

# Oracle Database Lite 10gR3 Business White Paper

*An Oracle White Paper*

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## EXECUTIVE OVERVIEW

Oracle Database Lite 10g is an integrated and complete solution for rapid development and deployment of high-impact, mission critical applications for mobile and lightweight environments. Oracle Database Lite is an addition to Oracle Database 10g for enterprises wanting to increase employee productivity, reduce operation costs, or improve customer satisfaction. It extends the grid environment to mobile and embedded devices, allowing mobile workers to access enterprise data even in the absence of a network connection. Additionally, Oracle Database Lite uses data synchronization to allow these workers to reliably and securely exchange data with a corporate Oracle Database.

## EXTEND THE GRID TO MOBILE DEVICES

As the performance and storage capabilities of mobile devices continue to grow, the need to access enterprise data from these devices also increases. Ideally, these mobile applications are constantly connected to central business information, presumably through a wireless protocol (Wi-Fi, GPRS, etc.). While the evolution of wireless networks has addressed some of these requirements, wireless access is not the optimal solution for many mobile business scenarios. Specifically, a constant network connection for mobile workers in these contexts is often:

- Not Possible
- Not Practical
- Not Desirable

## WIRELESS DOES NOT SOLVE EVERYTHING

### WIRELESS CONNECTION NOT POSSIBLE

Many mobile tasks such as the maintenance of field assets or the servicing of customers by field technicians often take place in areas where wireless data coverage is unavailable or unreliable. This is true for employees working in remote areas, but is also true of employees who are moving in and out of large office or industrial buildings.

**Oracle Database Lite 10g provides a complete and integrated infrastructure to develop, deploy and manage data driven mobile applications for the Oracle RDBMS.**

### **WIRELESS CONNECTION NOT PRACTICAL**

The bandwidth of today's wireless networks, while fit for many business applications, is insufficient to support data intensive applications. For instance, the configuration of a complex sales quote hinges on the sales person's device being able to perform fast and reliable data interchanges with the application's data source. It is unrealistic to expect such high throughput data exchanges to be dependably performed over today's wireless data connections.

### **WIRELESS CONNECTION NOT DESIRABLE**

A wireless connection is undesirable in many defense related scenarios in which applications access sensitive data while maintaining radio silence in the field. Such applications require access to local data and can only synchronize it when it is "safe" to do so.

Additionally, a constant wireless connection may be too expensive and unjustifiable as many enterprise applications access static data that changes only slightly each business day. For example, a customer's address is unlikely to change often. Thus, there is little rationale for mobile employees to retrieve this data over a wireless connection each time it is accessed when this information may simply be stored on their mobile device, be it a laptop, a PDA (Portable Digital Assistant), or the new generation of Web-enabled phones.

### **ORACLE LITE: THE ONLINE EXPERIENCE, OFFLINE**

While bandwidth has increased, so too has usage. While coverage has spread and networks have grown in size, there are still significant gaps and inconsistencies. Today, bandwidth is still limited and coverage is poor.

Whether there is network connectivity or not, an employee should have access to the necessary business data. The enterprise mobile workers of today want an experience identical to the connected experience: continuous access to data that is unconstrained by bandwidth and coverage. Oracle Database Lite provides the experience of continuous access to data unconstrained by bandwidth and coverage.

Offline mobile applications developed using Oracle Database Lite allow employees to connect to the network and bring a set of business data from their enterprise's central systems down to their mobile device. This data can then be accessed by the application without network access. The employee can choose to re-connect to the network at any time (when it is available) to synchronize data. Through synchronization, the latest enterprise data (e.g. a new pricing plan) is transparently brought down to his or her device and changes the employee has made while on the go (e.g. a new booked order) are seamlessly transferred to the central servers.

Offline mobile applications give all mobile employees immediate access to the data they need, wherever they may be, independent of network connection or coverage. They are crucial in helping businesses streamline field operations, automate data

**With Oracle Database Lite, mobile workers have the experience of continuous access to data unconstrained by bandwidth and coverage.**

capture processes, improve customer service, optimize distributed assets, and most importantly, sell more.

## **HIGH-IMPACT, MOBILE SOLUTIONS**

Oracle Database Lite has been incorporated into thousands of businesses. Each of these businesses saw an opportunity to leverage Oracle Database Lite to save money or increase revenue. Oracle Database Lite has helped businesses achieve three primary goals: reduction in operating costs, increase in employee productivity, and improvement in customer satisfaction.

### **UNITED STATES COAST GUARD**

*Semper paratus* - always ready. From search and rescue missions to homeland security, the men and women of the United States Coast Guard face challenges every day. Having the tools to meet them should not be one of them.

The United States Coast Guard had an existing on-shore, enterprise system called Large Unit Financial System (LUFSS) which was widely used by procurement and contracting personnel. When the Coast Guard decided it wanted to deploy a mobile version of LUFSS (LUFSS-to-GO) to its cutter ships, it faced many challenges. First, both the lack of network availability on sea and prohibitive costs of satellite network connectivity required an offline solution that provided all the functionality of the on-shore LUFSS system. Second, the data on LUFSS-to-GO had to easily synchronize with data on the existing LUFSS system. Additionally, Coast Guard personnel familiar with LUFSS had to be able to use LUFSS to GO. Finally, the system could not require a dedicated Oracle database system administrator.

In developing LUFSS-to-Go, Global Computer Enterprises (GCE) employed Oracle Database Lite to fulfill these requirements and helped the Coast Guard reap tremendous benefits. Without continuous connectivity, cutter personnel could still perform inventory transactions remotely. Subsequently, no network costs were incurred and the productivity of the cutter personnel increased. When the cutters docked, the onboard data was fully synchronized with the shore-based system, ensuring data accuracy and integrity while significantly reducing the delays of entry into LUFSS. The operational costs of the system were further reduced with the consolidation of the four regional LUFSS databases.

Oracle Database Lite enabled United States Coast Guard personnel to perform financial transactions and maintain important financial data while at sea, anytime, anywhere.

### **IPC – THE HOSPITALIST COMPANY**

*"What we're doing in healthcare is cutting-edge, and without Oracle support we never would have succeeded. We are very impressed with Oracle's ability to deliver." – Adam Singer, CEO, IPC-The Hospitalist Company*

"In today's environment, getting two doctors on the phone simultaneously to discuss any particular patient is difficult," explained John Raudsep, vice president of marketing for IPC-The Hospitalist Company (IPC). "Each time we discharge a patient, we need to communicate relevant information to several other healthcare providers. Now, we can do that instantaneously with one push of a button. The HP Jornada 720, the IPC-LINK® [software], and the Oracle Database together make it work."

Prior to implementing a mobile solution, all of IPC's billing was done on paper, sent to the corporate office, and manually entered into a system that created billing forms for physicians. It was a cycle that took 30 days or longer. "Oracle Lite obviously improves our reimbursement by getting the billing in faster and more accurately," said Raudsep. "Both our receivable base and our billing capture rate have improved because things no longer get misplaced." Citron added, "Now, many of our claims travel from the physician's handheld to the payer without being touched by a human hand."

With IPC-LINK® and the powerful, lightweight Oracle Database Lite, a physician can use pull-down menus and screens to immediately record the billing and clinical information of each visit. A wireless link transmits the data to a central repository where the data links up with additional billing information and communicates to each consulting physician and primary care provider associated with that patient.

Better communication leads to better healthcare. Using IPC's mobile device as a data collection system improves communication between primary care physicians and hospitals. Physicians enter a patient's name, diagnosis code, and other pertinent information and download it to a fax server connected directly to the Oracle Database. The server generates and sends a fax to the primary care physician and other healthcare professionals as needed based on the information the doctor put into the PDA. Having the information in a central database allows physicians to see not only their own patients' data but their colleagues' patients as well, a critical benefit when doctors need to share information or fill in for each other.

#### **COCA-COLA ENTERPRISES (EGYPT)**

*"Using Oracle Lite, our pre-sales teams increased order accuracy from 75% to 95%, doubled the productivity of our delivery trucks, and cut administration costs by 50%." – Lobna El Dessouky, Chief Financial Officer, The Coca-Cola Bottling Company of Egypt*

Coca-Cola Egypt has automated its pre-sales function with Oracle Lite. Based in Cairo, The Coca-Cola Bottling Company of Egypt (TCCBCE) owns and operates 11 bottling plants and 29 sales and distribution centers. The company has operated in Egypt since 1942 and, with 7,400 employees, is one of the country's major employers.

In 2002, TCCBCE wanted to overhaul its sales strategy to improve productivity, cut costs, and improve the quality of its service to customers. "Traditionally we

used to send our distribution trucks to each customer's premises, take orders, and deliver what we could from stock," said Mohamed Shalaby, information systems manager at TCCBCE. "If customers required items that were not on the truck, orders were written down on paper and passed to warehouse staff back at the distribution center for manual processing. Errors often occurred during processing, resulting in incorrect orders being dispatched and subsequently returned to us. In addition, orders took up to three days to process, resulting in unacceptable response times to customers and lost sales opportunities."

To remedy the situation, Coca-Cola decided to create pre-sales teams equipped with hand-held devices running on Oracle Lite that would visit customers and take orders electronically in advance of distribution. Upon returning to the office, the teams would synchronize orders with the company's Oracle enterprise resource planning (ERP) systems to ensure automated processing and rapid dispatch of accurate orders to customers.

A pilot implementation of this order handling system using Oracle Database Lite was rolled out in November 2002. "Oracle Egypt supported us throughout the implementation and provided IT training and ongoing support," Shalaby said. "Their commitment and expertise ensured that we had a working solution in less than two months. Our pre-sales teams welcomed the new system, which is based on Compaq iPaqs, because it is easy to use and increases their sales figures."

## **ORACLE IS YOUR PARTNER OF CHOICE**

Oracle is the partner of choice for extending your Oracle Database into the field. As enterprises look to enhance their business with mobile requirements, the need for mobile infrastructure becomes evident. The ideal mobile infrastructure must (1) enable the development of your mobile strategy, (2) support the full range of devices and application platforms, and (3) leverage existing IT investments.

Oracle Database Lite is a complete, end-to-end solution for deploying offline mobile solutions offering:

- Device client stack that includes comprehensive device management and synchronization technology, and a secure, lightweight, SQL-enabled relational database.
- Scalable, high-performance Mobile Server that supports robust synchronization of thousands of clients to an Oracle database.
- An integrated management interface for managing your applications, users, devices and system.
- Development tools that support rapid application development.

## **CONCLUSION**

Until recently, most business applications were only accessible from network tethered PCs in offices, away from where a business' productive assets and employees are at work, its customers are serviced, and its operations performed. A new generation of lightweight and powerful mobile devices promise to redefine the reach of enterprise applications.

Oracle believes that today's fast advancing mobile technologies signal the advent of a new chapter in the Internet revolution. This new era has well started with leading businesses worldwide now offering their employees anywhere, anytime access to business data, information, and applications. Oracle is committed to serving the mobile computing needs of businesses worldwide with solutions and software platforms that offer the depth of feature, scalability, reliability and performance Oracle has built its reputation and business on. Oracle can help you mobile-enable your data faster than anyone else: Oracle is a leading provider of mobile software technology. Oracle powers the largest offline mobile applications in the world.



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