Mobility Service Commerce Process by GAIA-X 4 moveID

Note: Depicts state at end of moveID project / market entry phase

Role description

Role color	Description
User triggers the service and technical underpinnings for delivery	
Mobility Service Provider (e.g., mobix)	peregrine.ai, MOBIX, URBAN DATA PLATFORM, WOBCOM
Decentralized mobility app store in which mobility services are registered and can be searched for by users	GXDCH, gaia-x 4 moveID
e.g.,	URBAN DATA PLATFORM, WOBCOM, APCOA PARKING
Google pay for fiat, and a crypto exchange could be used for token purchase	e.g., G Pay, EUROe, Pay
Storing payment transactoins and bookings in a digital ledger	e.g., Ethereum, COSMOS, Polkadot
Wallet holds digital identity and credentials (tickets) for service usage; The VDR stores DIDs, has revocation register for credentials, schemas for credentials	e.g., eIDAS, GLEIF, T Systems

Roles

- **Service User** (e.g., Municipalities, Mobility Service Provider)
- **Mobility Service Provider** (e.g., mobix, City of Hamburg, peregrine)

Systems

- **Registry / Catalogue for Mobility Services**
- **Mobility Infrastructure Provider** (e.g., parking lot/charging)
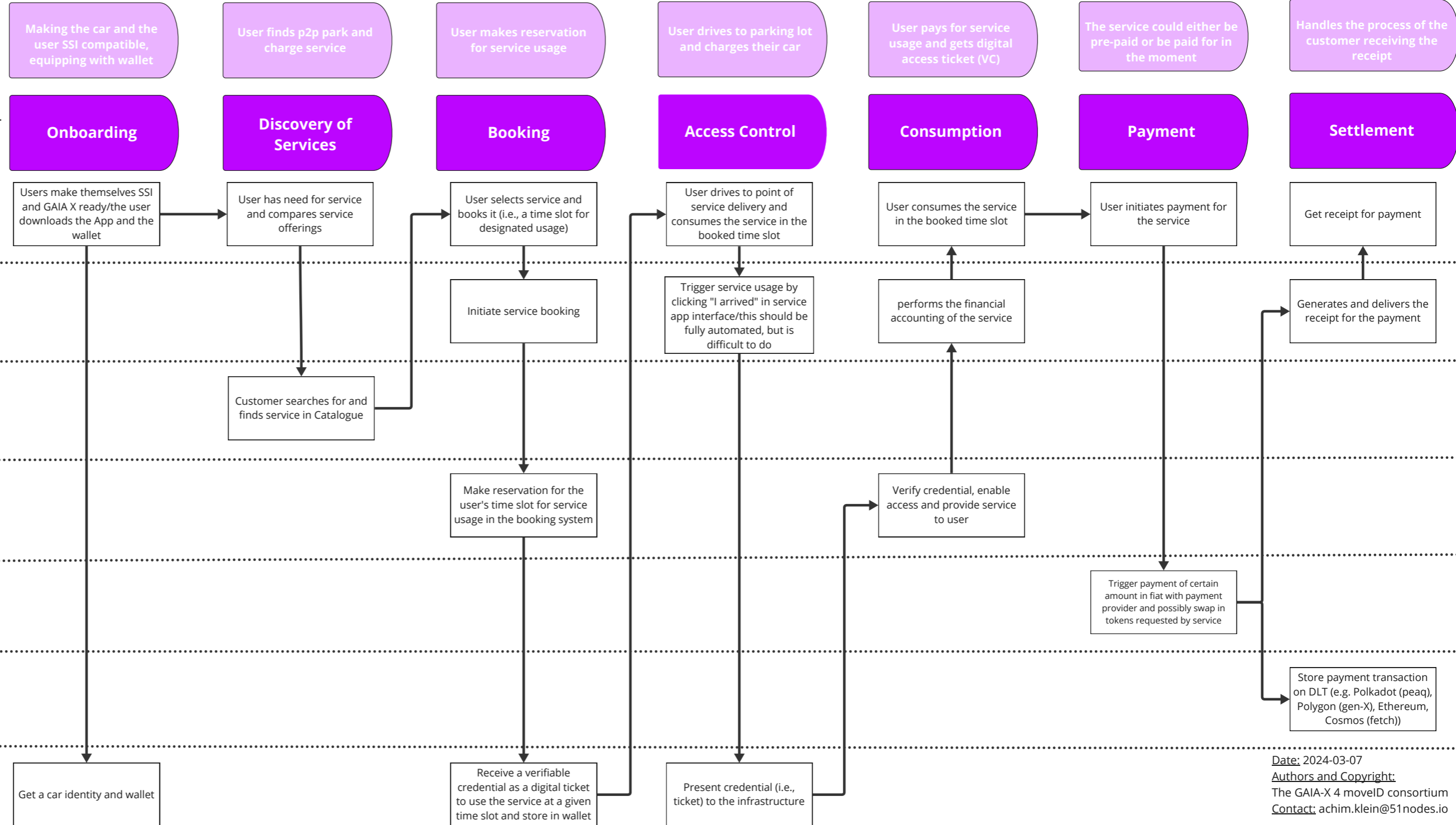- **Payment provider** (Fiat/Tokens)
- **Transaction layer provider** (Operator DLT Network, e.g. IDUnion)
- **Identity Provider** (Operator SSI Network/ e.g., GLEIF, eIDAS TSPs)

Process steps

Example row:

Onboarding	Discovery of Services	Booking	Access Control	Consumption	Payment	Settlement
Making the car and the user SSI compatible, equipping with wallet	User finds p2p park and charge service	User makes reservation for service usage	User drives to parking lot and charges their car	User pays for service usage and gets digital access ticket (VC)	The service could either be pre-paid or be paid for in the moment	Handles the process of the customer receiving the receipt

Process flow table

Role	Onboarding	Discovery of Services	Booking	Access Control	Consumption	Payment	Settlement
Service User	Users make themselves SSI and GAIA X ready/the user downloads the App and the wallet	User has need for service and compares service offerings	User selects service and books it (i.e., a time slot for designated usage)	User drives to point of service delivery and consumes the service in the booked time slot	User consumes the service in the booked time slot	User initiates payment for the service	Get receipt for payment
Mobility Service Provider			Initiate service booking	Trigger service usage by clicking "I arrived" in service app interface/this should be fully automated, but is difficult to do	performs the financial accounting of the service		Generates and delivers the receipt for the payment
Registry / Catalogue for Mobility Services		Customer searches for and finds service in Catalogue					
Mobility Infrastructure Provider			Make reservation for the user's time slot for service usage in the booking system		Verify credential, enable access and provide service to user		
Payment provider						Trigger payment of certain amount in fiat with payment provider and possibly swap in tokens requested by service	
Transaction layer provider							Store payment transaction on DLT (e.g. Polkadot (peaq), Polygon (gen-X), Ethereum, Cosmos (fetch))
Identity Provider	Get a car identity and wallet		Receive a verifiable credential as a digital ticket to use the service at a given time slot and store in wallet	Present credential (i.e., ticket) to the infrastructure			

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