

ORACLE FINANCIAL SERVICES PROFITABILITY MANAGEMENT ON ORACLE EXADATA DATABASE MACHINE

ORACLE FINANCIAL SERVICES ANALYTICAL APPLICATIONS ENABLE INSTITUTIONS TO MEASURE AND MEET RISK ADJUSTED PERFORMANCE OBJECTIVES, PROMOTE A RISK MANAGEMENT CULTURE AND MITIGATE THE COSTS OF REGULATION AND COMPLIANCE

KEY FEATURES

- The benchmark utilized a full rack Oracle Exadata Database Machine, in place of a conventional configuration of at least 4-5 cabinets of server and disparate storage racks
- Oracle Exadata V2 enables financial institutions to meet rapidly growing data processing demands by delivering up to 50 gigabytes/second of raw I/O bandwidth
- Oracle Exadata Database Machine's Automatic Storage Management (ASM), uniformly distributes I/O database loads across all Exadata storage cells for a dramatic performance increase in addition to unbounded scalability, high availability and high-degree of fault tolerance.
- Oracle Exadata Database Machine offloads query processing to Exadata storage cells to virtually eliminate the performance bottlenecks typically associated with running SQL processes on database servers. OFSAA solutions, including Oracle Financial Services Profitability Management, benefit from this capability.
- Complies with BIS Principles for Effective Risk Data Aggregation and Risk Reporting.

Oracle Financial Services Profitability Management performed 172 allocations on 250 million accounts and 1 billion transactions in 4 hours and 45 minutes when running on Oracle Exadata Database Machine.

Oracle has completed performance testing confirming that financial institutions running Oracle Financial Services Profitability Management on the Exadata® Database Machine can now compute profitability measures at extreme speed.

A Tier I institution could easily have upwards of 50 to 60 million accounts around the world, a regional institution would typically have less, a very large institution more. This representative volume of accounts can readily generate over 100 million transactions per month. It has been observed that current systems routinely require one or more business days to calculate corresponding profitability measures.

The goal of this testing was to observe the performance achieved when running Oracle Financial Services Profitability Management on the Oracle Exadata Database Machine and to determine the possibility of calculating profitability on a daily basis. For this performance test, an account volume of 250 million accounts and a transaction count of over 1 billion – both far and above typical Tier I levels, was used. 172 allocation rules were applied during the profitability allocation process.

Oracle Financial Services Profitability Management, running on the Exadata Database Machine allocated costs, performed adjustments and posted entries to the management ledger for this test case in just 4 hours and 45 minutes.

The performance testing of Oracle Financial Services Profitability Management running on the Oracle Exadata Database Machine clearly demonstrates the analytical processing power that financial services institutions can leverage to drive profitability and efficiency initiatives and that it is now possible to compute profitability measures on a daily basis.

With the ability to capture a daily view of profitability and risk-adjusted performance management, banks can make more timely, informed decisions to tightly manage their businesses.

Why Oracle Financial Services Analytical Applications on Exadata?

Recovering from the financial crisis with tighter regulatory controls, laws limiting bank fees and slower revenue growth, financial services institutions are increasingly focused on operational gains and improving efficiency. Proactively managing these business demands requires a more timely view of costs and profitability -- beyond merely reacting to monthly reporting requirements.

The performance gains achieved when running Oracle Financial Services Profitability Management on the Exadata Database Machine enable bank executives to quickly assess the profitability of new products and make necessary adjustments, to easily obtain a daily view of the costs allocated to managing individual portfolios of services for customers, and to immediately respond to market realities and changing rates.

RELATED PRODUCTS**ORACLE FINANCIAL SERVICES ANALYTICAL APPLICATIONS**

- Oracle Financial Services Data Foundation
- Oracle Financial Services Asset Liability Management
- Oracle Financial Services Profitability Management
- Oracle Financial Services Balance Sheet Planning
- Oracle Financial Services Funds Transfer Pricing
- Oracle Financial Services Pricing Management, Transfer Pricing Component
- Oracle Financial Services Pricing Management, Capital Charge Component
- Oracle Financial Services Basel Regulatory Capital
- Oracle Financial Services Retail Credit Risk
- Oracle Financial Services Corporate Credit Risk
- Oracle Financial Services Economic Capital Advanced
- Oracle Financial Services Liquidity Risk Management
- Oracle Financial Services Market Risk
- Oracle Financial Services Retail Portfolio Risk Models and Pooling

ORACLE APPLICATIONS

- Master Data Management
- Application Integration Architecture

ORACLE FUSION MIDDLEWARE

- Application Server
- Business Process Management
- Enterprise Manager

ORACLE DATABASE

- Oracle Database 11g
- Real Application Clusters
- Partitioning
- Advanced Compression
- Advanced Security
- Active Data Guard

ORACLE ENTERPRISE LINUX**ORACLE SERVERS AND STORAGE**

- Systems
- Sun Servers
- Sun Storage and Tape
- Virtualization

Oracle Financial Services Profitability Management is part of the Oracle Financial Services Analytical Applications family of Risk, Finance, Compliance and Customer Insight solutions, and currently used by demanding global Tier I institutions around the world.

With the extreme performance of Oracle Financial Services Analytical Applications, running on the Exadata Database Machine, global financial institutions can dramatically reduce the lead times required to perform key analyses like stress testing, liquidity risk management, risk adjusted performance measurement and respond to increasing regulator demands, like Basel III, quickly and with confidence.

Parameters (Account Types)	Total
Mortgage	20 MM
Consumer and Commercial Loan	20 MM
Credit Cards	50 MM
Term Deposits	50 MM
Checking & Savings	50 MM
Trust Accounts	20 MM
Merchant Card Accounts	20 MM
Other Services (Cash Management etc)	20 MM
Total Volumes	250 MM
Parameters (Transaction Types)	Total
Credit Card Transactions	300 MM
Term Deposit Transactions	300 MM
Checking and Savings Transactions	300 MM
Trust Accounts Transactions	60 MM
Merchant Card Accounts Transactions	60 MM
Total Volume	1020 MM
Base Ledger Accounts (Pre-Allocation)	200K

Process (Rules Execution Across Different Rule Types)	Elapsed Time
Allocation Rules on Transactions (41)	1:02:01
Allocations from Ledger to Transactions (6)	14:42
Aggregation of Transactions to Ledger (6)	0:00:58
Aggregation from Transactions to Instrument (18)	1:08:00
Instrument level Allocations (42)	0:55:02
Ledger to Instrument Allocations (10)	0:25:40
Ledger level Allocations(30)	0:15:06
Instrument to Ledger Aggregations(19)	0:44:22
Total (172)	4:45:51

Sun Oracle Exadata V2 Machine Full Rack Configuration

8 x Database Servers, each with:

- 2 Quad-Core Intel® Xeon® E5540 Processors (2.53 GHz)
- 72 GB memory
- Disk Controller HBA with 512MB Battery Backed Write Cache
- 4 x 146 GB SAS 10,000 RPM disks
- Dual-Port QDR InfiniBand Host Channel Adapter
- 4 Embedded Gigabit Ethernet Ports

3 x 36 port QDR (40 Gb/sec) InfiniBand switches

14 x Sun Oracle Exadata Storage Servers with 12 x 600 GB 15,000 RPM SAS disks or 12 x 2 TB 7,200 RPM SATA disks. Includes 5.3 TB Exadata Smart Flash Cache

Software

Oracle Database 11g Release 2 Enterprise Edition, Oracle Real Application Clusters, Oracle Partitioning, and other Oracle Database options. Oracle Enterprise Linux Release 5.3, Zero-loss Zero-copy Datagram Protocol (ZDP) InfiniBand protocol used to communicate between the Exadata Storage Servers and the Oracle Database which is based on the Reliable Datagram Sockets (RDS) OpenFabrics Enterprise Distribution (OFED)

About Oracle Financial Services Analytical Applications

Oracle Financial Services Profitability Management is part of the Oracle Financial Services Analytical Applications family of solutions for the global financial services industry.

Oracle Financial Services Analytical Applications are built upon a commonly available analytical infrastructure consisting of a unified financial services data model, analytical computations and the industry-leading Oracle Business Intelligence platform.

Oracle Financial Services Analytical Applications include award-winning solutions for Enterprise Risk Management; Governance, Risk, and Compliance (GRC); Enterprise Performance Management (EPM); and Customer Insight for financial services.

Contact Us

For more information about Oracle Financial Services Analytical Applications and the Exadata Database Machine, visit <http://www.oracle.com/us/industries/financial-services> or call +1.800.ORACLE1 to speak to an Oracle representative.



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