

Case Study: Insurance

Ignite for Oracle delivers a big impact for DBAs and developers boosting performance, reducing costs, and improving service of Oracle databases, unlocking the hidden value of their IT infrastructure.

Customer Results

- *Ignite for Oracle deployed across 70 servers, up to 500 CPUs, to monitor Oracle across enterprise infrastructure.*
- *Performance and capacity improvement of 100% documented for initial implementation.*
- *90% improvement in end-user response time for customer service application.*
- *800% ROI achieved based on hardware savings, elimination of consulting costs, and avoidance of SLA compliance penalties.*

Customer Description

Customer is a U.S. based, Fortune 100 financial services organization with diversified operations in property, casualty and life insurance markets and \$150B in assets.

Customer operates over 150 servers ranging from 2 to 24 CPU each running Oracle RDBMS. Databases support a wide range of applications including financial and accounting operations, billing, eCommerce, customer relations, call center, and project management. Applications are both internally developed as well as licensed from major commercial vendors and customized to meet specific customer requirements. Both high volume transaction processing and data warehouse applications are supported.

Customer maintains a dedicated DBA staff responsible for operating Oracle RDBMS systems and providing high level of service to application owners in functional and business areas. DBA team is small and skilled. Size and volume of applications has grown rapidly in recent years but DBA staff has not grown proportionally. Application development has also accelerated with more customer-facing applications being introduced and demands for shorter development times and tighter service level guarantees for both internal and externally visible applications. Result is a larger number of developers with varying levels of Oracle experience creating applications dependent on the Oracle environment.

Customer Challenge

Faced with frequent and varied performance problems and response time variations the DBA team was forced to add hardware and Oracle CPU licenses as a standard procedure to maintain acceptable performance levels. As an example, server size for systems ranging in cost from less than \$25,000 to more than \$700,000 was routinely doubled in attempts to overcome perceived “horsepower” shortages in the Oracle infrastructure. Consultants were retained to provide application expertise costing \$5K–10K per month for each project on a continuing basis.

Most critically, the DBA team felt they were “flying blind.” They perceived that despite their knowledge and skills in Oracle administration and tuning, they did not have visibility into the environment they were operating thus could not effectively deliver service to meet the growing demands of their internal customers.

Solution

After an extensive evaluation, customer chose Confio Ignite for Oracle as a primary performance monitoring and optimization tool. Ignite for Oracle was introduced for use by all members of the DBA team ranging in Oracle skill-level from mid-level to ►

Customer Achieved Benefits

- *Eliminated finger pointing in between groups.*
- *Shortened "Critical Situation" fire drills.*
- *Documented code problems with outside vendors, forcing resolution.*
- *Raised skill level across DBA team.*

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 1-303-938-8282 or
 1-866-CONFIO-1
 (1-866-266-3461)

Email: info@confio.com
www.confio.com

expert. It was also made accessible to developers creating Oracle based applications. Ignite for Oracle monitoring was configured for the majority of Oracle servers in the organization providing universal visibility across the Oracle installation.

Results

Customer has been able to demonstrate a performance improvement of over 90% through use of Ignite for Oracle. As a result, DBA team has been able to significantly reduce acquisition of new hardware and software licenses and has been able to scale back consulting expenditures tied to new project deployment. IT organization was also able to demonstrate compliance with internal Service Level Agreements (SLA) with business unit application owners avoiding cost penalties. Overall, customer has been able to demonstrate a ROI of 800% through use of Ignite for Oracle for both ongoing optimization and resolution of acute performance problems.

Examples of Problem Resolution Include:

- Identification of additional index reduced I/O wait times by 60%. Ignite for Oracle identified multiple instances of a single query causing system wide I/O delays over an extended period. Application owner validated that the query was running as specified, so the DBA inserted a new index tied to this SQL and eliminated over 60% of multi-block I/O on the system.
- Reduced hardware demands by 25% and eliminated need for middle-of-night intervention by DBA. Monitoring of overnight processes identified spikes in resource usage and wait times with both CPU and I/O hitting maximum occurring regularly. DBA was able to identify changes in index structure and recommend query modifications to development. Result is an elimination of 13 hours of wait time for the nightly processing. This eliminated the need for a planned addition of 2 CPUs and Oracle licenses to a 6 CPU server. Importantly, the ability to monitor overnight processes and to identify specific behavior from captured data allowed the responsible DBA to avoid remaining at work for overnight system monitoring tasks.
- Eliminated \$700K server capacity upgrade for data warehousing application. A 24 CPU server was consistently operating at greater than 90% CPU utilization and a doubling of hardware and software capacity was recommended as the standard attempt at resolution. Ignite for Oracle identified parallel queries and direct path reads as the source of the bottleneck. With the database configured to run up to 16 parallel threads for each query, it was being consumed with inter-process communications. Armed with this illumination of the true problem source, the expert DBA was able to reconfigure the parallel threads and reduce the CPU and I/O overhead. The result was elimination of the need for a 100% capacity increase plus software, project management, and implementation resources required to put the new system into production.

