ORACLE MOBILE SUPPLY CHAIN APPLICATIONS

KEY FEATURES

• Real-time, RF-based, device-agnostic mobile transaction user interfaces
• Reduced data entry errors through label printing and barcode scanning
• Support for transactions and inquiries in receiving, inventory, shipping, discrete manufacturing & quality, process manufacturing, and maintenance
• Character and graphical mobile user interface
• Mobile personalization to change field labels, action labels, hide fields, default fields, make fields required, etc.
• Robust barcode formats supported including 2D, concatenated barcodes, and out-of-order scanning
• Print & Scan industry standard product barcodes: EAN-8, EAN-13, UPC, EAN/UCC-14

Oracle® Mobile Supply Chain Applications (MSCA) enables automated mobile user operations. This is performed using handheld radio frequency (RF) devices and lift truck mounted RF scanners. The usage of mobile devices results in improved data accuracy and increased mobility and convenience thereby streamlining movement and reducing human errors. Oracle MSCA is part of the Oracle Value Chain Management solution, the integrated suite that streamlines design, planning, manufacturing and fulfillment.

With Oracle Mobile Supply Chain Applications you can:
• Improve Inventory Accuracy
• Improve Labor Productivity
• Support Mobile Execution of Distribution, Manufacturing, and Maintenance Processes

Oracle MSCA is device agnostic when it comes to interface rendering and layout. This is an important capability given that a company may have multiple devices to support and upgrade to. Character and GUI based rendering is also supported on any PC or handheld that can run a standard Telnet client. Oracle has leveraged standard Internet technologies such as Java, XML, TCP/IP and Telnet to create a device independent technology platform to support these types of applications. In general, these mobile devices will be connected to the network using the radio frequency (RF) standard of 802.11b (11 mbs) and will communicate using TCP/IP.
The application logic runs on a Java based middle tier and in the database - eliminating any application code on the device and permitting a wide variety of mobile RF devices from multiple vendors to be used, even concurrently. In addition, the application can run on any PC or handheld that can run a standard Telnet client. The architecture also supports all the standard barcode encoding formats, including 2D, and embedded data field identifiers.

**Improve Inventory Accuracy**

**Reduce Data Entry Errors with Bar-Code scanning**

Using bar code scanning to record transaction data instead of manual data entry improves data accuracy and reduces data entry time. Mobile devices increase productivity through reduced data entry efforts, reduced data capture activities, streamlined user time-motion efforts, enables process automation, which increases throughput and decreases cycle-times.

**Improve Transaction Accuracy with Real-Time Data Validation**

Inventory accuracy is improved two-fold through the reduction in data entry errors as well as the capability to identify inventory inaccuracies faster. Inventory accuracy techniques such as cycle counting are more efficient when performed with real-time information. The benefits of improved inventory accuracy include improved customer satisfaction through higher fill rates and guaranteed delivery, and improved supply chain planning to optimize production and distribution plans.

**Reduce Latency using Mobile Devices**

Mobile devices allow users to enter transactions and perform queries in real-time at the point of use. Transaction validation takes place online, identifying invalid data immediately. Real-time inventory information improves quality of supply chain collaboration, enables more accurate guaranteeing of customer orders, and optimizes manufacturing and warehouse scheduling of activities and resources. Users have access to current and accurate information for resolution of exceptions.

![Figure 2: Receiving and Manufacturing mobile RF-based user interfaces.](image-url)
Increase Labor Productivity

Accelerate Data Entry using Mobile Devices
In combination with bar code scanning, data entry using mobile applications enables for a more efficient usage of time, improved time-motion, and an ability to perform validation and corrections online and real time. The user also has access to more information, such as inventory availability, process exceptions and alerts without having to change stations or work location. Users may complete distribution, manufacturing and quality transactions from anywhere inside or outside the plant. One mobile device can replace several desktop PCs. Mobile devices may be assigned to users—significantly reducing dependencies on bulky desktop PCs.

Simplify Transaction Entry with Mobile User Interface
Oracle MSCA allows users to tailor what they want to view; how they want to view it; and what information is required to complete a transaction. Oracle MSCA also allows the mobile forms to be tailored to each user and specified task (e.g. picking, cycle counting, shipping,…). Also, continuous improvements efforts can be incorporated into mobile user interface to reflect efficiency improvements. This simplifies the data entry requirements by task and work profile.

Reduce Travel Time with Automatic Label Generation
Oracle MSCA also has the capability to trigger printing of labels from the mobile console or through an action on the console which completes a business event. This further optimizes the minimum travel criteria used for task management within warehouses, factories. For outbound operations all the necessary shipping information is also gathered and also printed, if assemble to order or flow manufacturing business processes are used.

Support Mobile Execution of Distribution, Manufacturing, and Maintenance Processes
Because Oracle MSCA is built in to the Oracle E-Business Suite, it leverages the business processes already established in Oracle Receiving, Inventory Management, Shipping Execution, Discrete Manufacturing and Quality, Oracle Process Manufacturing, and Enterprise Asset Maintenance. Oracle MSCA provides an alternate, execution-based user interface but does not add further complexity or overhead to those processes. Therefore, upon hardware and labeling implementation, users can have a choice of user interface in which to perform their transactions. Oracle MSCA offers an alternative user interface for all core supply chain execution functions

Inbound Logistics
Oracle MSCA provides execution based mobile user interfaces to receive purchase orders, RMAs, internal requisitions and in-transit shipments. Automatic label generation can be initiated at receipt as required. Shortage messages can be presented to receivers to enable opportunistic cross docking as determined in Oracle Inventory. Oracle MSCA updates Oracle Receiving and Inventory in real-time with the receipt status. Oracle MSCA provides inspection and delivery transactions to complete the inbound logistics flow.

Inventory Control
Oracle MSCA provides inventory balance inquiries, adjustments (miscellaneous transactions), cycle counting, physical inventory, replenishment (kanban, PAR
counting and min-max based), inter and intra organization transfers and other commonly used inventory functions. Oracle MSCA allows data capture of lots, serials, revisions and other inventory attributes as required.

**Mixed Mode Manufacturing**
Oracle MSCA provides execution for both Oracle Discrete Manufacturing and Oracle Process Manufacturing. Discrete Manufacturing users can perform job status inquiries, material transactions, resource transactions, scrap and job completions. Process manufacturing users can perform batch allocations, material transactions, and resource transactions. Component/Raw Ingredient picking is provided in both manufacturing modes.

**Asset Maintenance**
Oracle MSCA provides material transactions for maintenance work orders created in Oracle Enterprise Asset Management (EAM) or Oracle Complex Maintenance, Repair and Overhaul (CMRO), enabling use of mobile, RF based data entry in repair facilities where mobility is required.

**Order Fulfillment**
Oracle MSCA provides order picking, labeling and shipping support for Orders created in Oracle Order Management. As orders are picked and shipped in Oracle MSCA, real time updates are provided to Oracle Inventory, Shipping Execution and Order Management.

**Conclusion**
Oracle Mobile Supply Chain Applications provides a rapidly deployable supply chain execution solution that enables real-time, mobile data entry option to reduce latency, increase data entry accuracy and increase user productivity wherever materials management transactions are performed. It is the right-sized solution for stock rooms, distribution centers, manufacturing plants, and service depots where mobility is desirable but a full-blown warehouse management system is not required.

**Oracle E-Business Suite—The Complete Solution**
Oracle E-Business Suite enables companies to efficiently manage customer processes, manufacture products, ship orders, collect payments, and more—all from applications that are built on unified information architecture. This information architecture provides a single definition of your customers, suppliers, employees, and products—all important aspects of your business. Whether you implement one module or the entire Suite, Oracle E-Business Suite enables you to share unified information across the enterprise so you can make smarter decisions with better information.