Developing National Retail Payments Ecosystem:

The Tieto Way

Raivis Joksts
Senior Offering Manager, Tieto
raivis.joksts@tieto.com
Some of Tieto’s global customers

- FOREST INDUSTRY
- TELECOM
- FINANCIAL SERVICES
- ENERGY COMPONENTS

Key facts

1,5 Billion Euros - Tieto’s net sales

20 # of countries Tieto has offices in

13,000 IT experts

Financial Services

Different industry products and services

22% of sales

Nordic Offerings
- Insurance and investments
- Global liquidity management
- Payments and cards
- Retail banking
- Risk and compliance

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Card Suite in numbers

1,4bn Trx p.a. processed by our largest Switching customer

>380 000 Merchants serviced by our largest Acquirer

46M Credit cards issued by our largest Issuer

150 online interfaces to core bank systems for our largest multi-bank processor

300+ Payment experts

23 years of industry experience

>400 tps in peaks in live customer

>2200 tps during performance tests

Off-the-shelf solutions for various business models

5-10% from revenue p.a. invested in R&D

>2200 tps

25+
Card Suite users

80 installations in 30+ countries

500 users

Card Suite installations

Banks and financial institutions using Card Suite
Some of Tieto Card Suite customers

Global coverage
THE NEW NORMAL IN PAYMENTS

Key focus areas

#1
Modernising payment infrastructures to open and instant requirements

#2
Drive retail payments from brick & mortar to digital platforms

#3
The reinvention of cross-border payments and correspondent banking
What’s the New role of a Central Bank in the Digital Age?
Financial enablement

Linking end customers to private business, government, education, utility, information, telecommunication and banking services, all in a cost-effective and secure way.
Infrastructure
Design considerations & Best practices

Openness and interoperability

- Open to banks and non-bank payment providers
- API – driven and ecosystem approach
- Supporting multiple use-cases
- Based on latest standards
Support multiple use cases – but decide a clear focus to attain critical mass

- Person to Person (P2P)
- Point of Sale (C2B)
- Remote Commerce (C2B)
- Bill Payment (C2B, C2G)
- Business to Business (B2B, B2G)
- Income (G2P, B2P)
Common Instant Payment scheme set-up

- **Scheme Level**
  - Rule-book
  - End customer products & services

- **Clearing Level**
  - Realtime switching & clearing
  - Instant confirmations & funds availability
  - 24/7 always online

- **Settlement Level**
  - Most commonly batch based
  - Settlement mode specific to each country
  - Number of cycles specific to each country
Accounts could be held within financial institutions
Interoperability switch

Or accounts could be held within central operator
Products
Design considerations & Best practices

Collaboration – Competition model

- Shared infrastructure
- Shared brand
- Shared app?
Traditional set-up in Swedish payment infrastructure

- **Scheme Layer**: Credit transfer, Direct debit, etc.
- **Clearing Layer**: Swedish ACH
- **Settlement Layer**: Central bank RTGS system

Diagram shows the flow of funds from Payer Bank to Payee Bank through the Swedish payment infrastructure layers.
Real-time mobile money transfers in Sweden

Developed together with the major banks

Most downloaded app in Sweden:

1. Bank ID
2. Swish
3. Facebook Messenger
4. Instagram
5. Facebook

Since introduction in 2016, more than half of Sweden use Swish now

Major retailer Lindex has introduced Swish as alternative payment option at lindex.com
Street vendors, flea markets, events - strong substitution effect on cash
National real-time payment solution in Kenya

- Full control over transactions and complete risk management
- Lower switching fees for banks; greater efficiency and interoperability
- Reaching more customers and the unbanked with competitively priced products

Pesa Link moves Sh 8bn in the first five months!
Please go to your mobile banking application and select Pesalink option.
Pay to the mobile number xxxxxxxxxxxx.
Enter SZ1111111 as the payment reference/purpose/narrative/account.
Confirm the details above and commit your payment.
You will receive a confirmation SMS from Pesalink or your Bank.
Once you receive this SMS please confirm the transaction by clicking on the button below.

Confirm Payment Done
Siirto, Finland’s first real-time multi-banking platform for mobile payments

1st ever payment platform with open interfaces

- Send & request money
- Notifications
- Split shared costs
- Reminders

PSD2 compliant
In-store payments with Siirto

**Traditional POS**

Study for Siirto completed with initial recommendations.

**New generation POS**

First concepts implemented for the need.
Other References
CENTRAL BANK
OF THE REPUBLIC OF AZERBAIJAN

Creation of Interbank Card Centre
Central Bank of the Republic of Azerbaijan

- Customer since 2014
- VISA/MC card switch for country local transactions

Main drivers:
- Control of all in-country processes
- More appropriate domestic rules
- Development of national card
- Open-loop local project with bank’s card
- Social cross-bank projects

Population 9.94 M

Payment card infrastructure:
- Transactions per year: 28 M
- POS terminals: 80 300
- ATMs: 2 700
- Payment cards: 5.6 M
NATIONAL SYSTEM OF MASS ELECTRONIC PAYMENTS
IN UKRAINE

Local payment system administered by the National Bank of Ukraine
National payment system in Ukraine

The National Bank looking for means to expand National Card usage and build up independent payment area

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Benefits achieved:

- Reduced grey areas in governmental benefit spendings
- Enhanced control over tax collection with small/medium enterprise cards
- Fast payment solutions with P2P and B2P money transfers
- Increased speed of bank connections due to multi-format data support
First Data
PROCESSING CENTRE IN LATVIA
First Processing centre in Latvia

- Strong partners with Tieto for more than 20 years
- Provides national Net Settlement services since 1998

Customer facts:
- Population: 1.94 M
- Transactions per year: 400 M
- POS terminals: 26,000
- ATMs: 800
- Fin. Institutions connected: 34

Main goals:
- Speed up funds transfer and reduce currency conversion risks
- Support projects of National importance: social cards, tax and fine payments to governmental organisations (interface to Treasury)
- Provide innovative services, e.g. creation of e-commerce platform
Leading processing centre in Belarus
75% market share
Banks Processing centre in Belarus

Customer facts:

- Partners with Tieto for more than 14 years, since foundation of BPC
- Serves 16 banks, including the National Bank of Belarus

Main goals:

- Introduce local card scheme to promote payment digitalisation and support government incentives (social benefits, salary schemes)
- Reach the quality standards (first in Belarus to receive PCI DSS compliancy certificate)
- Bring innovations to card users, e.g. contactless cards

Population 9.49 M

Transactions per year 1.5 bn
POS terminals 119 000
ATMs 2 600
Payment cards 9.4 M

Picture: Modern National library of Belarus, Minsk
Other customers – card processors

- Chip Card Centre Serbia
- First Data Lithuania
- Ukrainian Processing Centre
- MoldMedia Card (Moldova)
- Georgian Card
- E-Process International (Ghana)
- Kenya Bankers Association
- United Financial Corporation (Georgia)
- Dzetta (Russia)
- Millikart (Azerbaijan)
- National bank on the Kyrgyz Republic
- Global Payments Europe (Czech Republic)
What is Tieto role?
Our services: Advisory

- Facilitating all stake-holder discussions, **workshops**
- Developing **business cases** for new payments solutions
- Working on new scheme **rule-books** and associated legislation
- Assisting with **certifications** in schemes, creating own certification scenarios
Our technology: Solutions

- Inter-bank domestic **ATM** switch
- **Clearing** and **Settlement** platform for Card or Real-time Payments **in-country**
- National domestic **Card** issuing / switching / clearing
- National **interoperability** payments switch
- National **multi-channel Instant** Payments switch