



Integrating Mobile and Wireless Devices with Oracle Supply Chain

January 17, 2008



ORACLE®

RedLine Solutions

- **10 Year Old, Financially Stable, Santa Clara HQ**
- **Bar Code & RFID Specialist**
- **Leading Data Collection Integrator for Oracle WMS and MSCA**
- **Work with Fortune 1000 to Starts Up Companies**
- **Customer Installations Worldwide**
 - **Over 30 Sites Installed with Oracle/Symbol**
 - **Trained Internal Teams**
 - **Providing Ongoing Support of Installed Clients**
- **Strong Reputation for Outstanding Customer Service**

Oracle 11i

- **Oracle 11i WMS/MSCA Implementations**
 - ✓ **Long History with Oracle, Symbol, and Zebra**
 - ✓ **Typically Customers are Larger with Multiple Sites**
 - ✓ **Strong Installed Reference Base**

Agilent Technologies

Greenball Corporation

Herbalife

Millapore

SGI

Stryker Endoscopy

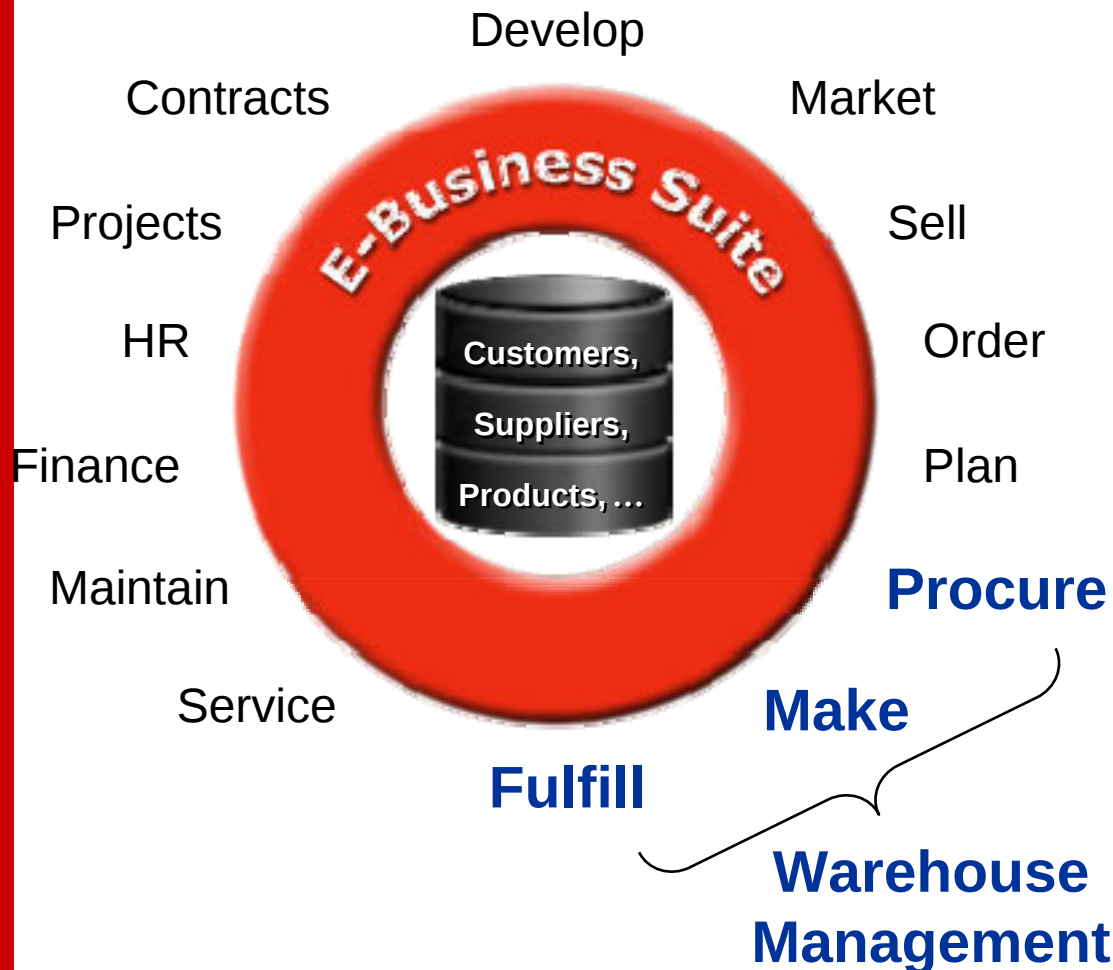


Strategic Partners



Foundation:

Unified Information Architecture

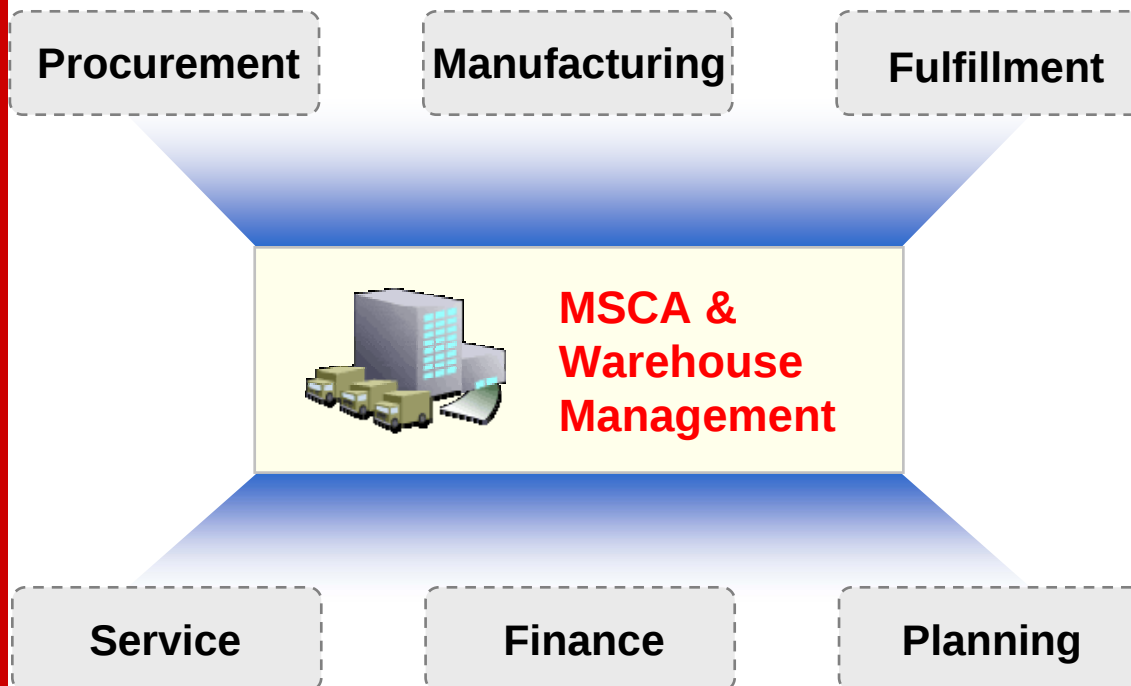


- Common data model enables a single source of truth
- Comprehensive suite of applications designed to work together
- Robust set of integration services based on open standards
- Modular deployment by business flow
- Single global instance implementations



Support for the Integrated Enterprise

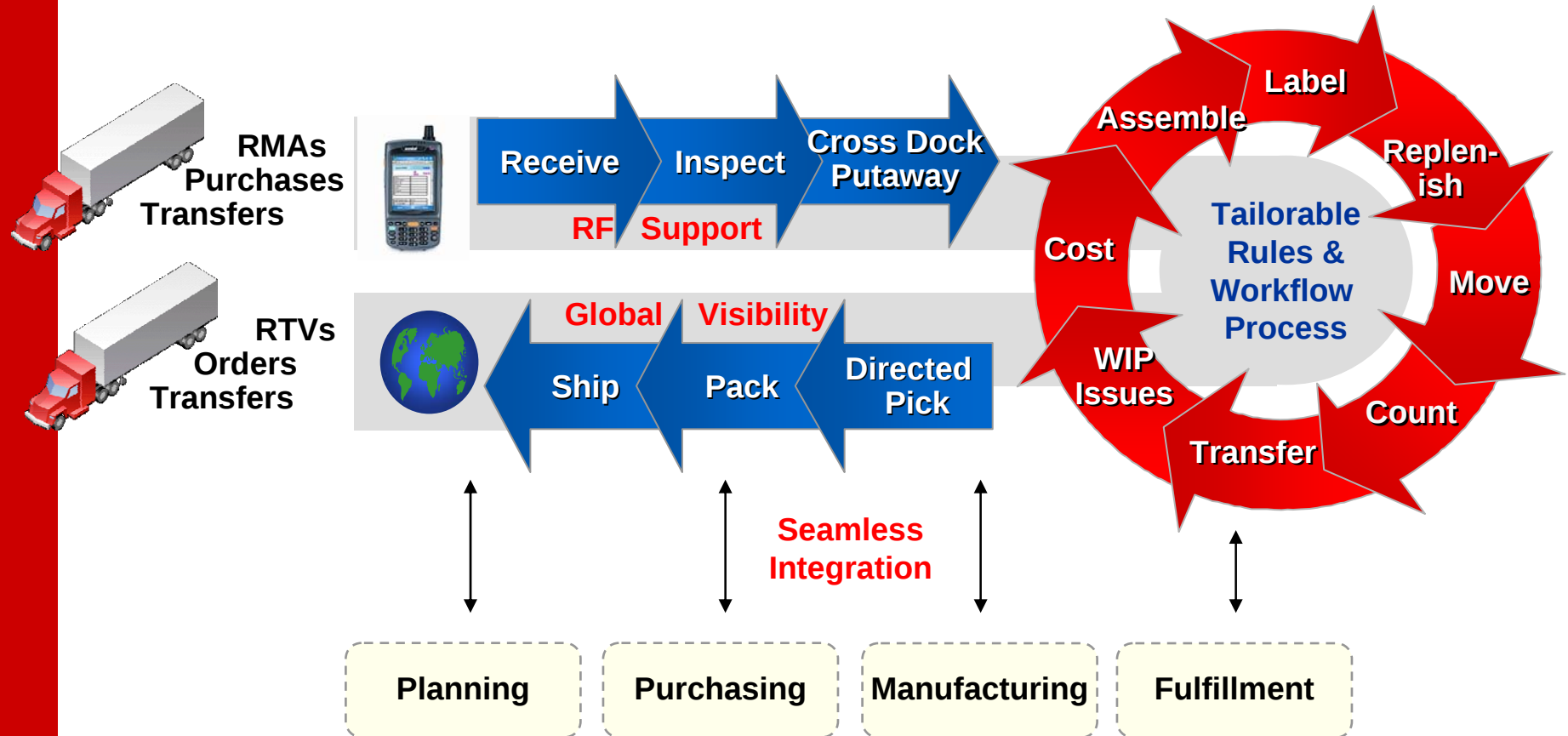
Built-In, Not Bolt-On Functionality



- Eliminate Integration
- Reduce Cost and Complexity
- Reduce Risk and Upgrade Issues
- Eliminate Problems with Reconciliation
- Simplify Support

Oracle Warehouse Management Solution

...or Provide a Complete Warehouse Execution System



Oracle Mobile Supply Chain Apps (MSCA)

Support Basic Warehousing Needs...

Built-in Mobile User Interface

Mobile Manufacturing

Moves, Issues, Returns,
Scrap, Completions, ...

Mobile Quality

Quality Collections,
Specifications, ...

Mobile Receiving

Direct, Std, Inspect,
Cross-Dock, Print, ...

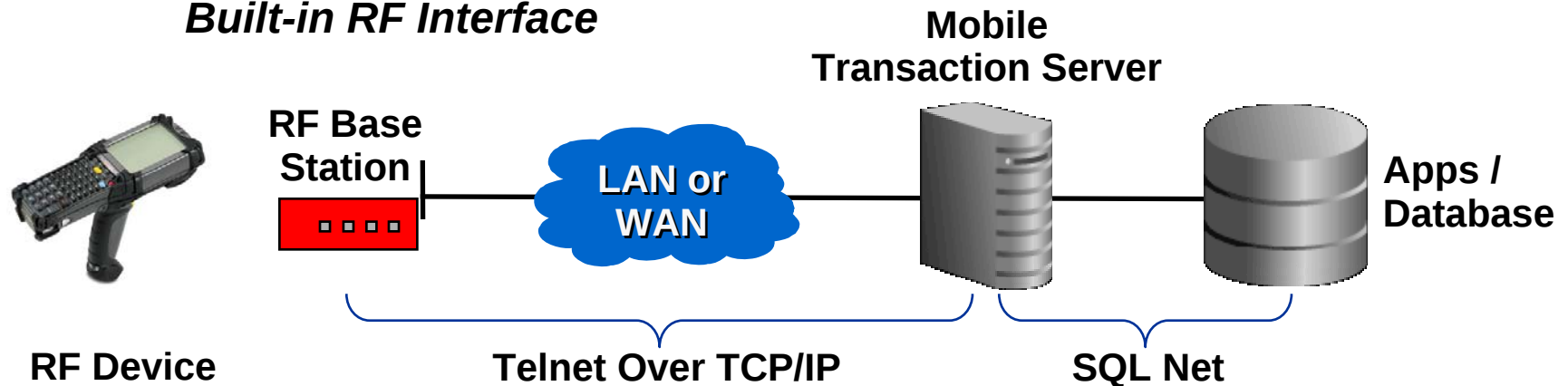
Mobile Inventory

Misc. Transactions,
Transfers, Counts, ...

Mobile Shipping

Pick, Confirm, Ship,
Confirm, Print, ...

Built-in RF Interface



Symbol Mobile Terminals

CE Based

PDT9090 G, K, S



MC3000



Vehicle-Mount

VRC5090





Durability Specs

- 6 foot drop to concrete
 - Operating:
 - Color (-10° to 50° C)
 - Mono (-25° to 50° C)
- IP64 sealing
- 2000 one-meter tumbles



Wireless Device Management

Provides Central Console for Device Management

Insures devices have

- Same Configuration

- Same Programs

- Configured for network

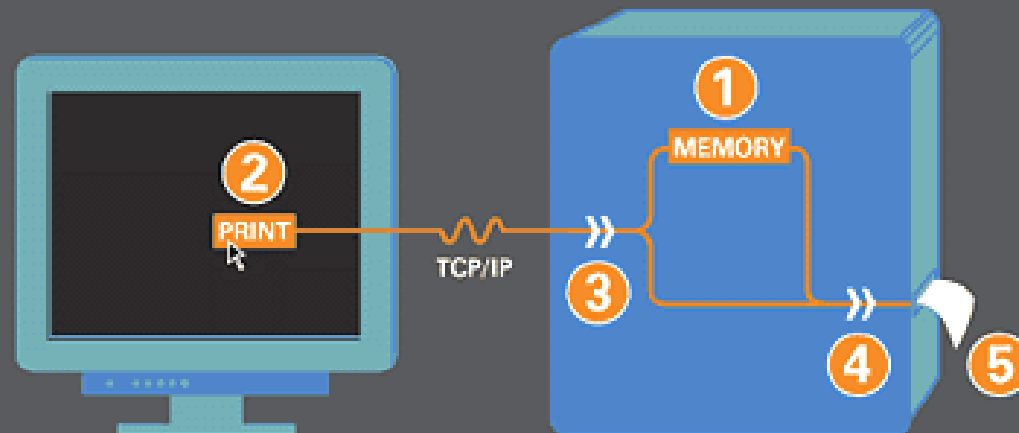


Wireless Terminals



Zebra XML Printers for Oracle

Zebra® XML-enabled printers create a direct connection with many of today's leading ERP systems.



ERP HOST COMPUTER

XML-ENABLED ZEBRA PRINTER

- 1 XML-enabled ZPL format is stored in printer's memory.
- 2 Host send XML print job to printer over network via TCP/IP.
- 3 XML print job data stream is parsed for label format name, label quantity and variable field data.
- 4 Printer recalls stored XML-enabled label format and applies variable field data.
- 5 Label is printed upon detection of 'end label' within XML data stream.





Seamless Integration

Document Type Definition (DTD)

```
<!ELEMENT labels (label)*>
<!ATTLIST labels _FORMAT CDATA #IMPLIED>
<!ATTLIST labels _JOBNAME CDATA #IMPLIED>
<!ATTLIST labels _QUANTITY CDATA #IMPLIED>
<!ATTLIST labels _DUPLICATES CDATA #IMPLIED>
<!ATTLIST labels _PAGES CDATA #IMPLIED>
<!ATTLIST labels _PRINTERNUMBER CDATA
#IMPLIED>
<!ATTLIST labels _PRINTERNAME CDATA
#IMPLIED>

<!ELEMENT label (variable)*>
<!ATTLIST label _FORMAT CDATA #IMPLIED>
<!ATTLIST label _JOBNAME CDATA #IMPLIED>
<!ATTLIST label _QUANTITY CDATA #IMPLIED>
<!ATTLIST label _DUPLICATES CDATA #IMPLIED>
<!ATTLIST label _PAGES CDATA #IMPLIED>
<!ATTLIST label _PRINTERNUMBER CDATA
#IMPLIED>
<!ATTLIST label _PRINTERNAME CDATA #IMPLIED>

<!ELEMENT variable (#PCDATA)>
<!ATTLIST variable name CDATA #IMPLIED>
```

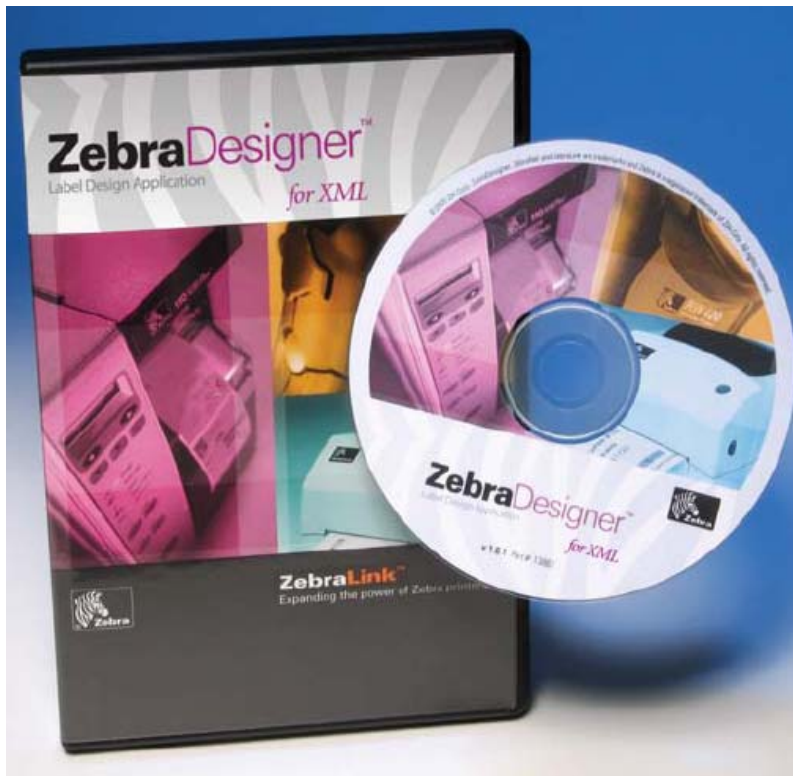
XML data stream

```
<?xml version="1.0" standalone="no"?>
<!DOCTYPE labels SYSTEM "label.dtd">
<labels _FORMAT="E:SERIAL.ZPL" _QUANTITY="1"
_PRINTERNAME="Printer 1" _JOBNAME="LBL101">
  <label>
    <variable
name="organization">611</variable>
    <variable name="item">Nuts</variable>
    <variable name="lot">1234</variable>
    <variable
name="serial_number">12345</variable>
    <variable name="revision">V2</variable>
    <variable
name="lot_status">1234</variable>
    <variable
name="serial_number_status">Active</variable>
  </label>
```

</labels>



Zebra Designer for XML





Oracle Seeded Label Formats

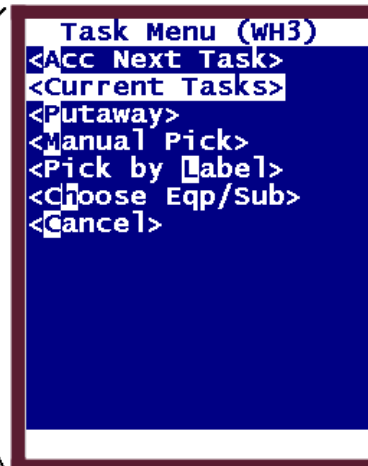
Label Type	Description	Seeded Oracle Name	Zebra Format Name
LPN	License plate information	Seeded Label Default for LPN	LPN.ZPL
LPN Content	LPN plus details about contents	Seeded Label Default for LPN Content	LPNCONT.ZPL
LPN Summary	LPN plus nested contents summarized	Seeded Label Default for LPN Summary	LPNSUMM.ZPL
Material	Item, quantity, lot, revision details	Seeded Label Default for Material	MATERIAL.ZPL
Serial	Material plus serial details	Seeded Label Default for Serial	SERIAL.ZPL
Location	Organization, subinventory, and locator	Seeded Label Default for Location	LOCATION.ZPL
Shipping	Customer and address	Seeded Label Default for Shipping	SHIPPING.ZPL
Shipping Content	Shipping plus content information	Seeded Label Default for Shipping Content	SHIPCONT.ZPL
WIP Content	Discrete manufacturing details	Seeded Label Default for WIP Content	WIPCONT.ZPL
Flow Content	Flow manufacturing plus customer information	Seeded Label Default for flow Content	FLOWCONT.ZPL

*All the above is included with the Oracle Extension CD ROM, which is shipped with the Xi XML enabled printers

Oracle 11i Interface



Oracle WMS Demo:
Pick & Pass, Dock Loading Shipping

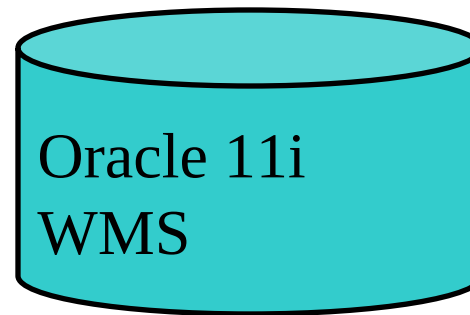


Demo Menu





ORACLE CERTIFIED PARTNER



Architecture

MSP Server



WS5100/2000



Oracle MWA



Server

Access
Ports



Oracle TN
Clients





- International Leading Supplier of Food Supplements
 - Over 1.7 Million Distributors in over 60 Countries
 - Heavy Volume Pick to Order

-  **HERBALIFE. Worldwide**

Click on the flags of the countries below or use the navigation on the bottom left to find out more about Herbalife's presence worldwide.



- ✓ Mobilized inventory and order fulfillment processes
- ✓ Increased Inventory Visibility Worldwide allowing better planning



Herbalife Goes Mobile (From RedLine Customer Newsletter)

When Herbalife decided to upgrade to the Oracle 11i E-Business Suite, they needed to make their barcode system work with it. For the testing phase, they wanted a dual solution that would switch back and forth between their legacy environment and the new Oracle 11i environment. They needed specific configurations for the mobile devices' interfaces to support both systems. When testing was complete, they wanted support for the switchover to the new system both at corporate headquarters and in their worldwide locations. For this, they turned to the experts at RedLine Solutions.

RedLine analyzed the requirements and defined the tools and processes necessary to accomplish the task. Once the solution was defined RedLine installed the wireless infrastructure at each site, implemented the configurations for both legacy and new Oracle 11i systems, and supported Herbalife throughout the process, taking care of all the connectivity and functionality. RedLine configured standard tools, allowing Herbalife to utilize existing wireless devices as well as add new ones where needed.

When Herbalife made the big switch to the new system, RedLine's attention to detail assured that it went smoothly. Rather than manually reprogramming over 70 devices, RedLine made it a pushbutton operation. And when it came time to switch Herbalife's Mexico, Australia, and Germany locations to the new system, RedLine took care of configuring and shipping, and was able to make the changeover through remote support - with no need for travel.

Herbalife has seen major improvements with mobile supply chain operations. They can do almost everything now with mobile devices, saving time, manpower and money, and best of all, paperwork is now almost non-existent. The project is ongoing, with plans to bring up five more countries this year, and RedLine Solutions will continue to be an important partner in its implementation.



- Leader in custom wheel and tire supply
- Live on Oracle 11i
 - Order Management, Inventory Management, Advanced Supply Chain Planning, Financials, Oracle on Demand, Mobile Supply Chain
 - Rapid implementation to 8 sites in less than 2 months
 - Reduced Time to locate and ship product
 - Reduced Physical Inventory Process Time from 5 days to 3

- ✓ **Virtually Eliminated Shipping Errors**
- ✓ **Increased throughput by 30% without growing staff**
- ✓ **Reduced Overtime Saving \$200,000 in first year**



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- Leader in high performance computing, visualization and the management of complex data
 - Over 2,600 employees serving 5 key markets: Government & Defense, Sciences, Manufacturing, Energy and Media
- Live on 11i
 - Warehouse Management, Discrete Manufacturing, Order Management, Incentive Compensation, iProcurement, Financials, Financials and Sales Analyzers
 - Rapid implementation; less than 2 months from CRP
 - Maintained service levels, despite a reduction in staff
 - Achieved ROI in half the expected time (6 versus 12 months)

✓ **Increased inventory accuracy to 97%**

✓ **Recovered \$500K of “lost” inventory**



RedLine Provided Products & Services

- Specify appropriate hardware options based on user requirements
- Perform RF Site Survey to define installation sites wireless infrastructure requirements
- Supply, test and configure and Install Wireless Network Mobile Devices, and XML Printers
- Install and Configure Device Management Console
- User and Admin Training:
- Document AS-Built: IP Configurations of Device Management Console, Mobile Terminals, and Access Ports, Printers
- Provide Post Implementation Support
- Manage Hardware and Warranty and Contract Service





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Demonstration

ORACLE

