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## **Customer Case Study**

### **Real Application Testing Usage at Nationwide**

# Real Application Testing

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## Challenges

- Applications and systems close to maximum utilization OR due for hardware refresh
- Complexity: reporting instances, increased storage costs and capacity, information not available in timely manner
- Can Real Application Testing provide a method to validate new commodity hardware, platform strategy?
- Can commodity platforms handle high OLTP and mixed workloads?

## Solution Approach

- Use Database Replay to capture batch and OLTP workloads for peak periods
- Use Database Replay to execute workload on new systems, measure system performance, resource utilization, and any SQL regression

## Benefit

- Replay workload on new systems: 2x to 12x production volumes
- Process performance improvements noted: 2x to 10x
- Validated new features – up to 67x reduction in space through Advanced Compression\*
- Validated new hardware handles peak workload with excess capacity and dramatically improved performance

# Use Case and Load Testing Results

## System and Workload

Packaged Application and Custom Reporting Databases

Oracle Database 9.2.0.8 Release: 2 unique databases and Instances

Moving to RAC Platform, x86, database upgrade 11g: single database with multiple instances

Validated that migrated system can handle peak/mixed workload at 20% utilization, obtained range of 2x - 10x DB time improvement for various databases

x86 and RAC platforms here generate an average savings on hardware of 85% and 25%+ for software

### *Legacy Server Model - Capture*

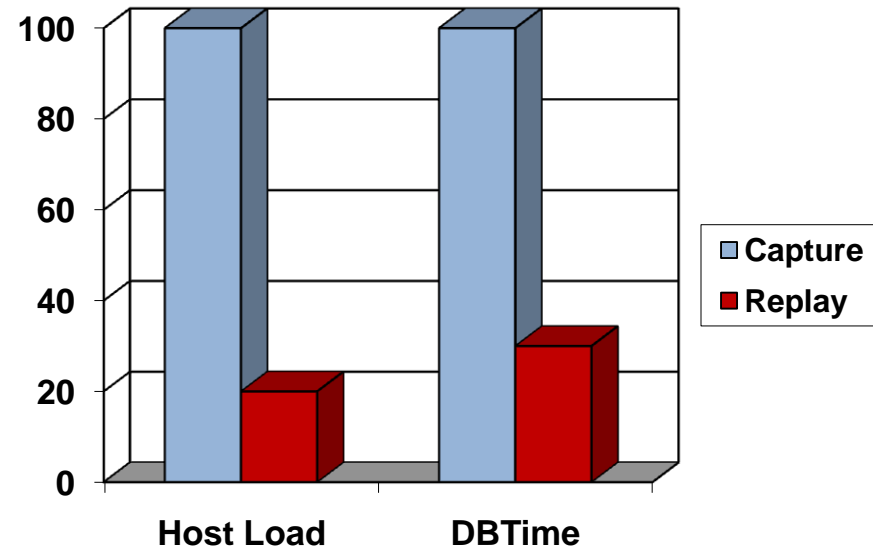
RISC CPUs: 8 x 2 @2150 MHz

Memory: 64 Gb

### *Replacement Server Model - Replay*

CISC CPUs: Intel Xeon 2.27 Ghz 2 x 4

Memory: 72 Gb RAM

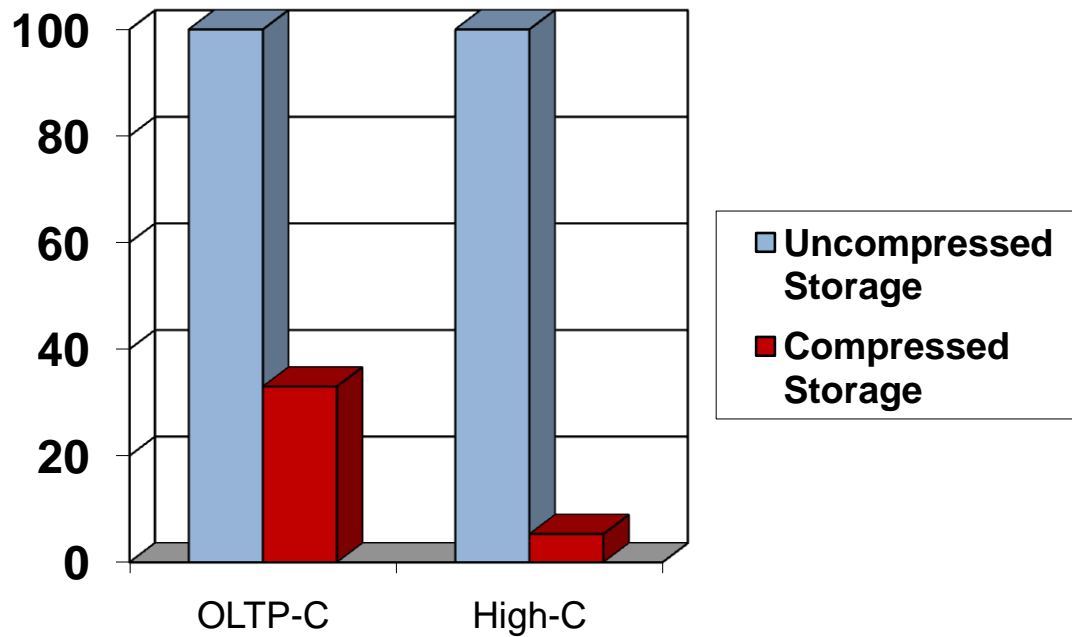


# Compression Results

Compression Advisor used to evaluate various compression techniques – OLTP, Archive  
High on key tables

Able to reduce disk footprint by up to 67x\*

Performance overhead was negligible for OLTP compression



\* Maximum compression achieved (67x) based on Exadata testing,