An Oracle White Paper
April 2013

Oracle E-Business Suite Financials for Engineered Systems
Disclaimer

The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described for Oracle’s products remains at the sole discretion of Oracle.
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Overview</td>
<td>4</td>
</tr>
<tr>
<td>Business Benefits of Deploying Oracle E-Business Suite Financials on</td>
<td>5</td>
</tr>
<tr>
<td>Engineered Systems</td>
<td></td>
</tr>
<tr>
<td>Accelerate Decision Making While Enjoying Lower Costs</td>
<td>5</td>
</tr>
<tr>
<td>Drive Faster Close Cycles</td>
<td>6</td>
</tr>
<tr>
<td>Improve Business Efficiency and User Productivity</td>
<td>6</td>
</tr>
<tr>
<td>Case Study A</td>
<td>7</td>
</tr>
<tr>
<td>Exadata and Application Server Configuration</td>
<td>7</td>
</tr>
<tr>
<td>Test Results</td>
<td>8</td>
</tr>
<tr>
<td>Case Study B</td>
<td>9</td>
</tr>
<tr>
<td>Exadata and Application Server Configuration</td>
<td>9</td>
</tr>
<tr>
<td>Test Results</td>
<td>11</td>
</tr>
<tr>
<td>Case Study C</td>
<td>13</td>
</tr>
<tr>
<td>Test Results</td>
<td>14</td>
</tr>
<tr>
<td>Overview of Engineered Systems</td>
<td>15</td>
</tr>
<tr>
<td>Oracle Exalogic</td>
<td>15</td>
</tr>
<tr>
<td>Oracle Exadata Database Machine</td>
<td>16</td>
</tr>
<tr>
<td>Oracle Exalytics</td>
<td>16</td>
</tr>
<tr>
<td>Oracle SPARC SuperCluster</td>
<td>17</td>
</tr>
<tr>
<td>Technical Benefits of Oracle’s Engineered Systems</td>
<td>18</td>
</tr>
<tr>
<td>Overview</td>
<td>18</td>
</tr>
<tr>
<td>Exadata Unique Features</td>
<td>19</td>
</tr>
<tr>
<td>Exalogic Unique Features</td>
<td>20</td>
</tr>
<tr>
<td>Conclusion</td>
<td>21</td>
</tr>
</tbody>
</table>
Executive Overview

To succeed in today’s global economy organizations need access to accurate and timely information to respond to new threats and opportunities as well as to remain competitive. Managers cannot afford to wait for days to help influence outcomes; they need to know where the business stands right now to quickly respond to unpredictable events.

The gatekeeper of this information is the Office of Finance. They are under increasing pressure to provide more timely and insightful information and reports across the enterprise. With the myriad of information sources or silos across the enterprise, Finance is challenged to provide enterprise-wide visibility, analytical acuity, and near real-time reporting essential in helping the organization make better decisions.

This white paper illustrates how enterprises with high volumes of financial management data in their ERP systems, as well as external or legacy systems, can improve operating practices to reduce costs, deliver faster close cycles and accelerate decision making by deploying Oracle E-Business Suite Financials on Oracle Engineered Systems.

For more information about Oracle Engineered Systems, see the section “Overview of Engineered Systems” at the end of this white paper.
Business Benefits of Deploying Oracle E-Business Suite Financials on Engineered Systems

A common theme for finance leaders is the desire to transition from a cost-cutting mindset to driving top-line growth and providing measurable value for the finance organization. The first step in this transformation continues to be cost-reduction and efficiency-driven initiatives to simplify, standardize, and centralize processes, data and technology.

The emphasis on standardization to capture cost savings is pervasive. Our customers have found that as their business grows, complexity in managing the business grows as well. So most finance organizations are standardizing on global business processes and driving constant process improvement to better manage the complexity and improve transparency. They are also moving toward common data definitions to improve accuracy with a single source of truth and to decrease maintenance. Standardizing and simplifying have been critical to their continued success because they empower organizations to manage the complexity that comes with growth, rather than being hindered by it.

Accelerate Decision Making While Enjoying Lower Costs

When you get bad data from your legacy systems, you don’t have an accurate picture of what’s going on across your entire business. You want an accounting process that can validate your data for you, and can be configured to meet all your different accounting requirements. You need accounting rules that are setup in one place, and can be applied consistently to all your source systems. And you need it to handle multiple data sources, and be scalable to handle high data volumes.

The centralized accounting engine within Oracle E-Business Suite Financials can process accounting entries online or in a batch. And when deployed on an Engineered System can provide near real-time accounting results for very large data volumes.

For example, a large financial services company wanted to condense their daily processing window. They benchmarked their accounting process and found they could run 4.4 times faster on a Exadata Database Machine X2-8 (Case Study A).
The improved performance would allow them to provide more timely updates to the managers, giving their staff more time to spend analyzing the information and advising the business.

Drive Faster Close Cycles

The primary objective of closing the books is to provide stakeholders a periodic snapshot of the business. In our next case study (B) – the customer was able to ensure they retained a good credit rating, maintained cash liquidity for new investments and achieved an additional return on their investments by accelerating the timing and improving the accuracy of their financial instrument forecasts and reporting.

Running Oracle Financials Accounting Hub on an Exadata Database Machine X2-8 using 2 RAC nodes, they were able to achieve accounting throughput of:

- 27 million subledger journal lines per hour in Oracle Financials Accounting Hub
- 37 million journal lines imported per hour into Oracle General Ledger
- 38 million journal lines posted per hour in Oracle General Ledger

In addition, knowledge workers become more efficient while customer satisfaction increases, because they receive quicker responses to their inquiries.

Improve Business Efficiency and User Productivity

As companies standardize and centralize key finance processes, a critical, but forgotten impact, is how the shared service center end user will manage the increased volume and diversity of transactions, especially at critical times like period close.

Case study C illustrates that fixed asset entry can be processed 2.5 times faster on Exadata Database Machine X2-2 when compared to processing on an IBM P series machine. Significantly accelerating the number of transactions a user can process will prevent delays during peak transaction volumes like month end and provide more time to spend analyzing the information and managing exceptions for better quality processes.
Case Study A

A financial services customer tested the Exadata Database Machine X2-8 to solve some key performance concerns:

1. Currently five source systems integrated with Oracle Financials Accounting Hub but more source systems would be added to the integration in future.

2. Significant data growth was anticipated over the foreseeable future.

3. There were interdependencies between various systems and therefore batch processing run times were crucial to keep within time critical processing windows.

Exadata and Application Server Configuration

The customer’s current hardware for their production environment was an IBM p570 server. The performance tests were done on two Sun Fire 4270 application servers with 12 cores and 96 GB memory on a 10 GbE network. The Exadata Database Machine X2-8 had a performant 15K disk drive on a 600 Gigabyte disk for the EBS database tier and was configured with three Sun Infiniband 40 Gb switches, two Sun Fire 4800 database servers, an Oracle 11gR2 EE database and Oracle Linux combined with fourteen Exadata Sun Fire 4270 servers, Oracle Exadata Storage Software and Oracle Linux.
Test Results

Run Time

Performance tests show the create accounting process ran an average of 4.4 times faster on Exadata Database Machine X2-8 when compared to the customer’s production system.

![Run Time Graph]

Figure 2. Performance test results of “Create Accounting” batch process run time

Note that test scenarios one and five match the customer’s production environment in terms of one application pinned to one DB node and are directly comparable to the customer’s production environment run time for 16.7 million subledger journal lines. Test scenarios two and three include test data for two applications. In test scenario four, test data for three applications were included. In all test cases it was, however, proved that the run time was much faster on the Exadata Database Machine X2-8 than the customer’s current production environment.

The performance test proved the customer could significantly condense the processing window to achieve near real-time accounting results, giving the CFO better insight to advise the business.
Case Study B

A financial services customer running several legacy applications asked Oracle to help define the optimal architecture for their finance transformation program. The customer needed to optimize system performance around their time critical processing window.

Oracle executed performance tests based on extracts from the customer’s mortgage system, manipulated and obfuscated the data, increased volumes and integrated the data with Oracle Financials Accounting Hub on an Exadata Database Machine X2-8.

Exadata and Application Server Configuration

The environment utilized a single Exadata Database Machine X2-8 with a performant 15K disk drive on a 600 Gigabyte disk for the EBS database tier, two Sun Fire X4470 servers for the EBS application tier, a Sun Fire X4470 for Oracle Data Integrator (ODI), and a Sun ZFS Storage Appliance and Media Server for backup and recovery operations.
### TABLE 1. PHYSICAL INFRASTRUCTURE USED TO SUPPORT PERFORMANCE TEST

<table>
<thead>
<tr>
<th>COMPONENT NAME</th>
<th>COMPONENT DESCRIPTION</th>
<th>COMPONENT PURPOSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exadata X2-8</td>
<td>Database Machine</td>
<td>Database Storage and Compute Nodes</td>
</tr>
<tr>
<td>X4470</td>
<td>Sun Fire Server</td>
<td>Application Tier for the Exadata test environment and Oracle Data Integrator Server</td>
</tr>
<tr>
<td>X4270M2</td>
<td>Sun Fire Server.</td>
<td>Media Server</td>
</tr>
<tr>
<td>S7420</td>
<td>Sun SFZ Storage Appliance</td>
<td>Disk based back-up target and storage for Application Tier</td>
</tr>
<tr>
<td>6180Tray</td>
<td>Sun Storage Array</td>
<td>Storage for large and medium sized non-Exadata support test environments</td>
</tr>
<tr>
<td>CSM2Tray</td>
<td>Sun Storage Array</td>
<td>Storage for large and medium sized non-Exadata support test environments</td>
</tr>
<tr>
<td>SL500</td>
<td>Storage Tek Modular Library System</td>
<td>Tape storage device for all test environments</td>
</tr>
</tbody>
</table>
TABLE 2. SOFTWARE USED TO SUPPORT PERFORMANCE TESTS

<table>
<thead>
<tr>
<th>COMPONENT NAME</th>
<th>VERSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oracle E-Business Suite</td>
<td>12.1.3</td>
</tr>
<tr>
<td>Oracle AS (Forms / Reports)</td>
<td>10.1.2.3</td>
</tr>
<tr>
<td>Oracle AS (Inc HTTP Server)</td>
<td>10.1.3.5</td>
</tr>
<tr>
<td>Oracle Exadata Machine</td>
<td>X2-8</td>
</tr>
<tr>
<td>Oracle RDBMS</td>
<td>10.2.0.2.BP14</td>
</tr>
<tr>
<td>Oracle Clusterware</td>
<td>10.2.0.2.BP14</td>
</tr>
<tr>
<td>Infiniband Firmware</td>
<td>2.7.8130</td>
</tr>
<tr>
<td>Storage Server Software</td>
<td>11.2.2.4.2.111221</td>
</tr>
<tr>
<td>Open Fabric Software</td>
<td>1.5.1</td>
</tr>
<tr>
<td>Oracle Data Integrator</td>
<td>11.1.1.5</td>
</tr>
<tr>
<td>Weblogic Server</td>
<td>10.3.5</td>
</tr>
</tbody>
</table>

Test Results
During the performance test, CPU utilization was 75-85% and using approximately 50,000 I/Os per second for storage, utilizing the high redundancy option and triple mirroring of the Exadata Database Machine X2-8.

TABLE 3. PERFORMANCE TEST RESULTS FOR BATCH PROCESSES

<table>
<thead>
<tr>
<th>RAC NODES</th>
<th>EVENTS PROCESSED PER HOUR</th>
<th>SUBLEDGER JOURNAL LINES CREATED PER HOUR IN ORACLE FINANCIALS ACCOUNTING HUB</th>
<th>JOURNAL LINES IMPORTED PER HOUR INTO ORACLE GENERAL LEDGER</th>
<th>JOURNAL LINES POSTED PER HOUR IN ORACLE GENERAL LEDGER</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>9,824,081</td>
<td>27,041,976</td>
<td>37,248,567*</td>
<td>37,991,887*</td>
</tr>
</tbody>
</table>

* Journal Lines transaction rates for both the Import and the Posting process were calculated by recording the start time of the very first process to execute, and the completion time of the last process to complete. As these processes are executed non-sequentially, the results obtained do not represent the true capability of the Journal Import and Journal Post performance. However, the figures presented above do reflect the likely throughput of these processes when executing in a production environment.
The benchmark proved the customer could easily process expected growth rates in accounting transactions within the required processing window. This will allow the business to meet growth targets without any impact on the financial close cycle.
Case Study C

A leading provider of leasing, business and consumer finance solutions needed to find performance improvements to allow them to deliver information to end users globally within acceptable timeframes and provide more agile reporting capabilities to drive decisions about where to invest capital.

They identified some critical performance concerns with their existing applications environment:

• Current architecture lacked the ability to keep up with processing demands
• Missing batch window service level agreements, which could cause downtime for end-users
• High total cost of ownership
• Performance challenges impacting loyalty
• Unable to roll out one Global system
• Complex administrative processes needed to meet performance challenges

The customer asked Oracle to provide information on application and workload for Oracle E-Business Suite R12 and Exadata X2-2 when compared to IBM P series focusing on the following areas:

- Financials ➔ Order to Cash
- Financials ➔ Month-end closing
- ETL Batch into Financials
Test Results

Oracle provided test result comparisons which showed faster OLTP and batch run time. Tests outlined an up to three time reduction in total processing time for selected Oracle E-Business Suite Financials batches, refer to figure 4 below where the time is shown on the Y-Axis and various batch processes are shown on the X-Axis. As a result of these improved run times the customer should be able to address the critical batch windows to prevent or minimize downtime for end users.

![OLTP & Billing Extracts Processes](image1)

Figure 4. OLTP & Billing Extract Process Run Time Test Results Comparison

Oracle also tested transaction volumes to process within a time critical window, refer to figure 5 below where the transaction volume is shown on the Y-Axis and the Oracle E-Business Suite Financials batch process or data entry is shown on the X-Axis. The subledger views and generate accruals are batch processes and these could process three to five times more transaction volume on Exadata than on IBM P Series. The DLL Accounting Entry test showed an end user response time improvement of 75% as more volume could be handled on Exadata and the end user response time for Fixed Asset Template entries showed that 2.5 times more data could be entered when run on an Exadata machine. These end user response times should enable the customer to better address their processing demands.

![Financials & Fixed Asset Processes](image2)

Figure 5. Oracle E-Business Suite Financials and Fixed Asset Process Test Results Comparison

Overview of Engineered Systems

Oracle’s Engineered Systems combine best-of-breed hardware and software components with game-changing technical innovations. Designed, engineered, and tested to work best together, Oracle’s Engineered Systems can power the cloud or streamline data center operations to make traditional deployments even more efficient. The components of Oracle’s Engineered Systems are preassembled for targeted functionality and then—as a complete system—optimized for extreme performance. By taking the guesswork out of these highly available, purpose-built solutions, Oracle delivers a solution that is integrated across every layer of the technology stack; a simplicity that translates into less risk and lower costs for your business. Only Oracle can innovate and optimize at every layer of the stack to simplify data center operations, drive down costs, and accelerate business innovation.

Oracle Exalogic

Oracle Exalogic is an Engineered System on which enterprises deploy business applications, Oracle Fusion Middleware or third party software products. Exalogic comes pre-built with compute nodes, memory, flash storage and centralized storage; all connected using InfiniBand in a high redundancy architecture delivering five-nine availability, with fault tolerance and zero-down-time maintenance. Exalogic dramatically improves performance of Oracle Applications, Fusion Middleware and third party applications without requiring code changes and reduces costs across the application lifecycle, from initial setup to ongoing maintenance, as compared to conventional hardware platforms.

Oracle has achieved unique optimizations and enhancements in Exalogic firmware, Exalogic software, and in Oracle’s middleware and applications. These include on-chip network virtualization based on near zero latency InfiniBand fabric, high-performance Remote Direct Memory Access, workload management in Oracle Weblogic server and optimizations in Oracle Coherence and Oracle Traffic Director. Exalogic includes support for a highly optimized version of the Oracle VM, which significantly outperforms comparable virtualization solutions and is an ideal consolidation platform for Applications. Templates to simplify installation, deployment and configuration of applications on Exalogic are available.
Oracle Exadata Database Machine

Oracle’s Exadata Database Machine is Oracle’s database platform delivering extreme performance for database applications including Online Transaction Processing, Data Warehousing, Reporting, Batch Processing, or Consolidation of mixed database workloads. Exadata is a pre-configured, pre-tuned, and pre-tested integrated system of servers, networking and storage all optimized around the Oracle database. Because Exadata is an integrated system, it offers superior price-performance, availability and supportability. Exadata frees users from the need to build, test and maintain systems and allows them to focus on higher value business problems.

Exadata uses a scale out architecture for database servers and storage. This architecture maintains an optimal storage hierarchy from memory to flash to disk. Smart Scan query offload has been added to the storage cells to offload database processing. Exadata implements Smart Flash Cache as part of the storage hierarchy. Exadata software determines how and when to use the Flash storage for reads and writes as well as how best to incorporate Flash into the database as part of a coordinated data caching strategy. A high-bandwidth low-latency InfiniBand network running specialized database networking protocols connects all the components inside an Exadata Database Machine. In addition to a high performance architecture and design, Exadata offers the industry’s best data compression to provide a dramatic reduction in storage needs.

Oracle Exalytics

As analytic applications become more sophisticated and calculation-intensive, the use of mobile BI expands, user adoption increases, and data volumes explode, speed and efficiency is more important than ever. In-memory technology can dramatically accelerate analytic performance. Oracle Exalytics In-Memory Machine is the industry’s first Engineered System for analytics that combines market leading BI foundation, in-memory analytics software, and best-in class hardware engineered and optimized to work together to deliver extreme performance for Business Intelligence and Enterprise Performance Management applications. As a result, users can visually navigate and drill into information at the speed of thought, without limits on the complexity of their questions or the volume of the underlying data. Exalytics drives a new class of smarter and more powerful analytic applications that simply weren’t possible using conventional BI software and generic hardware configurations.

Oracle Business Intelligence Foundation running on Oracle Exalytics has been specially enhanced to take advantage of large memory, processors, concurrency, storage, networking, operating system, kernel, and system configuration afforded by the Oracle Exalytics hardware. Oracle TimesTen for Exalytics has been specially enhanced for analytical processing at in-memory speeds. With lightening fast scan speed of up to 100 million rows per second and up to 10x columnar compression, TimesTen for in-memory analytics delivers faster reports and dashboards for departmental as well as enterprise wide consumption.
Similar to Engineered Systems such as Exadata and Exalogic, Oracle E-Business Suite can be deployed on Oracle's SPARC SuperCluster to achieve high availability, performance, scalability and environment consolidations. Here is a brief description of Oracle’s SPARC SuperCluster’s technical capabilities.

Oracle’s SPARC SuperCluster is the world’s most efficient multi-purpose engineered system, delivering extreme efficiency, cost savings, and performance for consolidating mission critical applications and rapidly deploying cloud services. Oracle’s SPARC SuperCluster represents a complete, pre-engineered, and pre-tested high-performance enterprise infrastructure solution that is faster and easier to deploy than a collection of individual database and application servers. The system combines innovative Oracle technology—the computing power of Oracle’s SPARC servers, the performance and scalability of Oracle Solaris, the Sun ZFS Storage Appliance, the optimized database performance of Oracle Database accelerated by Oracle Exadata Storage Servers, and a high-bandwidth, low-latency InfiniBand network fabric—into a scalable, engineered system that is optimized and tuned for consolidating mission-critical enterprise applications.

Oracle’s SPARC SuperCluster provides both the capacity for growth, as well as the fine-grained server virtualization needed to isolate individual application components. Deployment speed, application performance, and availability can all be optimized with the
multiple layers of enterprise application infrastructure consolidated onto a high-performance, highly available SPARC SuperCluster system. Designed as a pre-configured, pre-tested, and ready-to-deploy SPARC SuperCluster engineered system, the solution provides a complete and optimized infrastructure solution for applications, built around robust compute, networking, storage, virtualization, and management resources. The result is a system that is orders of magnitude easier to manage, and up to five times faster to deploy than alternatives, all while occupying considerably less real estate requiring less power. Furthermore, the SPARC SuperCluster system provides full built-in redundancy resulting in a highly reliable infrastructure without single point of failure. An issue with one component will not impact other components of the system offering true isolation. Customers can consolidate multiple Oracle E-Business Suite environments with minimum disruption, without fear of performance degradation, and the ability to achieve required service levels.

Technical Benefits of Oracle’s Engineered Systems

Overview

Internal benchmarking indicates that Oracle E-Business Suite running on Oracle’s Engineered Systems performs 3 to 10 times faster for forms and self service applications depending upon the concurrency load profile. And linear scaling allows for very large deployments and multiple applications to run simultaneously while maintaining consistent response times. Oracle’s Engineered Systems are architected to deliver maximum availability, high performance, and scalability helping Oracle E-Business Suite customers to consolidate environments, and reduce server footprint resulting in an overall reduction in cost of application ownership.

Here are some of the technical benefits delivered by Engineered Systems:

• Oracle E-Business Suite applications consists of many batch processing programs that create large workloads. These workloads are highly CPU intensive. High concurrency of these workloads requires systems with large memory capacity with large Systems global area (SGA) and Program global area (PGA) capable of processing high speed disk input/output (I/O). Oracle’s Engineered Systems are architected to deliver these superior technical capabilities to manage such large workloads.

• Engineered systems can handle twice as many users per core compared to other servers delivering the scalability required to add more application users during growth and expansion.

• Linear Scaling easily supports very large deployments.

• Resource Manager can help consolidation of database and application environments by controlling CPU usage, managing CPU contention via instance caging, controlling disk I/O usage, and managing contention via IORM’s inter-database resource plans. Customers can achieve higher throughputs as more transactions can be processed using single Exadata core compared to other servers.
Exalogic has been engineered to leverage a technique known as Single-Root I/O Virtualization to eliminate virtualization overhead and deliver maximum performance and scalability. Mission-critical server virtualization offers a whole new level of consolidation where multiple virtual machines are sharing a single physical server in order to maximize the utilization of server hardware, while minimizing associated cost.

- Oracle VM template for Exalogic reduces installation and configuration time and allows rapid deployment of Oracle E-Business Suite applications.
- Oracle E-Business Suite customers can load balance web and forms servers, configure parallel concurrent processing and configure Oracle RAC and Oracle Data Guard for high availability.
- Oracle Enterprise Manager Cloud Control (EM) helps with Exadata manageability and provides a composite view of all health indicators of a cell or cell group to diagnose and troubleshoot performance problems efficiently.

Oracle E-Business Suite customers will benefit from using the following unique features of Oracle's Engineered Systems:

### Exadata Unique Features

#### Exadata Smart Flash Cache

Exadata Smart Flash Cache uses Flash memory to dramatically reduce the time to read and write database and log records. The intelligence in Smart Flash Cache transparently moves active database blocks from disk to flash in real time, thus ensuring that "hot" data is in Flash memory when the next access occurs. Blocks that should not be in Flash are similarly recognized, maximizing the amount of space in Flash for active data.

Internal benchmarks for Oracle E-Business Suite have shown the following results as a result of Smart Flash Cache:

- Average I/O latency reduced by 58% and no special tuning is required to achieve I/O performance improvement.
- Log file sync events improved by 5% and no special tuning is required to achieve log file sync event improvements

#### Exadata Smart Scan

Exadata Smart Scan speeds up data-intensive queries by leveraging the processing power of Exadata Storage Servers to scan and filter out results. By moving queries to storage instead of moving the data to the database servers, long-running reports often complete 10 times faster than conventional systems.
InfiniBand

The use of InfiniBand as the networking fabric within Exadata ensures the lowest latency for messages and the highest bandwidth for data transfers. High-speed transactions as well as data-intensive queries and reports reap the benefits from InfiniBand. Oracle E-Business Suite benefits resulting from InfiniBand are:

- 30-40% lower CPU utilization and 100% or more throughput compared to Gigabit Ethernet
- 20% improvement in online transactions response times
- Easier scaling of E-Business Suite online transactional processing through low latency

Exadata Scale-Out Storage

Exadata Scale-Out Storage enables the full performance of Exadata to be realized against large and growing databases, without fear of bottlenecks. As the database size grows and storage capacity is added to Exadata, storage performance and networking bandwidth scale in equal proportion. As a result,

- Backups and Clones can be executed at a rate of 20TB/hour
- Faster incremental backups can be performed

I/O Resource Manager (IORM)

IORM allocates I/O bandwidth across different applications and databases, based on a prioritized allocation plan, to ensure that the most important applications get the performance they need when they need it. As a result, customers can consolidate database and application environments without worrying about resource contention and performance degradation.

Exalogic Unique Features

Exalogic Exabus

Applications running on Exalogic utilize Exabus, the underlying InfiniBand fabric, which provides low latency and high throughput eliminating I/O bottlenecks in every application layer. Applications components are typically deployed in more than one server and Exabus provides low latency for I/O across nodes on same Exalogic rack. Access to ZFS storage device over Exabus greatly reduces latency for log file writes and other file access operations. For applications running on Exalogic and accessing the database tier on Exadata, Exabus delivers faster I/O, reduces CPU usage on both the mid-tier and DB-tier and providing higher connection pooling efficiency.
Oracle VM for Exalogic

Exalogic Oracle VM can sub-divide a physical compute node into multiple virtual machines to increase application deployment efficiency while maintaining application performance. Oracle VM has been engineered for tight integration with Exalogic Exabus I/O backplane using a technique called Single Root I/O Virtualization (SR-IOV) ensuring Oracle VM significantly outperforms comparable hypervisors from other leading vendors. The benefit of this approach is unmatched application performance. In an Exalogic configuration, the impact of virtualization on application throughput and latency is negligible.

Conclusion

As the gatekeeper of information, finance departments are under increasing pressure to provide more information and better insight across the enterprise to both internal and external stakeholders. They must be able to quickly respond to new regulations or customer requirements without lowering quality or adding cost. And they must remain a vital influence on overall business strategy.

Running Oracle E-Business Suite Financials on Engineered Systems enables finance departments to:

- Accelerate Decision Making
- Drive Faster Close Cycles
- Improve Business Efficiency and User Productivity
- Focus on Strategic Initiatives