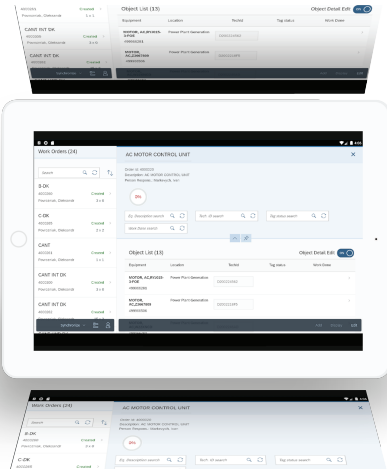# Mobile SAP Solutions

Asset Data Collection Automation

Keel's Mobile Application for Asset Data Collection **eliminates paperwork**, allowing immediate database management during data collection and verification.

Developed in SAP Cloud Platform, this tool is a **native SAP application**, meaning it doesn't require any extra 3rd party software between the database and the Application.

Keel Mobile Application is a standalone app that incorporates an embedded database and a user-friendly interface. In other words, the Asset Data Collection requires **no additional software**.

SAP Mobile Application can be used for the following physical surveys:

- Master Data collection;
- Ex inspection;
- Registering Equipment Items;
- Hose management;
- Equipment Tag verification.

Eliminate Paperwork

Shorten Work Cycles

Upload Data On-click

On-click Upload

✅ **Prevent accumulation of junk records**

The data synchronization process demands the user input in the form of entering the synchronization menu and pressing 'Flush'. Once the Flush button is pressed, the Application will upload the data into the database via communication channel.

This way of **synchronization prevents the accumulation of junk records** in the database by giving users a chance to double-check the information before uploading into the database.

Mobility

✅ **Work offline**   ✅ **Reduce battery consumption**

The App is designed to work on portable devices in **both online and offline modes** allowing working in environments wherein a web connection is absent or impossible.

The offline mode was introduced to use the Application in a remote location, whether it's an offshore wind farm, oil rig, or any of the industrial assets. This mode allows the collection of data regardless of internet connection. Until the online mode is activated, the obtained data is stored on the device's memory. And when the internet is available, the App sends the data into the SAP HANA or another database.

A user can **tune the synchronization interval to suit their needs**. For example, increasing the interval will reduce battery consumption and increase the work time between charges.

SAP Platform

✅ **Enjoy leading tools and opportunities**

Usage of the SAP native tools for the development of Application has allowed Keel to build an application that makes the most of SAP's toolkit for the enterprise resource planning. Additionally, SAP as a market leader provides leading solution security, usability, and database management.

The flexible backend support of the SAP ERP SAP S/4HANA is combined with the **support of the multi-operating system including iOS, Android and Windows.**

Fiori User Experience

✅ **Intuitive Interface**

Asset Data Collection Mobile App has an intuitive interface designed to **ease and boost data gathering or verification**. The graphical user interface of the Application was developed using SAP Web IDE that has built-in tools OpenUI5 framework. OpenUI5 framework is very flexible and consistent across all applications wherein it's used.

Work Planning

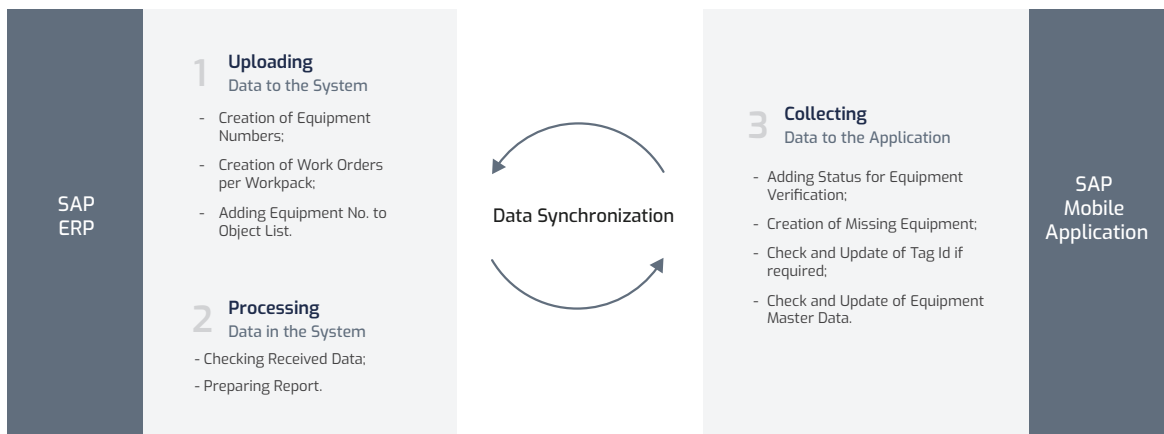✅ **Precise time estimation**

Organization of work into work packs and work orders allows project managers to estimate the amount of time necessary for the data collection or verification more precisely. When a work pack is getting formed, it's possible to **see the object list and number of items to be checked**.

Every work order has a person assigned to it, and this person can view items to be processed. This allows **estimating the number of person-hours needed** for a particular task.

ERP Integration

✅ **Automatic updates**

When a work order is processed and data is flushed, **the information gathered onsite gets into the corresponding ERP locations**. When synchronization is completed, Application puts asset data into relevant places (fields) of the database, so the information of a particular item in the database will be updated automatically, once the upload is complete. Moreover, after the synchronization work orders themselves can be further processed from the financial or other points of view.
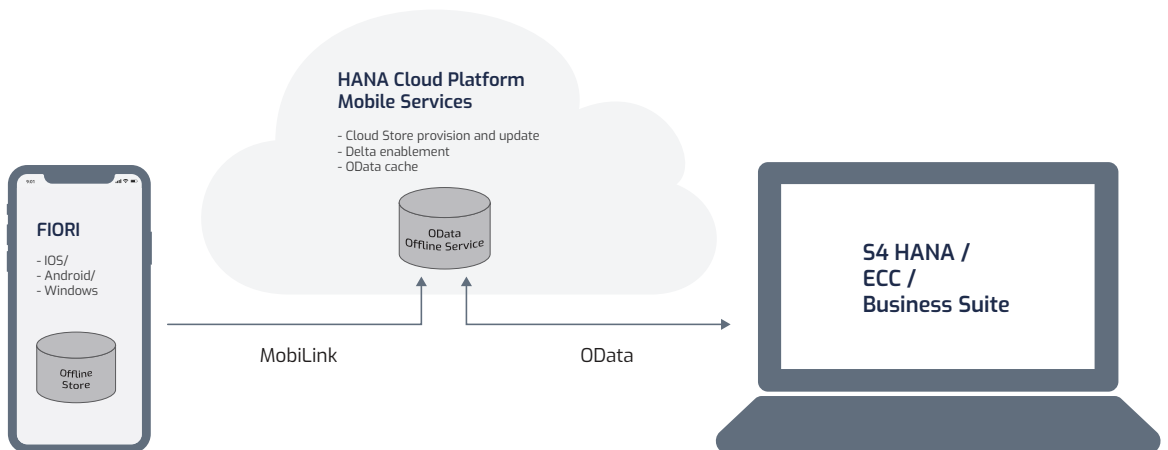

SAP ERP

1 Uploading
Data to the System

- Creation of Equipment Numbers;
- Creation of Work Orders per Workpack;
- Adding Equipment No. to Object List.

Data Synchronization

2 Processing
Data in the System

- Checking Received Data;
- Preparing Report.

3 Collecting
Data to the Application

- Adding Status for Equipment Verification;
- Creation of Missing Equipment;
- Check and Update of Tag Id if required;
- Check and Update of Equipment Master Data.

SAP Mobile Application

Traffic Saving

✅ Avoid duplicate data

The Application is designed to **use the minimum amount of traffic** and uploads into the database only the difference between data on the device and the database. When the synchronization process is launched, Application will determine the data that is missing in the database but present on the client. It means that **no data gets uploaded twice** unless the connection was disrupted.

The technology used for the data exchange between the database and the device is MobiLink, which is a component of SAP SQL Anywhere. The data gets uploaded into the cloud through Mobilink and then with the help of Open Data Protocol and RESTful API, data is transferred into the database.

HANA Cloud Platform Mobile Services

- Cloud Store provision and update
- Delta enablement
- OData cache

OData Offline Service

FIORI

- IOS/
- Android/
- Windows

Offline Store

MobiLink

OData

S4 HANA / ECC / Business Suite