

# OPTIMIZING IT

## QUALCOMM CDMA TECHNOLOGIES AND MERCURY

“Given the complexity of the Oracle 11i implementation, it was important to employ a sound quality strategy throughout the whole process. With Mercury Application Delivery offerings, we were able to satisfy this requirement. These testing products continue to add value as we upgrade to Oracle Application Family Packs and roll out our own enhancements. The benefits can be seen in regression test repeatability, improved product quality, and reduced effort for the QA team each time we engage a new software release.”

– Todd Serafin, Quality Assurance and Automation Lead,  
QUALCOMM CDMA Technologies’ Oracle 11i ERP Implementation

### CHALLENGE

In a major implementation of Oracle-based technology, QUALCOMM CDMA Technologies’ (QCT’s) challenge was to ensure quality and accelerate deployment of a broad spectrum of new E-business applications – spanning financials, supply chain management, distribution, and customer relationship management suites – used by hundreds of local and remote users.

### SOLUTION

QUALCOMM CDMA Technologies uses a combination of products from Mercury Quality Center and Mercury Performance Center to manage business-critical testing operations.

### BUSINESS VALUE

The organization incorporated a business technology optimization (BTO) strategy using these Mercury Application Delivery offerings to achieve higher quality and performance of its Oracle Applications E-business systems.

QUALCOMM Incorporated ([www.qualcomm.com](http://www.qualcomm.com)) is a leader in developing and delivering innovative digital wireless communications products and services based on the company’s CDMA digital technology. QUALCOMM CDMA Technologies (QCT) is a division of QUALCOMM and is the largest provider of 3G chipset and software technology in the world, with nearly 200 million 3G chipsets and more than 1 billion total chips shipped.

QUALCOMM CDMA Technologies maximized the efficiency of its business processes by expanding internal ERP and other supporting business systems. After detailed research and careful planning, the company began deploying new Oracle 11i E-business modules. These E-business applications have hundreds of users spanning multiple locations, including the United States, Japan, China, and Korea.

### Straightforward Selection of Mercury

To ensure quality and accelerate deployment of these E-business applications – spanning financials, supply chain management, distribution, and customer relationship management suites – QUALCOMM CDMA Technologies leveraged Mercury Application Delivery offerings. Specifically, the company used components of Mercury Quality Center™ and Mercury Performance Center™, including Mercury TestDirector®, Mercury WinRunner®, and Mercury LoadRunner®. Mercury’s history of BTO expertise, broad product line, and tight integration with Oracle 11i made the decision straightforward.

“It was vital to adopt a quality and performance strategy, including products that interfaced extremely well with Oracle 11i and could manage hundreds of tests run by

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multiple testers simultaneously,” said Todd Serafin, QA Lead for QUALCOMM CDMA Technologies’ Oracle 11i ERP implementation.

### TestDirector Centralizes Quality Management

The QUALCOMM CDMA Technologies QA IT team has found TestDirector an invaluable product for project testing. By providing a central repository for all test information and a consistent format and interface for accessing it, TestDirector saves time during software releases and project auditing.

With this global test management solution, distributed testing teams can avoid duplication of effort, loss of test data, and miscommunication. Additionally, TestDirector helps the QA team set objectives, goals, and criteria to determine application readiness.

### WinRunner Saves Time, Expands Test Coverage

QUALCOMM CDMA Technologies leverages WinRunner, an integrated functional testing product, in several different ways. Automated scripts provide them with additional test coverage and data loading capabilities prior to a new or upgraded application rollout. WinRunner also helps to ensure that business processes remain reliable.

IT personnel used WinRunner’s ability to automatically capture and replay user interactions to perform production conversions when migrating data from the legacy ERP system to Oracle 11i. “Manual data entry would have taken four to five times longer per script,” Serafin said.

The QA team created numerous “smoke” tests to automate basic user actions in the Oracle 11i forms. The IT team ran hundreds of these tests to validate the system stability in a new test environment, and also recorded scripts to load large amounts of test data.

By automating repetitive tasks, the IT team deploys higher-quality applications while reducing test cycle duration.

### Test Starter Kit Offers Jump Start

Mercury and Oracle have collaborated to provide Oracle 11i customers with a Test Starter Kit. The kit contains a basic automation test plan, best practices guide, a set of Oracle function libraries, startup scripts, and test script examples for automating the basic business processes in the Oracle E-Business Suite. These default test components enabled QUALCOMM CDMA Technologies to hit the ground running in their testing efforts.

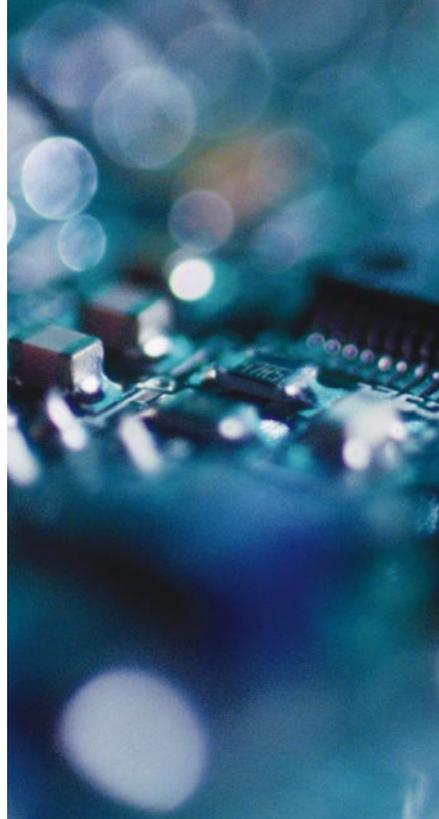
### LoadRunner Reduces Infrastructure Risks

LoadRunner helped improve the quality and performance of the Oracle 11i ERP implementation, and detect potential infrastructure issues that may have delayed the planned rollout.

QUALCOMM CDMA Technologies’ development team creates performance scripts using LoadRunner’s Oracle NCA and RTE protocols to simulate and compare user load on different Oracle test environments and validate server load balancing. The protocols generate application specific commands and error messages that improve readability and minimize the amount of custom code required for scripts.

### Business Results Maximized with Mercury

By employing a BTO strategy, QUALCOMM CDMA Technologies maximizes the value of its significant IT investment in the Oracle 11i E-Business Suite. Using Mercury Application Delivery products, the organization has reduced migration risks and accelerated deployment test cycles – while ensuring the quality and performance of these new applications across the enterprise.



### HIGHLIGHTS

- Mercury TestDirector enables Quality Assurance (QA) management of QUALCOMM CDMA Technologies’ Oracle Applications testing programs.
- Mercury WinRunner facilitates conversions, test data loading, and regression testing.
- Mercury LoadRunner detects performance issues and sizing constraints for the ERP infrastructure components.

### BENEFITS

- TestDirector provides the test team with a central repository and audit mechanism for creating, executing, tracking, and reporting test information used to determine when quality criteria have been met.
- WinRunner minimized data entry errors and completed the individual conversions in 75-80 percent less time than manual methods.
- WinRunner expands test coverage of the numerous ERP Oracle forms with reusable suites of scripts.
- LoadRunner simulates production loads using parameterized performance scripts. LoadRunner protocols, like Oracle NCA and RTE (telnet), generate application-specific commands and messages that improve readability and minimize the amount of custom code required for scripts. Testers can record and run simple (yet effective) scripts within minutes.

**MERCURY**<sup>™</sup>

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