The mobile platform M-BASIC

System structure

The M-BASIC software module is part of the indispensable basis for the system structure of the mobile application. In mobile maintenance it acts as a data hub between the individual components of the system structure. The replication application M-BASIC is a link between the mobile equipment and the backend system (e.g. SAP or SI®).

The module includes the following software components (cf. fig.1):

- Bidirectional interface for synchronisation between the mobile equipment and the replication database,

- Replication database with M-BASIC server application to provide data for the mobile equipment on the frontend system.

The tasks of M-BASIC as a frontend system

As a database-based frontend system M-BASIC has the following tasks:

- Caching the planned measures until the PDAs have established a connection to the replication application and the
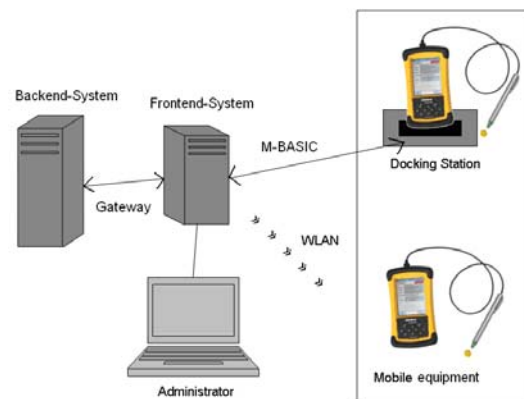

Figure 1: Typical system configuration

information has been transferred to the PDAs.

- Accepting and caching the feedback from the PDAs until it has been taken over by the backend system.

- Automatically updating the PDAs with new software versions of the mobile applications that were uploaded to M-BASIC by the system administrator.

This is a considerable simplification of administration tasks, since when an update is due, the PDAs do not all have to be "collected"; instead they are updated to the latest status automatically every time they establish a connection.

Synchronising the equipment

A cable connection is used to transfer data between the PDA and the frontend system (for example, a USB cable on the PDA docking station). This temporarily links the PDA and the frontend system to transfer data.

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Data can also be synchronised via WLAN hotspots. In any case, it is ensured that the functionality of the applications on the PDA are not dependent on a permanent online connection to the frontend system. The full scope remains even if no connection is made for a long time (several hours).

Scope

The integral system, consisting of the frontendsystem and PDAs is delivered ready for use.

M-BASIC takes over bidirectional communication with the respective backend system (ERP system such as SAP, SI® other) via a gateway. STEAG supplies the interfaces needed for the respective back-end system as part of the project. You will find information about this in a separate product data sheet.

Within the scope of communicating with the backend system M-BASIC also carries out the following tasks:

- M-BASIC provides the associated information for the respective applications (M-RM, etc.),

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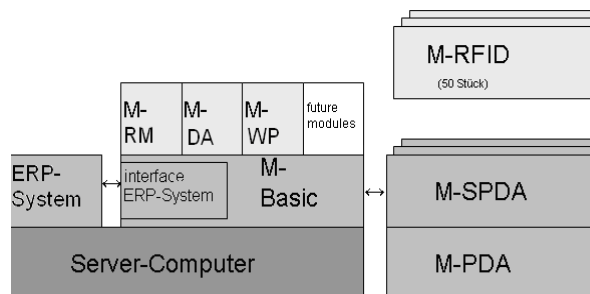
- M-BASIC accepts feedback from the applications.

Figure 2: System structure of the mobile application

Key:

ERP-System:	Enterprise Resource Planning (system for the deployment/use of company resources, e.g. SAP)
M-BASIC:	Replication application to provide PDAs with data
M-DA:	Mobile Data Acquisition
M-RM:	Mobile Recurrent Measures
M-SPDA:	Mobile Software Basic Features in the PDAs
M-WP:	Mobile Work Permit (mobile disconnection measures)
RFID:	Radio Frequency Identification
SI®:	CMMS system of STEAG