The Mobile Data Collection Software Buyer's Guide

How to find the best mobile solution to transform your digital supply chain.

RFgen

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Executive Overview

The age of digital transformation brings sharply increased requirements for data collection, analysis, and usage to every type of organization. It's no longer enough to know inventory totals at the end of each day. You need to understand how people, materials, and finished goods flow through your warehouse and manufacturing operations at every point in real-time. In some cases, this visibility needs to extend beyond the four walls of your operations into the field. This kind of visibility begins with efficient systems of data collection.

Automated, mobile data collection solutions help organizations capture digital supply chain data at every stage of operations, in all locations. A well-planned and well-executed mobile application development platform (MADP) can help your company:

- Improve accuracy and reduce errors
- Increase productivity
- Improve customer satisfaction
- Reduce labor costs
- Increase warehouse throughput
- Reduce inventory costs

This buyer's guide will provides you with:

1. Eight telltale signs your organization is in need of automated mobile data collection.
2. An actual Software Requirements Checklist containing a list of 22 questions to ask potential software vendors, enabling you conduct a head-to-head comparison of evaluated solutions.
3. The six things to look for in a data collection software vendor.

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8 Signs Your Organization Needs Mobile Data Collection

A mobile data collection solution can help streamline warehouse and supply chain processes and deliver powerful information that ties together all aspects of your operation. Here are eight signs that your company could benefit from implementing mobile data collection.

1. **You have inefficient, manual processes.**

   Paper-based and manual data collection processes are slow, wasteful, and error-prone. According to IDC, workers spend more than 27 hours per week searching, gathering, and analyzing information.[1] Mobile data collection delivers increased efficiency, accuracy, and productivity while at the same time reducing supply chain implementation costs.

2. **You need to increase business growth.**

   Failing to adjust for business growth—redesigning workflows, evaluating processes, and investing in technology—can have devastating consequences. Company efficiency has been significantly improved by technology, according to 70% of business executives.[2] Mobile data collection can improve overall efficiency and help prepare you to scale your operations for growth.

3. **You face increasing market pressure.**

   Slow sales and declining revenue due to pressure in your market can be signs that it's time for a change. Mobile data collection enables you to streamline your operations so you can react quickly to market shifts. For example, mobile data collection enabled a water distribution products company to cut time spent on identifying and recording scrap from 70 hours per week to 5 and let them effectively redeploy staff.[3]

4. **You have infrastructure limitations.**

   If you require data collection from remote locations or field workers where network coverage may be scarce, mobile data collection using Android or iOS devices like smartphones and tablets can arm your remote workforce with the data they need to efficiently do their jobs. That may be why 73% of SMBs plan to purchase tablets for remote work assignments in the next year.[4]

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[1] Feldman, S., et al. (March 2005). The Hidden Cost of Information Work
[2] Korn/Ferry International. (July 2005)
[3] RT Insights. (May 2017). Real-Time Data Reduces Scrap Costs at Factory.
[4] Dan Tynan. (March 2017). Biztechmagazine.com. Why Small Businesses Are Going All In on Tablet Adoption

5. **You need to leverage existing systems.**

   When integrated with enterprise resource planning (ERP) and database management systems (DBMS), a mobile data collection solutions can collect data business-wide and populate ERP and DBMS systems with real-time data.

6. **You need to remain in government compliance.**

   The Competitive Enterprise Institute estimates across-the-board federal regulatory costs at $1.902 trillion annually.[5] Mobile data collection solutions dynamically adhere with the logic and rules that exist in your back-end ERP system. This ad-hoc flexibility enables you to capture the data and establish the business workflow processes required for you to comply with legislative mandates.

7. **You need to trace products.**

   Recalls are unavoidable—58% of companies in the food, beverage, and consumer product sectors have performed one in the past five years.[6] A mobile data collection solution can keep track of lot, batch, and serial numbers, letting you rapidly identify only the affected products, their location, and their collection.

8. **You need to improve accuracy.**

   Inaccurate metrics involving orders, item availability, delivery, and customer service can lead to costly errors and lost business. A mobile data collection solution can eliminate errors commonly associated with manual, paper-based processes. It's not uncommon for organizations using a mobile data collection solution with barcodes to achieve a 99% accuracy rate.

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[5] Competitive Enterprise Institute. (May 2017). The Cost of Regulation and Intervention: Ten Thousand Commandments 2017 – Chapter 1.
[6] Grocery Manufacturers Association. (October 2011). Capturing Recall Costs: Measuring and Recovering the Losses.

Software Requirements Checklist

As you evaluate your need for a mobile data collection software solution and the vendors who provide these solutions, there are some key questions you will want to have answered to ensure you get not only a solution for your needs today, but a solution that can grow with your future needs. Below is a checklist outlining 22 key questions you should know the answers to before you make your final software selection.

Requirement	RFgen Software	Other Evaluated Solution
Is it a proven solution from a proven provider?	RFgen is a Mobile Application Development Platform (MADP) that can be used for all supply chain mobility and warehouse automation needs. It's trusted by companies in 35 countries, with over 2,800 installations globally. Thousands of hours of research and development went into the design of RFgen's ERP-specific solutions. RFgen has maintained and enhanced the same, stable platform for 20 years. There are no concerns with mobile apps having to be rewritten or changed for a new platform.	
Is the solution paperless and wireless?	RFgen eliminates paper-based processes across your operations. It also untethers employees from ERP workstations allowing them to collect data in real-time at the point of data collection, using wireless devices and mobile apps.	

Requirement	RFgen Software	Other Evaluated Solution
Does it have validated or certified integration to my ERP system?	**Enterprise Integrations** RFgen integration is currently certified or validated for: • Oracle's JD Edwards EnterpriseOne and World • Oracle E-Business Suite • Oracle SCM Cloud • SAP and SAP HANA® • SAP Business One • Deltek Costpoint **General Connectivity** In addition, RFgen can connect to any system via web services, screen mapping, and database connectivity.	
What happens when I have to upgrade my ERP system?	RFgen does not install on your ERP server and leaves no footprint on your ERP environment. Therefore, RFgen has no impact on your ERP system upgrades, saving you both time and money.	
Does the solution come with a set of pre-built mobile apps (transactions) that can easily be modified?	RFgen comes with a suite of pre-built, ready-to-use mobile apps that can easily be modified for your specific workflows. We offer the following suites and are continually adding new mobile apps to each suite: • Oracle's JD Edwards – 100+ apps • Oracle E-Business – 40+ apps • Oracle SCM Cloud – 3+ apps • SAP – 50+ apps • SAP Business One – 14+ apps • Deltek Costpoint – 20+ apps	

Requirement	RFgen Software	Other Evaluated Solution
Is the solution a reliable and flexible Mobile Application Development Platform (MADP)?	Included with RFgen is the RFgen Mobile Development Studio. This easy-to-use development environment enables you to develop unlimited new mobile apps as well as rapidly customize pre-built apps and create new workflows on an in-house basis.	
Are we able to modify or create new apps without the need for vendor assistance?	RFgen has been designed with Open Source standards, making it faster and easier for you to develop new mobile apps in the future, or customize existing transactions. Your in-house developers would be able to take advantage of drag-and-drop screen design with VBA/.NET scripting as needed.	
How easy is it to customize the apps to conform to our specific workflows?	Out in the warehouse or on the shop floor, it may not be efficient to present employees with mobile screens that reflect the same inputs, in the same order, as would appear at an ERP workstation. RFgen has been designed to be easy to customize, with 80% of common business needs built into the solution and the last 20% able to be adapted to match your specific workflows and use cases. Reorder screens, inputs, and menus to meet your needs. If you have multiple plants or locations, RFgen can meet each site's specific requirements for online and offline mobility.	

Requirement	RFgen Software	Other Evaluated Solution
What is the graphical user experience?	• Supports character and graphical environments. • ListBoxes, ComboBoxes, CheckBoxes, Images, Buttons, ListView, and Signature. • Capture prompts and message boxes provide higher efficiencies. • Smaller devices do not have full keyboard options requiring either shift keys, function key combinations or using the soft keyboard which is difficult without a stylus.	
Does the solution utilize a Native Client Architecture?	Each pre-built RFgen mobile app was developed with native client architecture, so your employees will benefit from a much richer feature set. All device capabilities are pre-integrated, so your mobile apps can take advantage of device-level functionality such as cameras, scanners, GPS, etc.	

Requirement	RFgen Software	Other Evaluated Solution
What operating systems are supported? Is the solution device agnostic or are there limits to the types of devices it will connect to?	RFgen's Mobile Unity Platform™ is a single mobile application development platform that enables you to develop mobile apps for Microsoft® Windows® Mobile, Microsoft® Windows® CE, Android™, and iOS™ operating systems. RFgen apps can be used on any type of mobile device including barcode scanners, handheld devices, tablets smartphones, wearable devices, and more. RFgen can be used on ruggedized devices, such as those used in the warehouse, route sales, or field service. It can also be used on consumer-grade devices, giving you the freedom to choose the best device-type for your needs. RFgen is IIoT enabled and can also be connected to robots, machinery, scales, monitors, and other M2M devices.	

Requirement	RFgen Software	Other Evaluated Solution
What offline capabilities are built into the solution?	Many companies operate in environments that do not feature always-on Internet connectivity. Whether you support remote warehouses, oil platforms, route sales, or field service, RFgen allows you to collect data in several different modes: • **Wireless:** Provides immediate visibility of all activities within the supply chain with mobile app updates handled in real-time. • **High Availability (offline ERP mode):** Supports roaming, occasionally-connected data collection using on-demand cellular/Wi-Fi connectivity to your ERP. • **Mobile (offline device mode):** Supports fully disconnected scenarios where data is pre-loaded on the wireless device, remote activities are validated locally and transactions are exchanged with your ERP at various intervals via batch processes.	

Requirement	RFgen Software	Other Evaluated Solution
Does the solution have any other capabilities that we can leverage to increase efficiency?	Supply chain accelerators are mobile data collection solutions that enable you to take your supply chain to the next level of visibility, accuracy, efficiency, and productivity. RFgen offers several accelerators: • **License Plating:** Intelligently manage a group of items as a single unit to improve the efficiency of warehouse operations and streamline the transfer of inventory within your supply chain as well as shipments to customers. • **Voice Picking:** Voice-enabling your warehouse or distribution center improves productivity, increases accuracy and reduces both costs and learning curves. • **WMS-Lite:** Increase warehouse throughput and reduce costs by optimizing pick paths and efficiently guiding employees through the warehouse.	
What barcode label software options are available?	RFgen supports virtually any enterprise label software available on the market.	
Are there user management capabilities?	Yes. The admin can see and/or interact with any online RFgen session. They can monitor, message, suspend, or terminate the session of one or all users.	

Requirement	RFgen Software	Other Evaluated Solution
How fast can we implement the solution and get up and running?	Implementation speed can have a big impact on the ROI of a mobile data collection project. RFgen was designed to be highly flexible and adaptable. It's typically deployed at an initial company site in 6-8 weeks and then rolled out to other locations at a rate of one site every two weeks thereafter. This leads to a much more rapid ROI.	
What are our deployment options?	RFgen can be deployed on-premise or in the Cloud as a SaaS solution.	
Are there any long-term cost savings?	Drag-and-drop speeds with VBA/.NET skills are significantly less expensive.	
What kind of training is available?	RFgen offers classroom and online training. It typically takes 2-3 days for a developer to learn how to create mobile apps using RFgen.	
Required developer skills?	Drag-and-drop screen design with VBA/.NET scripting as needed.	
What kind of technical support is available?	An annual RFgen Software Maintenance Plan includes: • 24/7 telephone support with skilled and experienced RFgen product experts. • Unlimited access to RFgen's self-service customer support portal(s) and knowledgebase. • Access to the latest version, product upgrades, enhancements, and new capabilities. • Access to a suite of certified, enterprise ready mobile apps. • No cost system health checks and upgrade assistance.	

Requirement	RFgen Software	Other Evaluated Solution
Are professional services available?	Yes. The RFgen professional services team is a seasoned team of professionals with ERP-specific integration, mobile technology, supply chain, and industry experience. The RFgen product was built so that you could easily develop mobile apps in-house, leverage the RFgen professional services team or a combination of both.	

For more details about RFgen's pre-built apps for your specific ERP system, please visit our website at www.RFgen.com.

What to Look for in a Solution Provider

Look for the following requirements when seeking a partner to help you achieve your business objectives with mobile data collection.

1. **Industry experience**

    Your solution provider should have extensive supply chain operations, mobile data collection, and warehouse automation experience for businesses similar to yours. Seek a company with extensive experience that has served a diverse customer base and will provide customer references. Speaking with existing customers—especially those in your industry—provides rare information that can be useful during project planning.

2. **Minimal impact on existing systems**

    Seek a solution that can be implemented with minimal disruption and configuration to existing systems. This will reduce the need to change current business processes and business systems. Be aware of the impact the solution you choose will have on your ERP environment.

3. **System integration expertise**

    Look for a company that specializes in integrating its solution into existing infrastructure. If you have an ERP system, make sure that members of your solution provider's development team have deep ERP-specific knowledge.

4. **Global reach and local touch**

    The solution you choose should be backed by a company that can provide support around the world for your global operations. At the same time, you'll want a provider who is willing to come on site to meet with you, learn about your business operations and help you plan an effective mobile apps strategy.

5. **Extensive support**

    Consulting, implementation, training, and software support should all be elements that the solution provider should offer and include with the estimate.

6. **Strategic relationships**

   Work with a provider that is aware of and understands the range of technologies that are currently available. The solution provider should offer the best mix of products from various vendors. This includes hardware devices such as barcode scanners and label printers as well as software systems such as label creation and voice recognition.

Conclusion

As your company pursues digital transformation to compete in the future industrial world, you will need solutions that help you collect data quickly and efficiently and exchange it in real-time with a centralized system of record, such as your ERP. Automated mobile data collection solutions enable companies to eliminate slow, error-prone, paper-based processes, and instead empower workers to capture data instantly from barcodes or RFID.

The right mobile data collection solution for your business will be one that offers a rapid return on investment through easy customization and quick deployment. RFgen provides pre-built mobile data collection apps that feature certified or validated integration to all major ERP systems, along with the flexibility to adapt mobile apps to match your workflows and business processes.

RFgen Software—The Data Collection Experts

RFgen Software helps organizations reduce supply chain implementation costs and increase accuracy and efficiency with the industry's most reliable and flexible mobile data collection and digital supply chain solutions.

Enabling you to mobilize critical warehouse and supply chain workflows, your mobile workforce has real-time and on-demand access to enterprise data. RFgen's mobile data collection solutions easily connect Windows, Android and iOS mobile devices like barcode scanners, tablets, handheld computers, RFID, wearable devices, and more to your back office ERP systems and databases, including Oracle's JD Edwards, Oracle E-Business Suite, Oracle SCM Cloud, SAP, SAP Business One, Deltek Costpoint, and more.

Offering on-premise, cloud, connected, and disconnected solutions, RFgen enables you to connect your ERP system to any mobile device, machine or monitor. The RFgen Mobile Development Studio, coupled with a suite of dozens of pre-built mobile applications, gives you the ability to implement mobile data collection in a matter of weeks, not months.

Whether you are looking for solutions to automate your warehouse and better manage your inventory, comply with government regulations, ensure 24/7 warehouse operations, track and trace your products, voice-enable your warehouse, or manage your remote inventory, RFgen is the smart choice.

To learn more, please call us at 888-426-2286, or visit our website at: www.RFgen.com.

Reduce supply chain implementation costs with RFgen Software— one of the industry's most reliable and flexible mobile data collection solutions on the market today.

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