

# E-commerce with beckn

Illustrations of transaction flows on a network



beckn



# Two sample flows

Customer  
searches for  
Items

Customer  
searches for  
Providers



# Customer searches for items



**Raj and Family**



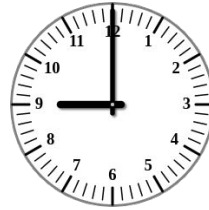
**Coffee**

+



**Milk**

+



**9 PM**



**Raj and Family**



**Coffee**

+

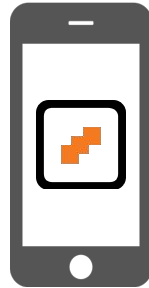


**Milk**

+



**9 PM**



**Beckn Protocol Enabled  
Consumer App**



Raj



Coffee

+



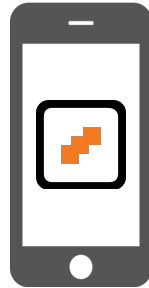
Milk

+

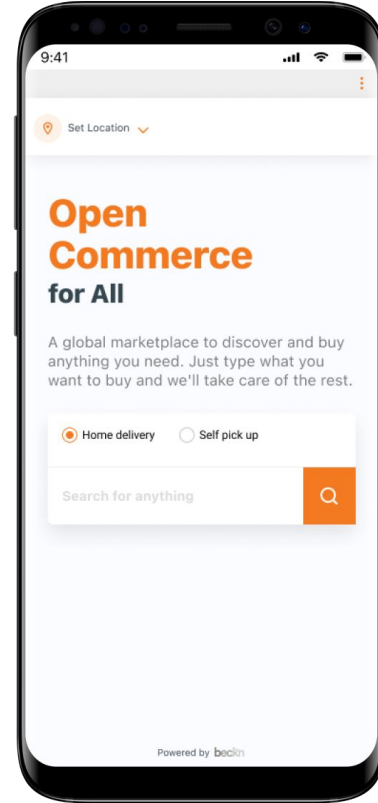


9 PM

Launch Open Commerce application



Beckn Protocol Enabled Consumer App

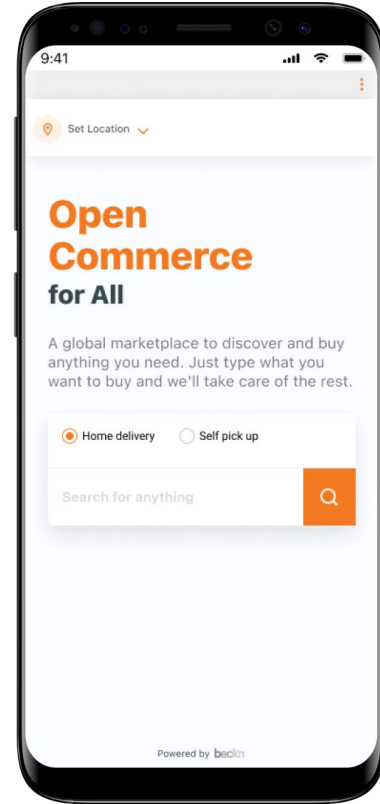




Local Retail  
BAP

BG

Local Retail  
BPP



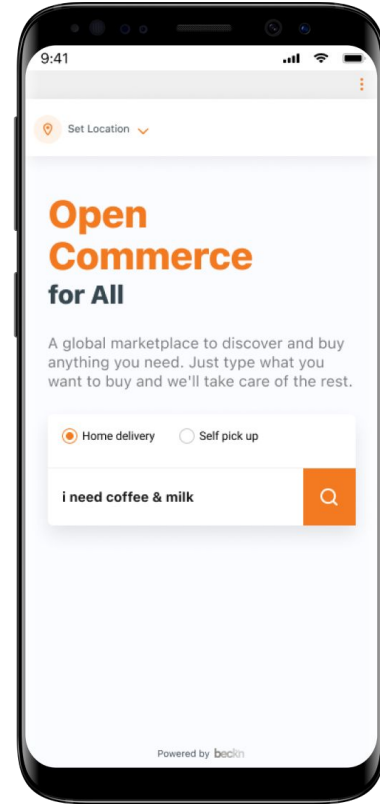


Mr Raj types  
"I need coffee and  
milk"

Local Retail  
BAP

BG

Local Retail  
BPP





Mr Raj types  
"I need coffee and  
milk"

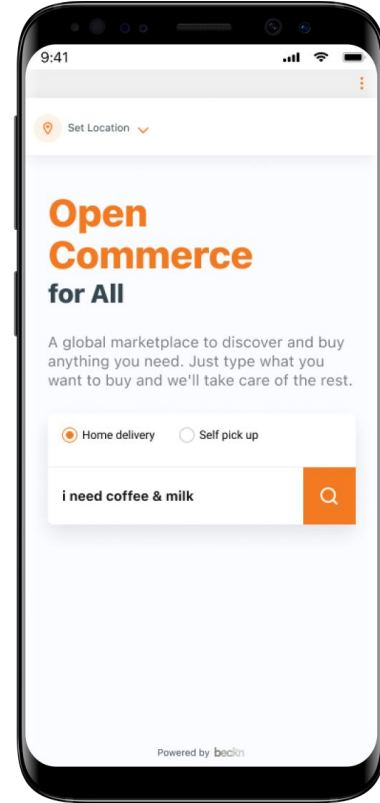


BAP adds  
"Coffee., Milk" to  
**search** packet

Local Retail  
BAP

BG

Local Retail  
BPP





Mr Raj types  
"I need coffee and  
milk"



BAP adds  
"Coffee., Milk" to  
**search** packet

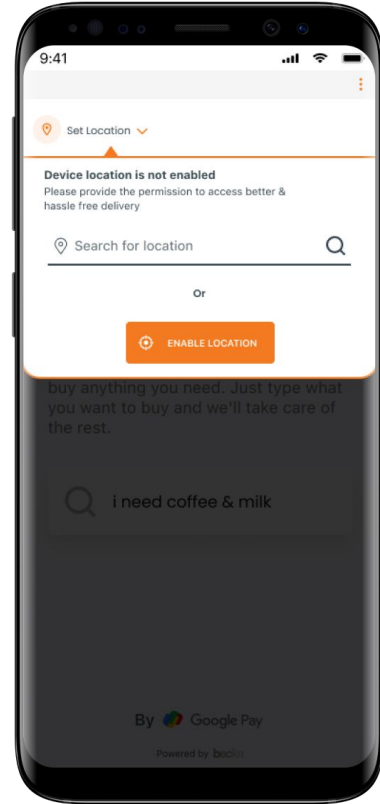


BAP asks for his  
location

Local Retail  
BAP

BG

Local Retail  
BPP





Mr Raj types  
"I need coffee and  
milk"

Mr Raj shares  
Location on App

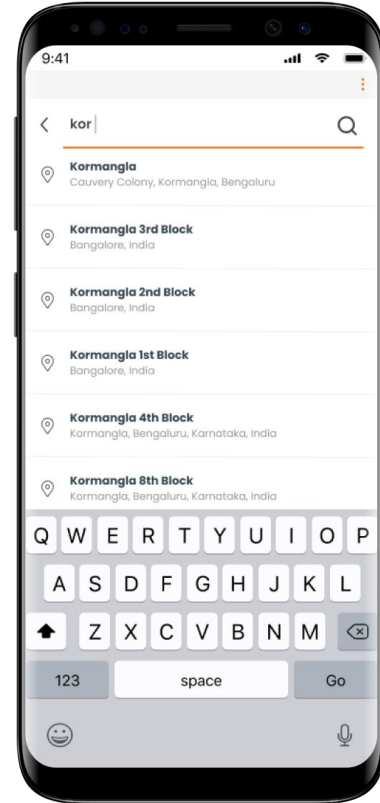
BAP adds  
"Coffee., Milk" to  
search packet

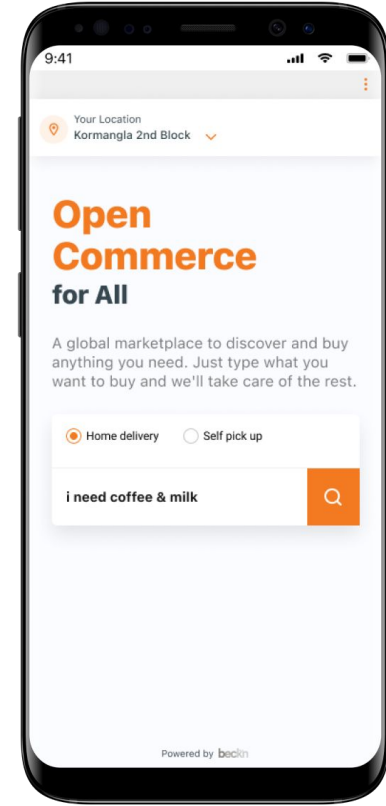
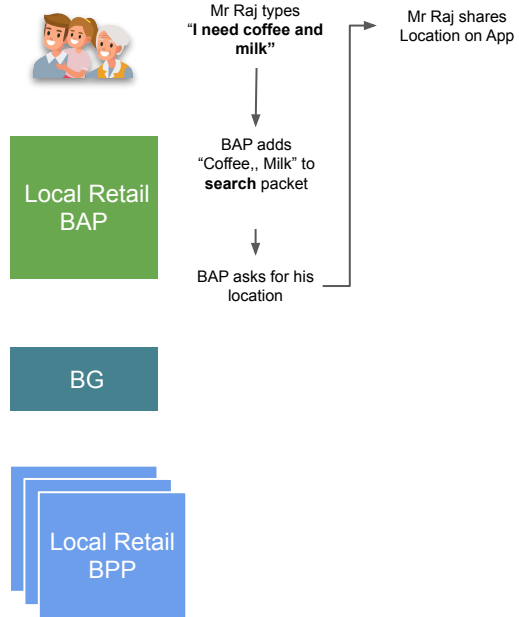
BAP asks for his  
location

Local Retail  
BAP

BG

Local Retail  
BPP







Mr Raj types  
"I need coffee and  
milk"

BAP adds  
"Coffee, Milk" to  
**search** packet

BAP asks for his  
location

Mr Raj shares  
Location on App

BAP adds Location  
to **search** packet

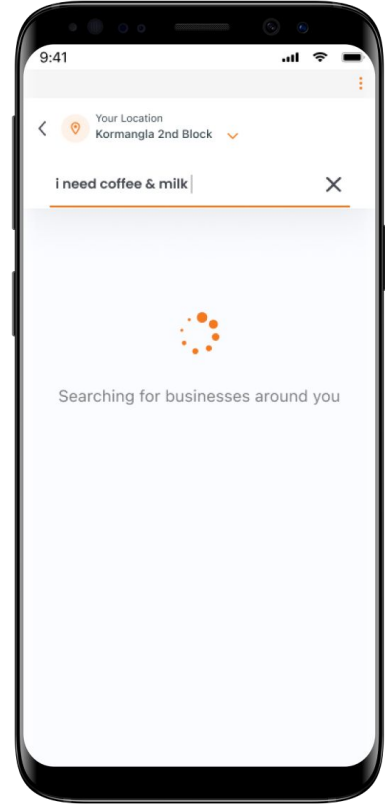
Send search packet to  
BG

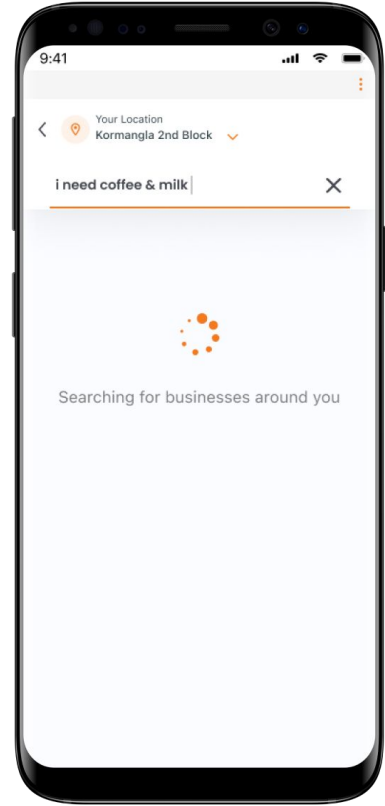
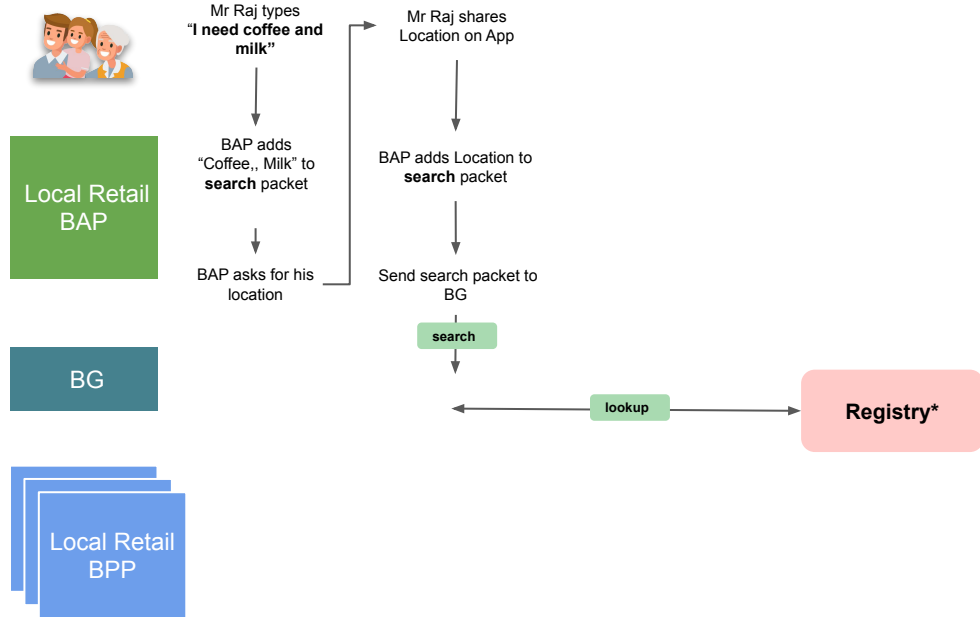
**search**

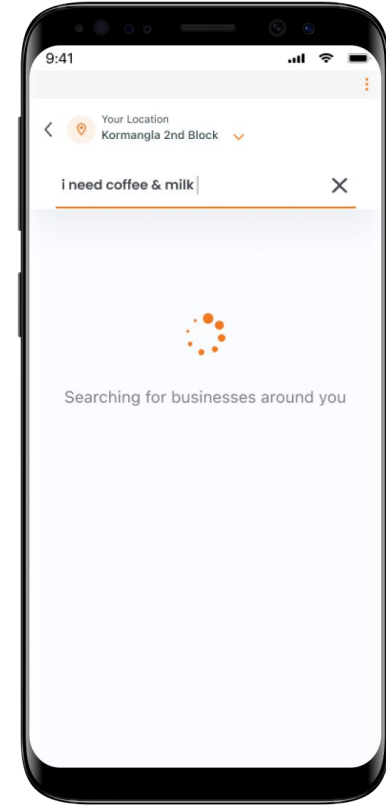
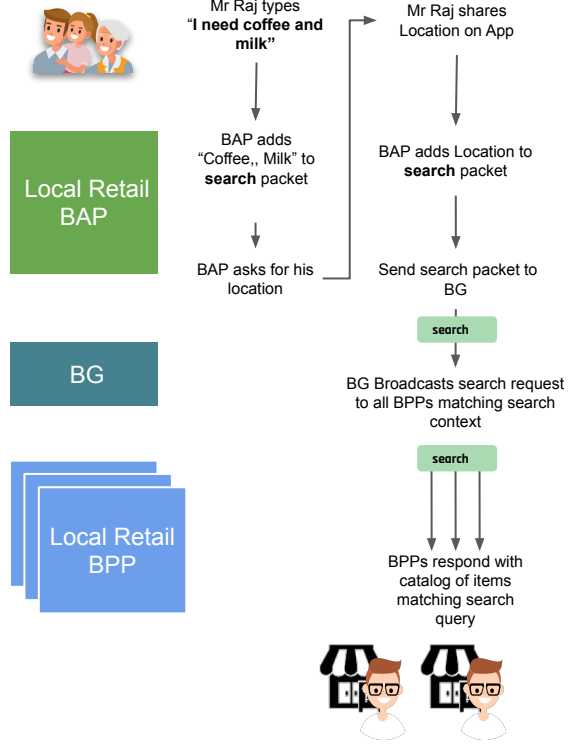
Local Retail  
BAP

BG

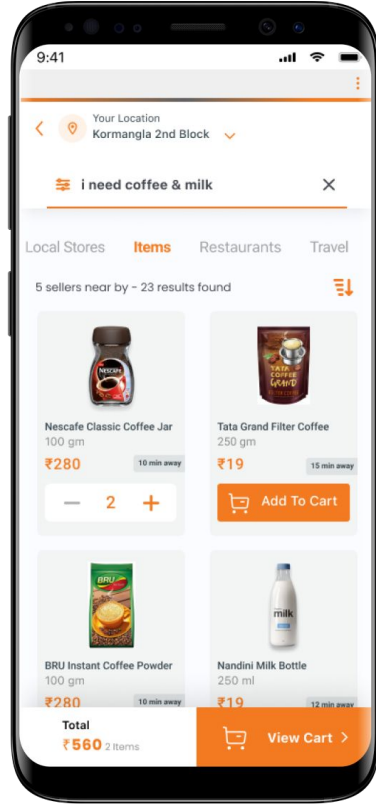
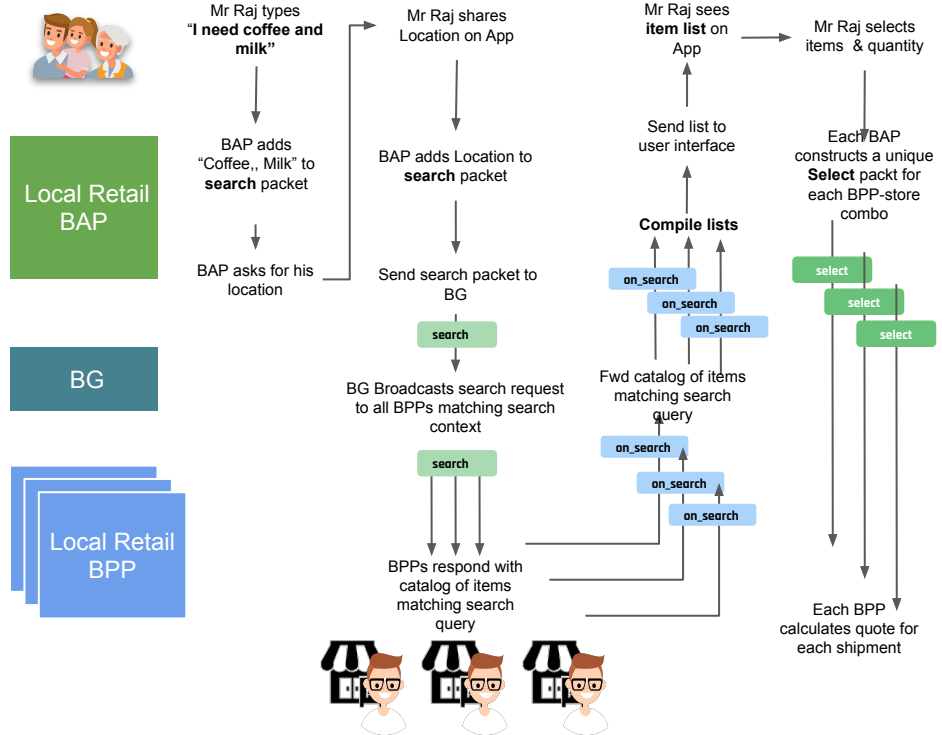
Local Retail  
BPP









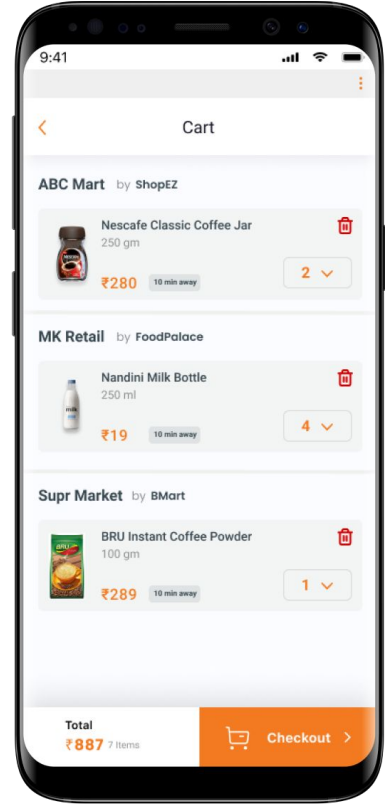
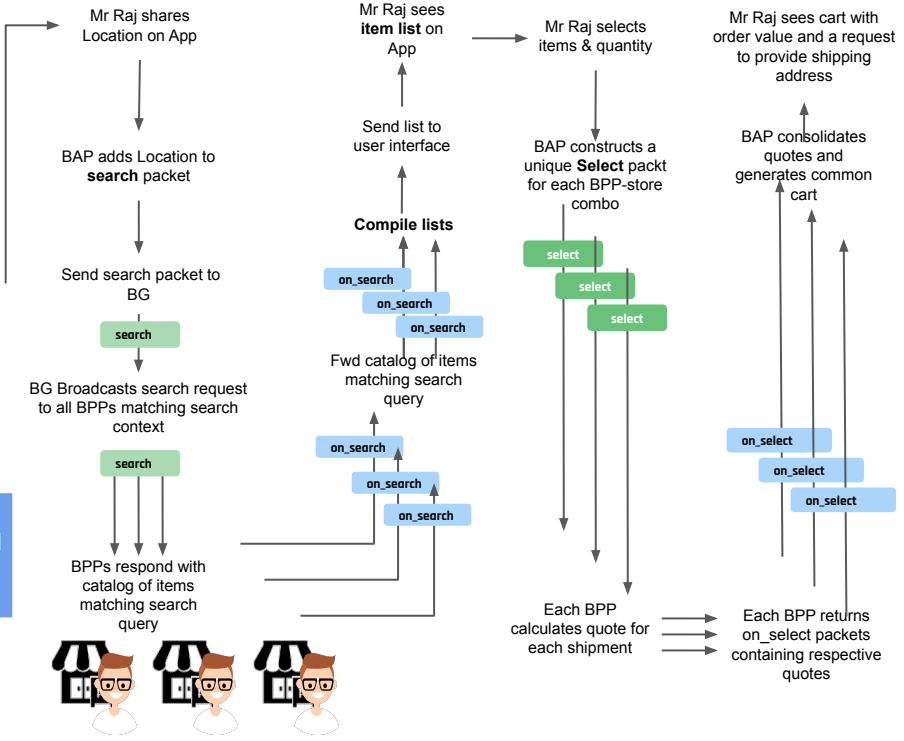




Local Retail BAP

BG

Local Retail BPP





Local Retail BAP

BG

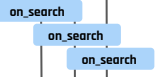
Local Retail BPP



Mr Raj sees item list on App

Send list to user interface

Compile lists

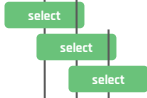


Fwd catalog of items matching search query



Mr Raj selects items & quantity

BAP constructs a unique **Select** packet for each BPP-store combo



Each BPP calculates quote for each shipment

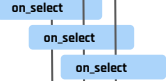


Each BPP returns on\_select packets containing respective quotes

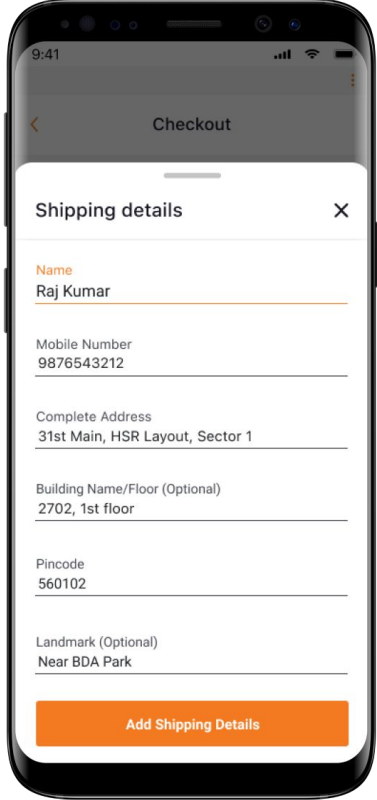


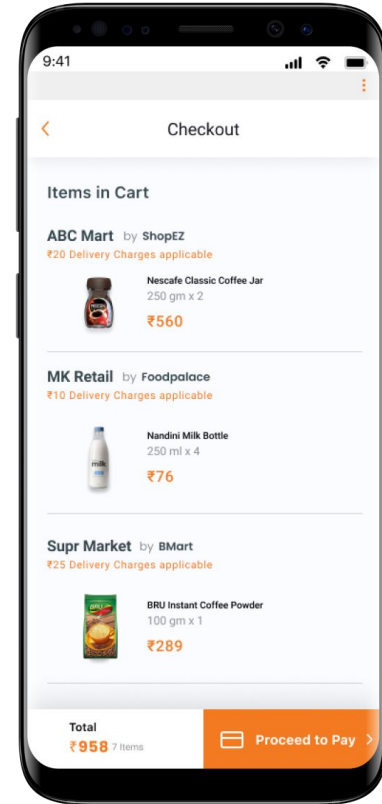
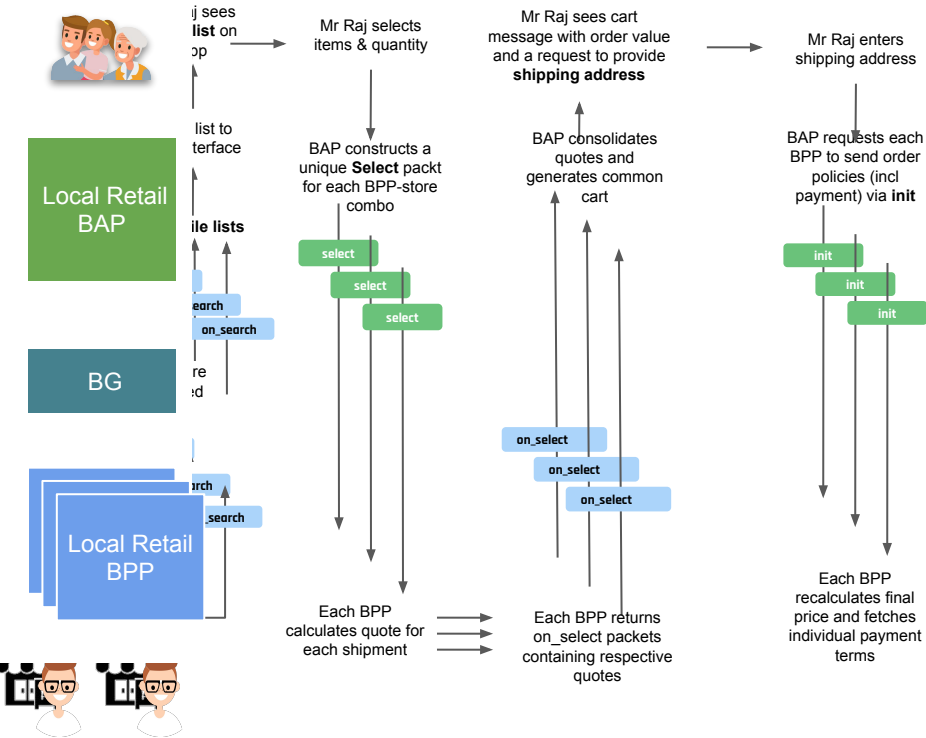
Mr Raj sees cart message with order value and a request to provide shipping address

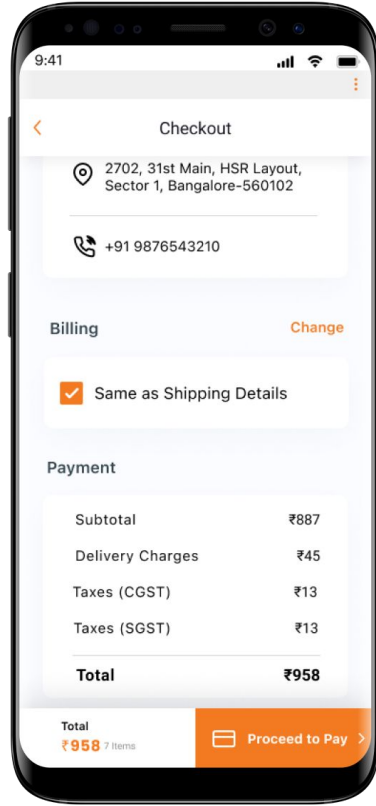
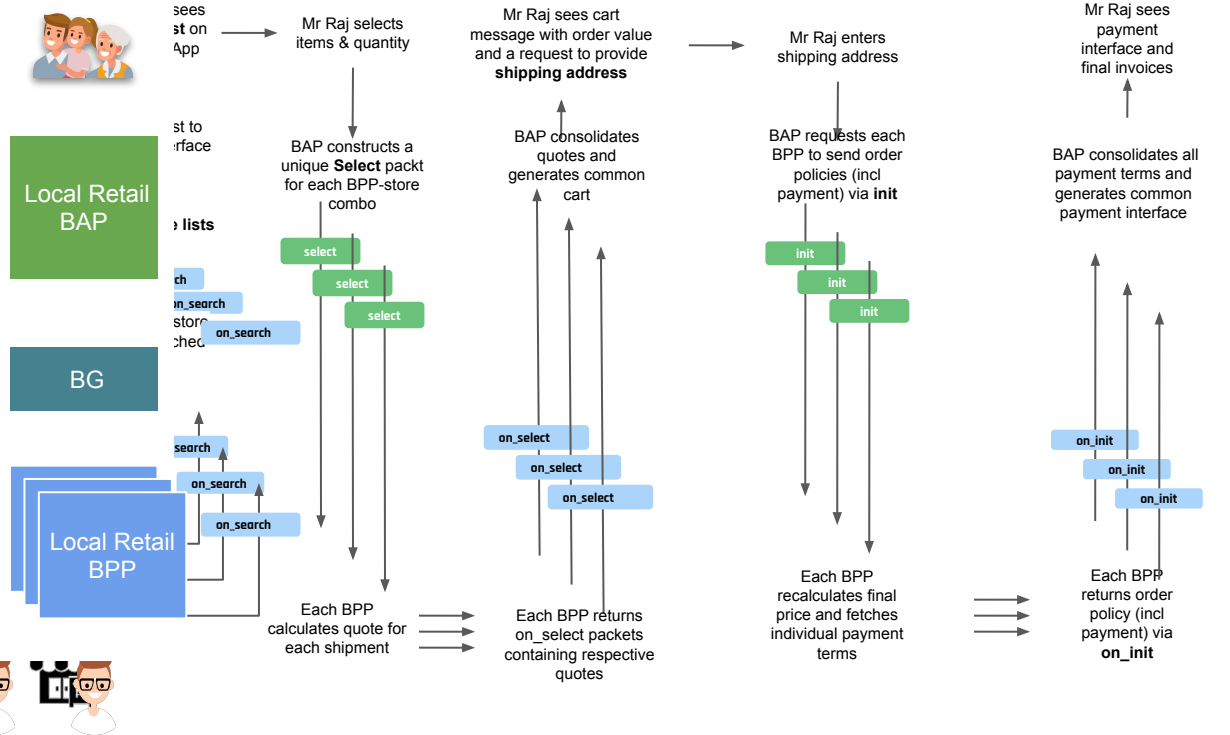
BAP consolidates quotes and generates common cart

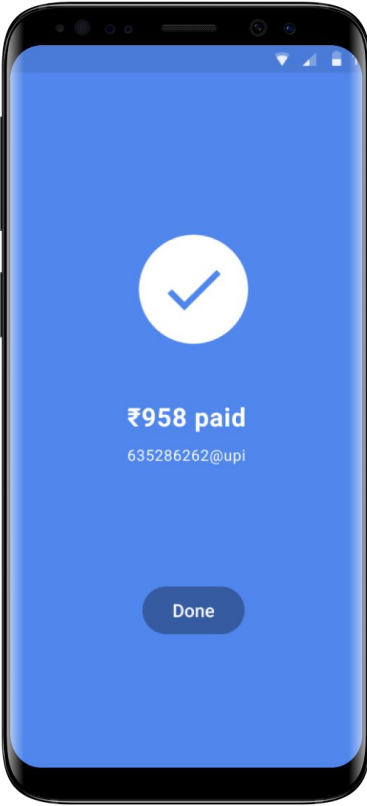
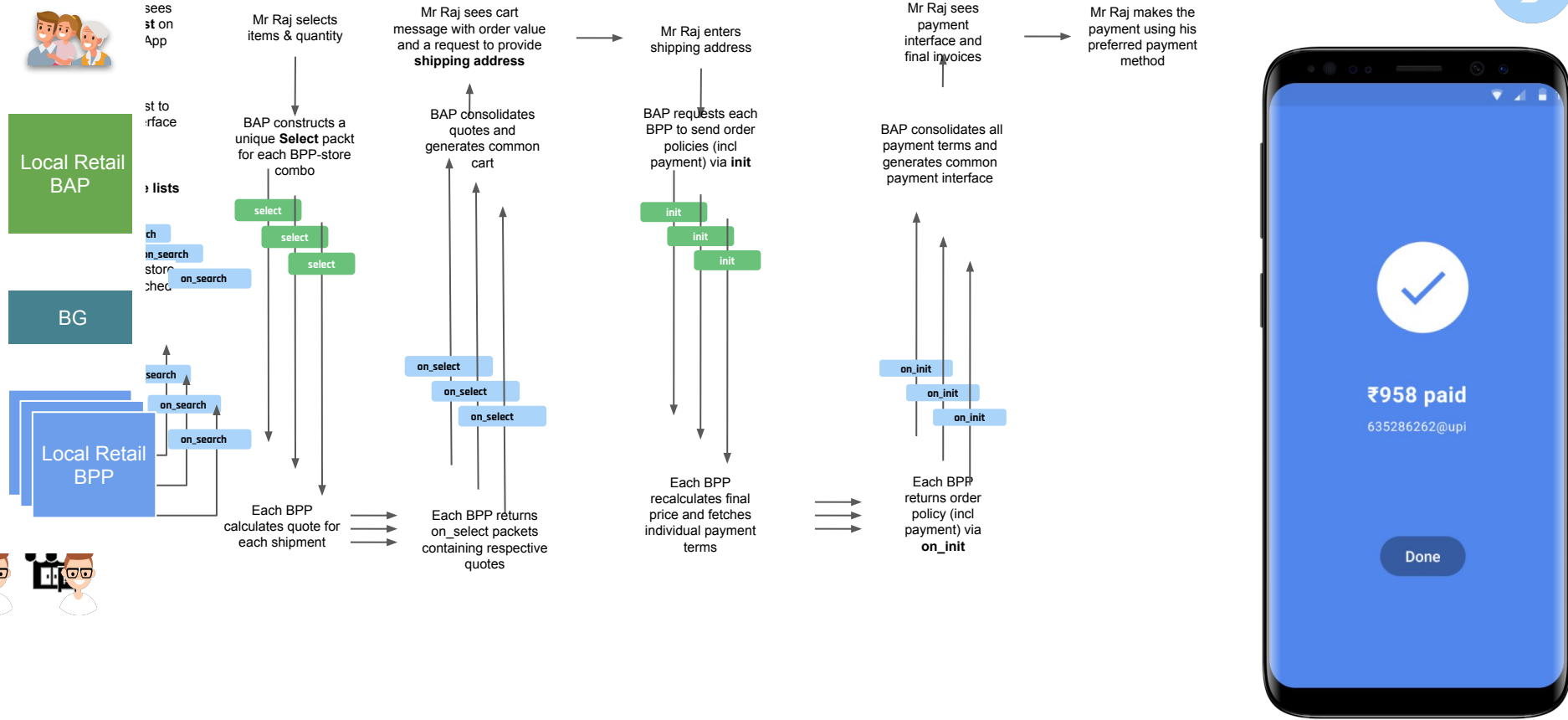


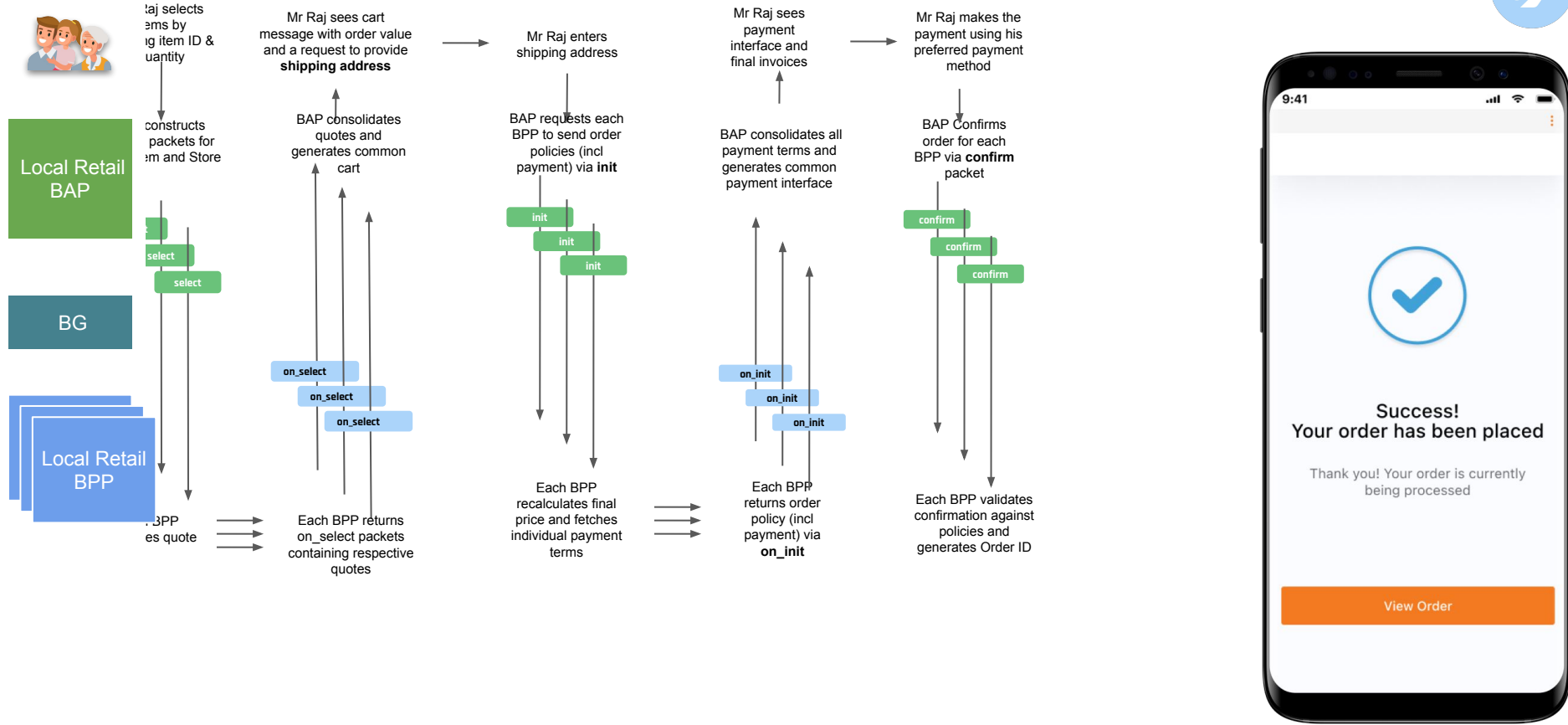
Mr Raj enters shipping address













Mr Raj selects items by giving item ID & quantity

Mr Raj sees cart message with order value and a request to provide **shipping address**



Mr Raj enters shipping address

Mr Raj sees payment interface and final invoices



Mr Raj makes the payment using his preferred payment method

Mr Raj sees unified order screen with fulfilment status for each shipment\*

Local Retail BAP

BG

Local Retail BPP

constructs packets for BAP and Store

BAP consolidates quotes and generates common cart

BAP requests each BPP to send order policies (incl payment) via **init**

BAP consolidates all payment terms and generates common payment interface

BAP Confirms order for each BPP via **confirm** packet

BAP consolidates order confirmation from each BPP

select  
select

on\_select  
on\_select  
on\_select

init  
init  
init

on\_init  
on\_init  
on\_init

confirm  
confirm  
confirm

on\_confirm  
on\_confirm  
on\_confirm

BPP sends quote

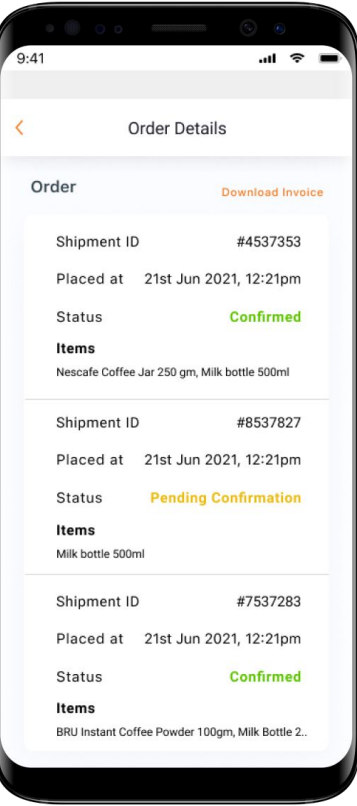
Each BPP returns on\_select packets containing respective quotes

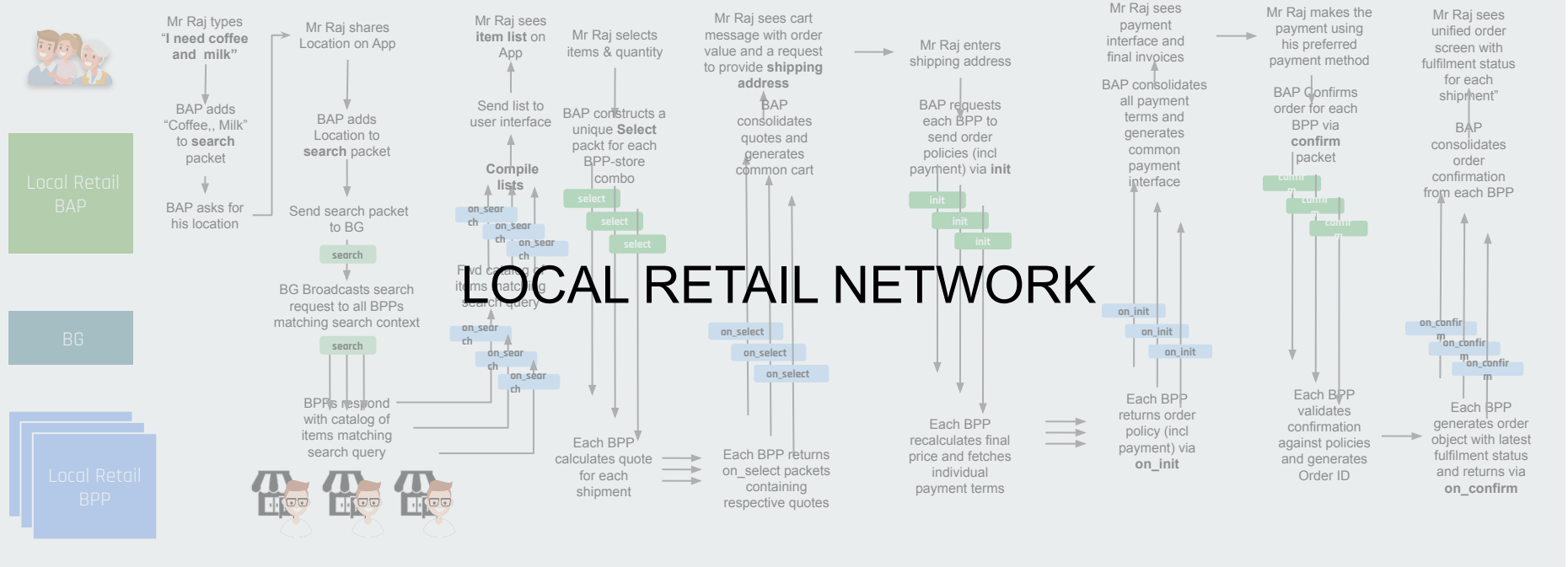
Each BPP recalculates final price and fetches individual payment terms

Each BPP returns order policy (incl payment) via **on\_init**

Each BPP validates confirmation against policies and generates Order ID

Each BPP generates order object with latest fulfilment status and returns via **on\_confirm**







BAP

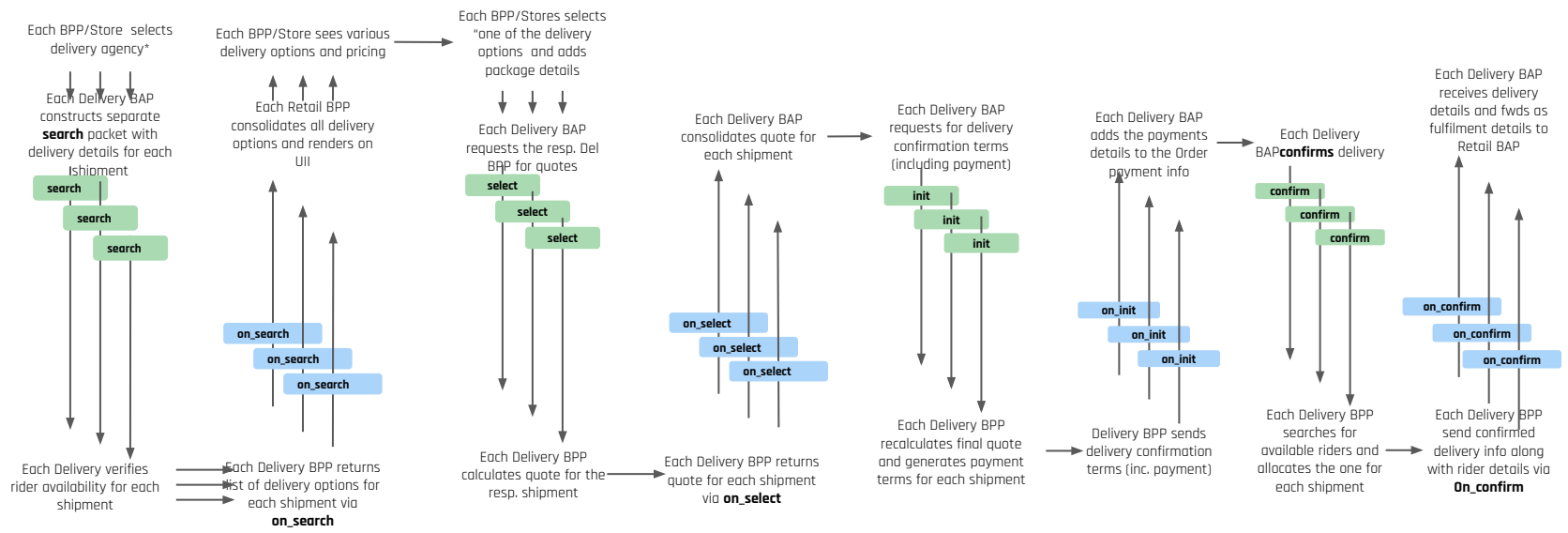
BG

Local Retail BPP acting as Delivery BAP

BG

Delivery BPP

# LOCAL RETAIL NETWORK



\*Fulfilment can be initiated at BPP or Store level



BAP

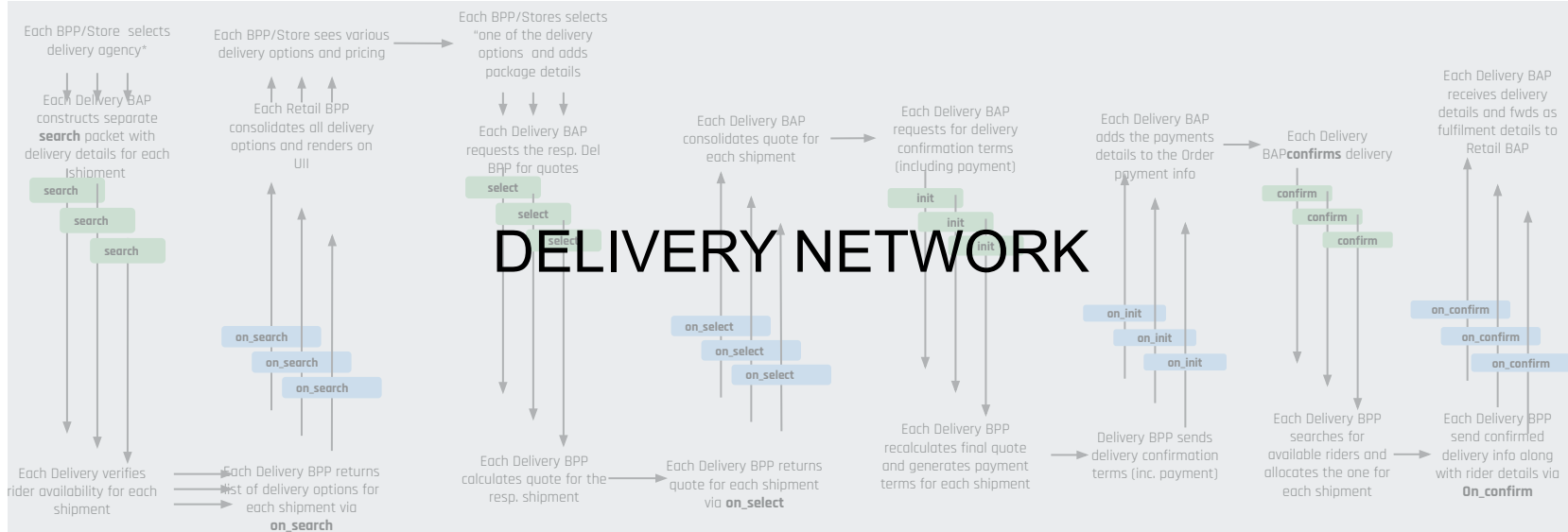
BG

Local Retail BPP acting as Delivery BAP

BG

Delivery BPP

# LOCAL RETAIL NETWORK





Mr Raj sees unified order screen with fulfilment status for each shipment"

BAP consolidates order confirmation from each BPP

BAP fires latest status of each shipment

on\_confirm

status

Each BPP generates order object with latest fulfilment status and returns via on\_confirm

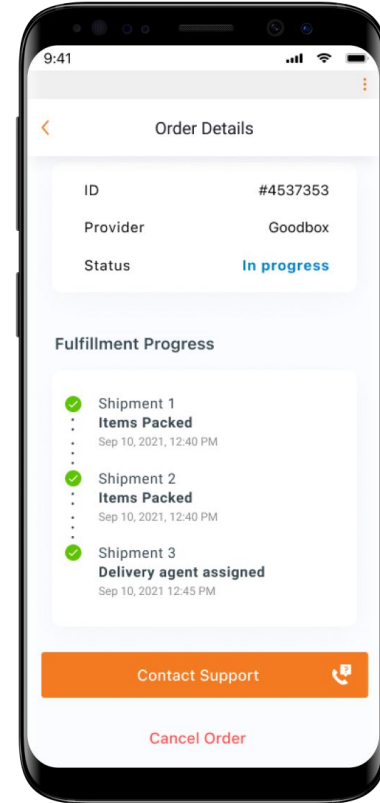
Each BPP fetches latest fulfilment status from delivery network

Local Retail BAP

BG

Local Retail BPP

# DELIVERY NETWORK





Mr Raj sees unified order screen with fulfilment status for each shipment"

BAP consolidates order confirmation from each BPP

on\_confirm

Each BPP generates order object with latest fulfilment status and returns via on\_confirm

Local Retail BAP

BG

Local Retail BPP

Mr Raj sees status of each shipment

BAP fires latest status of each shipment

status

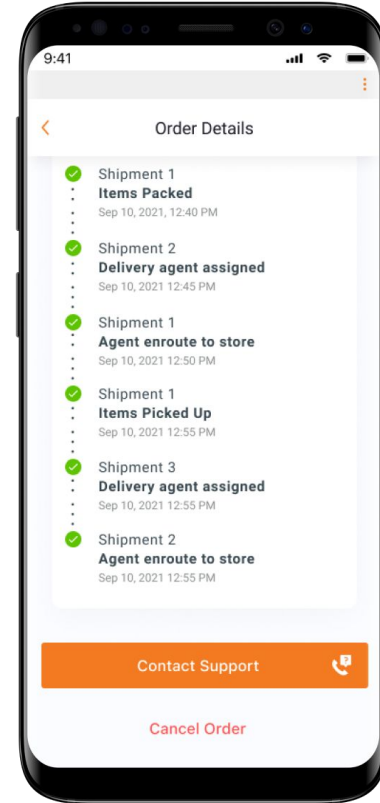
Each BPP fetches latest fulfilment status from delivery network

BAP consolidates all fulfilment statuses

on\_status

Each BPP sends the latest status via on\_status

# DELIVERY NETWORK





Mr Raj sees unified order screen with fulfilment status for each shipment"

BAP consolidates order confirmation from each BPP

Local Retail BAP

BG

Local Retail BPP

on\_confirm

Each BPP generates order object with latest fulfilment status and returns via on\_confirm

BAP fires latest status of each shipment

status

Each BPP fetches latest fulfilment status from delivery network

Mr Raj sees status of each shipment

BAP consolidates all fulfilment statuses

on\_status

Each BPP sends the latest status via on\_status

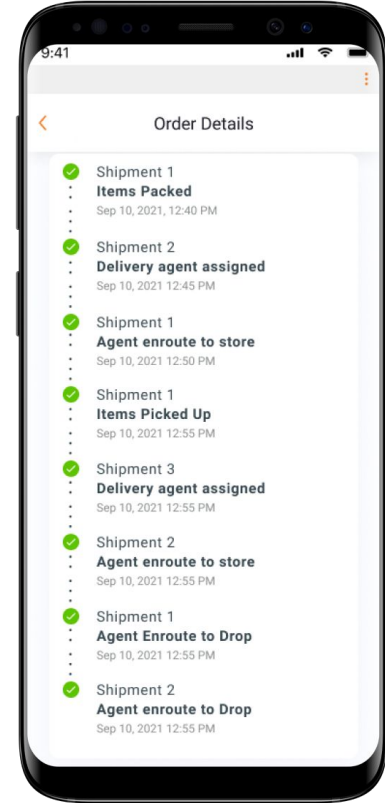
Mr Raj sees status of each shipment

BAP consolidates all fulfilment statuses

on\_status

Each BPP sends the latest status via on\_status

# DELIVERY NETWORK



9:41

## Order Details

- ✓ Shipment 1
  - Items Packed
  - Sep 10, 2021, 12:40 PM
- ✓ Shipment 2
  - Delivery agent assigned
  - Sep 10, 2021 12:45 PM
- ✓ Shipment 1
  - Agent enroute to store
  - Sep 10, 2021 12:50 PM
- ✓ Shipment 1
  - Items Picked Up
  - Sep 10, 2021 12:55 PM
- ✓ Shipment 3
  - Delivery agent assigned
  - Sep 10, 2021 12:55 PM
- ✓ Shipment 2
  - Agent enroute to store
  - Sep 10, 2021 12:55 PM
- ✓ Shipment 1
  - Agent Enroute to Drop
  - Sep 10, 2021 12:55 PM
- ✓ Shipment 2
  - Agent enroute to Drop
  - Sep 10, 2021 12:55 PM



Mr Raj sees unified order screen with fulfilment status for each shipment"

BAP consolidates order confirmation from each BPP

on\_confirm  
on\_confirm  
on\_confirm

Each BPP generates order object with latest fulfilment status and returns via on\_confirm

Local Retail BAP

BG

Local Retail BPP

BAP fires latest status of each shipment

status  
status  
status

Each BPP fetches latest fulfilment status from delivery network

Mr Raj sees status of each shipment

BAP consolidates all fulfilment statuses

on\_status  
on\_status  
on\_status

Each BPP sends the latest status via on\_status

Mr Raj sees status of each shipment

BAP consolidates all fulfilment statuses

on\_status  
on\_status  
on\_status

Each BPP sends the latest status via on\_status

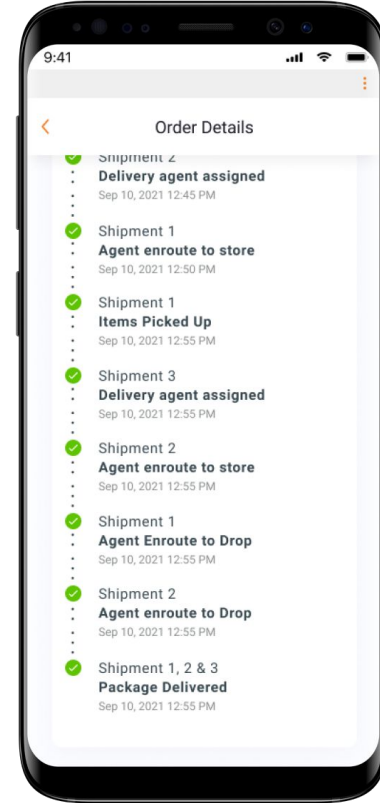
Mr Raj sees package delivered for each shipment

BAP consolidates all fulfilment statuses

on\_status  
on\_status  
on\_status

Each BPP sends the latest status via on\_status

# DELIVERY NETWORK





Mr Raj sees unified order screen with fulfilment status for each shipment"

BAP consolidates order confirmation from each BPP

on\_confirm

Each BPP generates order object with latest fulfilment status and returns via on\_confirm

Local Retail BAP

BG

Local Retail BPP

BAP fires latest status of each shipment

status

Each BPP fetches latest fulfilment status from delivery network

Mr Raj sees status of each shipment

BAP consolidates all fulfilment statuses

on\_status

Each BPP sends the latest status via on\_status

Mr Raj sees status of each shipment

BAP consolidates all fulfilment statuses

on\_status

Each BPP sends the latest status via on\_status

Mr Raj sees package delivered for each shipment

BAP consolidates all fulfilment statuses

on\_status

Each BPP sends the latest status via on\_status

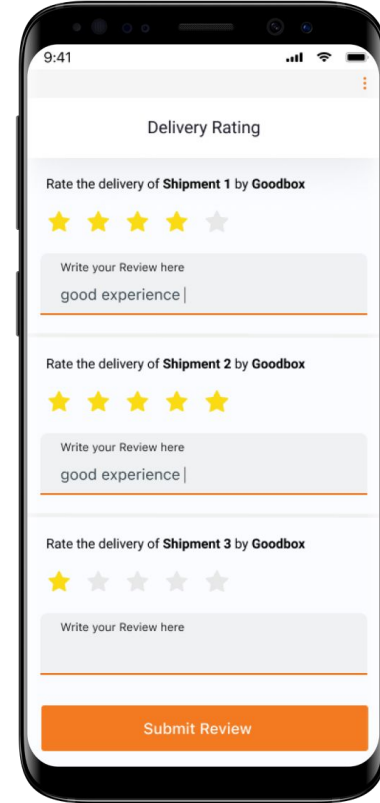
Mr Raj sends delivery rating for each delivery on App

IBAP sends rating details for each shipment

rating

Each BPP forwards delivery rating to Delivery network

# DELIVERY NETWORK

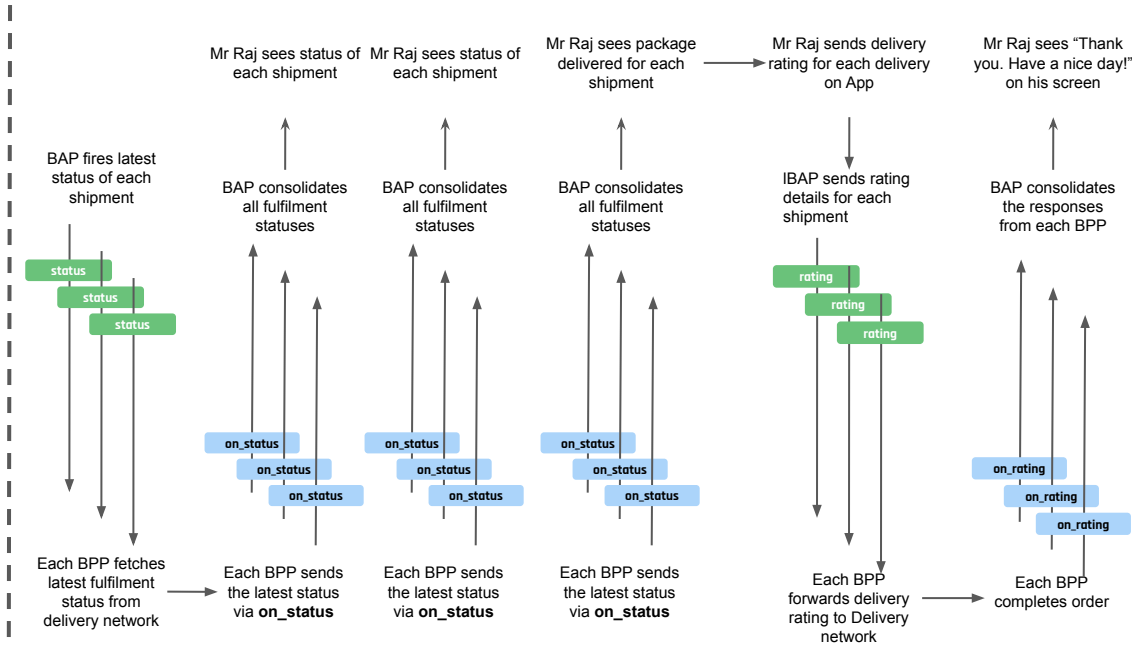




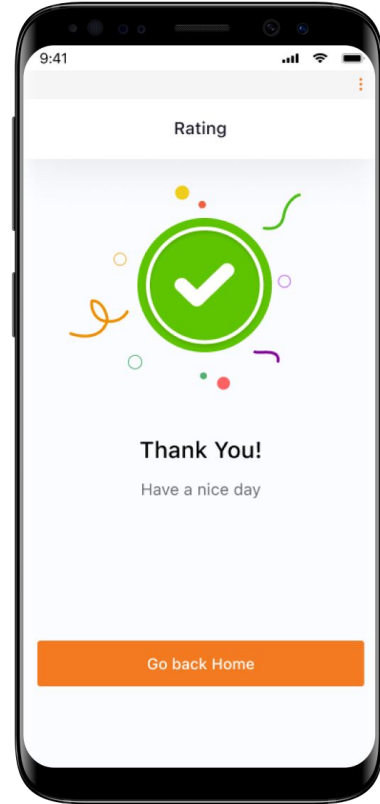
Local Retail BAP

BG

Local Retail BPP



# DELIVERY NETWORK

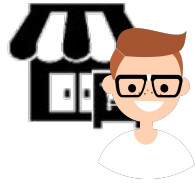




# Customer searches for providers

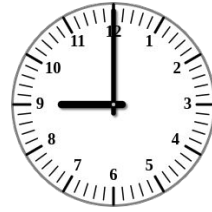


**Raj and Family**



**ABC Mart**

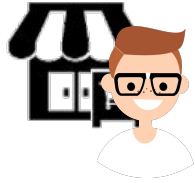
+



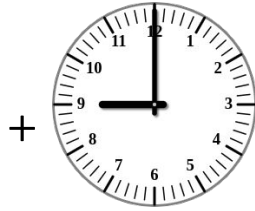
**9 PM**



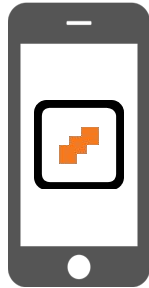
**Raj and Family**



**ABC Mart**



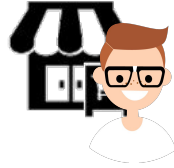
**9 PM**



**Beckn Protocol Enabled  
Consumer App**



Raj



ABC Mart

+



Coffee

+



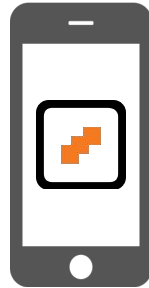
Milk

+

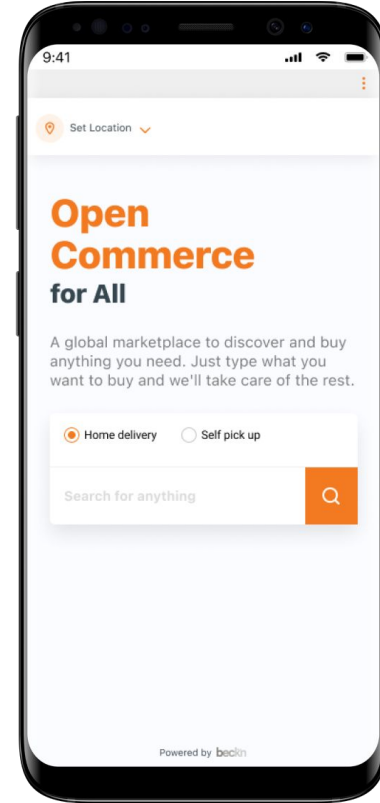


9 PM

Launches Open  
Commerce Application



Beckn Protocol Enabled  
Consumer App

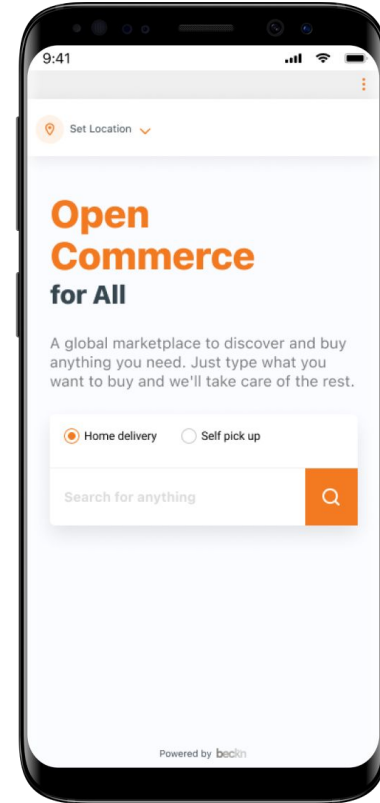




Local Retail  
BAP

BG

Local Retail  
BPP



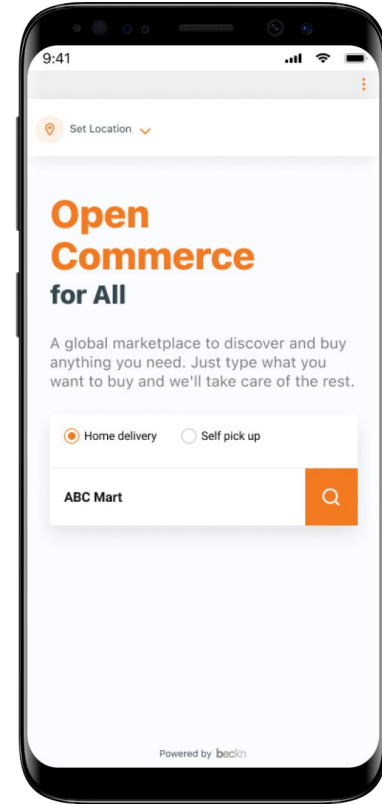


Mr Raj types  
"ABC Mart"

Local Retail  
BAP

BG

Local Retail  
BPP





Mr Raj types  
"ABC Mart"

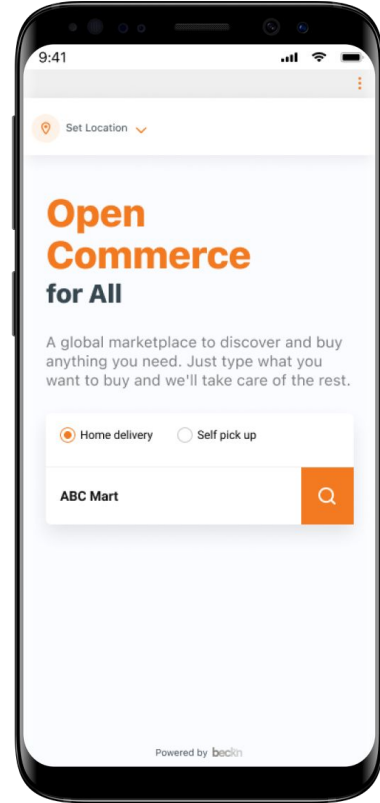


BAP adds "ABC  
Mart" to **search**  
packet

Local Retail  
BAP

BG

Local Retail  
BPP





Mr Raj types  
"ABC Mart"



BAP adds "ABC  
Mart" to **search**  
packet

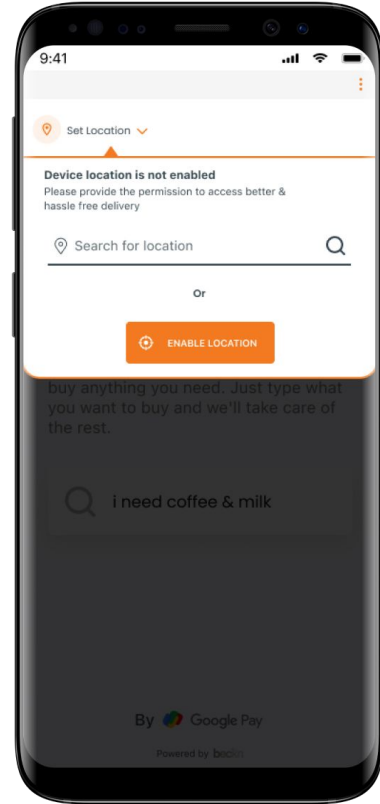


BAP asks for his  
location

Local Retail  
BAP

BG

Local Retail  
BPP





Mr Raj types  
"ABC Mart"

Mr Raj shares  
Location on App

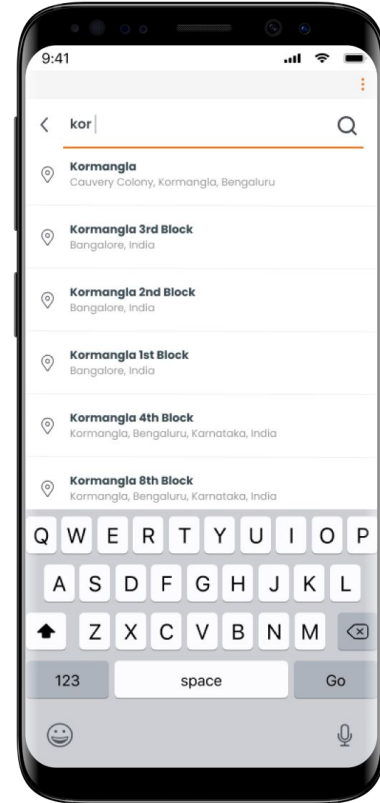
BAP adds "ABC  
Mart" to search  
packet

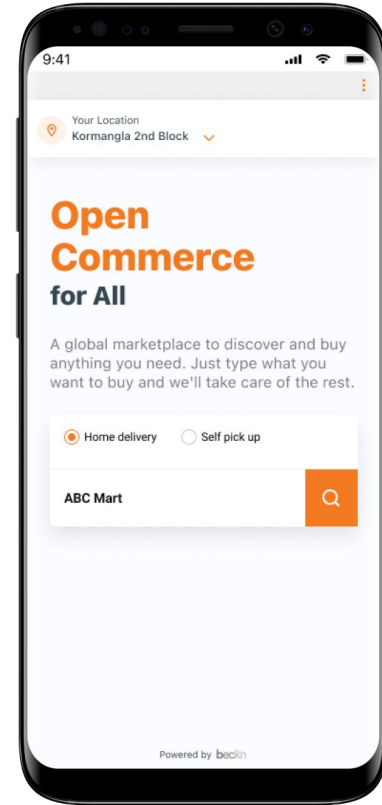
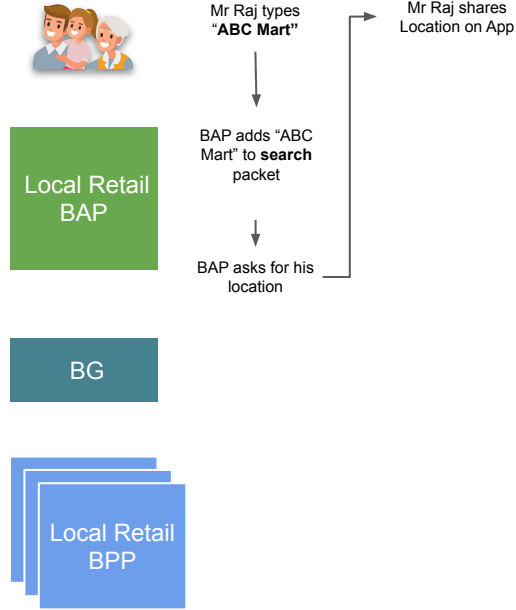
BAP asks for his  
location

Local Retail  
BAP

BG

Local Retail  
BPP







Mr Raj types  
**"ABC Mart"**

BAP adds "ABC  
Mart" to **search**  
packet

BAP asks for his  
location

Mr Raj shares  
Location on App

BAP adds Location to  
**search** packet

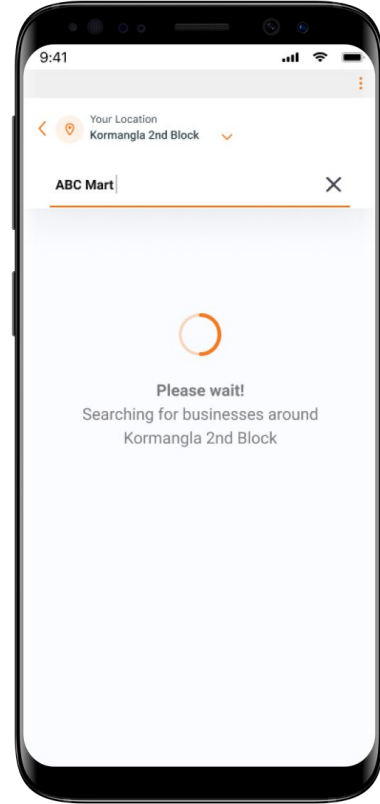
Send search packet to  
BG

**search**

Local Retail  
BAP

BG

Local Retail  
BPP

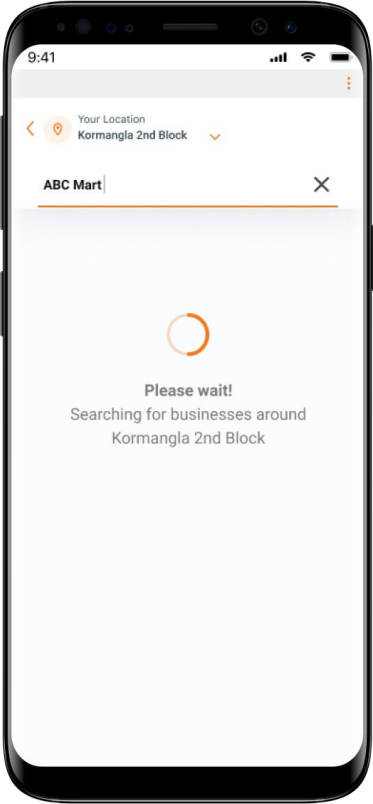
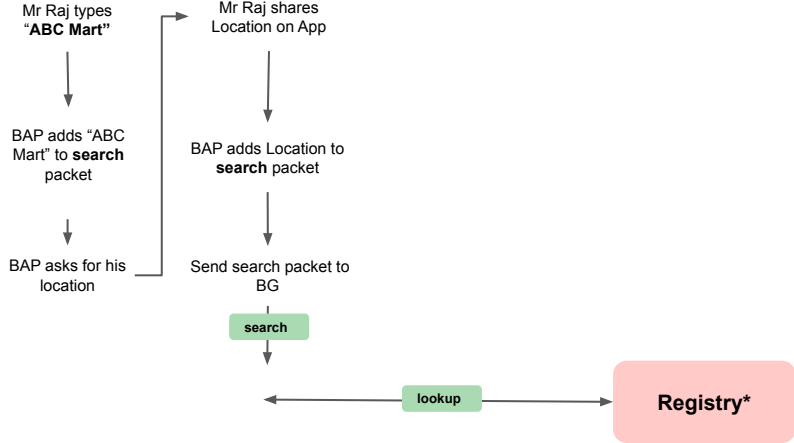


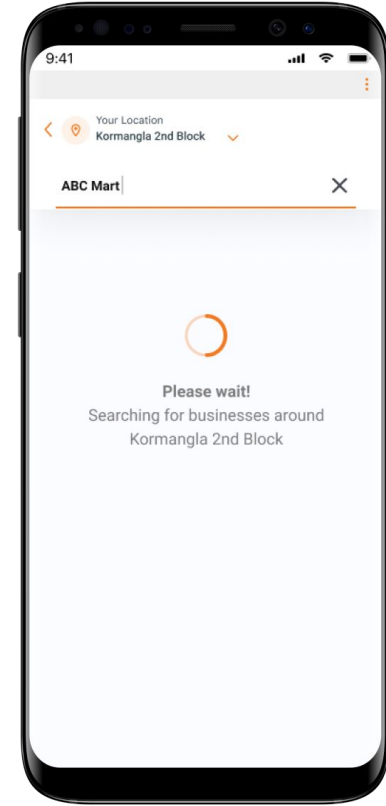
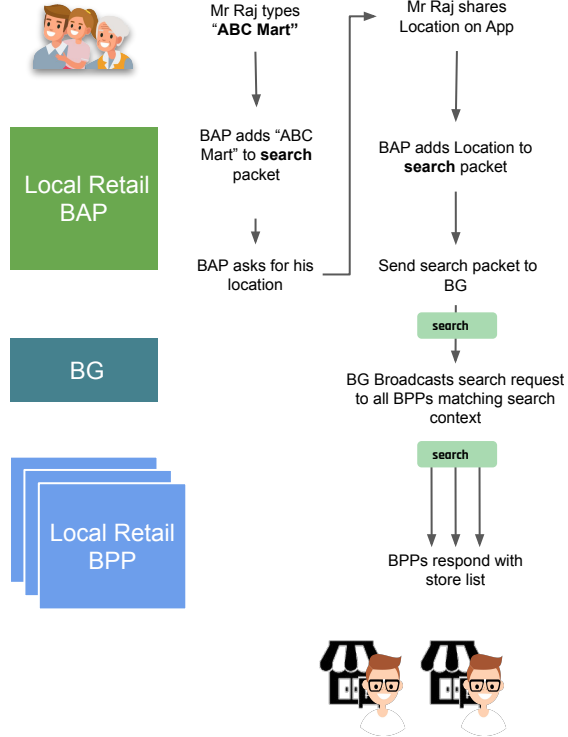


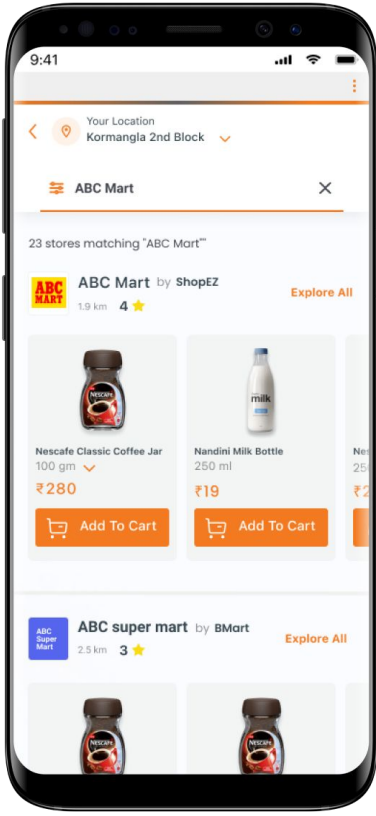
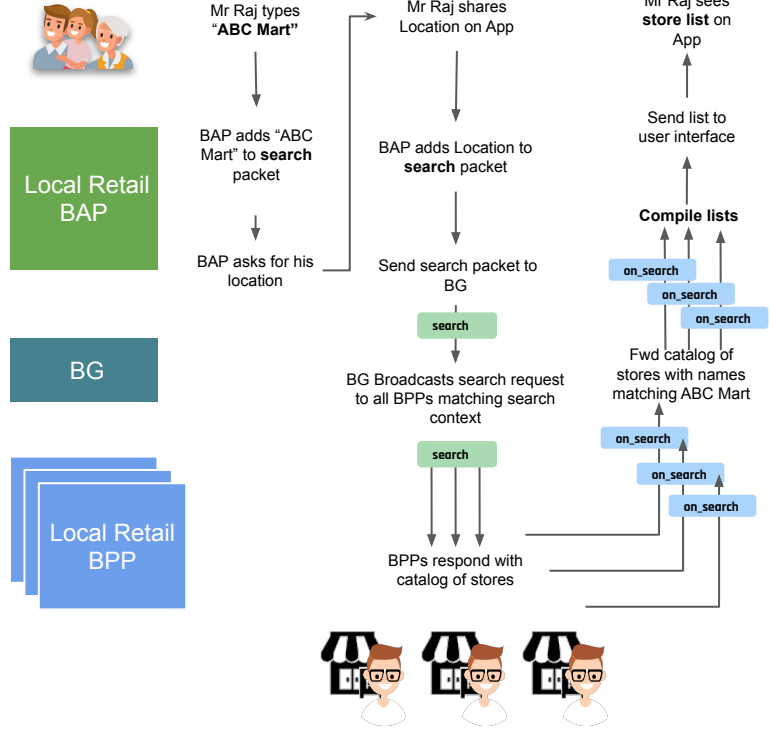
Local Retail  
BAP

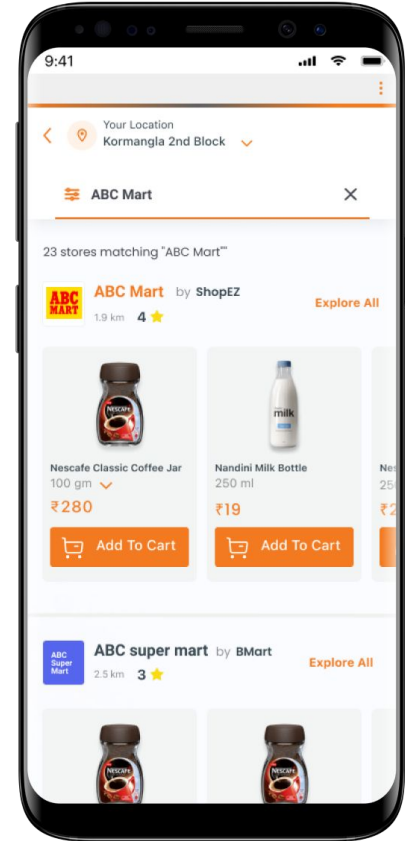
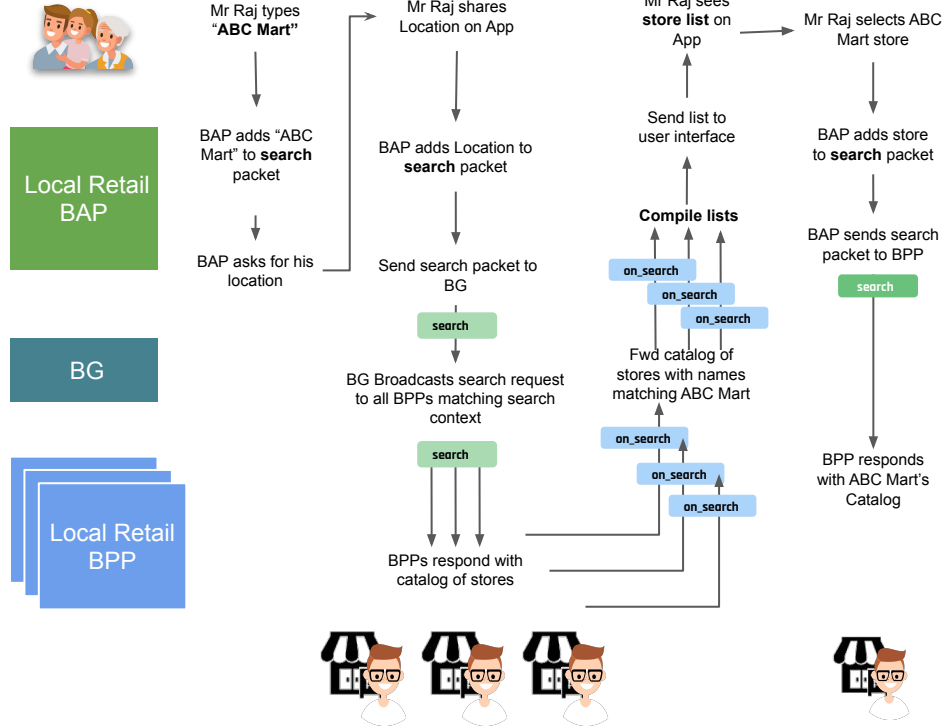
BG

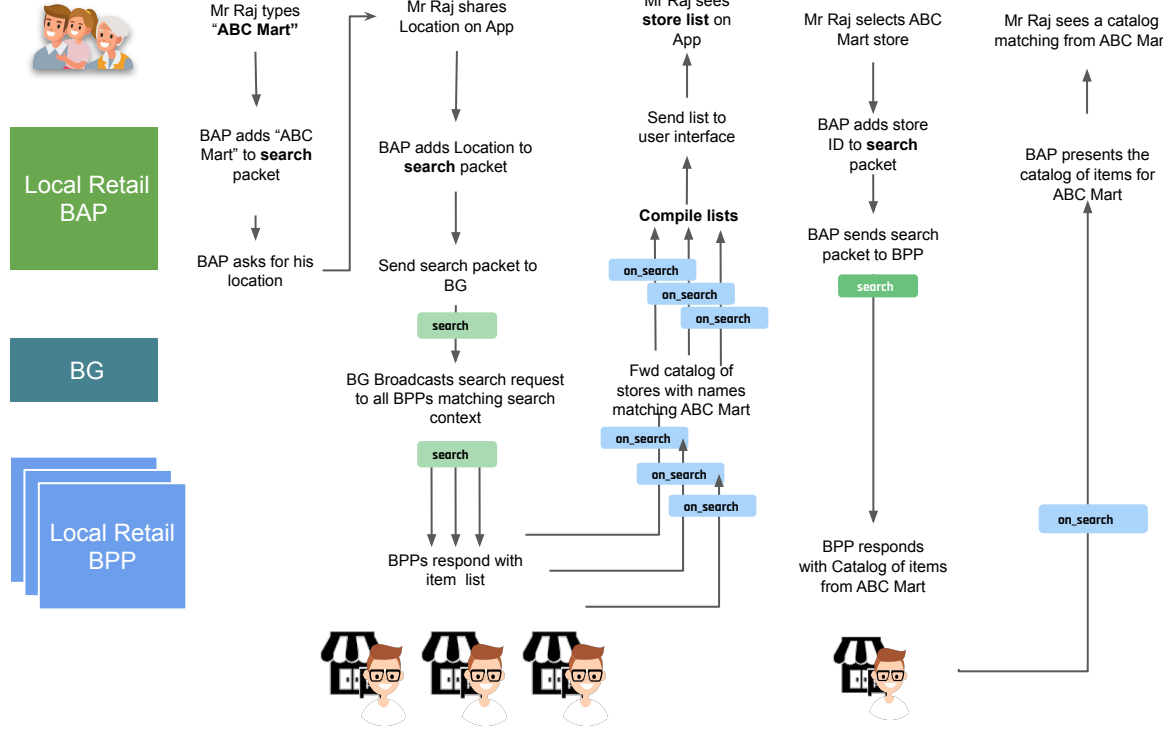
Local Retail  
BPP







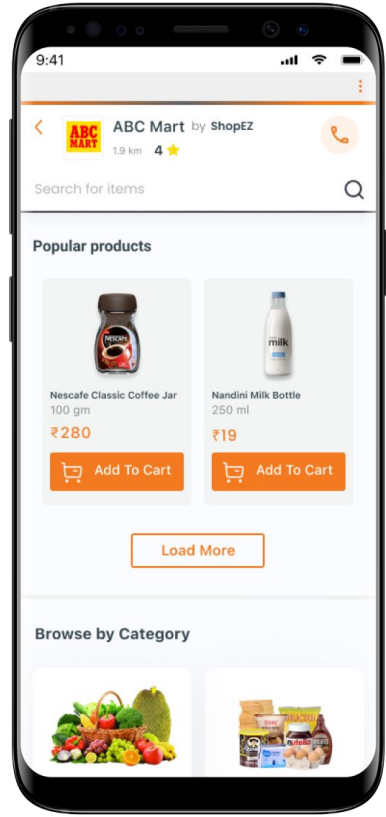


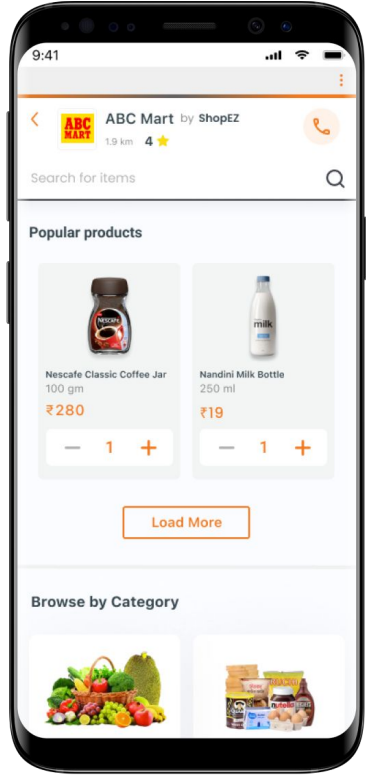
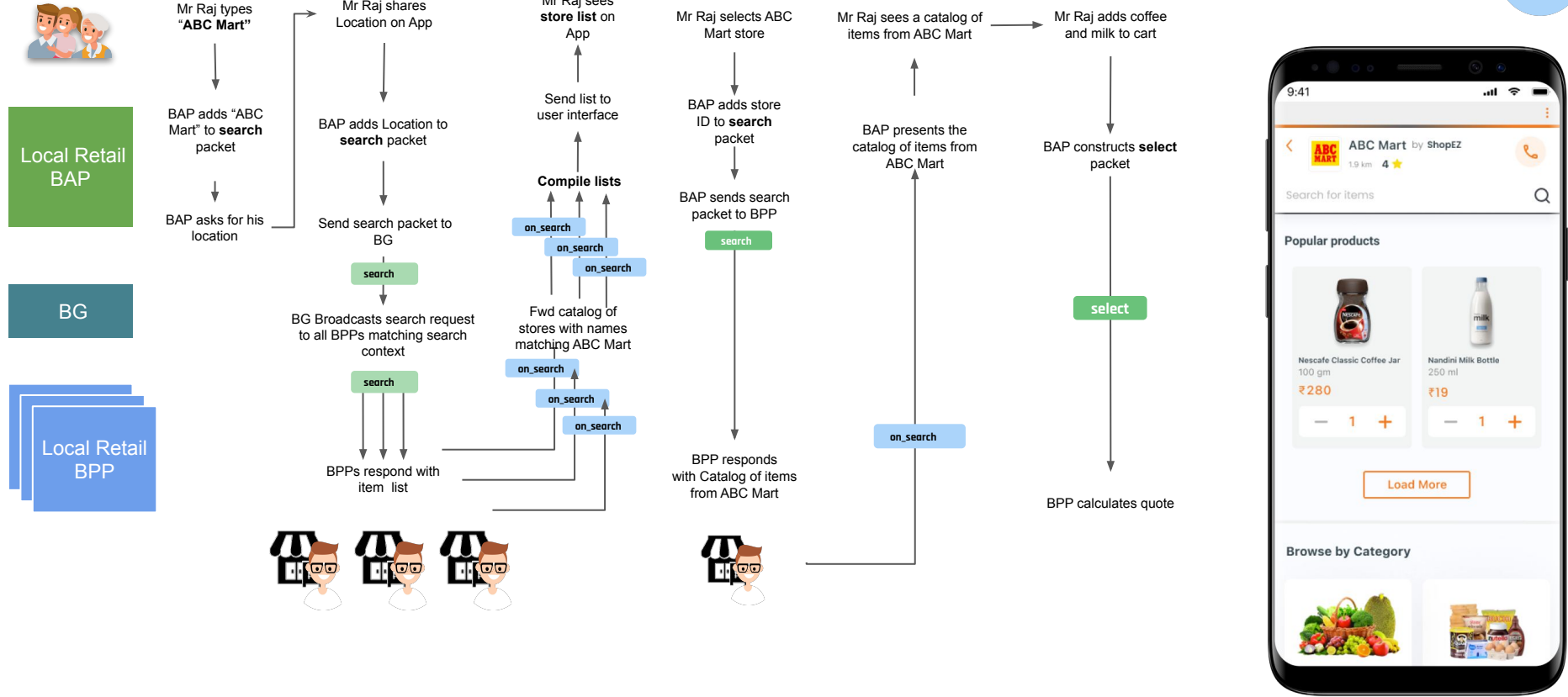


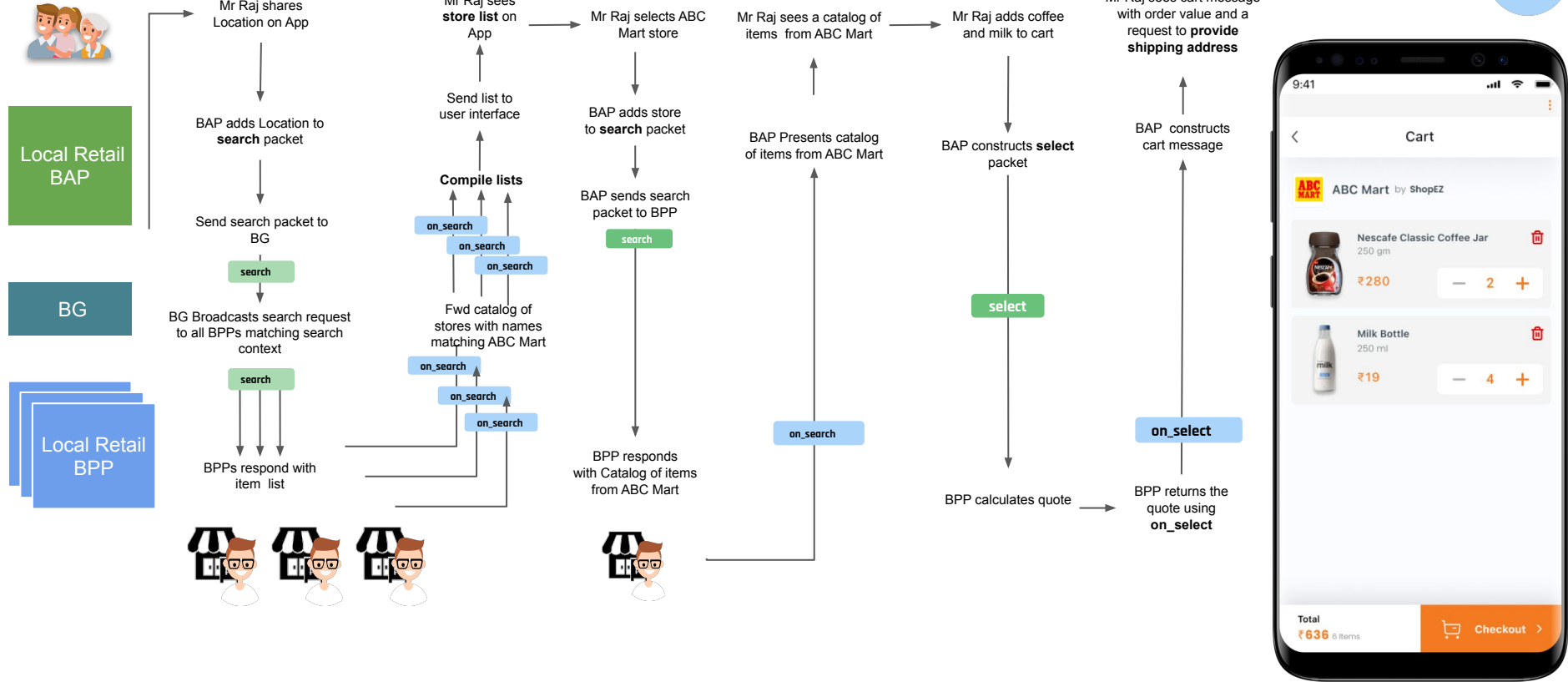
Local Retail BAP

BG

Local Retail BPP









Local Retail BAP

BG

Local Retail BPP



Mr Raj sees store list on App

Send list to user interface

Compile lists

on\_search

Fwd all item lists fetched

on\_search

on\_search

on\_search

Mr Raj selects ABC Mart store

BAP adds ABC Mart to search packet

BAP sends search packet to BPP

search

BPP responds with Catalog of items from ABC Mart



Mr Raj sees a catalog matching from ABC Mart

BAP presents the catalog of items from ABC Mart

on\_search

Mr Raj adds coffee and milk to cart

BAP constructs select packet

select

BPP calculates quote

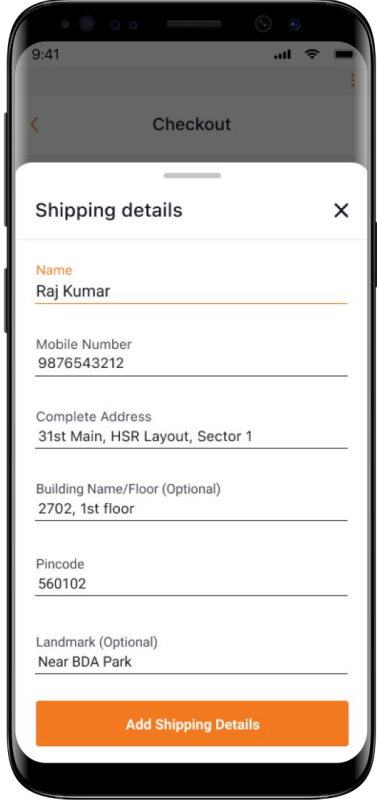
Mr Raj sees cart message with order value and a request to provide shipping address

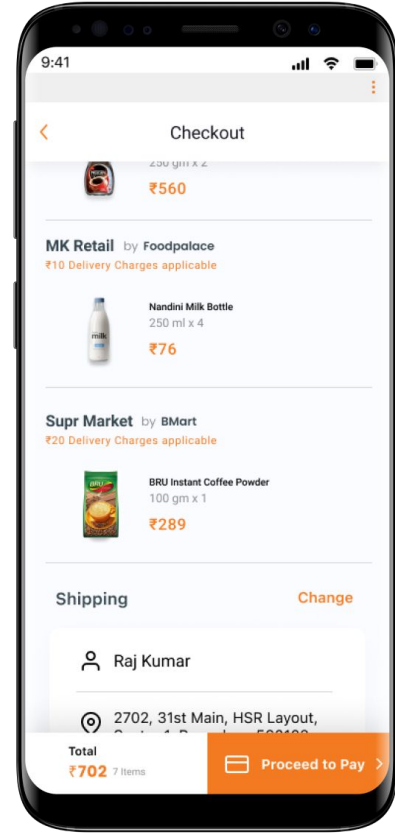
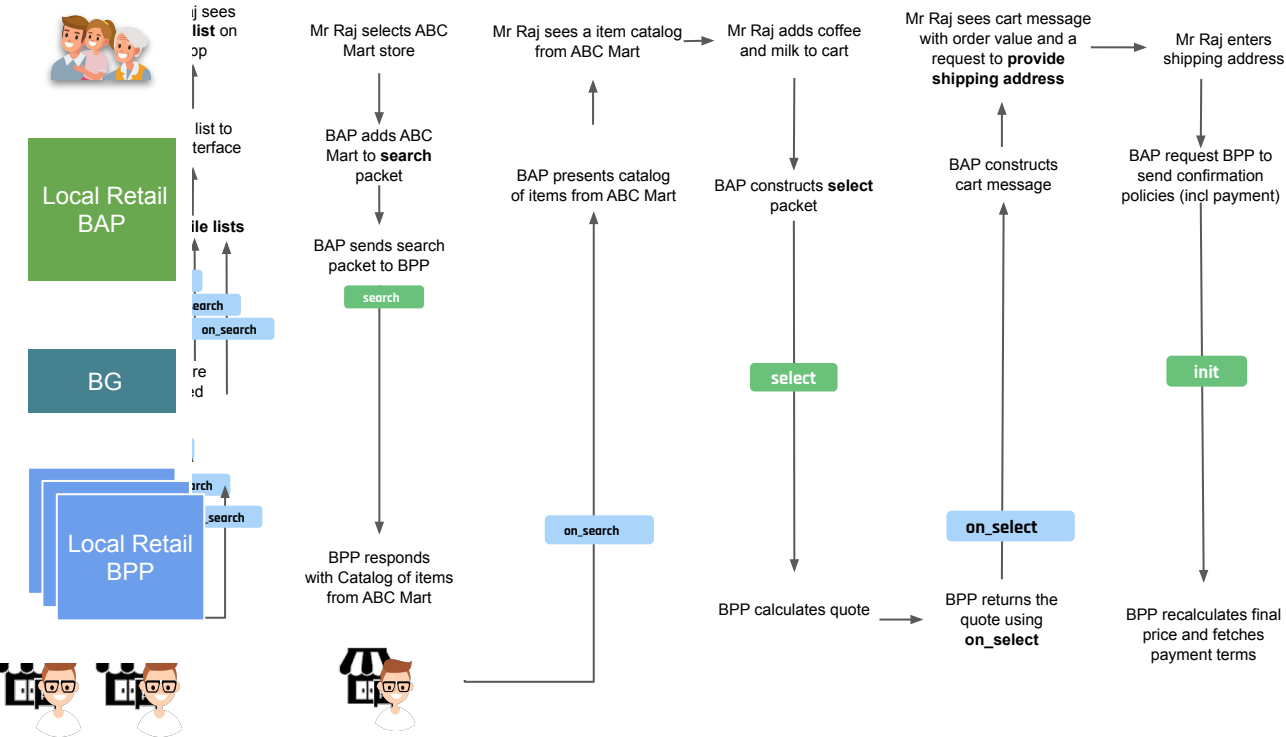
BAP constructs cart message

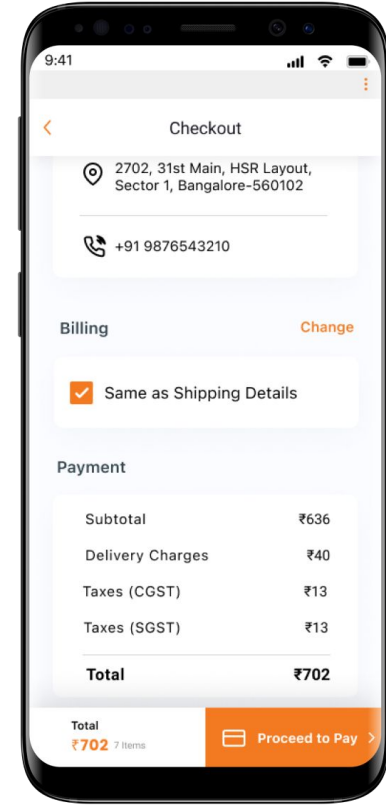
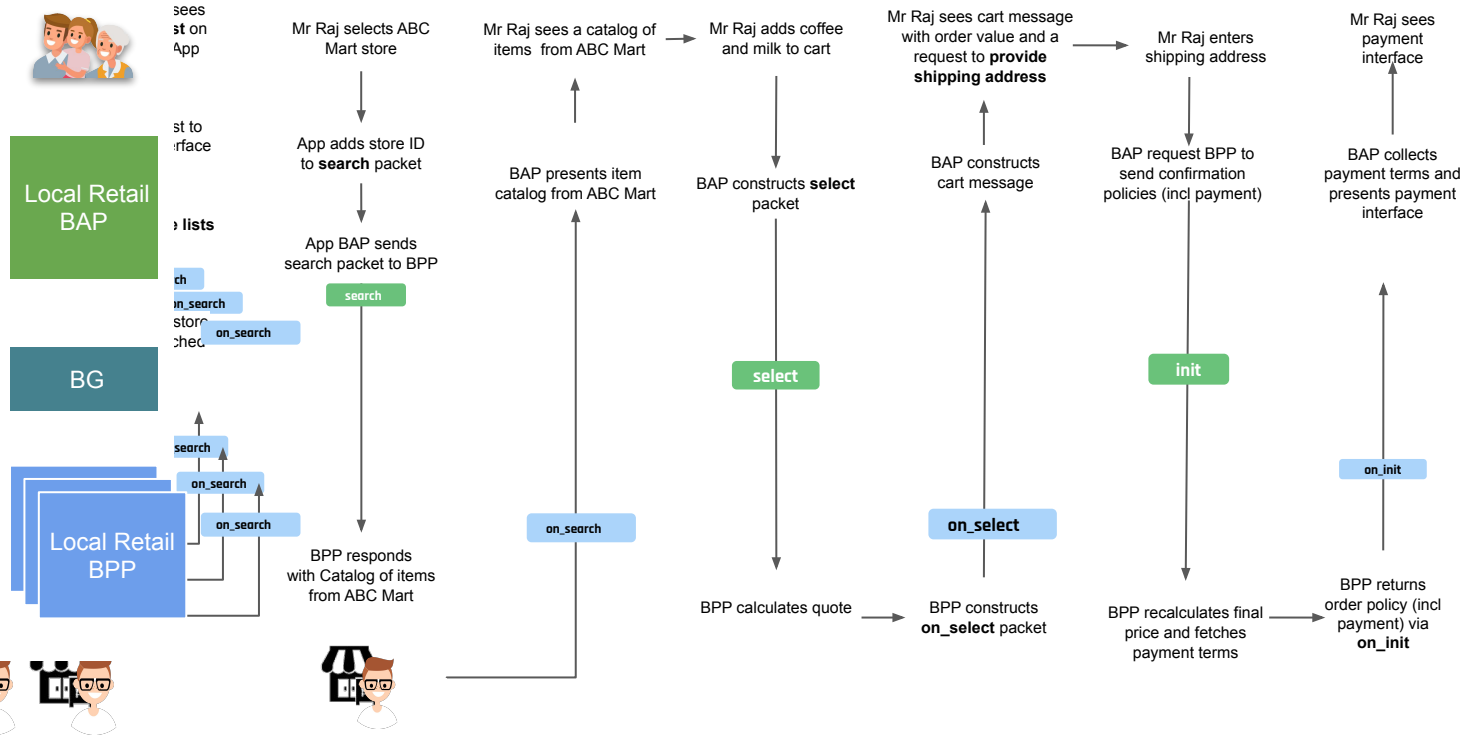
on\_select

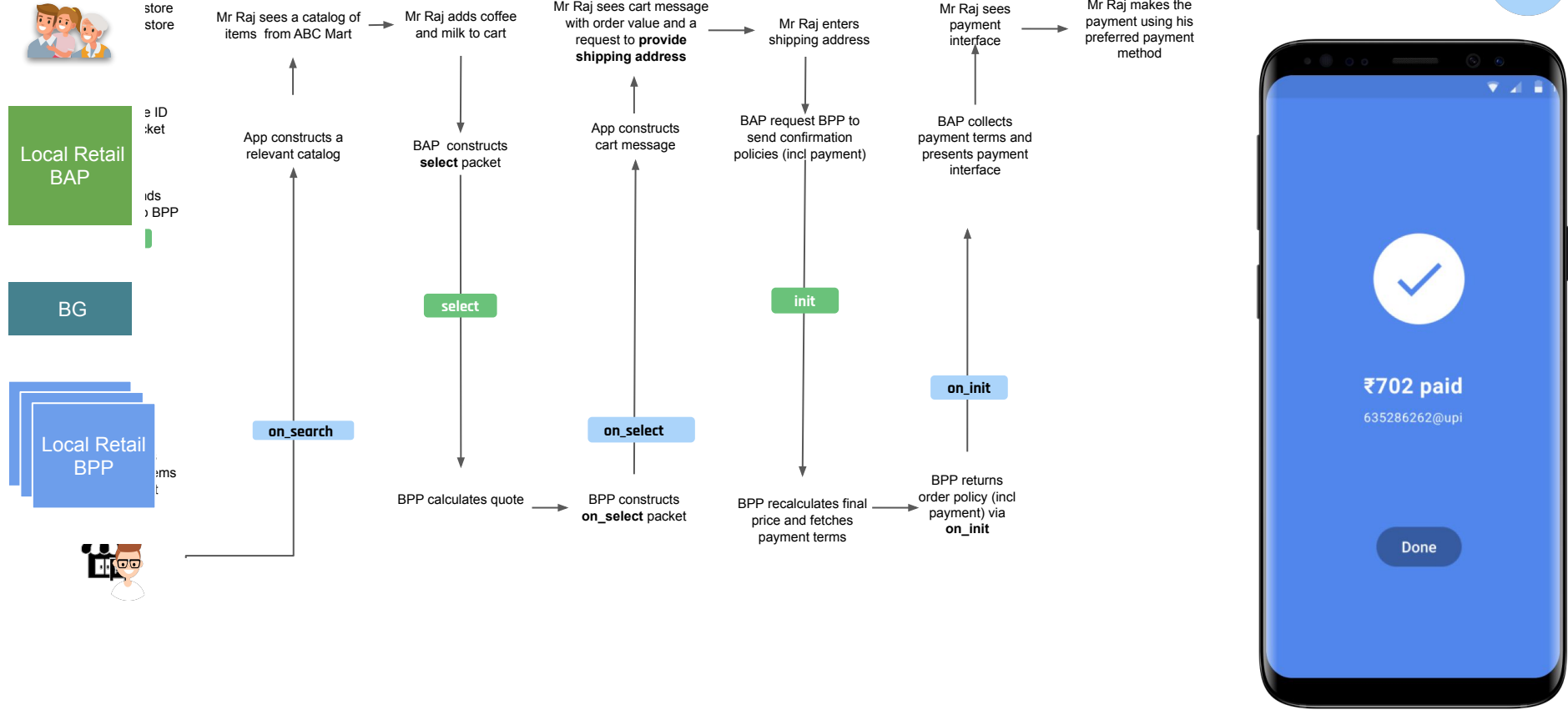
BPP returns the quote using on\_select

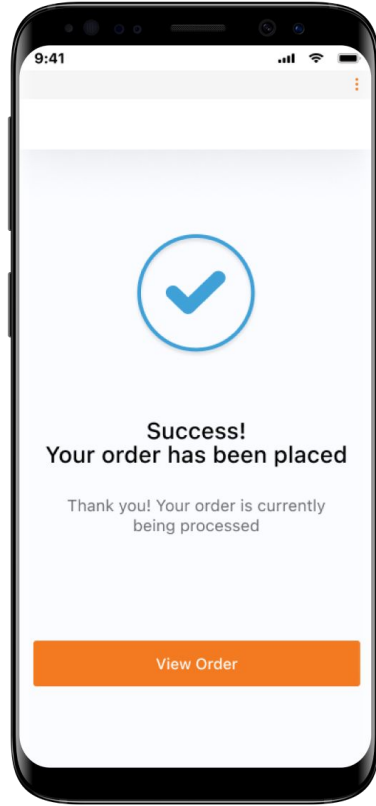
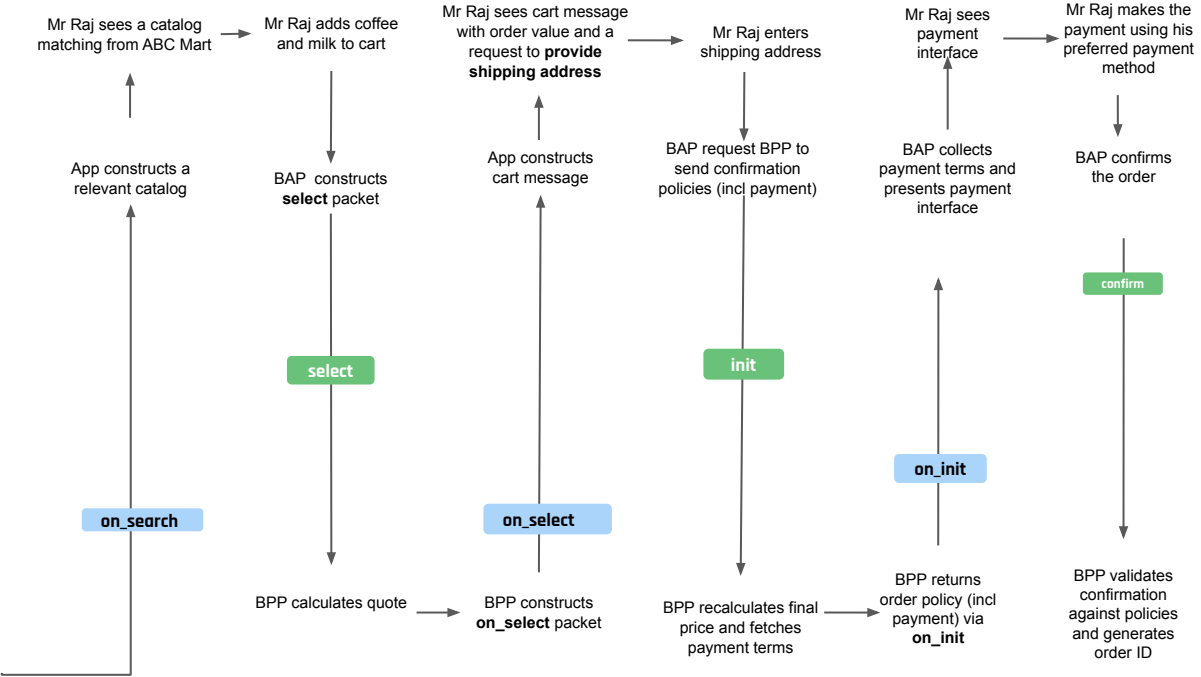
Mr Raj enters shipping address









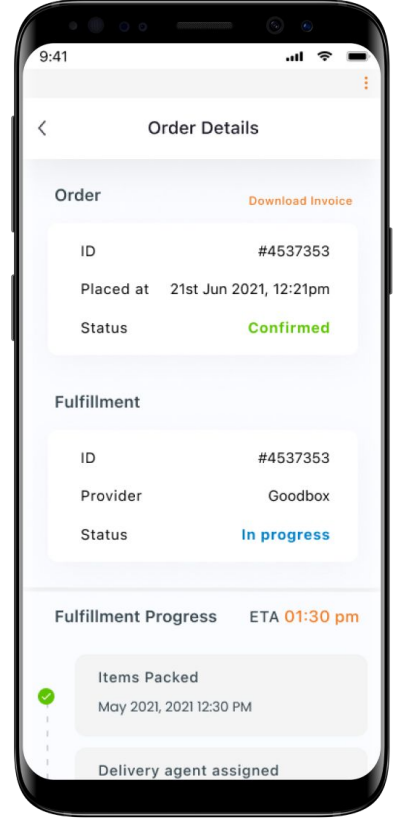
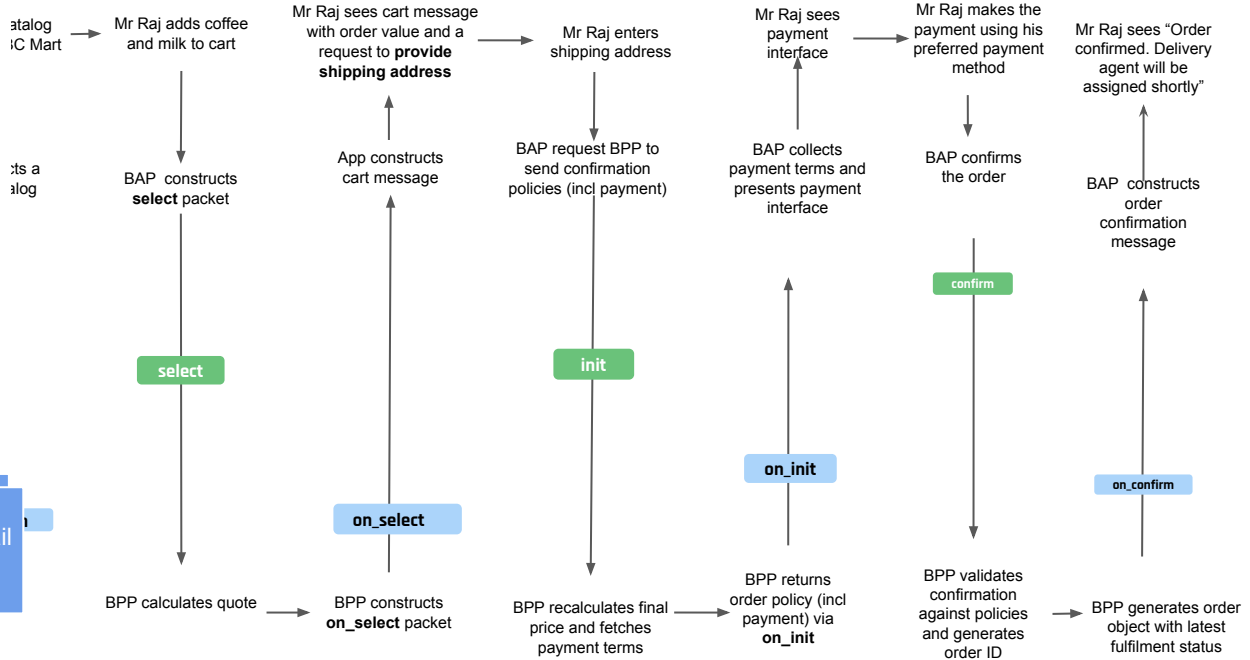




Local Retail BAP

BG

Local Retail BPP

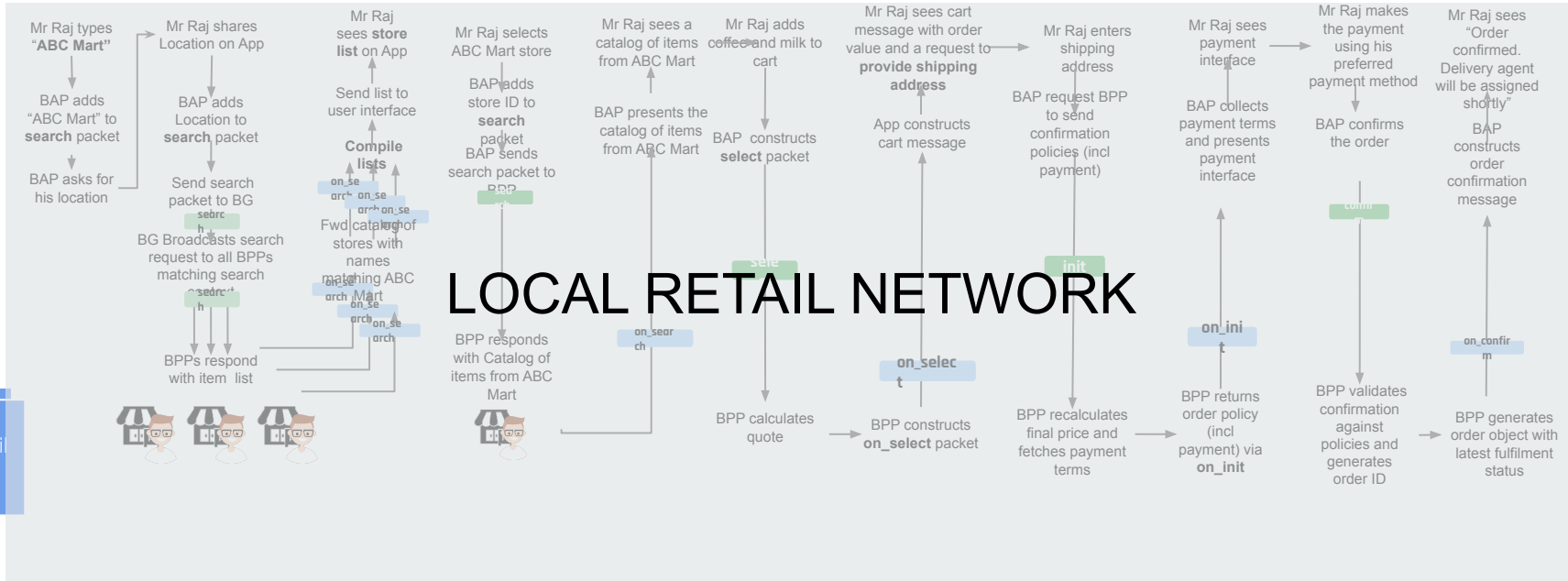




Local Retail  
BAP

BG

Local Retail  
BPP





BAP

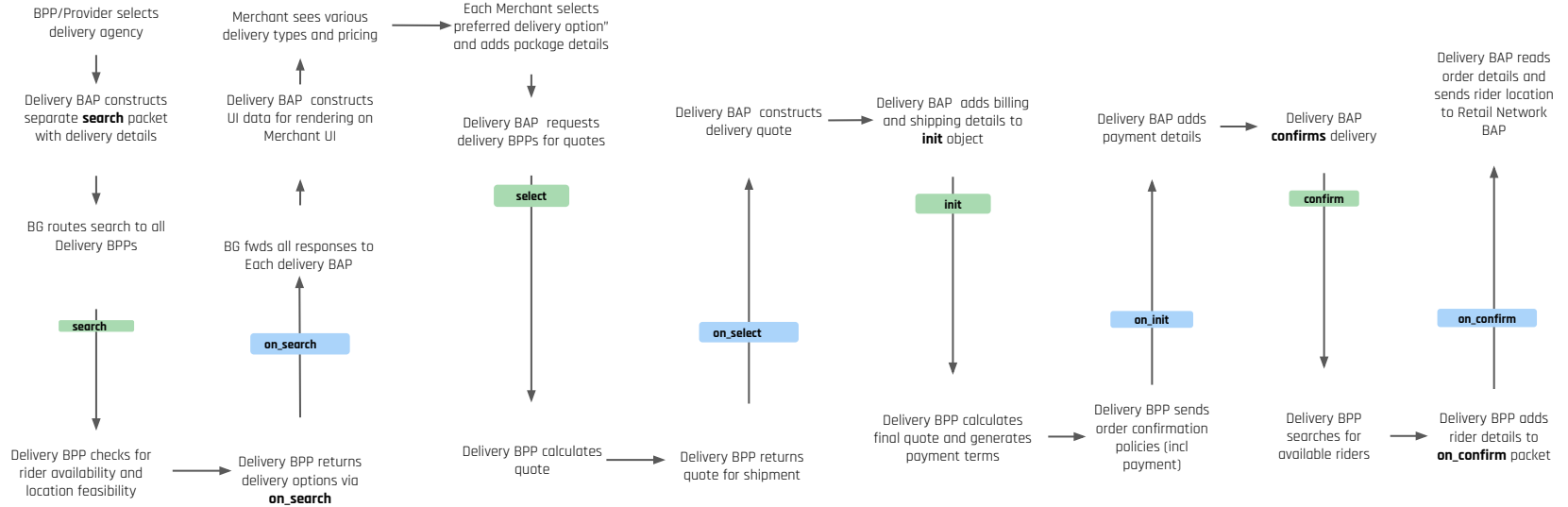
BG

Local Retail BPP acting as Delivery BAP

BG

Delivery BPP

# LOCAL RETAIL NETWORK





BAP

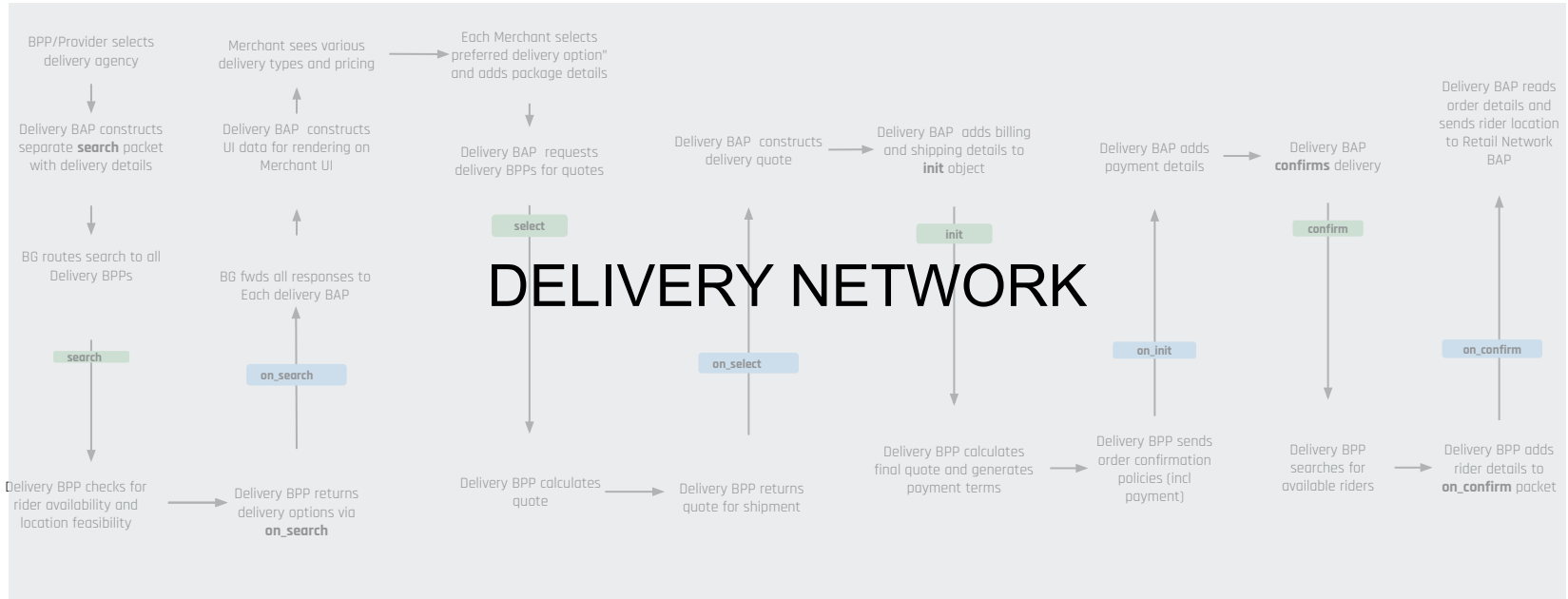
BG

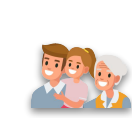
Local Retail BPP acting as Delivery BAP

BG

Delivery BPP

# LOCAL RETAIL NETWORK

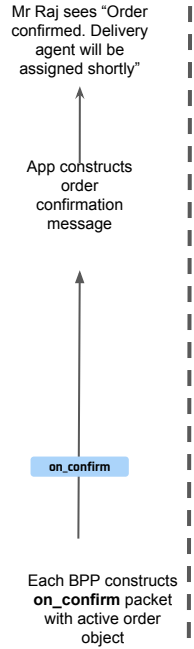




Local Retail  
BAP

BG

Local Retail  
BPP

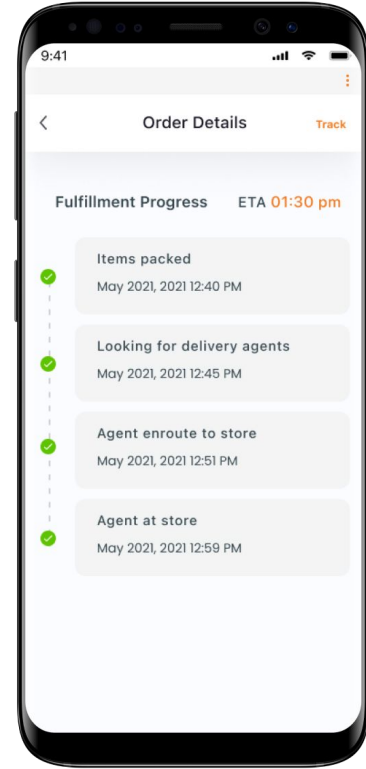


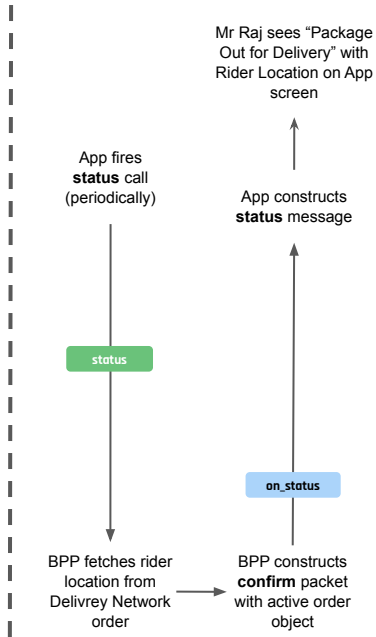
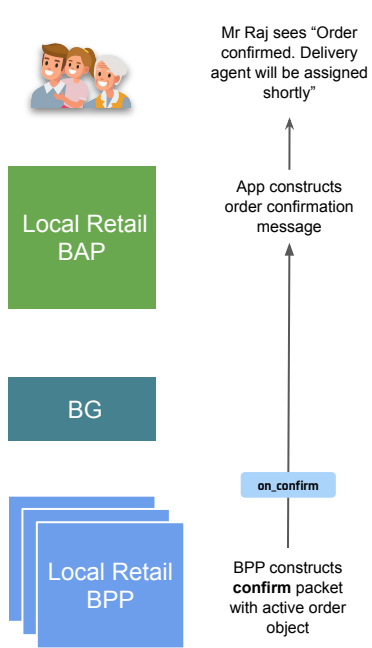
App fires status call to each BPP

status

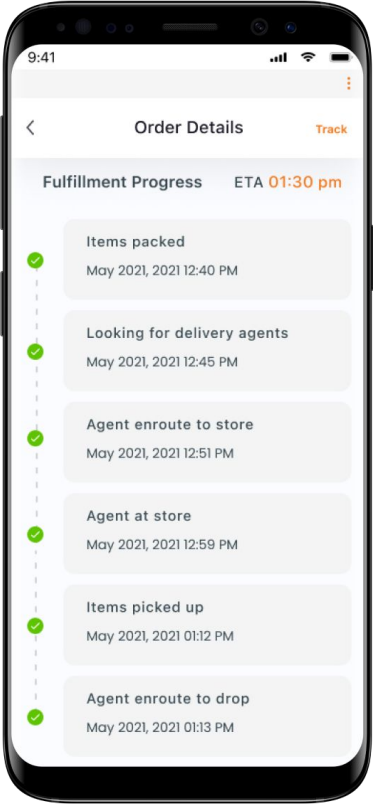
BPP fetches rider location from Delivery Network order

# DELIVERY NETWORK





# DELIVERY NETWORK





Mr Raj sees "Order confirmed. Delivery agent will be assigned shortly"

App constructs order confirmation message

on\_confirm

BPP constructs confirm packet with active order object

Local Retail BAP

BG

Local Retail BPP



App fires status call (periodically)

status

BPP fetches rider location from Delivery Network order

Mr Raj sees "Package Out for Delivery" with Rider Location on App screen

App constructs status message

on\_status

BPP constructs confirm packet with active order object

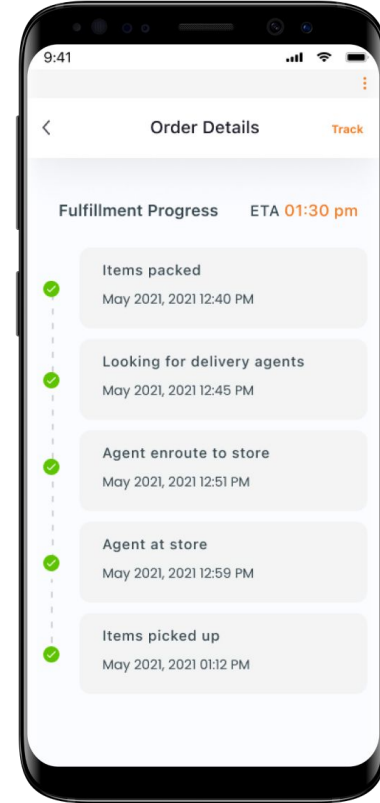
Mr Raj sees "Package Almost Here" on App screen

App constructs status message

on\_status

BPP updates order status

# DELIVERY NETWORK





Mr Raj sees "Order confirmed. Delivery agent will be assigned shortly"

App constructs order confirmation message

on\_confirm

BPP constructs confirm packet with active order object

Local Retail BAP

BG

Local Retail BPP

App fires status call (periodically)

status

BPP fetches rider location from Delivery Network order

Mr Raj sees "Package Out for Delivery" with Rider Location on App screen

App constructs status message

on\_status

BPP constructs confirm packet with active order object

Mr Raj sees "Package Almost Here" on App screen

App constructs status message

on\_status

BPP updates order status

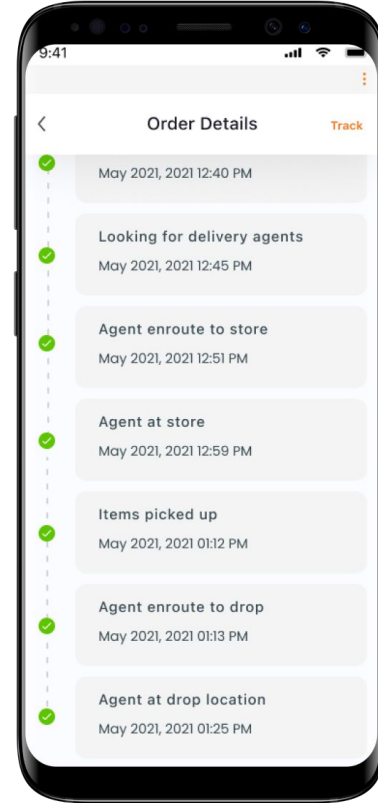
Mr Raj sees "Package at Location" on App screen

App constructs status message

on\_status

BPP updates order status

# DELIVERY NETWORK





Mr Raj sees "Order confirmed. Delivery agent will be assigned shortly"

App constructs order confirmation message

on\_confirm

BPP constructs confirm packet with active order object

Local Retail BAP

BG

Local Retail BPP



App fires status call (periodically)

status

BPP fetches rider location from Delivery Network order

Mr Raj sees "Package Out for Delivery" with Rider Location on App screen

App constructs status message

on\_status

BPP constructs confirm packet with active order object

Mr Raj sees "Package Almost Here" on App screen

App constructs status message

on\_status

BPP updates order status

Mr Raj sees "Package at Location" on App screen

App constructs status message

on\_status

BPP updates order status

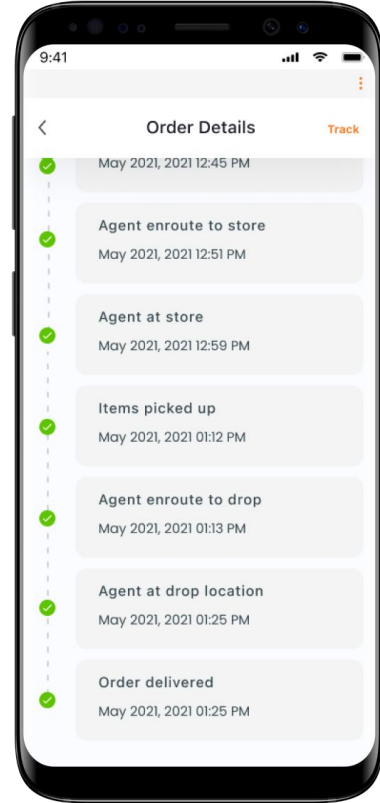
Mr Raj sees "Package Delivered" with Delivery Rating options on App screen

App constructs status message

on\_status

BPP updates order status

# DELIVERY NETWORK





Mr Raj sees "Order confirmed. Delivery agent will be assigned shortly"

App constructs order confirmation message

on\_confirm

BPP constructs confirm packet with active order object

Local Retail BAP

BG

Local Retail BPP



App fires status call (periodically)

status

BPP fetches rider location from Delivery Network order

Mr Raj sees "Package Out for Delivery" with Rider Location on App screen

App constructs status message

on\_status

BPP constructs confirm packet with active order object

Mr Raj sees "Package Almost Here" on App screen

App constructs status message

on\_status

BPP updates order status

Mr Raj sees "Package at Location" on App screen

App constructs status message

on\_status

BPP updates order status

Mr Raj sees "Package Delivered" with Delivery Rating options on App screen

App constructs status message

on\_status

BPP updates order status

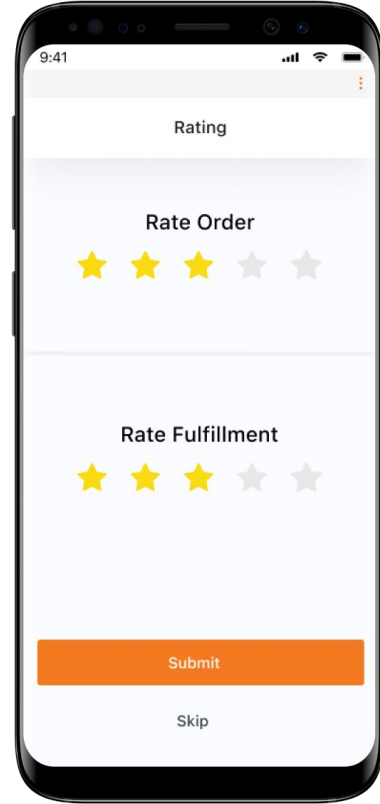
Mr Raj sends delivery rating = 5 on App

App fires rating call

rating

BPP forwards delivery rating to Delivery network

# DELIVERY NETWORK

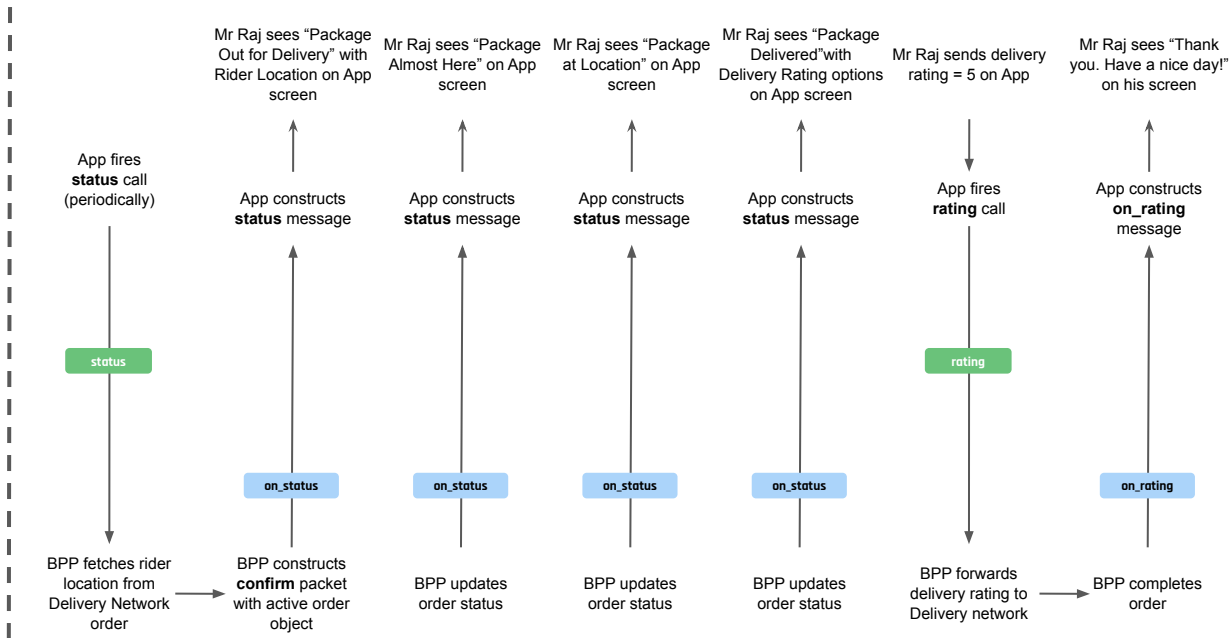




Local Retail  
BAP

BG

Local Retail  
BPP



# DELIVERY NETWORK

