.

6. **Audit Trail**

   Every payload being exchanged on APIs between RSP, settlement agency and NPs need to be digitally authenticated and signed by the initiating party. The signing mechanism to be used is the same as detailed out on all transaction APIs in ONDC network. All such payloads should be duly secured for a period as governed by law of the land. Such payloads shall create audit trail logs of such transactions, and must be reproducible for non-repudiation purposes, should a transaction undergo a dispute.

7. **API contract**

   For technical details on the flow of the reconciliation and settlement process, please refer to the API Contract document.