Televend

SMART VENDING

Leading vending IoT solution

for remote control and payment

REAL TIME MONITORING

FILLER MOBILE APP

CASH MANAGEMENT

ROUTE OPTIMIZATION

MOBILE PAYMENT

CREDIT CARD PAYMENT

www.televend.eu

Ver. 4.2

INTIS

Automation

- Industry
- Traffic
- Energy

IoT

Televend

Connected Vending Machines

2017 report – Berg Insight

1989	foundation
2005	250 engineers
	companies in 9 countries
	> 300 big investment projects worldwide
2010	Transaction with ABB

Automation

| 2010 - today | Innovative IoT products for |
| | smart vending > payment & telemetry |

IoT

2010 - today

30 engineers in dev
24/7 monitoring
Customer support
Members of EVA

+30000 Devices online*
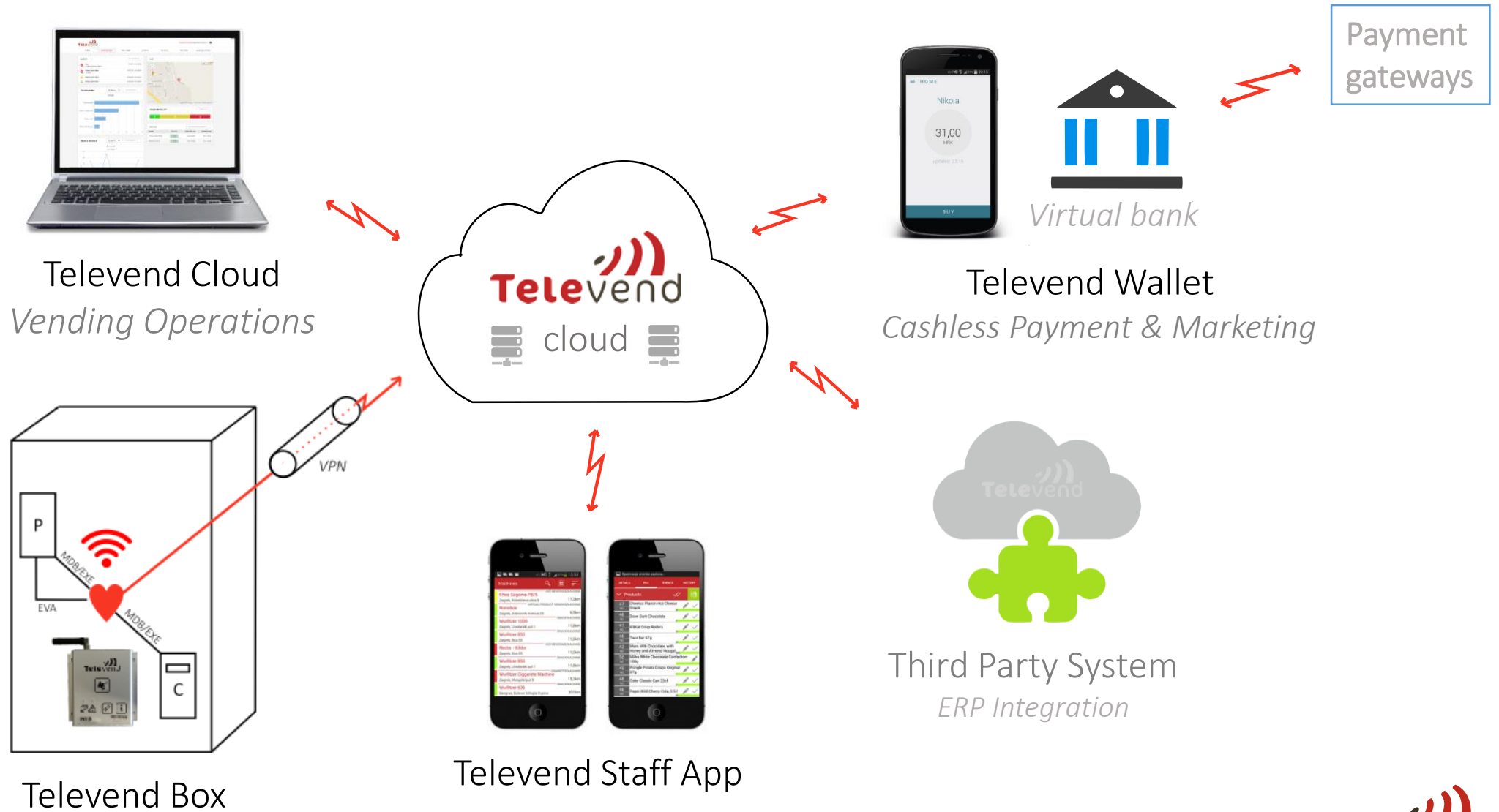
+250 Vending operatos

+10 Sales reps

TELEVEND SYSTEM

Televend Smart Vending – System Overview

Televend Cloud
Vending Operations

Televend Box

Televend Staff App

Payment gateways

Televend Wallet
Cashless Payment & Marketing

Virtual bank

Third Party System
ERP Integration

VPN

TELEVEND – SMART VENDING SOLUTION

- Televend is IoT solution that transforms vending machine into the point on internet

- Televend Cloud is a vending dedicated cloud platform that solves:

  - operations optimization based on real time informations and prediction

  - mobile payment for private and public vending

- The Televend vision and business model have already been recognized and used by premium customers in EU and Asia.

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TELEVEND – PAYMENT ENABLER

- White label mobile payment scheme

- Communication with end customer (CRM) via Customer Mobile Application

- Loyalty Programs and Marketing Campaign management in backend

  - configurable Rule Editor and Rule engine turned into user friendly tool for program and campaign management

- Cloud storage and analysis of all customer account details, activities and transactions

TELEVEND Box - IoT device for vending

IoT REAL TIME REMOTE CONTROLLER

- Transactions, errors and cash data in real time

- Remote price change and machine setup

- Remote firmware update

- 3G/4G ROUTER mode - internet connection for vending machine or bank card terminal

MASTER VENDING DEVICE

- Master mode in MDB, EXE, BDV, CSI and CCI - generating own DTS/DEX

- Slave mode EXE and MDB – read out 3rd party DTS/DEX

- Machine failure detection in real time or periodically (DEX & DDCMP)

- Multiple pricelists per payment device type

- Age verification per product

CASHLESS PAYMENT DEVICE

- Own closed loop payment – T Wallet

    - Mobile payment via bluetooth / QR code

    - RFID card payment with simple RFID reader

- Easy 3rd party payment integration – SMS or any online mobile wallet

- Preselection mode - select and tap NFC card

4 in 1

OFFLINE MODE

- All functionalities available also in offline mode (in case of internet connection blackout)

- Bluetooth statistics readout (DTS format)

- Bluetooth payment (using customer mobile phone connectivity)

Televend Cloud - *Overview*
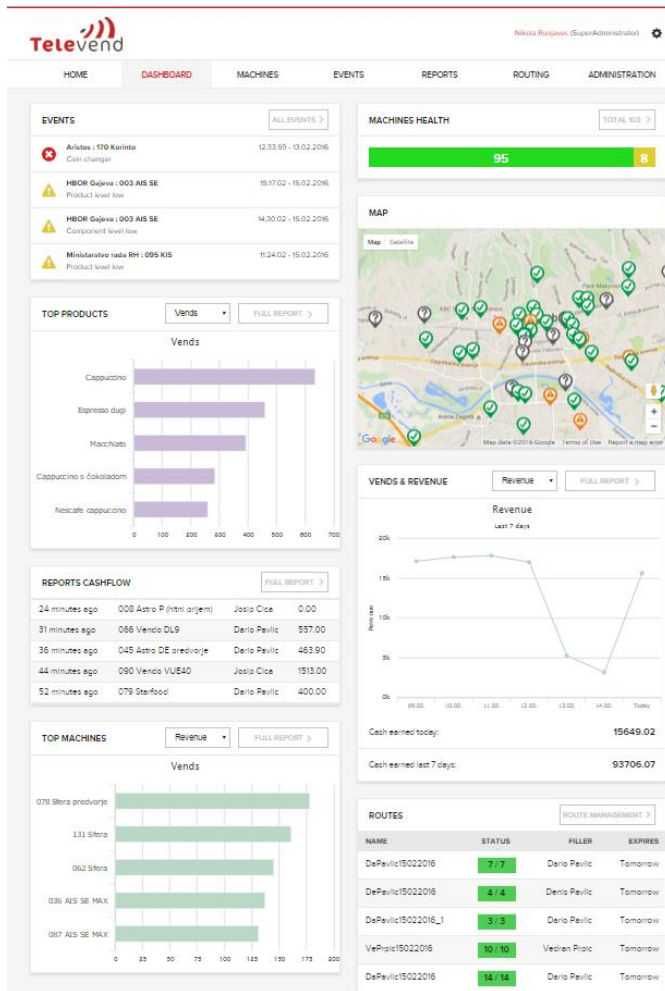
- Multilevel map overview of whole vending network & regions
- Real time sales and stock levels monitoring
- Real time errors & events list – alarm management
- Cash collection management
- Smart Route optimization – by urgency factor calculation
- Expiry date management
- Dynamic planogram analysis & optimal product placement
- Rentability analysis - per machine, customer, product...
- User role based concept – restrictions on widgets per user
- Reporting editor with detailed filtering and export possibilities
- Remote configuration
- Bulk machine creation from excel
- Multilingual concept
- Data integration to third party systems
- & much more....

Televend Cloud: *Real time* *sales and stock*

Smart Vending.

Real time vends & vend type (cash/cashless...)

Detailed machine overview with stock levels

Televend Cloud: *Real time* errors and events

- Quick and detailed filtering
- Events from different source:
  - Machine
  - Mobile app
  - Cloud
  - Televend box
- Info, Warning (product level low)
- Alarm (Errors)
- Creation of own events
- Assign events to users
- Download event analysis
- Choose event type

Televend Cloud: *Cashflow* control and analysis

CASHFLOW					XLS ▾	DOWNLOAD REPORT		FILTER ⊞
DATE	**LOCATION**	**MACHINE**	**NO.**	**INDUCED BY**	**ROUTE**	**TOTAL**	**DETAILS**	
01.03.2016. 15:41	TZZG	141 Kikko	11		JoCica01032016	0.00	⌄	🖨
01.03.2016. 15:32	TES	096 Astro SE	55		DaPavlic01032016	144.00	⌃	🖨

COLLECTION			QUANTITY PER DENOMINATIONS							
Bills	90.00	10 5	20 2	50 0	255 0	- -	- -			
Coins	54.00	0.10 0	0.20 0	0.50 0	1.00 20	2.00 17	5.00 0	-	-	-
From cashbox	54.00	0.10 0	0.20 0	0.50 0	1.00 20	2.00 17	5.00 0	-	-	-
Manual Dispense	0.00	0.10 0	0.20 0	0.50 0	1.00 0	2.00 0	5.00 0	-	-	-
Totals	**144.00**									

FILLING										
Manual Fill Coins	**0.00**	0.10 0	0.20 0	0.50 0	1.00 0	2.00 0	5.00 0	-	-	-
Total	**0.00**							Cashflow details		

Cashflow details

- Televend box sends detail cash collection reports from the machine
- All inputs and outputs in machine with exact denomination of coin/banknote (0.50, 1, 2, 5...)
- Payment type – cash/cashless & which device
- Current tubes status – money inside machine
- Manual filling
- Manual dispense
- Download with sum avaliable

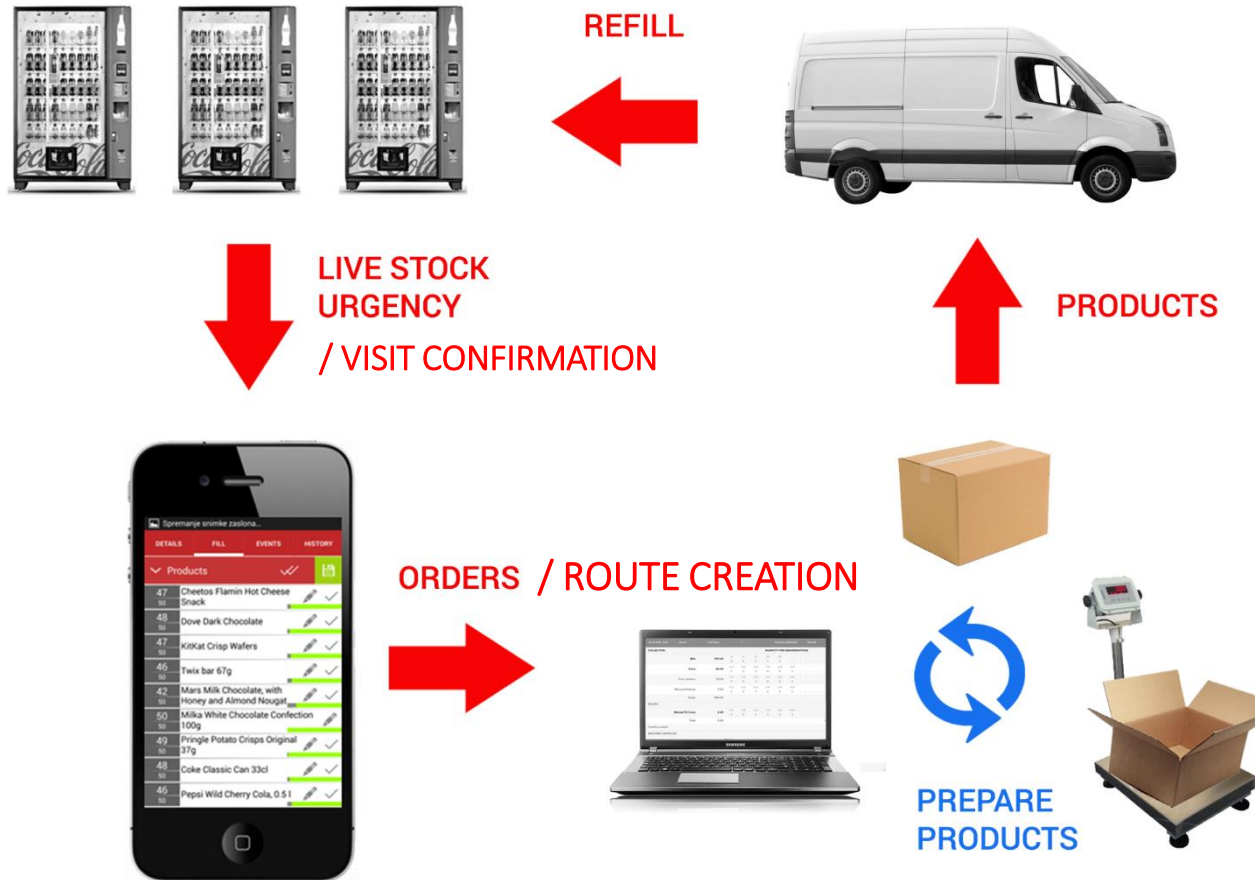# Televend Cloud: *Reporting* builder
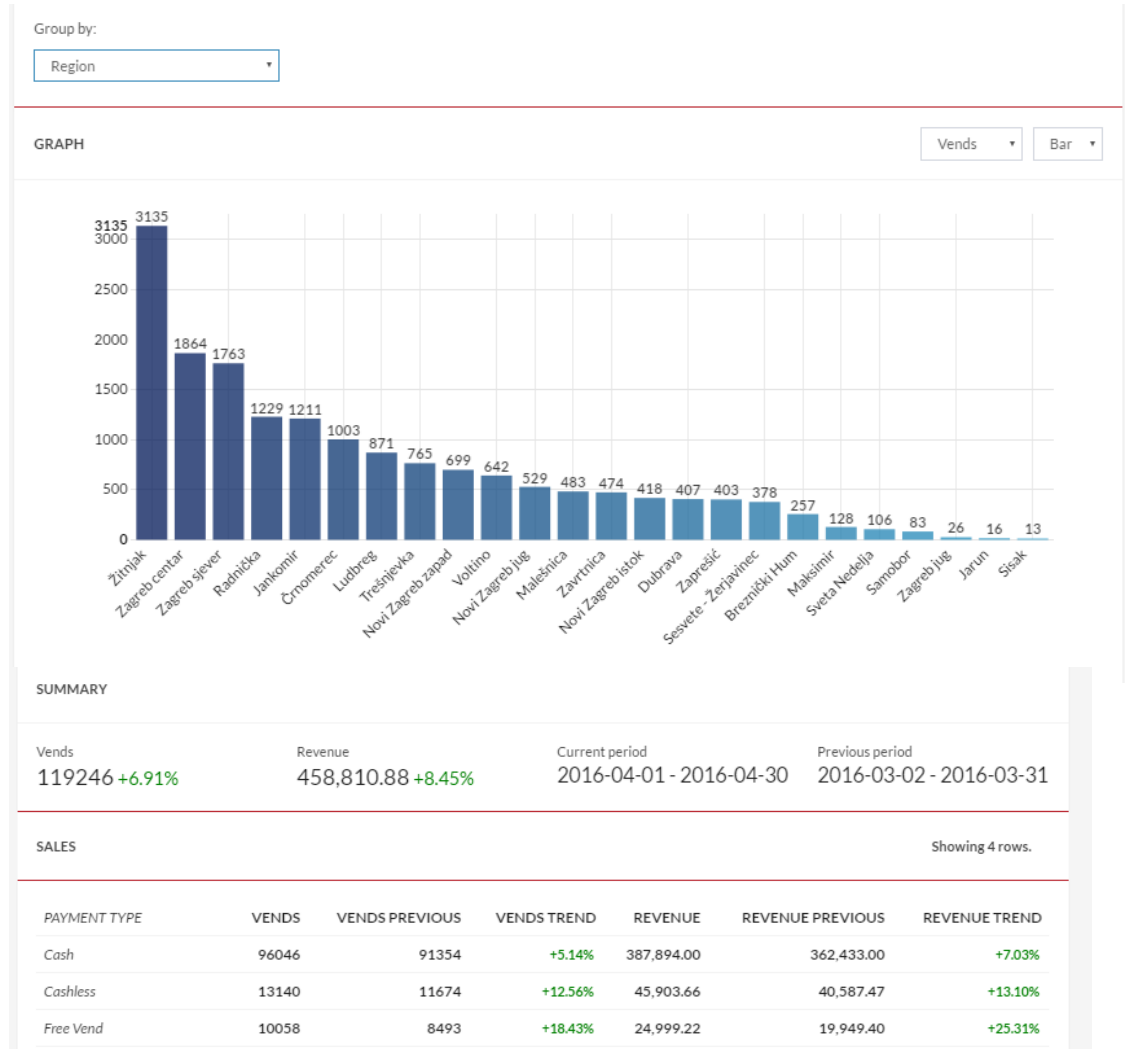
- Creation of own revenue/vends report including many parameters or by combining them:
  - Flexible time frame
  - Payment type
  - Regions
  - Locations
  - Machines
  - Products
  - Product category
  - Tax rate etc…
- Visualize to compare
- Track trend of data by comparing to previous period
- Export to .xls

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Televend Cloud: *Planogram* analysis

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Overview	Vends	Events	Refill	Products	Analysis	Setup			

PRODUCT ANALYSIS ✎ HIGHLIGHT: ▭▬▬▭ Low 30% Top 20% 16.01.2016 15.02.2016

CATEGORY	PRODUCT	FILL QTY/CAP	COLUMN	PRICE	UNITS PER DAY	DAILY REVENUE	SHARE IN TOTAL REVENUE	SALES CYCLE
Snacks&Confectionary	Zweifel Pommes Chips Paprika, 30 g	9/9	0	2.0	0.10	0.19	1.57%	93
Snacks&Confectionary	Pom-Bär Original, 25g	9/9	1	2.0	0.06	0.13	1.04%	140
Snacks&Confectionary	Stimorol Fusion Strawberry Lime	19/19	2	2.0	0.03	0.06	0.52%	589
Snacks&Confectionary	Snack Attack	16/16	3	2.5	0.10	0.24	1.96%	165
Snacks&Confectionary	Lütticher Waffel	13/13	4	2.5	0.19	0.48	3.92%	67
Snacks&Confectionary	Stimorol Spearmint 10er Duo	19/19	5	3.0	0.06	0.19	1.57%	295
Cold Drink	Valser Silence 5dl PET	6/6	59	3.5	0.06	0.23	1.83%	93

AVG DAYS BETWEEN REFILL	10	DAILY REVENUE	12.35	UNITS PER DAY	4.52		DISTRIBUTION	
		Cold Drink	5.13	Cold Drink	1.55	[34.29%]	Cold Drink	47.17%
		Snacks&Confectionary	5.76	Snacks&Confectionary	2.71	[60.00%]	Snacks&Confectionary	45.28%
		Vendable Non Food	1.47	Vendable Non Food	0.26	[5.71%]	Vendable Non Food	7.55%

- Detailed analysis of each product
- Sales cycle show how fast the product is sold out
- Share in revenue shows how important the product is
- Basis for smart routing and urgency calculations

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Televend Cloud: *Smart routing* overview

REFILL

LIVE STOCK URGENCY / VISIT CONFIRMATION

PRODUCTS

ORDERS / ROUTE CREATION

PREPARE PRODUCTS

Types of route creation:

1. MOBILE ROUTING – by fillers:
   Routes created on Televend Mobile application by fillers

2. CENTRALIZED – by filler manager:
   A. Pre Kitting - routes created on Televend Cloud application (1 box 1 machine)
   A. Live Pickup - routes created on Televend Cloud application (pickup list refreshed live on mobile app)

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Televend Cloud: *Dynamic Routing – prediction based*

Visit urgency factor calculation using machine learning

- Days since last refill compared with how often it is really necessary to refill (sales cycle)

- Current sales cycle – based on ARM data predictive analysis

- Method used in stock market analysis

- Configurable limit of loss if products are sold out

- Integrated in Televend Mobile and Web App

RESULT: Urgency factor from 4 to 1 - sorts the machines by visit priority

Televend Cloud: *Types of visit triggers*

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- **REFILL -** Urgent because popular products are on low stock / are empty

- **OTHER VISIT TRIGGERS:**
  - **SCHEDULED –** Urgent because this machine has a scheduled visit in its settings (Machine > Settings > Days until urgent)
  - **LOCATION –** Urgent because other machine on this location has higher urgency level
  - **FACING –** Urgent because there are more products completely out of stock (empty facing) then allowed. Number of allowed empty facings can be customized.
  - **EXPIRY –** Urgent because expiry date is close.

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TELEVEND – Staff Mobile App
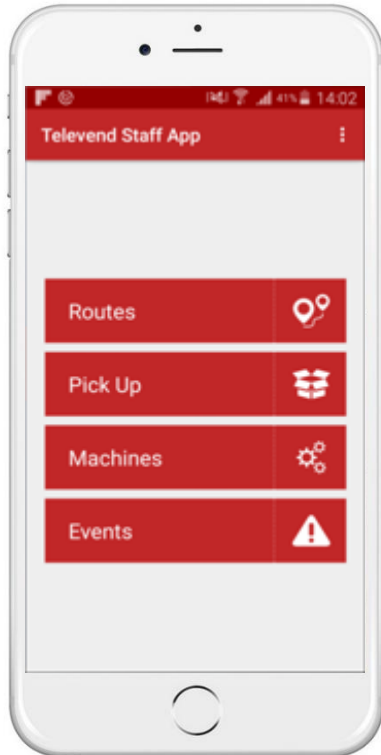
- Data automatically updated/synchronized with the web app
- List of machines per filler/technician
- Machines status, address, distance and products status
- Navigation with integrated map
- Active daily route list
- Real time information of goods needed for each machine according to route model used
- Product inventory list – pick up list
- Scan cash bag
- Make orders with app
- Bluetooth Offline data readout via Service Mobile App
- Filler/technician can add notes and edit the product qty data

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Televend Staff App

Routes

Pick Up

Machines

Events

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TELEVEND – Wallet cashless payment

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CUSTOMER RELATIONS

- **Customer management**
  - Customer feedback tracking
  - Customer segmentation
- **Loyalty**
  - Rule based fidelity programs
  - Customer retention
- **Marketing campaigns**
  - Targeting customer segments
  - Brand sales improvement
- **Rules**
  - Rule Editor
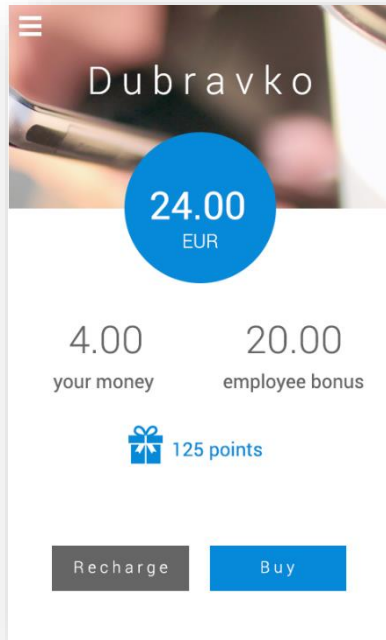 - Rule Engine
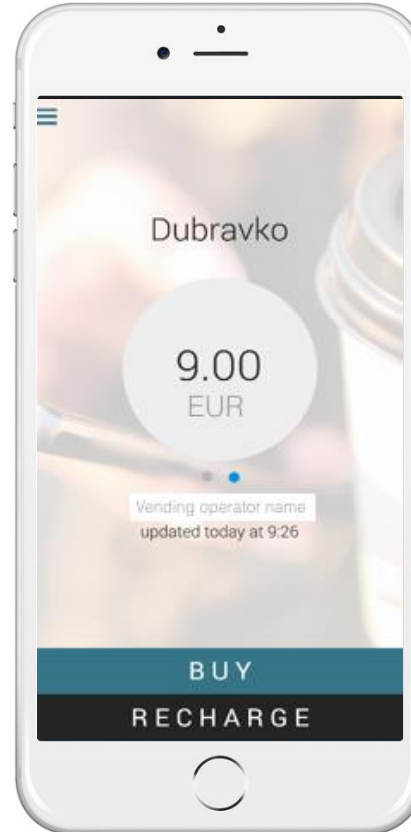
CLOSE LOOP PAYMENT

- Bluetooth
- QR code

Dubravko

9.00 EUR

Vending operator name
updated today at 9:26

BUY

RECHARGE

Provide consumers with payment tool but use app to communicate with them

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WALLET MOBILE APP

Vending Wallet

Engage

Tap to approve

Provide feedback

Dubravko

24.00
EUR

4.00
your money

20.00
employee bonus

125 points

Recharge   Buy

Select product on VM

Put your mobile near to this sign

Don't want to use bluetooth?
Scan qr code printed on machine.

Scan QR

W 8566

12:34 12.03.16

Coffe with milk   2.00

Recharge   +10.00

+ 2 points
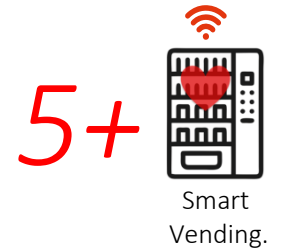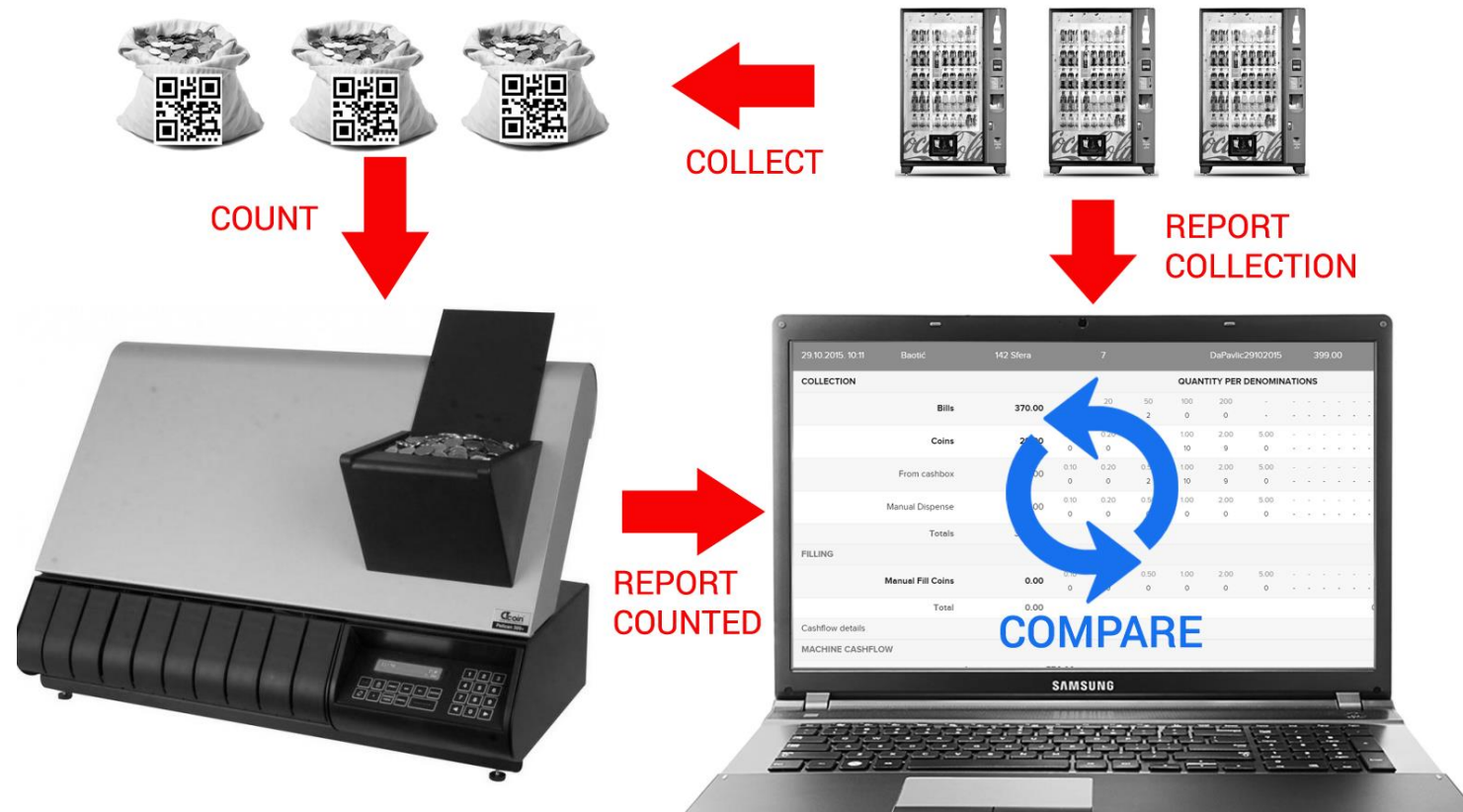
Everything alright ?
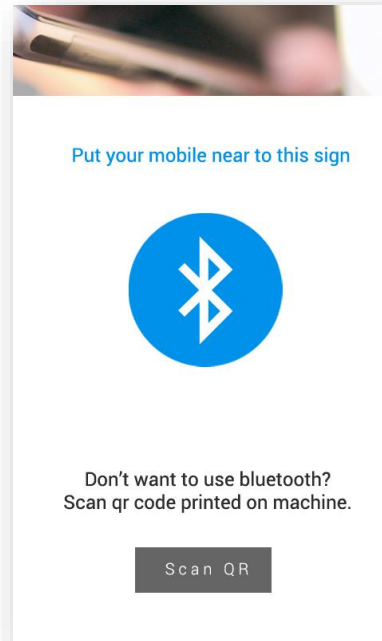
OK
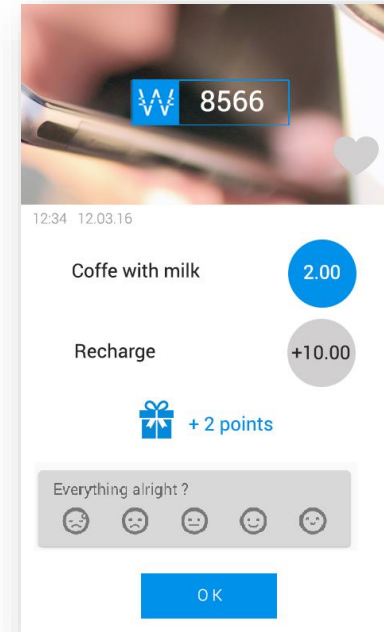
Wallet mobile app is used by consumers to easily buy products, collect rewards and provide feedback

Bluetooth SMART

CASH CENTER

Televend cloud can receive information from cash counting machines where counted data, and audit reported from the Televend device can be compared.

COLLECT

COUNT

REPORT COLLECTION

REPORT COUNTED

| 29.10.2015. 10:11 | Baotić | 142 Sfera | 7 | DaPavlic29102015 | 399.00 |

COLLECTION					QUANTITY PER DENOMINATIONS		

COMPARE

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NEXT STEPS - suggestion

Phase 1 – STARTER PACK

- Lab testing on 2 devices
- Setting basic operation mode – „Brain", „Mdb Brain"...
- Connection and testing with all payment and other peripheral

Phase 2 - PILOT

- Identification of current operations
- Implementation on Cca 200 pcs or 2 routes
- Pilot project measurements – visit frequency, planogram analysis, errors encountered, cash collection analysis, etc.

Phase 3 – SMART VENDING

- Implementation of new daily operations processes to whole vending network
- Implementation of modern & interactive payment methods

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