Two Roads to Mobile Workforce Management: Choosing Between On-Premises and Cloud Delivery

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Executive Summary
Companies with mobile workforces face two important technology trends. One is the use of mobile workforce management solutions that can add critical support to business strategies. The other is the growth of cloud-based solutions as an alternative to traditional on-premises deployment. Combining the two through cloud-based mobile workforce management can make sense, depending on the specific circumstances and goals of a company. By taking into account the technical market drivers and strategic considerations, a company can decide whether a cloud or traditional on-premises solution is the best fit.

Managing the Field Workforce
Any medium or large company must manage its field workforce in one form or another, as people represent a significant portion of operating expenses. There are schedules to track, people to assign to jobs or projects, and human resources to balance.

By more efficient use of personnel, companies can continue to increase productivity; reduce waste, errors and costs; enforce regulatory compliance; and improve products, services and customer experience. These benefits and others explain the importance of mobile workforce management software that can automate workforce planning and optimize scheduling, appointment booking, work-order management, crew and contractor management, and demand forecasting for enterprise organizations.

Implementation of workforce management systems is growing quickly. According to a Gartner forecast, by 2014, close to 90 percent of corporations will implement workforce management systems with mobile device integration. Furthermore, Frost & Sullivan research suggests that 40 percent of organizations using mobile workforce management see it as vital to fulfilling business strategies.¹

According to Aberdeen Group, 65 percent of incoming service requests require the dispatch of a mobile representative, and more than a quarter of those dispatches require additional visits.² Clearly, there are significant mobile field workforce assignments to manage. Companies with best-in-class mobile workforce management saw first-time customer satisfaction levels of 88 percent, vs. 71 percent of other companies, and year-over-year resolution time improvements of 10 percent.

Many companies turning to mobile field-force management applications should consider vendors that provide a cloud-based model, in which a company provides the functions of an application as services through an Internet connection. Companies can test workforce management software or roll out full imple-
mentations with limited up-front investment or long-term commitment. Not only does cloud workforce planning reduce capital expenses, but also it minimizes maintenance complexity and increases strategic flexibility.

However, a SaaS approach is not the best fit for all businesses. Executives should look at the critical considerations and see whether adopting the technology is a wise move for their companies.

Cloud Market Drivers
Cloud computing continues to grow in popularity because of the strong benefits it can provide to a company. It often needs little capital expense. Instead, companies typically pay fees for monthly use. Implementation is fast, so businesses can react to market developments and strategic directions far more quickly than with traditional on-premises implementation. Implementation is flexible: Companies can freely add or remove users without extensive capacity planning. And total cost of ownership can be lower.

Many types of enterprise software — including enterprise resource planning (ERP), customer relationship management (CRM) and data analytics — are available through cloud services. Workforce management is a particularly good candidate for SaaS delivery. According to Aberdeen, almost 30 percent of service organizations surveyed expect cloud computing to have an impact on their mobile workforce management plans in 2012.1

The IT Cloud Boost
Workforce management delivered from the cloud allows a company to offload IT considerations. The business can adopt the workforce management capabilities it needs without the accompanying IT administrative burdens and necessary technical resources of an on-premises implementation. In addition, personnel who would otherwise be needed to install, run and support the software can be redeployed to better support the company’s strategy.

Such an approach largely eliminates up-front capital expenses, as there is no hardware to buy or software to license. SaaS workforce management also reduces maintenance considerations because the vendor provides services from a centralized location. There is no need to maintain multiple instances of the software with the same version or level of patching.

Another reason for cloud delivery of workforce management services is business continuity, including disaster recovery. A good cloud provider has significant redundancy and recovery systems to minimize downtime. To achieve the same level of availability, a company would need multiple, geographically distant data centers with duplicated installations of the workforce management application and completely redundant data. In addition, adding multiple data centers could potentially increase IT administrative headcount and costs. The company would also need each data center to be virtualized, which would further minimize potential disruption. Creating and maintaining such facilities is expensive.

Cloud mobile workforce management is a better fit for some companies than others. Any company that needs a mobile workforce management solution should examine the technical and business factors that can affect whether a cloud solution is the best choice.

IT Cloud Considerations
The technical foundation of a cloud solution — users get access through an Internet connection and a browser — is fairly simple. But the question of whether cloud-based mobile workforce management makes sense for a given company is a more nuanced question.

• **IT Strategy:** Companies should not consider moving just one application to the cloud, but their entire IT strategy. A business that would find cloud mobile workforce management a better fit than on-premises deployment likely doesn’t have an extensive global infrastructure with multiple data centers for worldwide delivery of services. The IT department lacks spare capacity to deploy or expand an on-premises application as needed and also doesn’t have the requisite administrative expertise. The company may have relied on operational processes that can no longer keep pace with the complexity of modern field service requirements or needs to upgrade existing systems. If the business faces increased operational and capital expenses to deploy a new solution, a cloud model could

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be very attractive both financially and strategically. The cloud is also appealing if the company plans a global expansion that would require a costly infrastructure extension.

• **Solution Readiness:** Different methods of deployment are suited to different strategic requirements. A key question is how quickly the workforce management solution needs to be deployed. The more accelerated the timeframe, the better suited a cloud solution will be. That is because traditional deployment of new software is complex, including ordering hardware, waiting for delivery, configuration, installation, and integration with existing systems. A company will have to coordinate hardware and software delivery with scheduling services. The process can add weeks or more to a schedule. Implementing a cloud solution, on the other hand, takes a fraction of the time because the services already exist and need only an Internet connection for access.

• **Solution Complexity:** In addition to considerations of speed, mobile workforce management solutions are complex. They require specialized knowledge to configure, deploy, and operate. An IT department might have to hire experienced personnel to use and maintain the solutions. Cloud solutions inherently provide the necessary expertise.

**Business Cloud Considerations**

A business can be a good candidate for a cloud-based mobile workforce management solution when at least one of the following factors is important.

• **Planned Growth:** Cloud-based mobile workforce management solutions are particularly useful when a company expects its field workforce to significantly expand or contract. This can be due to changes in product or business lines, major acquisitions or divestments, rapid market changes, or seasonal market shifts, among other factors. The larger the swings and the more quickly they take place, the more appropriate a SaaS or private cloud solution becomes. However, for a private cloud to deliver the necessary degree of scaling, a company will need to acquire sufficient capacity to support its peak load requirements — and may see a portion of that capacity sitting idle during certain periods of its operating cycle. This, by itself, can make SaaS delivery attractive economically.

• **Business Focus:** An important benefit of any cloud solution is the ability of the company to have IT focus resources and attention on core competencies. The theory and mechanics of mobile workforce management would be distractions for many companies and take away from areas that are vital to competitive success.

• **Tactical Projects:** Because cloud solutions do not require additional hardware and software, companies can shift costs from capital expenses to operational expenses. The latter is more flexible and responsive to business needs. If a company plans to scale back a mobile workforce at some time, or if it no longer will require a given software application at a time in the future, it can simply close out the appropriate number of user accounts when it wishes. The solution is ad hoc in nature.

**Potential Cloud Limitations**

Even after considering both IT and business factors, a company should look at some potential implications of cloud deployment to ensure compatibility between technology and strategic needs:

• **Customization:** Related to the upgrade issue is customization. The more heavily a company wants to customize software to work the way its business currently does, the more difficult cloud upgrades can be. Once the vendor customizes its software for a given client, it may have to repeat the process for each new version, and that would be costly, and may be impossible at times. With high enough levels of customization, a cloud solution may be more difficult, although some vendors do support customization through upgrades, sometimes with vanilla vs. custom cloud programs.

• **Upgrade Schedule:** Even with no customization involved, upgrades can be a serious issue. The customer has no control over when upgrades take place. Vendors may or may not work on a fixed and predictable schedule or provide notification in advance. Large enough changes between versions can have an impact on business processes and demand some degree of retraining or at least adjustment by personnel. Depending on how the vendor handles these
considerations, the client company could find itself time and again facing periodic losses in productivity. If this is an issue, some vendors offer single-tenant models that allow a choice of upgrade schedule.

- **Security**: Field work typically involves sensitive customer data. Data and operational security are important considerations to companies. A vendor must prove that it has the wherewithal and capabilities to provide adequate security. The vendor should also provide audit results on a regular basis so that clients can decide whether their information is safe.

- **Regulatory Compliance**: Some countries and some industries require that sensitive data be protected from unauthorized access. There may also be restrictions on sending data to other geographic regions that have lesser degrees of legal protection. The cloud vendor must undertake periodic audits to demonstrate ongoing compliance with all applicable regulations and standards.

**Summary**

Mobile workforce management offers companies critical improvements in efficiency and, as a result, customer satisfaction. A cloud mobile workforce management solution deployment can significantly reduce capital and operational expenses while providing a solution on an accelerated and more flexible basis. Cloud deployment also offers companies greater flexibility in scaling a solution up or down to meet changing strategic needs and improves business continuity and disaster recovery.

A company considering a new or expanded workforce management implementation for its field force should examine both the benefits and potential limitations to determine whether a cloud mobile workforce management solution is a good fit. However, whether a company chooses a cloud or on-premises solution, it can always decide to change to the other delivery model at a later date, preserving the ultimate in flexibility and support for strategic decisions.

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ClickSoftware is the leading provider of automated workforce management and optimization solutions for every size of field service business. Our portfolio of solutions, available on-premises and through a cloud, creates business value through higher levels of productivity, customer satisfaction and operational efficiency. Our patented concept of “continuous planning and scheduling” incorporates customer-demand forecasting, long- and short-term capacity planning, shift planning, real-time service scheduling software, mobile workforce management, enterprise mobility and location-based services, as well as ongoing communication with the consumer about the expected arrival time of the service resource.

ClickSoftware cloud solutions provide the same patented ServiceOptimization Suite that creates fast and tangible business benefits for organizations all over the world. All cloud solution deployments still enjoy the same high level of product flexibility as the traditional on-premises route, meaning that the products are all configured and customized to suit the exact requirements for operating a business efficiently.

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