

About the Speaker

Alireza Ghasemi

- Global Solution Owner Retail Store Management, SAP
- Alireza helps brick and mortar retailers to adopt a smart store strategy at a low cost
- Likes kayaking



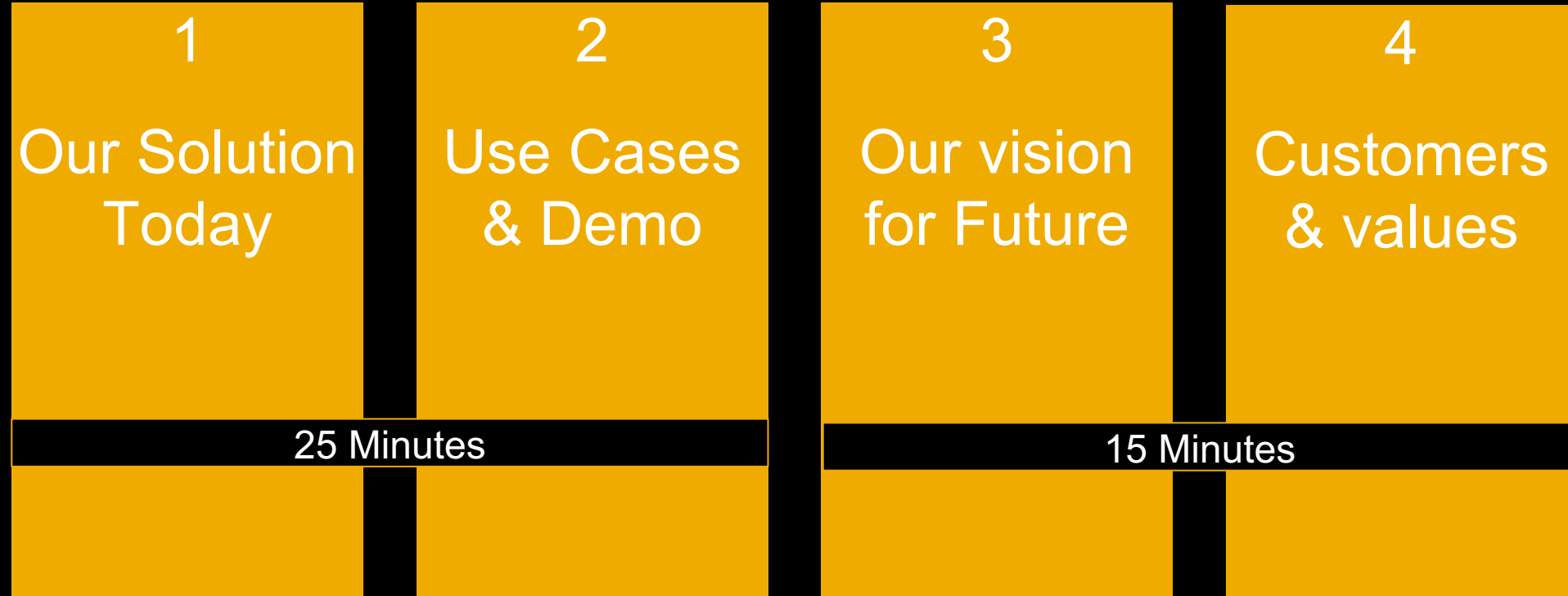
SAP's vision for Smart Retail Store

Alireza Ghasemi, Global Solution Owner Smart Store, SAP
Session ID 82480

Key Outcomes/Objectives

1. Learn more about SAP's Smart Store strategy
2. See a demo of the RFID and augmentation apps
3. Discuss open questions

Agenda – Smart Store



Agenda – Smart Store

1	2	3	4
Our Solution Today	Use Cases & Demo	Our vision for Future	Customers & values
25 Minutes		15 Minutes	

Key challenges facing Retailers



Consumer access to unlimited choice of products, models and styles



Immediate gratification – demand for availability and service excellence



Impact of social influence



Aging and expensive infrastructure, one version of truth, access the information anywhere, bring store associate to the shop floor



SAP In-Store Merchandising Fiori apps – Available Today & Planned

Planned

 Click & Collect / Click and Ship

 Move Products

  Print Labels

 Adjust Stock

 Task Management

 Count Products

 Receive Products

 Transfer Products & Rebalance

 Review Order Proposal

 Lookup Products



Transfer Products with RFID



Count Products with RFID



Receive Products with RFID



Move Products with RFID



On-Cloud version of Fiori apps



Perform Task with Augmentation
(available as PoC & demo only)



Laser Scanning, Camera Scanning,
RFID Reading



Role based Launchpad



Responsive, New Interaction
Technologies



Always online and Realtime, data persistent



Planned

Planned

Planned

SAP In-Store Merchandising

Look up retail products new enhancements with S/4HANA 17/09

The screenshots illustrate the following features:

- Product List:** A list of products such as "Jeans 452, 100% cotton, red, 4 6" with prices (59,99 EUR / EA) and stock status ("On Hand").
- Product Detail:** A detailed view for "Jeans 452, 100% cotton, white, 46" showing product ID, GTIN, and stock quantity.
- Promotions:** A section for "Current" promotions, including "Buy 1 Get 1 50% Off" and "ZMTL - Generic Bonus level".
- Characteristics:** A list of product attributes like "PCS-COLOURS-BASIC" (blue, red) and "PCS-SIZES-WO" (40, 42, 36, 38, 44, 46).
- Map View:** A map showing the user's location (marked with a red pin) and nearby stores, with a "501 EA real" store highlighted.



Description:

- Provides store associates with real-time access to detailed product information to answer any customer questions

Capabilities:

- Show current, future and previous promotions and bonus buys
- Current, future and previous deliveries are shown
- Variants can be filtered by selecting attributes like sizes and colors
- View close-by store on a map via geo location (planned with SP 01 2018)

Why using RFID right now?



- Average level of stock accuracy is 65%-75%.
- Every 3% improvement in stock accuracy results in a 1% uplift in sales.
- Sales improvement in the range of 1.5% to 5.5%.

Source: GS1 UK ([link](#))



- The hardware cost has become reasonable



- Many of our customers have started using RFID or have pilot projects



- RFID technology complements our solution



Agenda – Smart Store

1	2	3	4
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Device examples that we used for innovations and testing

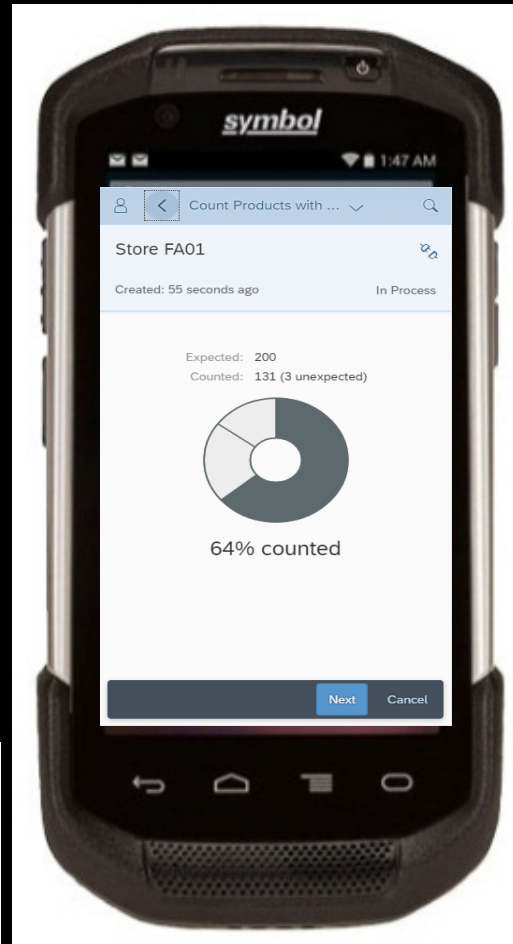
Ruggedized Android devices



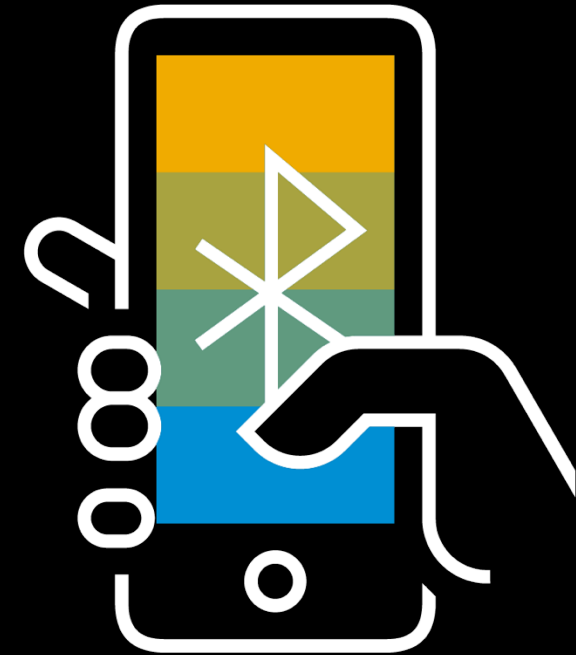
Zebra RFD-8500



Zebra TC75

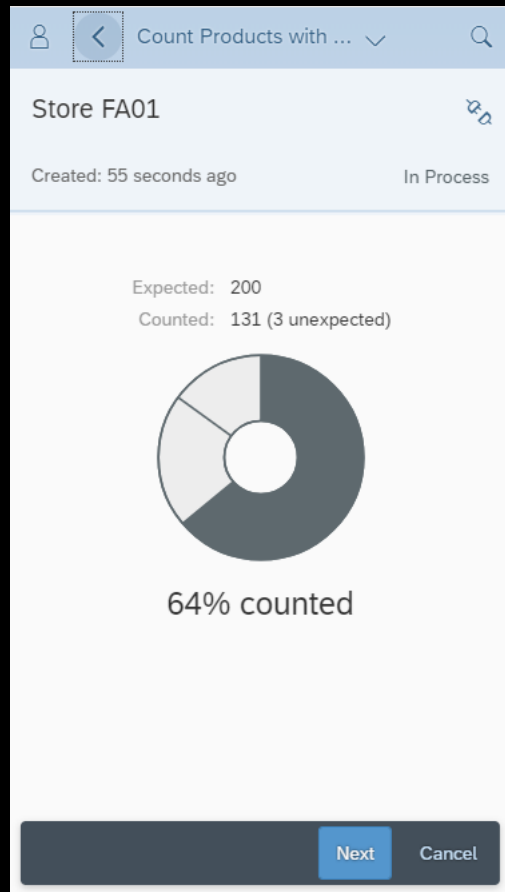


Consumer grade iOS and Android Smartphones



Fiori app Count Products with RFID

Available with S/4HANA 1809 FP01

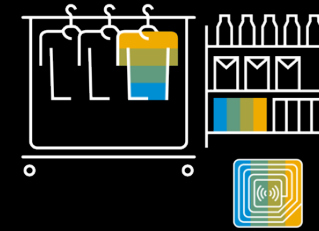


Differences

Created: 10 minutes ago In Process
Counted: 64%

	Missing (72)	Unexpected (3)
Nurrina Bitihorn Wool T-Shirt Men, S, red	14	
Freshair Ullahau Jacket Men, L, darkred	9	
Freshair Ullahau Jacket Men, S, darkred	6	
Putagenia Micro Puff Vest Men, L, mint	5	
Putagenia Micro Puff Vest Men, XL, mint	10	
Putagenia P-6 Logo Trucker Hat, light grey	6	
Freshair Bitonto Beanie Unisex, red sapphire	12	
Freshair Bitonto Beanie Unisex, moroccan white	9	

Submit Cancel



Description:

- Automate counting process and count everything in a very short period of time
- Improve overall accuracy of stock
- Optimized store replenishment

Benefit:

- Allows regular full counts
- Improves stock accuracy
- Eliminates human errors

Fiori app Transfer Products with RFID

Available with S/4HANA 1809 FP00

New Transfer

*Transfer To:

Distribution Center

Store

VA01 VZ Köln

*Reason for Transfer:

End of Season

Note:

RFID scanner was connected.

Create Cancel

Box 1 of 1

VA01 - VZ Köln 13 Items

4500047004 (Jul 18, 2018) Open

End of Season

Product	Quantity
Sportee Regular Fit Gym & Pilates T-Shirt - Navy Blue 8380627 On Hand: 87 PC	2 PC
Size: L 3608419316773 On Hand: 22 PC	2 PC
Girls' Short-Sleeved Gym T-Shirt - White 8380182 On Hand: 38 PC	2 PC
Size: 1 3608419316773 On Hand: 22 PC	2 PC

13 items added to the box.

Submit New Box



Description:

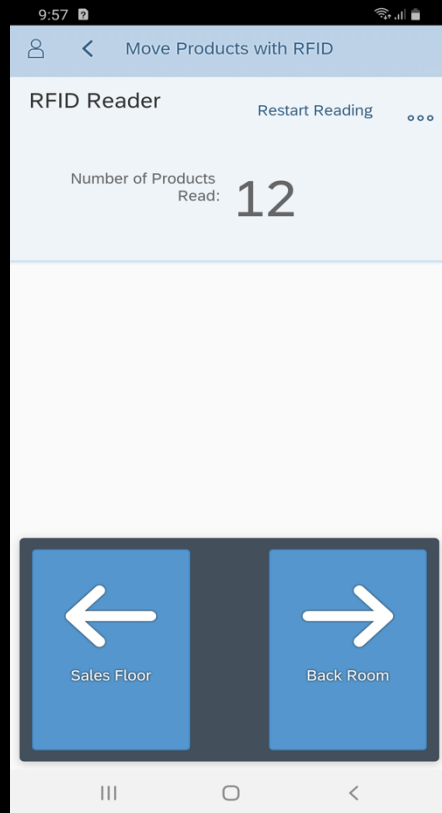
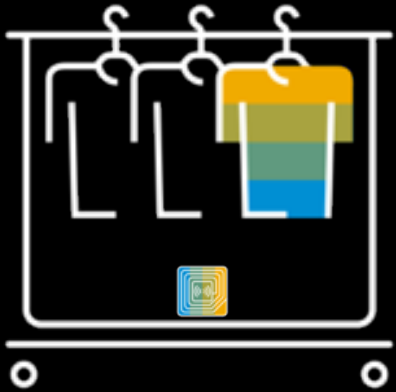
- Start and end a season ahead of your competitors by transferring products from stores to outlets and DCs faster
- Capture with a mobile RFID reader the products in a box and eliminate manual product barcode scanning

Benefit:

- Speeds up goods issue process
- Improves stock accuracy
- Eliminates human errors

Fiori app Move Products with RFID

planned for Q3 2019



Description:

- Move products from the backroom to the sales floor in an automated way

Benefit:

- Allows to distinguish the stock in the back room and the stock on the sales floor
- Minimize manual effort to post goods movement
- Achieve high product availability on the sales floor



Fiori app Receive Products with RFID

planned



Description:

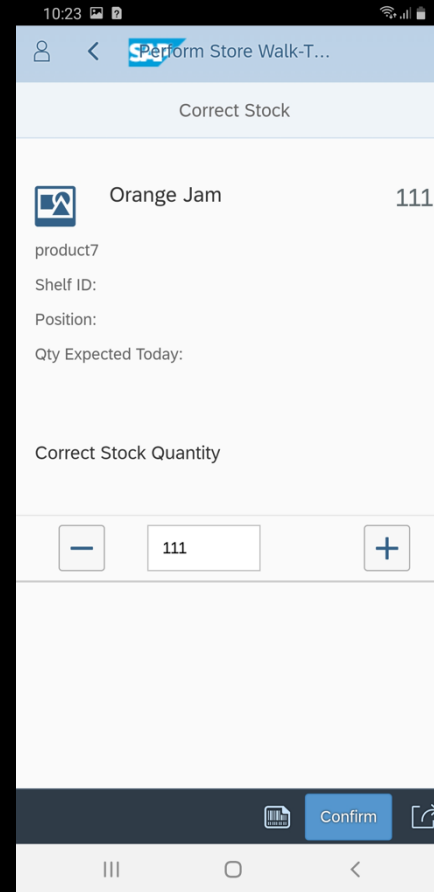
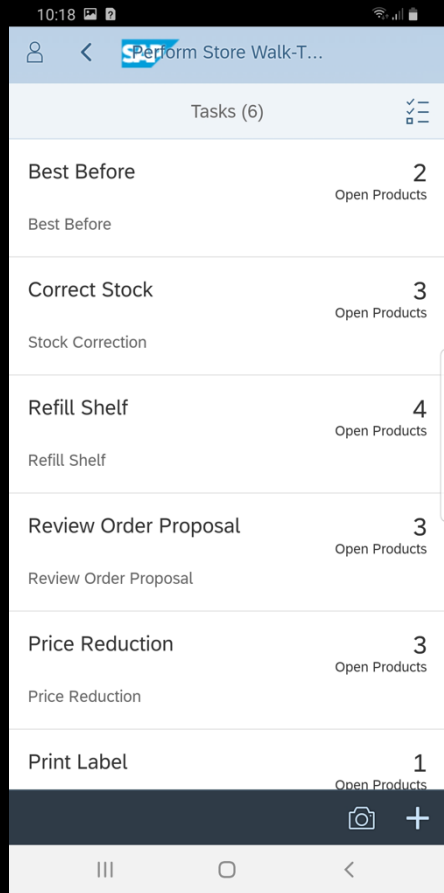
- Receive products in an automated way

Benefit:

- Allows to distinguish the stock in the back room and the stock on the sales floor
- Minimize manual effort to post goods receiving
- Achieve high product availability on the sales floor

Perform Store Tasks with Augmentation

Planned SAP and Scandit



Description:

- As a store associate, you can point the camera of a smartphone to a shelf, view augmented products with an open task such as print labels, adjust stock or order products, and then perform the tasks with Fiori apps

Benefits:

- Increase productivity of store associates by using augmentation technology for performing tasks
- Help store associates to quickly identify products with open tasks and perform tasks efficiently

Agenda – Smart Store

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25 Minutes		15 Minutes	

Key challenges facing Retailers today



- Compete with “**expertise and service**” by shifting stores to modern and technology-oriented ways
- Bring customer information to store associates
- Make **an efficient use** of modern technology



Vision for Smart Store – Use case ideas



”Stores as Destination”: Attract Consumers

- Support cashier-less stores
- Support clienteling
- Click & Collect, Click & Ship
- Shopping Assistant
 - Guide me through store, find my products,
 - hands free UI
 - Smart Dressing Room
 - Augmented Reality, e.g. show products w/o specific ingredients on the shelf



Attract consumers:

- Superior shopping experience
- Seamless omni-commerce

Productive Store Employees, Store Process Automation

- Significant productivity increase and automation through RFID
- Inventory accuracy with ML
- Simple interactions through hands free UI
- Guide associate through the store
- View tasks, find products through Augmented Reality
- My store in one view through manager cockpit: Insight to action
- Let a robot do simple tasks



Automated and efficient store:

- Save costs through automation
- Highly productive employees
- Focus on consumer

Store Intelligence via IoT

- Smart equipment notification
- Predictive equipment maintenance
- Register/track shoppers (e.g. through WiFi, sensor doors, ...) to get conversion rates



“Active” store:

- Discover issues and trigger actions quickly, prevent from reoccurring
- Collect info, gain valuable insight, optimize, and control processes

Task Management app for generic tasks (product and non-product) CD Project

Current version

The screenshot shows a mobile application interface with a header 'Demo - Order ...' and a search icon. Below the header, there is a section 'Products (0 Open)' with a 'Highest Priority' filter. The main content area is titled 'Completed' and lists several product entries. Each entry includes a product description, a shelf ID, and a position. The products listed are:

Product Description	Shelf ID	Position
fash. skirt, long, 55% trev black, 36 PCS-01-ART111005	1	7
fash. skirt, long, 55% trev., red, 36 PCS-01-ART111001	1	3
fash. skirt, long, 55% trev green, 36 PCS-01-ART111004	1	6
fash. skirt, long, 55% trev white, 36 PCS-01-ART111002	1	4
fash. skirt, long, 55% trev., red, 42 PCS-01-ART111019 High Priority		
T-Shirt, red, 40 1192001		

At the bottom of the screen, there is a dark blue bar with a white plus sign and a small icon.

Enhanced version in a customer project

The screenshot shows a mobile application interface with a header 'Perform Store Walk-Through'. Below the header, there is a section 'Tasks (6)' with a filter icon. The main content area is titled 'Urgent Labels for Today' and lists several task entries. Each entry includes a task description, a count of open sub-tasks, and an 'Action' button. The tasks listed are:

Task Description	Open Sub Tasks	Action
Urgent Labels for Today	3	
Urgent Labels for Tomorrow	2	
Planned Labels	1	
Ad hoc Labels	0	
Big Labels	2	
Labels for Stock Clearance	0	

The 'Urgent Labels for Today' task is expanded to show a list of sub-tasks:

Sub Task	Action
Open	
A4 Pink (pre-cut) 5 Labels Very High Priority	Confirm Reject
A5 Yellow 9 Labels Very High Priority	Confirm Reject
Completed	
Barraca Yellow 3 Labels	Reopen

Business challenge:

- Store employees need to view and execute **generic** tasks on the shelf. Generic task includes product-based tasks such as checking the stock for a list of products, or non-product related tasks such viewing a PDF attachments for price labels and printing the labels.
- The current version of the standard app for task management does not support non-product based task.

Benefits:

- Enhanced version of the app will help employees to complete more diverse product-based and non-product-based tasks.
- The app allows viewing PDFs for generic tasks.
- Augmented Reality integration is possible.

Click & Collect and Click & Shipp Fiori apps

Planned



- **Business challenge:** Store employees need to view **online orders** for the store, fulfill the orders, and monitor the status of the orders.



- **Approach:** Co-innovate standard Fiori apps to cover **click & collect** and **click & ship**



- **Solution:** Develop and deliver 3 Fiori apps to support the fulfillment of online orders.
- **Key benefits:** Support omni-channel processes and fill the gap between online and physical stores

Hands Free UI through voice interaction (PoC)

PoC for order products, conversational AI planned



Product	Pieces	Order
Skim Milk 2050000017032 Not on Promotion	Order: 7 Current: 2 Expected: 0 Allocated: 0	7 Each 1/Each
Almonds & Berries 33oz 7617027937023 Not on Promotion	Order: 11 Current: 3 Expected: 0 Allocated: 0	11 Each 1/Each
Pineapple Preserves 18oz 7616800905631 Not on Promotion	Order: 17 Current: 4 Expected: 0 Allocated: 0	17 Each 1/Each
Double Be Spread 7613312010000 Not on Promotion	Order: 4 Current: 0 Expected: 0 Allocated: 0	4 Each

Description:

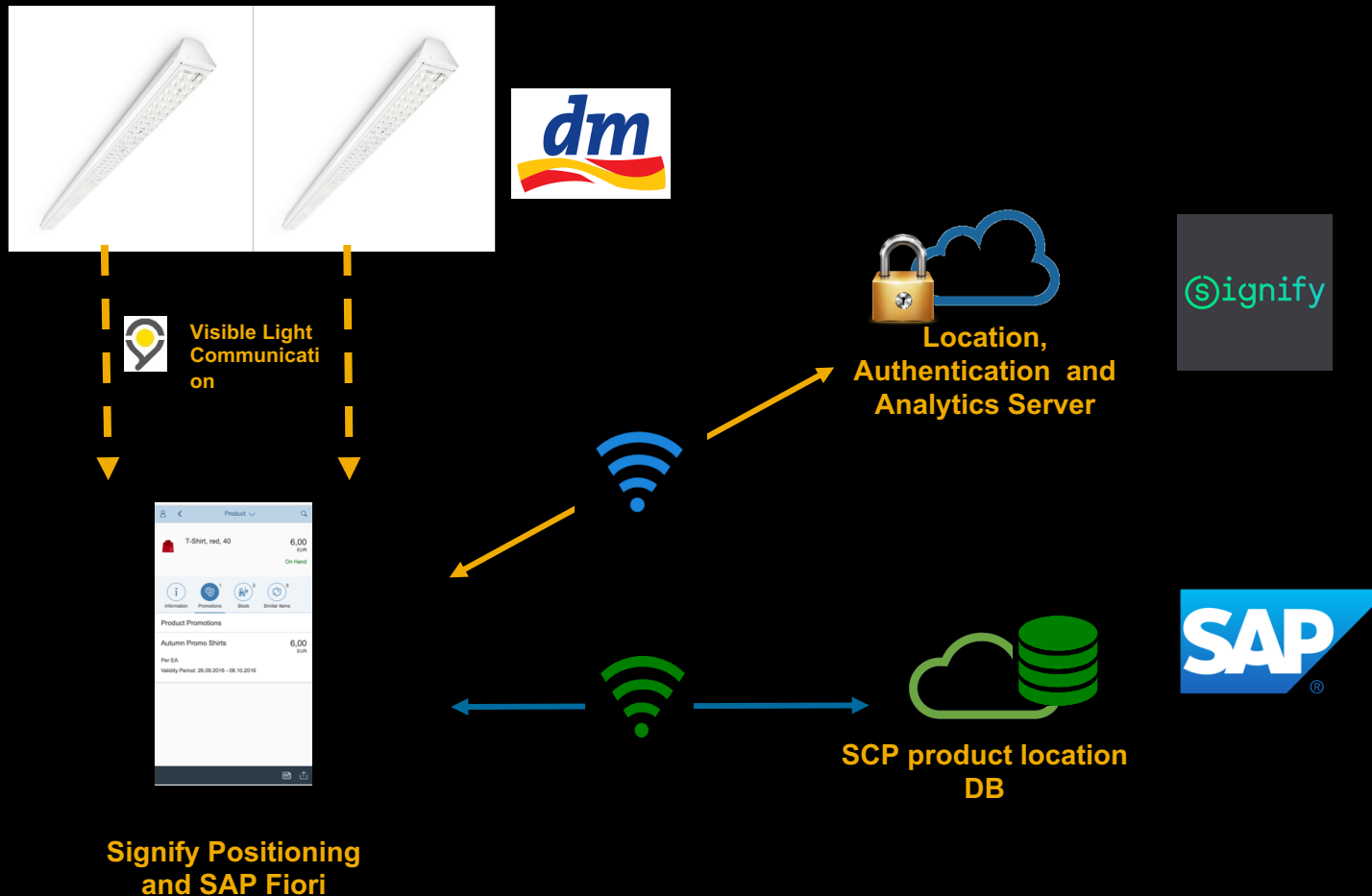
- Speech recognition and voice output is used to interact with the Fiori apps like “Order Products”

Benefits:

- Enables the store associate to order new products without touch screen interaction (hands free)
- Vision: Introduce conversational artificial intelligence to allow hands free interaction through all processes

Product Location DB (PoC)

Joint PoC of SAP, Signify and dm



Description:

- LED luminaires send a unique VLC (visible light communication) code that is detected by the smartphone camera.
- The position of the luminaires is stored in a location database in the cloud.
- Each scanning event evaluates and stores the location of a product in a product location DB on SAP Cloud Platform

Product Location DB (use cases)

Offers a variety of use cases



Use Cases (Examples):

- Help customers to find products
- Help customers to process a shopping list
- Help associates to refill shelves
- Help associates to process click and collect orders

Improve Inventory Accuracy with Machine Learning

Idea

Use case idea

Ina, the store associate, receives a task notification “Count Products” on her smartphone. She views an **automatically** generated count list and count products really quickly because the list contains only products with **incorrect stock**. → No need to count everything.



Description:

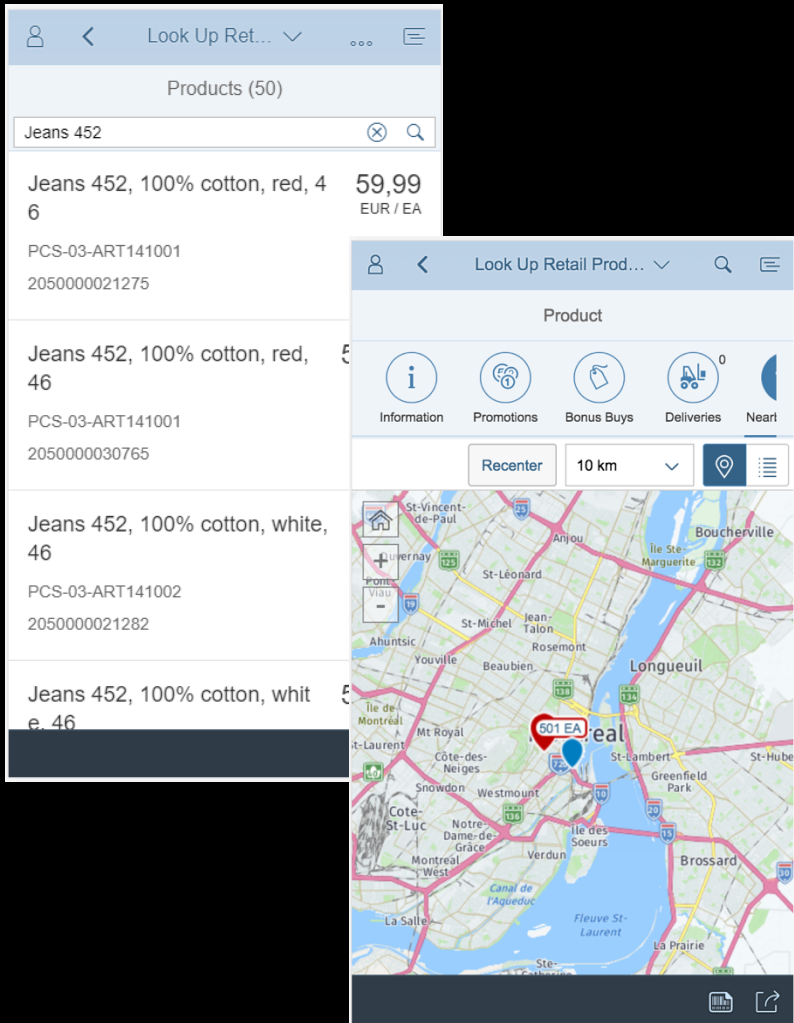
- Identifying products that have a high chance of incorrect inventory and generate a list
- Provide store associates with the list to take action

Benefits:

- Improve inventory accuracy with a low TCO approach
- Stock shelves with products that customers want when they come in
- Save time on correcting inventory and spend more time on customer service

iOS native offline app for Look up products & clienteling

Partner Key Tree



Ideal

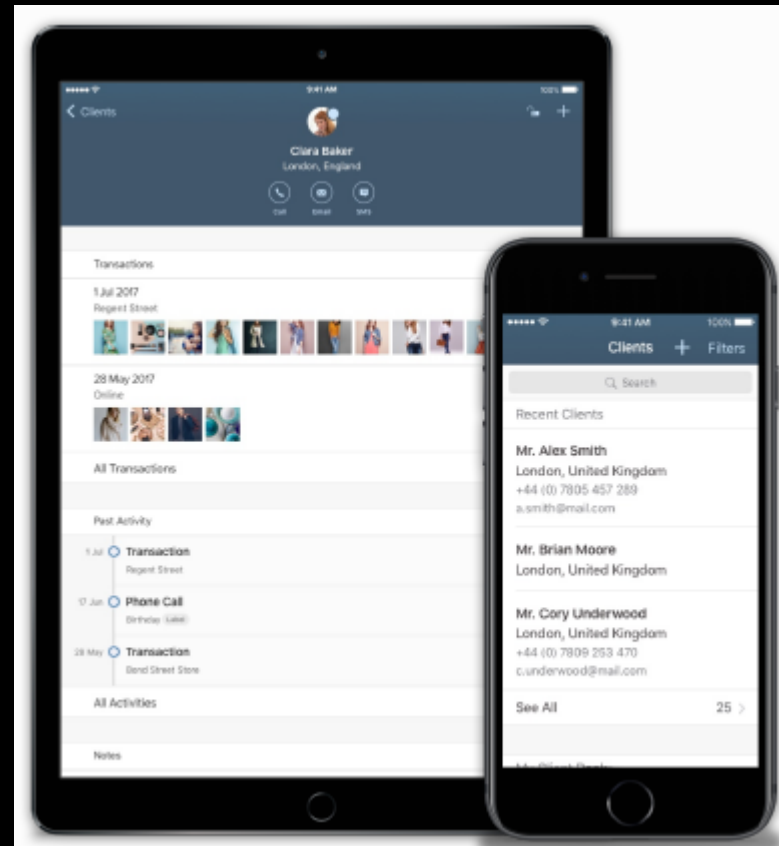


Description:

- Fiori app Look up Products provides store employees with real-time access to detailed product information to answer any customer questions
- Kee Tree clienteling app provides store employees with detailed customer information and more

Benefits:

- Provide excellent shopping experience
- Increase customer loyalty and sales



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SAP In-Store Merchandising

Values

Business



- Provide superior experience by giving store employees real-time access to critical information during sales and service discussions with customers
- Increase productivity of store employees with automated processes and intuitive apps
- Increase inventory accuracy and sales by stocking shelves with products that customers want
- Maximize cross-sales by getting online shoppers coming to your stores



Technology

- Proven business logic, state of the art technology, excellent user experience, responsive, always online with data persistency, fully integrated, laser scanning, RFID reading, camera scanning, role based Launchpad, SAP Web IDE development tool

Migros: Providing Customers and Employees “A Better Life Every Day” with SAP® Solutions

MIGROS

Company

Migros

Headquarters

Zürich, Switzerland

Industry

Retail

Products and Services

Supermarkets, food, electronics, books, home goods, and more

Employees

>97,000

Members

>2 million

Revenue

SFr 27 billion (€27 billion)

Web Site

www.migros.ch

Objectives

- Improve the in-store shopping experience
- Increase the productivity of store associates
- Consolidate solutions to reduce costs

Why SAP

- Successfully entrusted most of retail operations to SAP for Retail solutions for over 10 years
- Next-generation mobile solutions that keep store associates productive on the sales floor, providing better customer service and driving sales
- Run Simple approach and a consumer-grade user experience for business users with the SAP Fiori® user experience (UX)

Resolution

- Established a mobile infrastructure in the stores along with centralized services
- Closed gaps between consumer and enterprise business apps
- Adopted a “design thinking” approach to come up with new and improved business processes
- Performed pilot tests at select stores before rolling mobile solutions out to over 7,000 devices.

Future plans

- Improve the productivity of store managers by providing them with tools and dashboards to better monitor store performance
- Enhance business processes to better support omnichannel scenarios
- Evaluate the SAP® Customer Activity Repository application to improve customer analytics and evaluate SAP S/4HANA

Cost savings

Lower total cost of ownership by consolidating solutions

Speed

Real-time mobile access to information and functionality in the system at headquarters

Productivity

Mobile solution that can be used on any device, allowing store associates to do more in the same amount of time

Customer satisfaction

Better customer service and the ability to answer customer questions more quickly

“When customers come into the store, they should get the information they need. To provide this, employees must be able to get that information from our back-end systems to their mobile device. This will improve efficiency and customer service. With SAP, we can make this a reality.”

Beat Stauber, IT Senior Project Manager, Migros



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Presentation Materials

Access the slides from 2019 ASUG Annual Conference here:

<http://info.asug.com/2019-ac-slides>

Q&A

For questions after this session, contact us at:

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