Loyalty on Blockchain

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Aydın TÜRKDOĞAN
Oğuzhan YALÇIN
Özkan DÜLGER

AMADEUS ISTANBUL R&D

Agenda

1. About Amadeus

2. What is a Loyalty System?

3. What are the problems?

4. How to solve these problems?

5. Implementation details & small demo

6. Q&A

Amadeus

Corporate Overview

Amadeus serves the entire travel industry

700+ Airlines

Online Travel Agencies

580,000+ Hospitality Properties

Offline Travel Agencies and Tour operators

350+ Airports and 100+ Ground Handlers

Meta-search engines

90+ Railway companies

Travel Management Companies

Amadeus at a glance

630 million
bookings in 2017
using Amadeus tech

1.6 billion
passengers boarded in
2017 with Amadeus tech

Employs
+15,000
people
worldwide

Present
+190
countries

1 of the top 15
software companies
in the world

**Innovator
of the year**
(Named 2016 Cloud Innovator
of the Year and Innovator of
the Year by Red Hat)

We shape the future of travel

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Amadeus IT Services Turkey

_ 2013

- Amadeus moved to airline loyalty programs market and completed the acquisition of Hitit Loyalty, the customer relationship management (CRM) division of Hitit Computer Services, a provider of passenger service systems.

_ 2015

- Hitit Loyalty's operations were integrated to Amadeus' Airline IT business and together with the R&D, team in Istanbul grow to 130 from 40 employees.
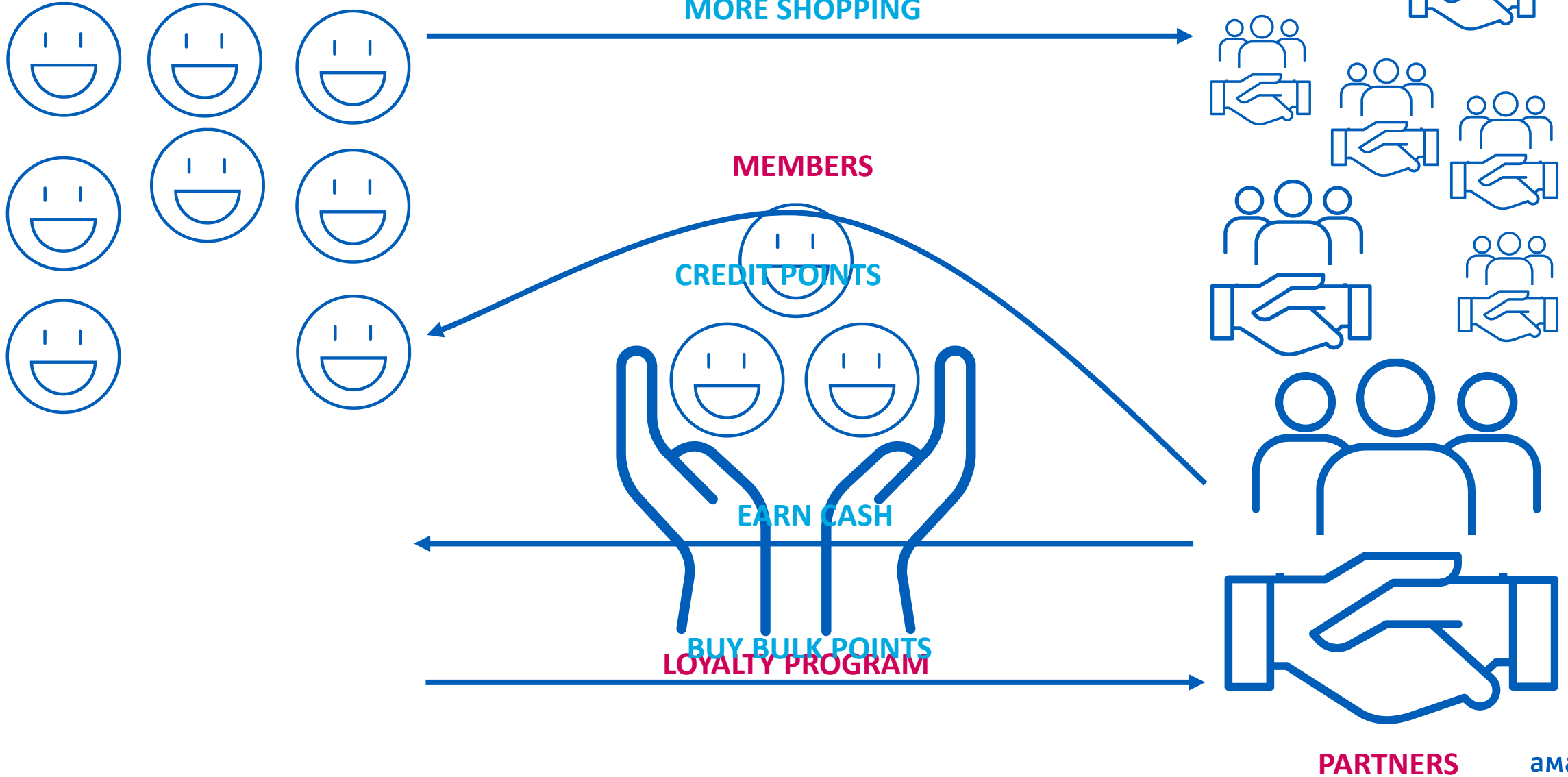
_ 2016

- with 200 employees in Istanbul, Amadeus continues its investments in Turkey as one of the 17 R&D sites around the world and 44 worldwide customers managed by Istanbul.

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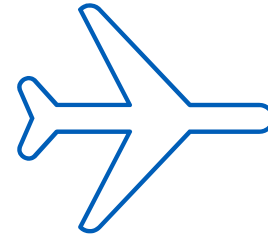What is Loyalty?

What is Loyalty?
Loyalty in a nutshell

MORE SHOPPING

MEMBERS

CREDIT POINTS

EARN CASH

BUY BULK POINTS

LOYALTY PROGRAM

PARTNERS

What is Loyalty?
Loyalty Business

More Revenue

Strong Loyalty Program

More Partnerhips

Richer Offer

Bigger Member Base

What is Loyalty?

Loyalty Business

Loyalty Program Owners

	Loyalty Program Owners
Multiple Currencies	🙂
Control Own Currency	🙂
Single Currency	☹️

What are the Problems?

Problems

I - Settlement over file exchanges

Airline A – **Loyalty A**

John

Nice → Istanbul
Airline B – LOYALTY B

RETRO RQ

ACCRUAL RQ

BILLING

ACCRUAL HANDBACK

BILLING RESPONSE

RETRO RESPONSE

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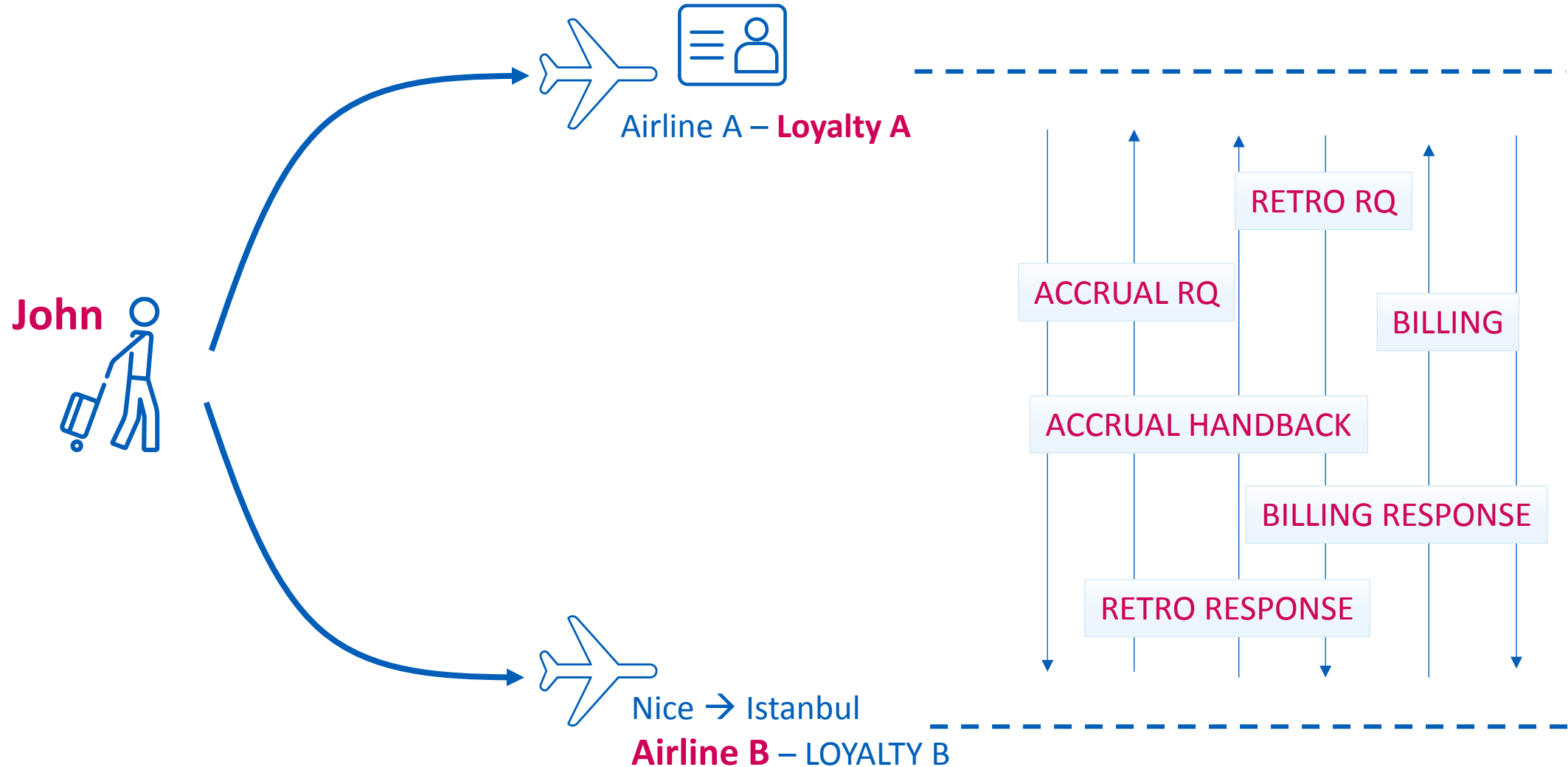
Problems

II – Batch Processing

Balance

Expired

Expires at 31.12.2017

Expires tomorrow

Batch process

Expires next week

Card

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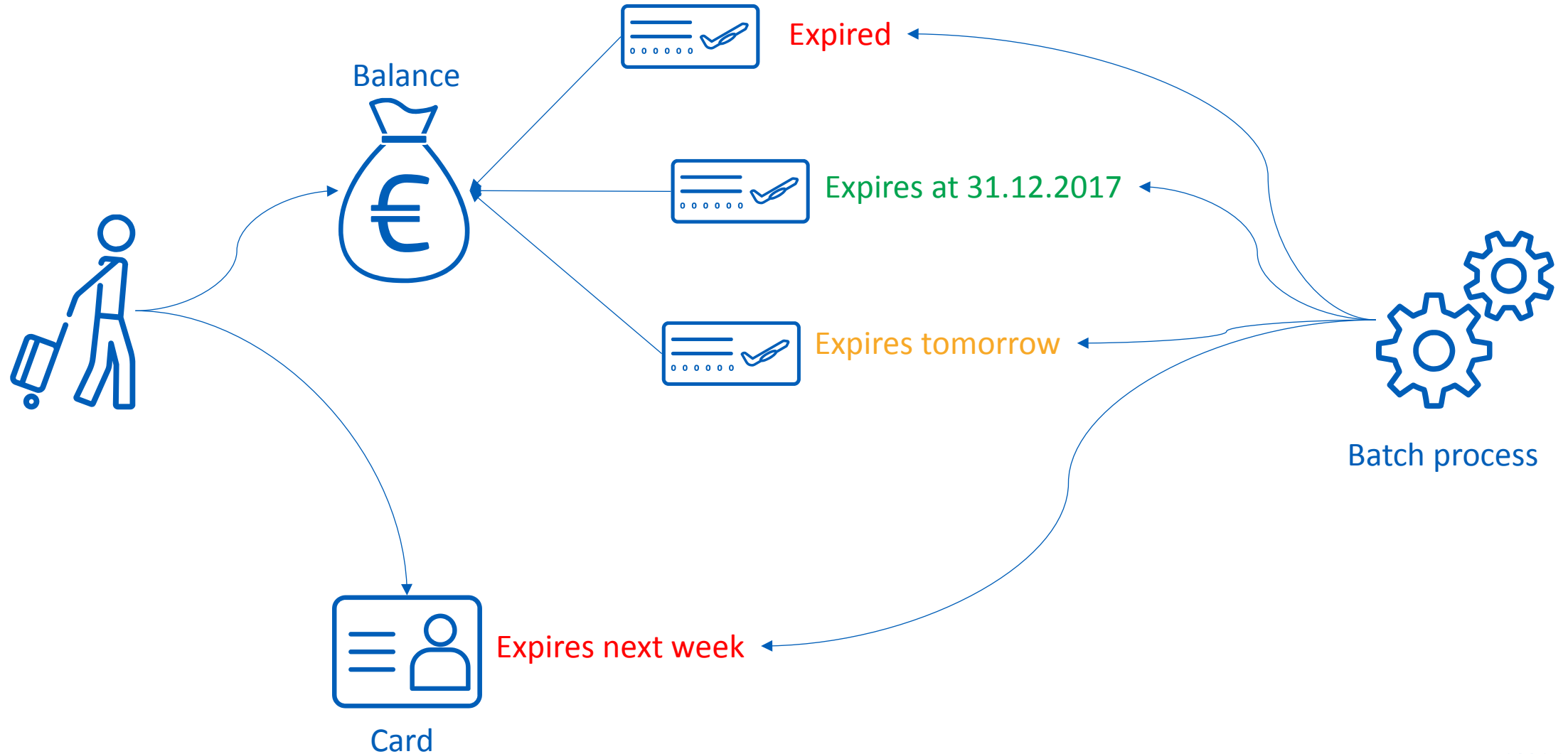
Problems

III - Difficult to establish partnerships

Agreement

HOTEL

?

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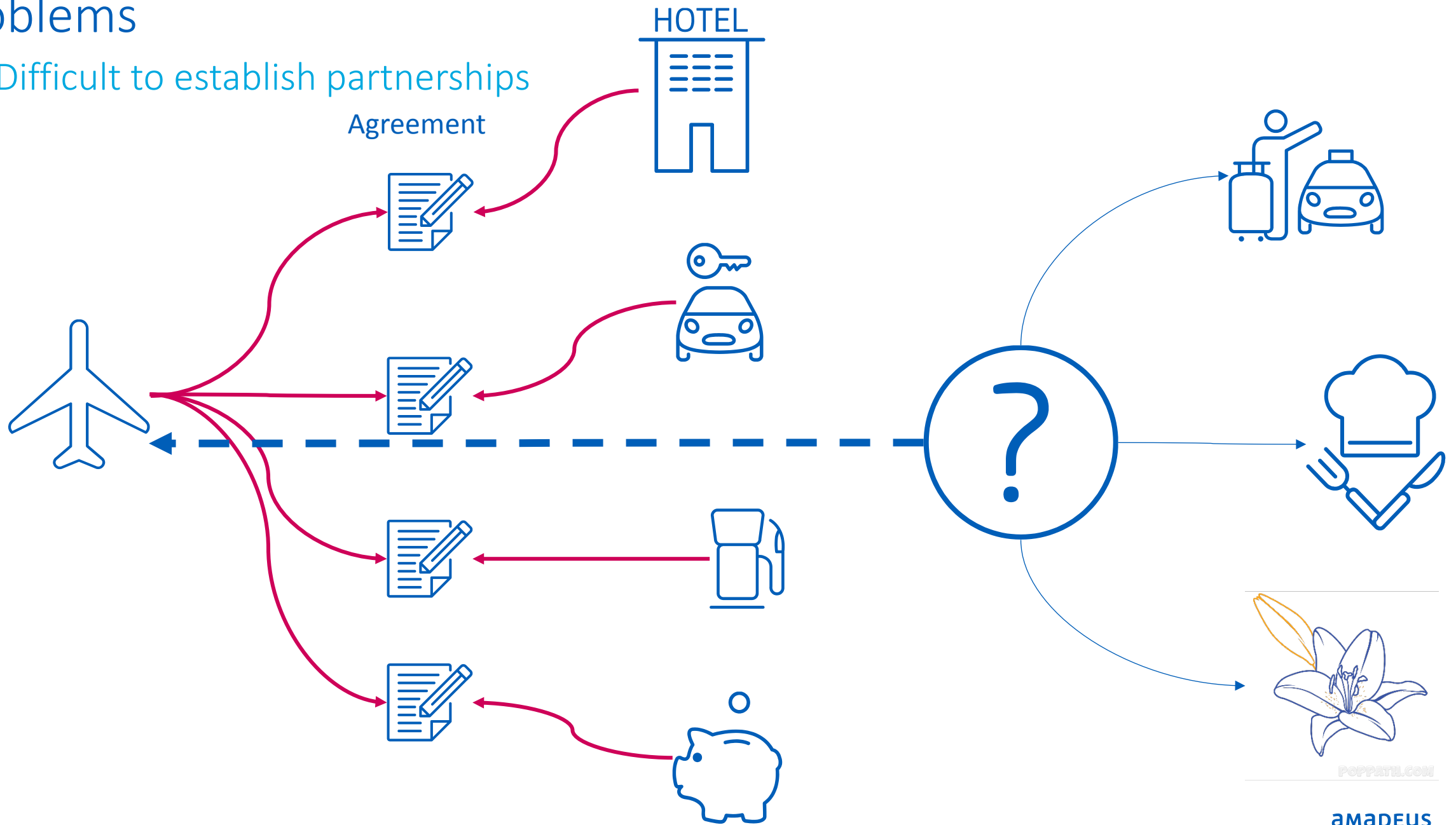
How to Solve the problems?

Loyalty on blockchain

RETRO

CALCULATE MILES

CHECK MEMBER

SUBMIT BLOCK

LOYALTY PROGRAM A

LOYALTY PROGRAM B

ACCRUAL / RETRO

CHECK FLIGHT

BLOCKCHAIN NETWORK **(I)**

AUTO EXPIRY **(II)** VIA SMART CONTRACTS

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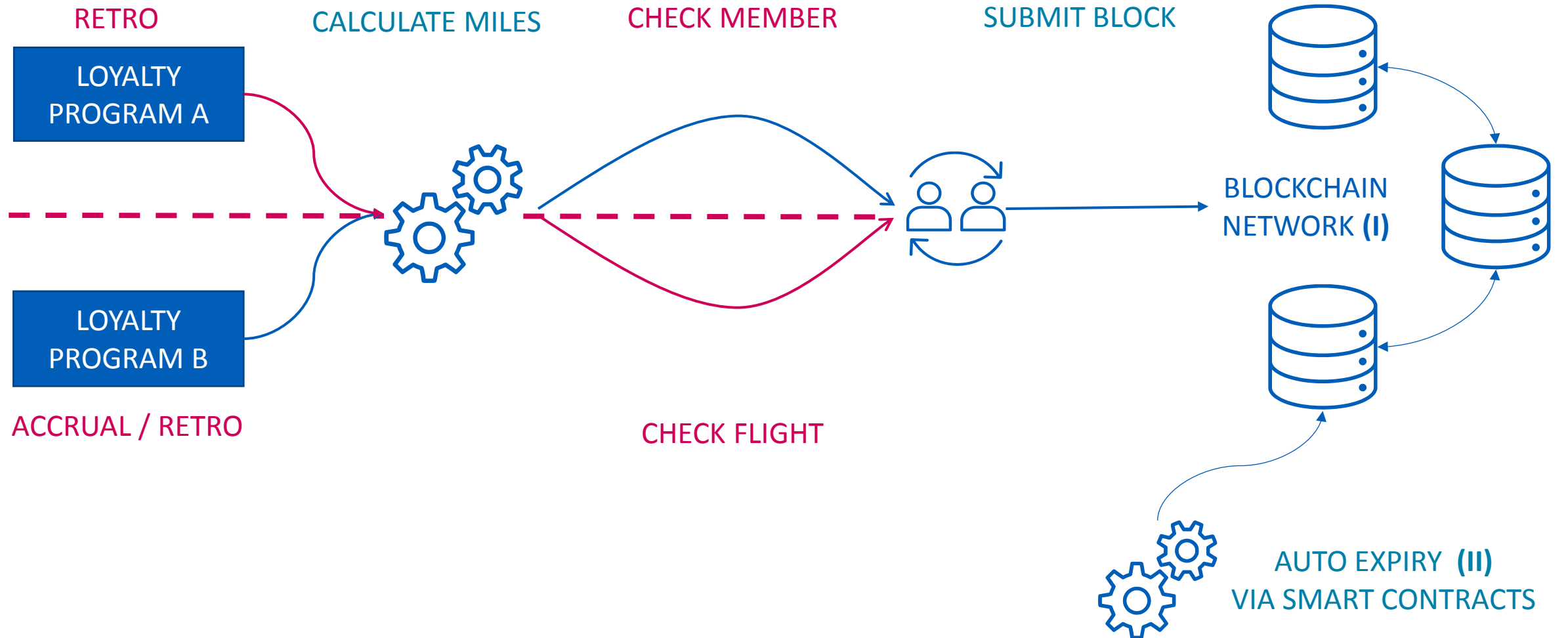
Loyalty on blockchain

Popup coalition (Easy partnership) (III)

SELL PREPAID MILES (100.000)

← 0.0016 €
→ 0.0018 €

AWARD MILES (1.000)

BALANCE
5.000

SPEND MILES (3.000)

BALANCE
5.000

SELL MILES (5.000)

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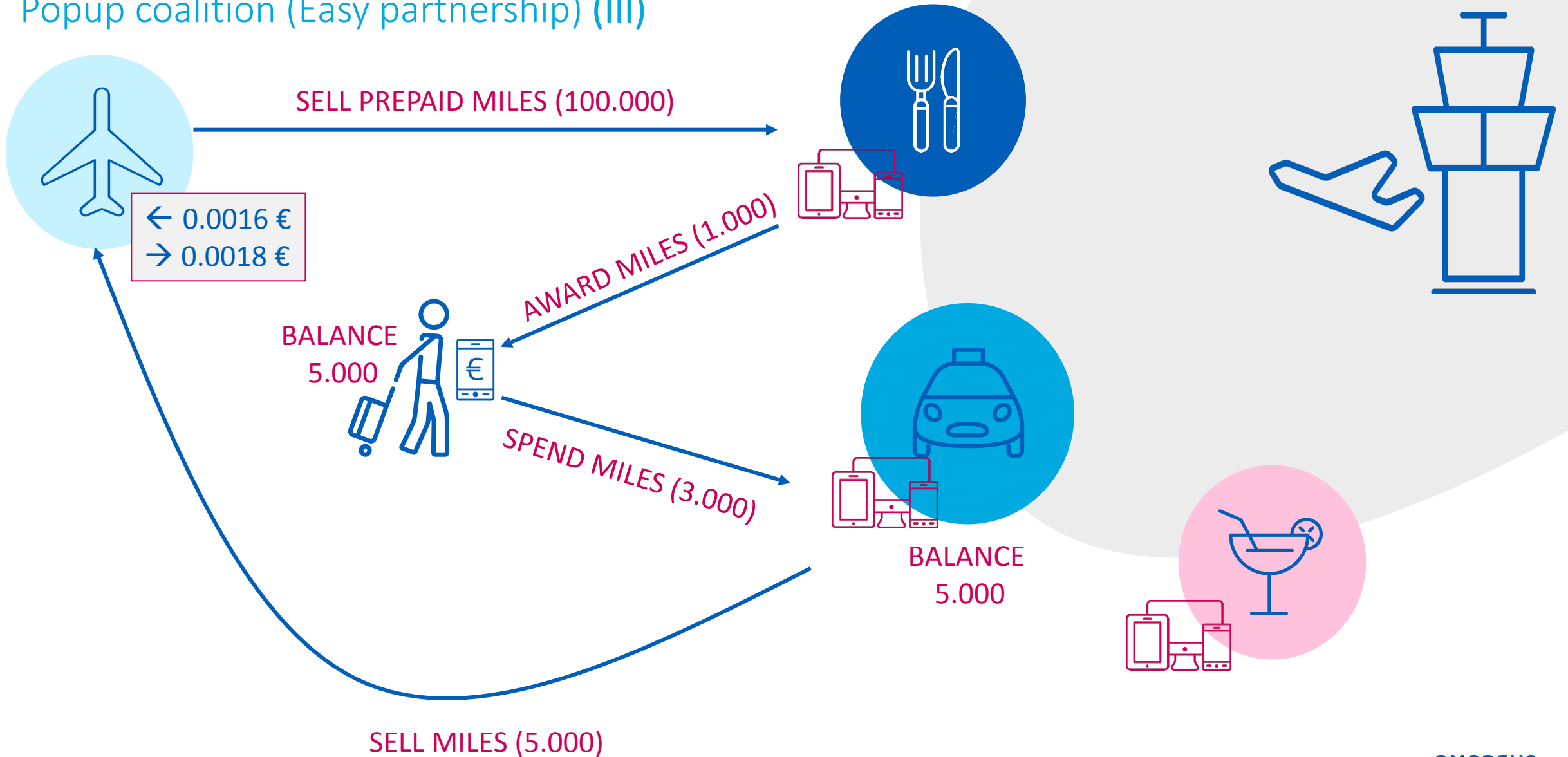
Implementation

Which way to go?
Private/Federated or Public Blockchain

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Which Platform?

Deciding within the alternatives...

Loyalty on Blockchain

Efforts up to now

- Redesigned loyalty flows with Blockchain

- Deployed hyperledger network

- Defined Datamodels

- Registered participants on the network

- Created some transactions

- Exposed public API

- Integrated UI with API

- Developed Mobile App

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Demo

Thank you!

Any Questions?

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