

mTracking

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mTracking

- Business Case – Asset Tracking system
- Pain Areas
- Key Challenges
- Mobile Platform of choice
- Moving forward...

Asset Tracking System- Business requirement

Mission: To track, verify and update the Asset Details on Mobile device in online/offline mode.

Key points:

- Assets are spread across university campus,
- As per policy , depts. has to do Asset Verification Exercise once a year,
- Two types of Assets- Capitalized and Non-Capitalized,
- Capitalized Assets are maintained in the SAP AM module,
- Non-capitalized assets are maintained in SQL server
- Asset are tagged with RFID tags,

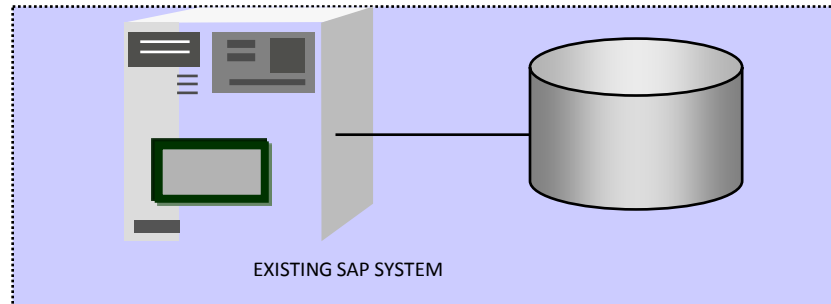
Asset Tracking System- system landscape

De-commissioned

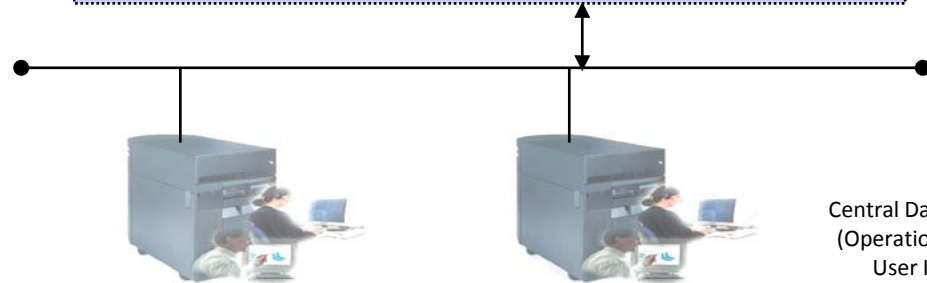
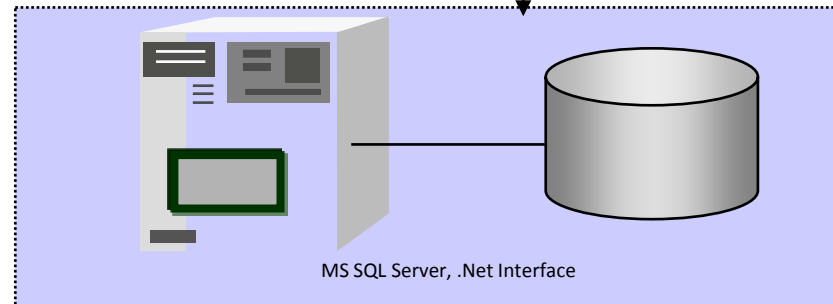


Mobile Units
Data upload,
Transact, download

Batch
Upload and
Download



SAP INTERFACE



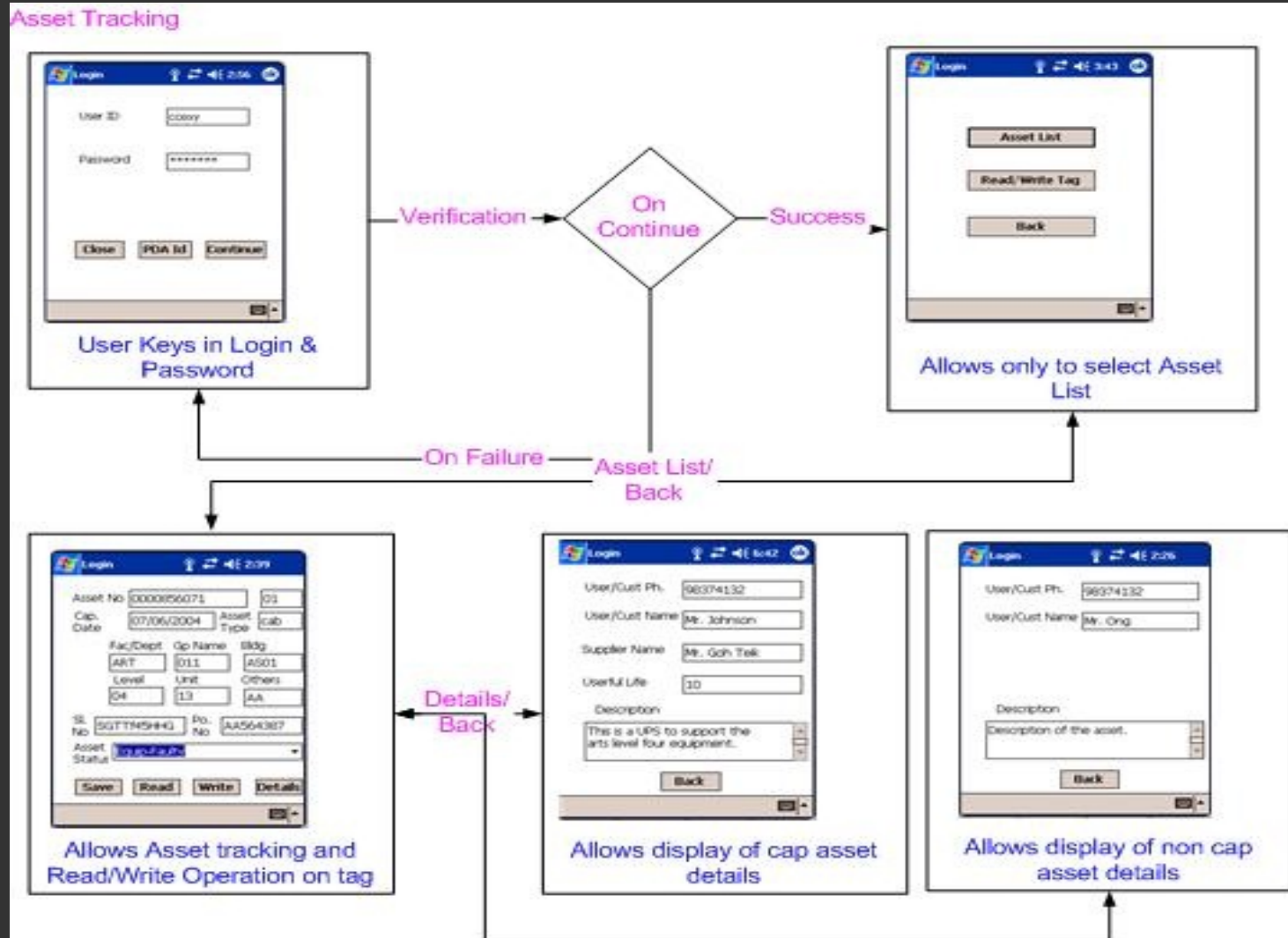
SYSTEM OVERVIEW

HERUG 2010

Asset Tracking System- System process

- PDA application, Staging Server Application & SAP interface is implemented to provide the tracking.
- There are sixteen fields which are downloaded from SAP to the staging server. These downloaded asset records are then loaded onto the PDA.
- Loading mechanism of the PDA is governed by several factors decided by the administrator.
- PDA Assignment feature facilitates the administrator to select the PDA to load the data to. After that, the administrator will have the flexibility to choose the Item type and also combinations of the locations to minimize the bulk of assets and load only the relevant asset on one PDA.
- Once the tracking has been performed, the whole set of data will be synchronized with the staging server and a report will be generated to check for discrepancies.
- Once verified and confirmed this set of data will be uploaded back to SAP based on Asset Range.

Asset Tracking System- process flow



Asset Tracking System- mobile screens

Windows Mobile Login Screen (Time: 2:56)

User ID:

Password:

Buttons: Close, PDA Id, Continue

Windows Mobile Main Menu (Time: 3:43)

Buttons: Asset List, Read/Write Tag, Back

Windows Mobile Asset Details Screen (Time: 2:39)

Asset No:

Cap. Date: Asset Type:

Fac/Dept	Gp Name	Bldg
<input type="text" value="ART"/>	<input type="text" value="011"/>	<input type="text" value="AS01"/>
Level	Unit	Others
<input type="text" value="04"/>	<input type="text" value="13"/>	<input type="text" value="AA"/>

Sl. No: Po. No:

Asset Status:

Buttons: Save, Read, Write, Details

Asset Tracking System- mobile screens

■

Login

User/Cust Ph. 98374132

User/Cust Name Mr. Johnson

Supplier Name Mr. Goh Teik

Useful Life 10

Description

This is a UPS to support the arts level four equipment.

Back

Login

User/Cust Ph. 98374132

User/Cust Name Mr. Ong

Description

Description of the asset.

Back

Pain Areas

- OS patches on staging server

The existing application did not work due to OS upgrade. The source code need to modified and re-compiled to make the application work.

- Outdated SAP interface with staging server

SAP DCOM interface did not work as DCOM interface was outdated and not supported by SAP anymore. This issue was resolved by developing new .NET interface.

- Hardware Incompatibility

The application was developed for PDA which is obsolete now. The application is not compatible to new PDAs.

Key Challenges

- Different Mobile Operating System
- Limited Processing power
- Limited Memory
- Too many different type of devices from the same manufacturer
- OTA installation – pushing the content
- OTA deletion of apps and data in case of loss of device
- Centralized control on access to OTA and Data security (role based)

Moving to SAP Mobile Infrastructure

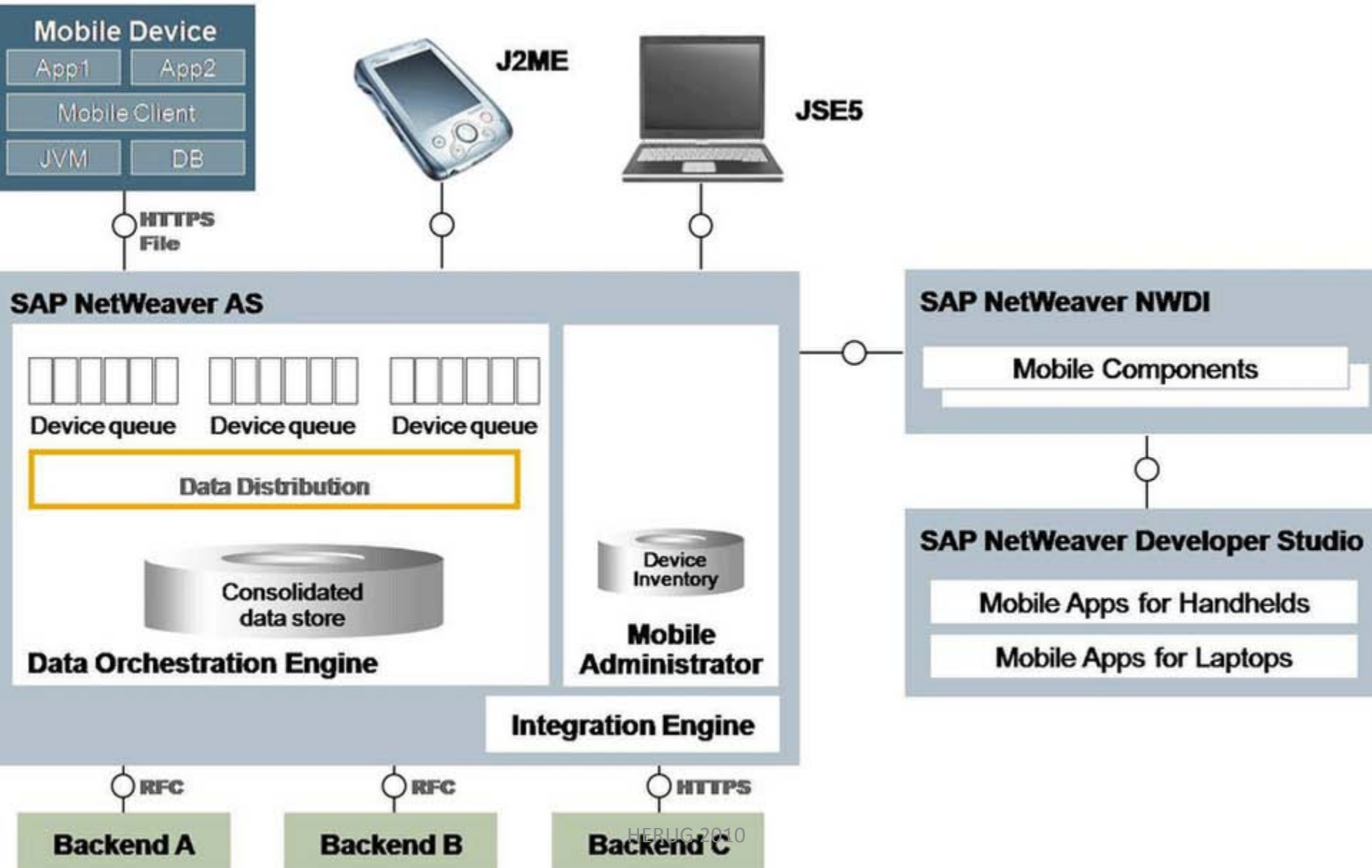
SAP Mobile Infrastructure



RFID Reader attached to PDA

RFID Tag attached to Asset

SAP Mobile Infrastructure



Why SAP Mobile ?

It is recommended to upgrade to SAP Mobile solutions due to following reasons:

- Hardware Independence - Supports more hardware equipments
- Requires non-diverse skill set compared to existing application.
- Reduced risk due to upgrades in SAP or equipments as it is supported by SAP

Business Benefits

- Centralized mobile administration and monitoring. This leads to better control of applications and data access on all devices
- Highest possible rollout to a high number of devices in a given time frame.
- Lowers the risks of issues due to device or software upgrades
- Minimal steps required to be performed by end users to have the applications and data ready for use.
- Asset Tracking on SAP Mobile can be used in future for Inventory Management System.

SAP Mobile - System Requirements

- Hardware:**

2 Servers, 1 for Development and 1 for Production environment

Our H/W configuration:

Operating System - Windows 2008 R1

Database Server - Oracle10g

Disk size - 100 GB

Memory - 8 GB

Software:

SAP Mobile 7.1 (License required)

SAP NetWeaver Developer Studio (Free ,download from SDN, part of SAP NW CE)

SAP Mobile - System Requirements

Mobile Software/tools:

- Microsoft Windows Mobile 5.0 [™] on XScale processor with 128 MB RAM and 128MB fast Flash-ROM or
- Microsoft MS Windows Mobile 2003 SE on XScale with 128MB RAM
- NSIcom CrEme 4.12 Java Runtime Environment, compliant with J2ME-CDC 1.0 specification
- SAP MinDB database / IBM DB2 Everyplace (License required)

Moving forward -Mobile Micro Applications

- Mobile micro-application is typically lightweight enterprise mobile applications for iPhone, BlackBerry, and other smart phone devices
- Mobile micro-apps connect to the SAP and provide real-time connectivity for the mobile workforce to participate in business processes in mobile environments.
- Targeted to quickly and efficiently solve specific problems and provide immediate benefits to the mobile workforce
- Significant and is rapidly changing the way both the business views business solutions.
- Services available through online mobile applications stores.

Moving forward...

Target Apps:

- Leave Application
- Management Approvals
- Meter Reading
- Real-Time monitoring of Hazardous materials or chemicals (using active RFID tags)
- Travel Requests
- Management Reports



Limitation

Support for controlled list of devices



Demo

Demo

<http://www.sdn.sap.com/irj/scn/elearn?rid=/library/uuid/70c9f6a3-7bc4-2c10-4684-a1e01590cd73&overridelayout=true>

<http://www.sdn.sap.com/irj/scn/elearn?rid=/library/uuid/1019da30-7bc4-2c10-9b80-ebcb9ca1ce87&overridelayout=true>

Next...

Presentation on SAP Mobile Infrastructure by SAP

mTracking



Microsoft Office
WordPoint Presentat