

Firms Going Mobile: A Short Review on Mobile Workforce Management Advantages

Pedro Figueiredo[♦], T3K, Portugal

Companies with large and spread field forces are using mobile technologies to improve their swarm efficiency and increase productivity. Mobile systems are being deployed to manage, optimize and empower field forces, increase operational efficiency and gain a better understanding of asset management, capture and access information (see diagram 1). Most organizations evaluate the return on investment as a period of two years or less.

The business case for deploying a field force mobile solution is relevant, in fact mobile technology can pay off even without a fully refined business process, but, to lower the total cost of ownership and achieve the best ROI possible, the key is to implement it on a bottom up basis - from business needs to solution design. Companies must be prepared to review their organization and processes, to define business rules, to develop and implement those processes and rules with the objective of unifying the workforce.

The need for dynamic scheduling and dispatch system, that allows an easy management and optimization of tasks, routes and schedules, is indisputable. However, each company has different characteristics and requirements that should be considered. Every company is unique, with their own organization and processes, therefore, with distinctive solutions. Mobility is not only about equipments and software. *Going mobile* is a company-wide change where every solution, project and step forward has to be customized. The solution design, process and customization can take different approaches depending on the goals of the project.

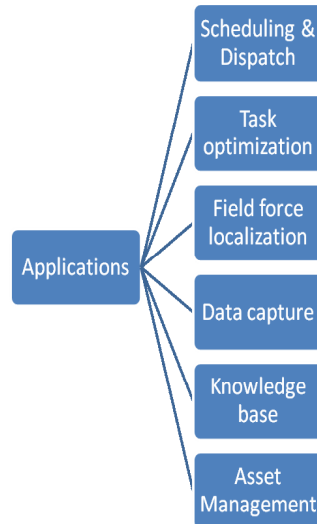
With the correct implementation of methodologies and processes designed towards mobility field workers, such as technicians, commercial teams or other mobile forces can spend less time in administrative tasks. Without a real-time connection to back-office systems, field forces will have to use paper forms to collect information, which has to be, later on, understood, processed, standardized and inserted in back-office systems. This is error-prone and time is inserted as a lag into the business process.

[♦] Corresponding Author: T3K - Innovation & Software Solutions, Rua Dr Sousa Martins nº 8-A - 2675-449 Odivelas, Portugal, Tel. +(351) 219344 320, e-mail: pedro.figueiredo@t3k.pt

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Diagram 1. Features involved in Mobile Applications Development Process



Field workers and teams are responsible for one of the most important interface – the interaction with customers. Independently of being involved in sales, service operations, inspections or asset tracking, those human resources represent the company and its image. A trained worker with leading-edge technology, real-time customer and service information will be more profitable and will help to build up that image.

Reduce Time to bill

Services and Sales process bills and sale orders. The time taken to complete a full service / sales cycle can be seriously reduced if all the data needed reaches the ERP database timely. The process can be speed up to bill within 1 day.

Back-end systems can control and monitor all the data being sent and received from the field, provide custom summaries as well as report information about jobs, hours and mileage for any time span (day, week or month). That information can feed payroll, stock and cost systems in ERP. Managers and dispatchers will collect metrics and summarize data from those systems, increasing their ability to make informed decision in real-time.

Knowledge workers going mobile bring a new set of challenges to mobile systems and interfaces. The information access via mobile devices must be done in an easy and fast manner. Furthermore, data has to be classified so that the mobile workforce data should be accessible based on the characteristics of the device worker and time. The

value of the information changes according to these key factors (device, worker and time).

Each year the volume of unique information produced worldwide grows exponentially. Alongside with it there is a growth in information classification needs.

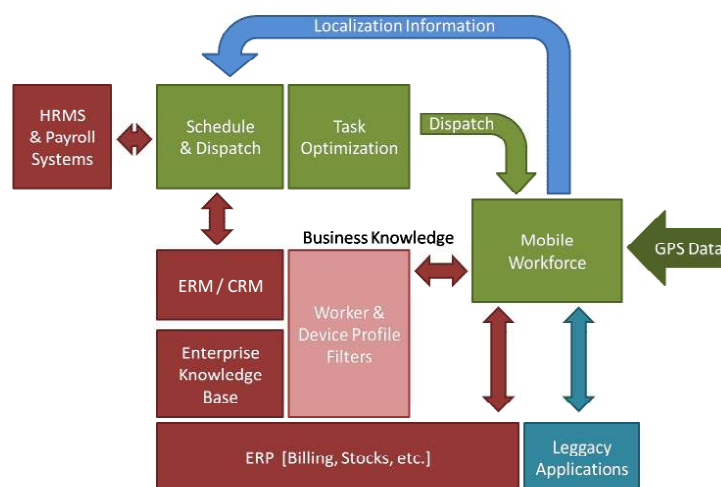
Accessing information with mobile devices can be a daunting task. Unclassified data is very difficult to manage and understand by a field worker. Searching information like CRM Data, Technical specifications, Stocks, Product and Service History; must be done with the tools (server and client side) that will help to maximize the access to the most relevant data.

Scheduling and dispatch systems perform their operations based on information collected from other back-office such as ERM/CRM, ERP, HRMS and localization coordinates gathered from the field. Dispatch orders are optimized within the dispatch system by global task optimization algorithms that use field information to generate the best work orders for each mobile team, based on their profile and location.

The mobile workforce must have access to critical business information related directly to their work, such as ERM/CRM customer data, service history, technical knowledge, or other business related information. The data response to queries performed by field workers must be filtered and prioritized according with four main key factors: device profile, time, task and worker profile.

The mobility of the workforce is tracked in the back-office by GPS. Those coordinates allow navigation systems to find the best route to the next assignment (see Diagram 2).

Diagram 2. (Mobile oriented IT System – Block Diagram)



Data collected by workers in the field – depending on the type of field operations – is used mainly to feed ERM/CRM systems, stock and availability systems, order and billing information, service reports, asset tracking and other LOB (Line of Business) applications.

The Mobility challenge is not new. Over the last ten years about 80% of big North American utility and telecommunication companies, and 35% of their European counterparts, have implemented mobile systems to manage their workforce (Radice, 2008). Currently firms of all sizes are realizing the opportunities provided by the deployment of such a system and are starting their own mobility projects.

References

Steven Radice, S. (2008). *Fieldforce Transformation for the 21st Century: One Company – One Workforce – One Solution*, Ventyx, 2008 available at <http://www.ventyx.com/events/09-workforce.asp> (accessed 20th May 2009)

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