Motorola Solutions and SAP®:
Extend the value of your investments in SAP software with mobile apps

MOTOROLA SOLUTIONS | **SAP**

THE CHALLENGE:

Improving efficiency and accuracy throughout your manufacturing operations

Your manufacturing operations are dependent upon the information in your SAP® solutions — and the efficiency of your operations is tied to the availability of that data at the point of work. When the data your workforce needs is trapped inside a "wired-only" SAP solution, workers must take additional steps to obtain the data they need to get the task at hand done. For example, handwritten data collected on paper forms must be entered into a computer, requiring the data to be "touched" twice, introducing more opportunities for errors as data may be handwritten or entered into the computer incorrectly. In addition, since data is trapped in desktop computers, workers may need to locate a computer to obtain information required for decision-making. These "choke points" impede the flow of information throughout your operations, increasing cycle times and errors that can erode productivity, margins and your competitive edge.

THE SOLUTION:

Improve productivity and agility with real-time mobile connections to your SAP software

Motorola and SAP have partnered together to make it easy for you to leverage the data from your SAP solutions to streamline every aspect of your manufacturing operation, from production and fulfillment to field sales and field service. Regardless of platform, you can deliver your valuable data right to the fingertips of all your mobile workers on their Motorola Solutions handheld mobile devices, vehicle mount or wearable mobile computer.

Now, the data you already have is better utilized, allowing you to get more value out of your existing investments in SAP software. Whether your SAP solutions are serving your production line workers, warehouse workforce, maintenance engineers, field sales or field service teams, with a real-time connection between your workers and your data, the results are the same: increased productivity, increased product quality, better customer service and a sharper competitive edge.

END-TO-END ENTERPRISE MOBILITY IN MANUFACTURING:

From the plant and the warehouse to the field

There is a ready-to-deploy mobile application from SAP and a rugged device from Motorola Solutions that are ideal for every environment, worker and workflow in your business.

INTELLIGENT PRODUCTION

Your manufacturing processes are like networks: the more connected they are, the more effective they are. With Motorola Solutions and mobile apps from SAP, you connect your workforce, the machines they operate, and the materials they process in real time. The result? Faster and more accurate production.

Applications	Motorola Mobile Computers	
SAP® WORK MANAGER MOBILE APP http://www54.sap.com/pc/tech/mobile/software/lob-apps/work-manager-app/index.html With the SAP® Work Manager mobile app running on Motorola mobile devices, your workforce will have everything it requires to keep up and running the broad range of physical assets you need to do business — regardless of whether those assets are inside your four walls, outdoors in an expansive campus style facility or out in the field. Electronic work orders are always delivered promptly to ensure timely maintenance. The information workers need to safely and efficiently install, inspect, maintain and repair your assets in the field is just a few keystrokes away on a rugged mobile computer or tablet. Workers can access work order details, repair history, required permits, approvals, parts and tools; complete safety checks; verify that safe work practices are executed; and capture time, parts and materials. In addition, work orders can be dynamically prioritized to ensure emergency repairs are executed as quickly as possible. As a result, costly unplanned downtime is minimized; workforce productivity increases; and asset lifecycle and return on asset (ROA) are improved.	**Wi-Fi Handheld:** MC75A0 MC3100 MC9190-G **Tablet:** ET1	**Cellular/ Wi-Fi Handheld:** ES400 MC65/67 MC75A MC9500 TC55 Workabout Pro 3 EP10
SAP® ROUNDS MANAGER http://www.sap.com/solutions/technology/enterprise-mobility/manufacturing-apps/rounds-manager-app/index.epx For manufacturers with expansive facilities, such as those found in the Oil and Gas industry, the SAP® Rounds Manager mobile app improves the efficiency and accuracy of routine condition monitoring with the real-time capture and transmission of meter readings and other points of measurement. Measurements can be immediately compared to historical standards and safe ranges so any anomalies are instantly visible. Users can take immediate action by generating work orders and notifications on the spot when they find a potential problem, helping avoid emergency situations and outages.	**Wi-Fi Handheld:** MC75A0 MC3100 MC9190	**Cellular/ Wi-Fi Handheld:** MC65/MC67 MC75 Series MC9500 Workabout Pro 3
SAP® MANUFACTURING EXECUTION APPLICATION http://www54.sap.com/solution/lob/manufacturing/software/execution/index.html To achieve the ultimate goal of running the "perfect plant," you need 360-degree visibility into all aspects of your manufacturing operations. With SAP software, you gain the visibility to optimize manufacturing asset utilization and increase production performance. Distributed enterprises face disconnects between crucial manufacturing processes and data that slow production, decrease quality and reduce profits. For instance, a typical manufacturing plant may run between 10 and 50 shop-floor automation (SFA) systems, while a multisite manufacturer may have between 40 and 700 SFA systems across the enterprise. With the SAP Manufacturing Execution application, you can better address the challenges caused by disparities of solutions and data, align and improve key performance indicators, and drive real value for your operations. SAP Manufacturing Execution provides a means for managing and controlling shop floor and manufacturing operations. The application integrates shop floor to top floor processes, including shop-floor execution and reporting, traceability, labor management, production transfer, return and complaint management, and testing and repair operations. The result is improved quality and delivery performance, resulting in reduced costs. The production process is visible in real time. Manufacturing quality, speed and flexibility are elevated. Workers have the real-time information they need to make better decisions in order to optimize shop-floor execution.	**Wi-Fi Handheld:** MC9190	**Cellular/ Wi-Fi Handheld:** MC9500

FLAWLESS FULFILLMENT

The more visibility you have, the faster you can turn inventory into revenue. Your success depends heavily on your ability to deliver the right goods at the right time. When you give workers in your warehouses and distribution centers mobile access to data from SAP® software in real time, the result is flawless fulfillment, satisfied customers, and high customer retention rates.

Applications	Motorola Mobile Computers	
SAP® INVENTORY MANAGER FOR MAXIMO® MOBILE APP **http://www.sap.com/mobile/inventory** If you use the SAP® ERP application, the SAP Inventory Manager mobile app is a complete mobile inventory management solution that extends data from SAP ERP right to the point of work. This application enables precise tracking and paperless management of inventory throughout the organization. Your team can be confident they have the mission-critical parts, tools, and materials they need to get the job done. You can speed up cycle counts, transfers, issues, and receipts and keep a handle on your carrying costs. Benefits include increased productivity, lower costs, a streamlined supply chain and improved customer service.	**Wi-Fi Handheld:** MC3100 **Gun-style:** MC9190-G MC9200 Omnii XT15 Workabout Pro 3 MC9190-Z RFID	**Vehicle Mount:** VC70N0 VH10 VC6090 VC5090 **Tablet:** ET1
SAP® EXTENDED WAREHOUSE MANAGEMENT (SAP EWM) APPLICATION **http://www.sap.com/lines-of-business/scm/extended-warehouse-management/index.epx** Choosing to use the SAP Extended Warehouse Management (SAP EWM) application to manage your warehouse operations opens up the option for you to extend it with mobile technology from Motorola Solutions. This means warehouse workers can access the real-time data required to improve efficiency and accuracy in end-to-end warehouse processes — from receipt to shipping of goods. Paperless task orders are delivered right to the hands of warehouse workers on Motorola Solutions handheld devices and vehicle-mount rugged mobile computers designed for everyday operation in warehouse aisles, the freezer, out in the yard and on the dock in rain, snow, cold, and heat. With advanced data capture functions, such as bar code scanning, workers can process work orders faster and more accurately than ever. Benefits include increased worker productivity, allowing you to contain staffing costs yet increase throughput in the warehouse. In addition, real-time inventory visibility reduces costly out-of-stocks; inventory is more readily available; orders are accurate and shipped on time to the right person; and customer satisfaction and retention are increased.	**Wi-Fi Handheld:** MC3100 MC40 **Gun-style:** MC3100 MC9190-G MC9200 Omnii XT15 Workabout Pro 3 MC9190-Z RFID	**Wearables:** WT41N0 Series **Vehicle Mount:** VC70N0 VH10 VC6090 VC5090 8525 G2 **Tablet:** ET1

A leading consumer packaged goods manufacturer with numerous world-famous brands gave its maintenance engineers mobile access to needed data from SAP solutions on a Motorola Solutions MC55 mobile computer. **The result: the number of work orders the workforce could handle on a daily basis doubled, dramatically reducing labor costs.**
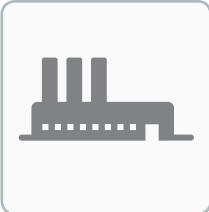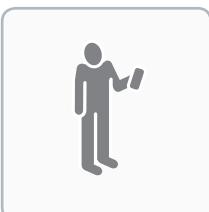
DYNAMIC SERVICE

From your customer's point of view, service is the sum total of all your efforts. With real-time access to data from your SAP® solutions, your field sales and service workforce can deliver a higher level of service at a lower cost per interaction — anywhere and anytime. This is because they are connected to one another, to your supply chain, and to your customers.

Applications	Motorola Mobile Computers	
SAP® CRM SERVICE MANAGER MOBILE APP **http://www.sap.com/mobile/service** With the SAP® CRM Service Manager mobile app, the information field technicians need to execute their service calls efficiently and effectively is always in the palms of their hands. With a handheld mobile device or tablet, field technicians can view the information in your SAP software back in the office in real time, such as customer and contact details, service history, and entitlements. And the information this workforce collects in the field is immediately available in the SAP software. Benefits include faster service, increased customer satisfaction and retention, increased productivity, lower service costs and higher service margins.	**Cellular/ Wi-Fi Handheld:** MC45 MC65/MC67 MC9500 EP10	**Tablet:** ET1
SAP® WORK MANAGER MOBILE APP **http://www54.sap.com/pc/tech/mobile/software/lob-apps/work-manager-app/index.html** With the SAP Work Manager mobile app running on Motorola mobile devices, your workforce will have everything needed to service your customer's equipment on time, every time. Electronic work orders that can be dynamically prioritized are delivered to the Motorola handheld device. This ensures timely appointments that are always in compliance with service agreements, plus increased route efficiencies that help reduce mileage and fuel costs. Workers have real-time access to work order details, repair history, standard maintenance, parts, tools and more. In addition, time, parts and materials used on the job are easily captured. And with real-time visibility into what is happening on the job, managers can ensure that proper repair practices are executed. In addition, work orders can be dynamically prioritized to ensure emergency repairs are executed as quickly as possible. As a result, workforce productivity increases and technicians can handle more work orders per day.	**Wi-Fi Handheld:** MC40 MC75A0 MC3100 MC9190-G MC9200 Omnii XT15	**Cellular/Wi-Fi Handheld:** ES400 TC55 MC65/67 MC75A MC9500 EP10 **Tablet:** ET1
SAP® RETAIL EXECUTION MOBILE APP (CONSUMER PACKAGED GOODS/CPG AND CPG MERCHANDISING) **http://www.sap.com/mobile/retailexecution** With the SAP Retail Execution mobile app running on a Motorola Solutions mobile computer or tablet, merchandisers have everything they need to conduct visits as efficiently as possible. Access to information residing in the SAP Customer Relationship Management (SAP CRM) application or the SAP ERP application in servers at company headquarters is combined with advanced data capture options. This allows merchandisers to perform activities that provide instant insight into store performance and planogram compliance. Benefits include control of brand positioning and promotions at the point of purchase, and greater insights into competitive tactics in play on the shelf and in the aisle. As a result, managers have the information they need to take instant action to protect sales, the company brand and the success of promotional programs.	**Cellular/ Wi-Fi Handheld:** TC55 MC45 MC65/MC67 MC75 MC9500	**Tablet:** ET1

When a global industrial equipment manufacturer gave their field service engineers access to data from SAP software on a Motorola Solutions mobile computer, customer satisfaction substantially increased. With instant data access, engineers are now able to resolve service calls quickly, on the first visit, **eliminating the high cost of unplanned equipment downtime.**

How will extending the data in your SAP® solutions to mobile workers improve your operations?

When you give mobile workers access to your SAP® software with Motorola Solutions mobile technologies, you can improve your end-to-end operations.

SAP APPS		DEVICES	BENEFITS
INTELLIGENT PRODUCTION	**PLANT** *SAP® Work Manager* *SAP® Rounds Manager* *SAP® Manufacturing Execution*	MC65/67 ET1 MC75 Series ES400 MC9190 TC55 MC9500 MC65/67 MC3100 MC75A MC9190-G MC9500 Workabout Pro 3 EP10	• Increase asset uptime • Enhance product quality • Achieve cost-effective track and trace • Achieve cost-effective compliance with government regulations
INTELLIGENT PRODUCTION	**WAREHOUSE** *SAP® Inventory Manager for Maximo®* *SAP® Extended Warehouse Management (SAP EWM)*	MC3100 MC9200 MC40 VC70N0 MC9190-G VH10 Omnii XT15 VC6090 MC9190-Z RFID VC5090 Workabout Pro 3 8525 G2 WT41N0 Series ET1	• Increase throughput • Increase task accuracy • Increase inventory turns • Reduce order-to-cash cycle • Improve cashflow
DYNAMIC SERVICE	**FIELD SERVICE** *SAP® CRM Service Manager* *SAP® Work Manager*	ES400 TC55 ET1 MC40 MC65/MC67 MC45 MC3100 MC75A MC9190-G MC75A0 MC9200 MC9500 Omnii XT15 EP10	• Improve time-to-fix • Improve productivity • Improve customer satisfaction • Increase sales
	FIELD SALES *SAP® CRM Service Manager* *SAP® Retail Execution*	ES400 TC55 ET1 MC40 MC65/MC67 MC45 MC3100 MC75A MC9190-G MC75A0 MC9200 MC9500 Omnii XT15 EP10	• Improve customer service • Ensure brand compliance • Improve performance of promotional programs • Protect competitive advantage

WHY CHOOSE MOTOROLA TO MOBILIZE YOUR SAP APPLICATIONS?

Motorola and SAP have worked together for over 10 years to improve productivity and reduce costs for manufacturers of all types all around the world. The alliance is a natural one. SAP is a market leader in enterprise application software. Motorola Solutions is the market leader in enterprise mobile devices designed to operate within the demanding environments where manufacturers get work done – in their plants, warehouses, and out in the field. Together, we bring you the peace of mind that can only come from choosing proven and reliable mobile technologies.

SAP is recognized as the number one global market leader in business analytics software and in providing real-time access to those business analytics functions through mobile apps from SAP.

MOTOROLA SOLUTIONS is recognized globally for its superior mobile and wireless technologies, which have earned the company number one global market share in mobile computing, bar code scanning technology and radio-frequency identification (RFID) technology. Motorola offers the broadest portfolio of rugged and durable mobile devices, allowing manufacturers to choose the right device for each worker and each application. The devices range from handheld, gun-style, wearable and vehicle-mount mobile computers to tablets and enterprise smartphones.

To improve operational efficiency and grow economies of scale, agility, and quality in your manufacturing operations, extend the reach of the data in your SAP solutions with Motorola Solutions mobile computers.

FOR MORE INFORMATION, VISIT OR CALL:
www.motorolasolutions.com/manufacturing
1.866.416.8545
sapteam@motorolasolutions.com
www.sap.com/mobile
1.866.727.1489