SAP Strategy for Mobile Warehousing in S/4HANA

Session: 84117

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Agenda

SAP EWM – Deployment Options

S/4HANA On-Premise – Mobile Warehousing

S/4HANA Cloud – Mobile Warehousing

Demo: Example Mobile App for S/4HANA Cloud

Q&A
Key Outcomes/Objectives

1. The “RF Framework” (+ ITS Mobile) is still the main offering for mobile warehouse transactions in an ON-PREMISE system

2. In S/4HANA Cloud the APIs are the only way to build mobile apps

3. APIs for Warehousing have just started and more APIs are planned for the future
SAP EWM
Deployment Options
Extended Warehouse Management: Deployment Options

**On Premise**

- Business Suite decentral EWM
  
  ![SAP Extended Warehouse Management](image)

- EWM embedded in S/4HANA
  
  ![SAP S/4HANA Extended Warehouse Management](image)

**Cloud**

  
  ![SAP S/4HANA Enterprise Edition](image)

- S/4HANA Cloud, multi-tenant
  
  ![SAP S/4HANA Cloud Warehouse Management](image)
S/4HANA On-Premise
Mobile Warehousing
ITS Mobile

Internet Transaction Server:
- is part of the SAP Kernel
- is fully integrated in the SAP system landscape
- requires no additional installation

ITS Mobile:
- There has to be a HTML Business template for each mobile screen
- Development and transport of the templates is done in the SAP system
- You have the full control on the design and layout only depending on the capabilities of your browser

→ To make the creation of the HTML Business templates easier we offer a template generator for mobile devices
RF Framework

- Decouples business logic from the physical presentation of application data on a mobile device
- Supports a large variety of device sizes, device types, and data entry types
- Calls appropriate services according to resource inputs (such as verification/input data, keystroke, or logon request)
- Enables personalized menus and screens
- Enables flexible and user-friendly screen and flow logic generation and modification
Configure your Menu with RF Framework
RF Framework: Taylor-Made Mobile Screens for Specific Needs

Personalization of RF Mobile Menu

**Before**

**After**

**SAP**

- 01 System-Guided
- 02 Manual Selection
- 03 Inbound Processes
- 04 Outbound Processes
- 05 Internal Processes

**Menu Manager**

**Personalize Menu**

- 01 Selection by WO
- 02 Queries
Rearrange & Format Screen Element Button
ITS mobile Visual Editor

Before

After
Configure your Screens with RF Framework
Support of Mobile Devices
EWM Radio Frequency Framework

The RF framework provides standard RF-functionalities, including the following warehouse processes:

- Picking
- Put Away
- Loading / Unloading
- Deconsolidation
- Packing
- Physical Inventory
- Replenishment
- Quality Control
- Queries (stock, bin, Handling Unit)
- Yard Movements
Customer Examples of Mobile Screens
S/4HANA Cloud
Mobile Warehousing
Motivation

Cloud Warehouse Management
request for Mobile Warehouse / Scanning Applications e.g. picking, put-away, counting

Use RF in the Cloud?
- Cloud Customer cannot enhance the screen / logic (not possible to touch ABAP code)
- Does not leverage the capabilities of modern devices

Build FIORI Apps?
- Performance not sufficient for high-speed scanning
- Designs for shop-floor only applications not ready

Use something new
Application Programming Interface (API)

API

noun   COMPUTING

a set of functions and procedures allowing the creation of applications that access the features or data of an operating system, application, or other service.
SAP API Business Hub (https://api.sap.com/)

SAP S/4HANA Cloud
The next generation digital core designed to help you run simple in a digital economy.

SAP Customer Engagement Center Integration with SAP ER...
Replicate business partners from SAP ERP, SAP S/4HANA, or SAP S/4HANA Cloud.
1 Integration Content 4.1k+

SAP S/4HANA Cloud
SAP S/4HANA Cloud, the next generation digital core designed to help you run simple in a digital economy.
264 APIs 0.2M+

SAP S/4HANA Cloud Integration with Third-Party Sales Force...
This integration package enables read business partner data, product details, as well as read, create, change or delete sales order in S/4HANA Cloud.
5 Integration Content 4.2k+
API - Process Warehouse Tasks

Process Warehouse Tasks - Read, Update (A2X)

You can use this service to integrate external applications with warehouse orders and warehouse tasks in SAP S/4HANA Cloud.
Building a Mobile App – SAP Mobile Development Kit
Building a Mobile App – 3rd-Party Development Tools
Demo

Example Mobile App for S/4HANA Cloud
# RF Framework vs. APIs

<table>
<thead>
<tr>
<th>RF Framework</th>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Pros</strong></td>
<td><strong>Cons</strong></td>
</tr>
<tr>
<td>Screen Templates available</td>
<td>Does not support HTML5</td>
</tr>
<tr>
<td>Configuration Tools available</td>
<td>Standard UIs not state-of-the-art</td>
</tr>
<tr>
<td>Configuration in ABAP</td>
<td>ABAP Experts are needed to personalize</td>
</tr>
<tr>
<td>No additional license cost</td>
<td></td>
</tr>
<tr>
<td>Proven solution (speed, stability,…)</td>
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</table>

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<tr>
<td><strong>Pros</strong></td>
<td><strong>Cons</strong></td>
</tr>
<tr>
<td>Beautiful UIs</td>
<td>Develop your screens</td>
</tr>
<tr>
<td>No ABAP expert skills needed</td>
<td>Develop your business logic</td>
</tr>
<tr>
<td>Same App on multiple device types</td>
<td>Additional (App) license costs</td>
</tr>
<tr>
<td>App can use modern mobile features</td>
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Way forward

Summary

The “RF Framework” (+ ITS Mobile) is still the main offering for mobile warehouse transactions in an ON-PREMISE system

Our direction

Open up the SAP EWM backend with published APIs to allow partners and customer to consume EWM data on any device.

Goal for S/4HANA Cloud 1905

- Published API for Warehouse Order / Warehouse Task processing
- Published API for Resource Management related functions
Q&A

For questions after this session, contact me at Uwe.Pfisterer@sap.com
Take the Session Survey.

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Presentation Materials

Access the slides from 2019 ASUG Annual Conference here:
http://info.asug.com/2019-ac-slides
Thank you.

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