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Intern (Team – Web).

Task: Getting Started with Integration of ONDC.

- ONDC is a network, not an application/website.
- In order to use the network, one has to register with ONDC Registry.
- ONDC uses Async APIs.
- ONDC communication happens from server to server.
- ONDC specification has APIs (/search, /init, /track) and Callback APIs (/on_search, /on_init, /on_track).
- The participants of the network have to implement the APIs on their backend.
- Buyer apps will call the APIs and will get results on Callback APIs.
- Seller apps will respond to the call received on APIs.

So once all the participants have implemented the APIs on their backends, the applications can communicate with each other as the servers have common APIs and a common schema for the payload.

Try it first will be a buyer side app initially. These factors are very important for a buyer side app:

1. *Marketing.*
2. *Acquire Customers.*
3. *Payments.*
4. *Website.*
5. *Customer Service.*
6. *Customer Refund.*

ONDC depends on beckn protocol.

List of Transaction APIs:

1. search < > on_search.
2. select < > on_select.
3. init < > on_init.
4. confirm < > on_confirm.
5. status < > on_status.
6. track < > on_track.
7. update < > on_update.
8. cancel < > on_cancel.
9. rating < > on_rating.
10. support < > on_support.

Discovery – { search < > on_search }

Order – { select < > on_select, init < > on_init, and confirm < > on_confirm }

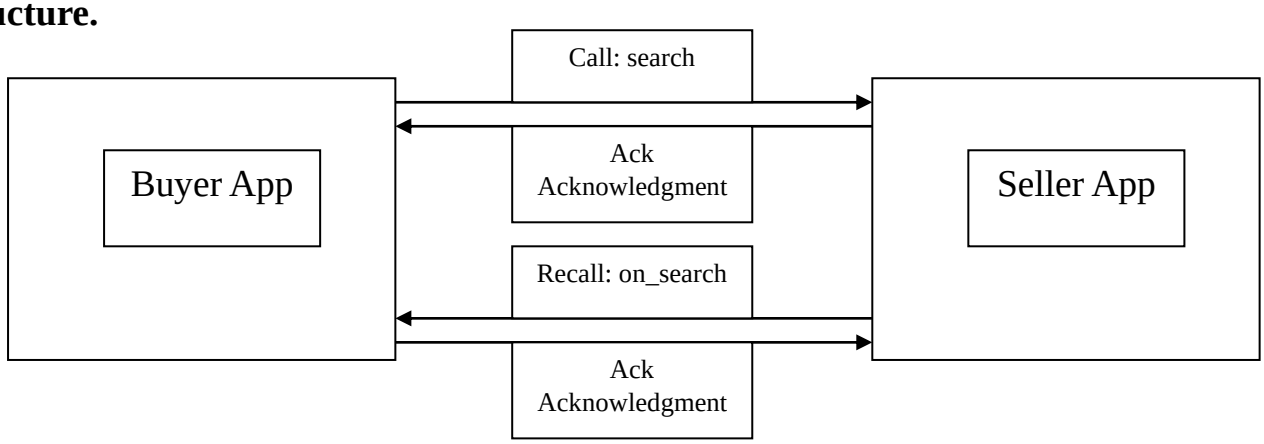
Fulfilment – { status < > on_status, track < > on_track, and update < > on_update, cancel < > on_cancel }

Support – { rating < > on_rating and support < > on_support }

List of Network Infrastructure APIs.

1. search < > on_search.
2. subscribe < > on_subscribe.
3. Lookup.

Structure.



Gateway is required in case of search < > on_search only. Other all APIs are P2P i.e., Peer to Peer.

Detailed Information about APIs.

API	Relevance	Group
/search	Searching a particular product from a buyer side app through a gateway.	Discover
/select	Adding a particular searched product into the cart on the buyer side app.	Order
/init	Initializing payment. (Paying the money.)	Order
/confirm	Confirming an order after a payment.	Order
/status	To get the status of the order. (Ordered, Delivered, and Cancelled.)	Fulfilment
/track	To track the order. (Details of the product/products in transition.)	Fulfilment
/update	To update the order status.	Fulfilment
/cancel	To cancel the order which is confirmed and sent.	Fulfilment
/rating	Feedback. (Customer → Buyer Side App → Seller Side App)	Support
/support	Customer Support.	Support

Registration Process in terms of Code:

Tryitfirst Buyer App

{

“country”: “Origin”,

“city”: “* for all or zip-code if we are providing the service in particular city”,

“created”: “Timestamp”,

“valid_from”: “Timestamp”,

“type”: “Buyer App / Seller App”,

“signing_public_key”: “Key”,

“subscriber_id”: “URL”,

“valid_until”: “Timestamp”,

“subscriber_url”: “URL”,

“domain”: “Example: Clothing”,

“encr_public_key”: “Key”,

“updated”: “Timestamp”

}

The search API uses gateway and the flow is as shown below:

/search → gateway (request to get a list of relevant suppliers) → Registry (Provides a list of relevant suppliers) → call seller side app → /on_search.

Other all calls and recalls take place directly without an gateway.

API Schema:

Auth Header:

Creating Key Pairs → Auth Header Signing → Auth Header Verification.

Context:

Description, Domain, Country, City, Action, Core_version, bap_id, bap_uri, bpp_id, bpp_uri, transaction_id, message_id, timestamp, key, and ttl.

Note: bap – backend application participant (Buyer App), bpp – backend provider participant (Seller App), and ttl is time taken to respond / recall.

Message.

Error.

Accessing the APIs.

https://github.com/ONDC-Official