

Oracle Performance Tools:
Reduce Your IT Infrastructure Investment



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CONTENTS

Summary..... 3

Savings: Reduced Capital Investment..... 3

Savings: Eliminated Need for New Full Time Employee in a Small Enterprise . 4

Savings: Reduced Outside Consulting Costs for a Large Enterprise..... 5

Savings: Demonstrated SLA compliance..... 6

Savings: Reduced Development Time and Expense 7

About Confio Software..... 10

Summary

ROI SUMMARY: 1st YEAR RETURN FROM IGNITE APPLICATIONS

- Capital Investment
Reduced – **ROI 1193%**
- Employee costs
reduced – **ROI 116%**
- Consulting costs
reduced – **ROI 24%**
- SLA Compliance
Penalties Avoided -
ROI 159%
- Development Time
Reduced – **ROI 659%**

Confio Ignite for Oracle™ cuts the total cost of operating Oracle databases, reduces risk and shortens schedule when developing and introducing new Oracle-based applications. Confio customers have achieved Return on Investment (ROI) in excess of 900% in the initial year after implementation of Ignite for their SQL development and Oracle production environments.

Savings have been achieved through multiple sources, all tied to “hard-dollar” savings for IT departments and application owners:

- Avoided costs for new capacity to support increasing loads
- Eliminated needs for new full-time employees to operate growing volume
- Reduced outside expert consulting costs for database tuning
- Demonstrated SLA compliance to avoid non-compliance penalties
- Cut development costs and reduced time to introduce new applications

This note identifies the sources of economic value derived from Ignite, and assists prospective users in calculating the returns they can expect in their specific organization.

Savings: Reduced Capital Investment

When facing high wait times, dropped sessions, and application lock-ups, the typical company response is to invest in expanded server hardware capacity and additional Oracle licenses, plus the accompanying installation and project management costs. DBAs utilizing Ignite have demonstrated the ability to cut Oracle wait times by 30-90%, and eliminate the contention once attributed to insufficient hardware capacity.

Through use of Ignite, a typical organization can achieve a 35% performance improvement, generating ROI of 965% first year, based solely on reduced server investment, as illustrated in Case 1 below.

Case 1 - Resolved server capacity constraints

Input assumptions: Brokerage firm has introduced new operations apps, generating 35% increased load on a server already near capacity. Choice now involves what investments to make to meet current capacity demands. Choices are replacement of Server A with larger hardware, or use of Ignite to increase capacity of Server A without additional capital investment.

- Server A is 4 CPU server running at maximum capacity with transaction volume continuing to grow. Increasing capacity will require replacing Server A with a new 8 CPU Server B, and obtaining 4 additional Oracle CPU licenses.

- Cost of expansion is Server B, \$50K plus Oracle licenses at \$15K per CPU, total \$60K for Oracle. Total cost of hardware and software for server B is \$110K
- Ignite license for Server A initial cost is \$9.6K, with annual maintenance of \$1.9K.

Through use of Ignite, customer removes critical bottlenecks, achieves 50% improvement in user response time, and avoids need for investment in additional capacity.

| Capital Cost | With Ignite | Without Ignite |
|--|-------------|----------------|
| Server replacement cost | \$0 | (\$110K) |
| Server maintenance + overhead cost | (\$6.3K) | (\$12.5K) |
| Ignite investment | (\$11.5K) | \$0 |
| Savings 1 st year– avoid server replacement | \$122.5K | \$0 |
| ROI - Server capital cost (See Note 1 – ROI calculations) | 965% | 0% |

Savings: Eliminated Need for New Full Time Employee in a Small Enterprise

When introducing critical new database applications or expanding the number of servers and Oracle instances, companies face the question of whether to expand their DBA team. In small/mid-sized operations, there may not be a dedicated DBA at all, and increasing the number of systems may force hiring of a full time DBA where a part time consultant has sufficed in past. Ignite has been effective in allowing customers to “Do More, with Less”, and manage increased capacity without increasing headcount.

In Case 2 below, the organization achieved an ROI of 116% first year, followed by 1193% in subsequent years, by avoiding the need to upgrade from a part time consultant expert to a full time expert DBA when expanding their database operation. The organization continued to use less experienced system admin staff to identify and resolve problems using Ignite, and to avoid the need for a full time expert DBA on staff.

Case 2 – Reduced Employee Costs

Input assumptions: Wholesale distribution company has expanded electronic transaction capability with customers, requiring addition of multiple new databases. Deployment and administration of new databases and applications threatens to overwhelm existing staff, with potential need to hire full time DBA to administer new systems. Alternative is to use Ignite to enable existing personnel to administer database without increasing full time or contracted staff.

- 2 servers, 3 databases expanding to 4 servers, 6 databases.
- Existing staff includes 1 system admin (\$75K full cost) + part-time DBA consultant 8 days / month @ \$50K per year.

- Estimate requirement to manage new systems is full time senior DBA employee @ \$100K. Consultant hours are cut in half to \$25K, but cannot be eliminated completely due to required expertise.
- Alternative is Ignite license for all 4 servers, with license cost \$20K and annual maintenance of \$3.4K.

Through use of Ignite a single system admin and consultant are sufficient to manage new capacity and applications without additional full time headcount.

| | With Ignite | Without Ignite |
|---|-------------|----------------|
| 1st Year Costs | | |
| Consultant cost per year | (\$50K) | (\$25K) |
| Cost of new full time DBA | \$0 | \$100K |
| Savings 1 st year – avoid full time hire | \$75K | \$0 |
| Ignite investment | (\$34.6K) | \$0 |
| ROI – 1 st Year (net savings/investment) | 116% | 0% |
| 2nd Year and Recurring Costs | | |
| Annual savings from Ignite | \$75K | \$0 |
| Ignite annual cost | (\$5.8K) | \$0 |
| ROI – 2 nd Year and recurring | 1193% | |

Savings: Reduced Outside Consulting Costs for a Large Enterprise

A large enterprise with 12 servers running Oracle across multiple data centers required the constant intervention of outside expertise for advice and resolution for critical systems. Despite an internal team of 3 DBAs, there was need for recurrent critical problem solving, tuning and crisis resolution by a highly regarded, high price external Oracle consulting organization. Using Ignite, the enterprise reduced the dependency on consultants, and achieved an ROI of 24% in year 1, followed by 1158% in subsequent years, as shown in Case 3 below.

Case 3 – Reduced External Consulting Expense

Input assumptions: Insurance company with multiple internally developed applications runs entire operation on Oracle. Full time DBA staff is unable to address growing list of issues with new applications, resulting in growing dependency on high cost consultant firm to maintain system operations.

- 12 servers, 16 databases for critical internal accounting, order processing, billing, and inventory functions, as well as customer facing web based transactions.
- 20 consulting days per month @ \$175 / hour required to maintain steady system operations. Total \$330K consulting spends over past year without Ignite.
- Overtime and premium time costs for DBAs total \$40K past year for critical situation resolution.

- Use of Ignite by internal 3 DBA team reduces consulting by 50% to \$165 per year, reduces critical off hours events to \$10K. Total savings \$195K in each of first and second years.
- Ignite license for 12 servers license cost is \$130K, with annual maintenance of \$26.7K.

Ignite delivers ability to reduced dependency on external expertise, resulting in consulting cost savings and reduced need for off-hours emergency operations.

| | With Ignite | Without Ignite |
|--|-------------|----------------|
| 1st Year Costs | | |
| Consultant cost per year | (\$165K) | (\$330K) |
| Premium time costs per year | (\$10K) | (\$40K) |
| Savings 1 st year – reduced consulting/premium expenses | \$195K | \$0 |
| Ignite investment | (\$156.7K) | \$0 |
| ROI – 1 st Year (net savings/investment) | 24% | 0% |
| 2nd Year and Recurring Costs | | |
| Annual savings from Ignite | \$195K | \$0 |
| Ignite annual cost | (\$26.7K) | \$0 |
| ROI – 2 nd Year and recurring | 630% | 0% |

Savings: Demonstrated SLA compliance

Many IT departments operate under strict Service Level Agreements (SLAs) with their internal customers, whereby they must maintain availability levels and keep application wait time below specified thresholds. If the SLA is violated, IT suffers impacts ranging from loss of funding to direct cost penalties. Because there can be so many sources of delay in a complex application, and different areas of responsibility for each, IT must be able to document compliance for the systems it controls, and document when SLA non-compliance is outside of its span of control.

Ignite delivered an ROI of 159% for the first year of operation, followed by 1400% ROI in following years, through elimination of SLA penalties. Ignite delivered these by providing hard evidence of compliance, and by providing verifiable documentation that delays are not the result of database problems.

Case 4 – Avoiding SLA Non-compliance Penalties

Input assumptions: IT department at an online retailer operates databases for business operations, with the E commerce applications and infrastructure outsourced. The office of the CIO imposes SLAs on the whole organization to ensure a high quality customer experience. The IT group is frequently held responsible for application or system failures outside of its own bounds, and requires a tool to identify and document the sources of system delays.

- IT department operates database and applications for online customer purchases. Web servers, credit card clearing, and network access are operated by other providers.
- SLA penalty of \$10,000 per incident is charged to IT if on-line transactions impose a customer wait time of 10 seconds or more, based on external monitoring at random intervals.
- In a monthly meeting, penalties are assessed on the groups held responsible for any SLA violations. The meetings are contentious, and typically involve finger pointing between departments.
- IT operates 2 servers, 4 CPU each, for the Oracle database back-end to the application.
- Ignite license for 2 servers cost is \$19.2K, with annual maintenance at \$4.0K.
- Prior to use of Ignite, on average, web and network problems result in 1 documented incident of slow service times every two months for IT and the DBA group.
- Through the use of Ignite, the DBA group in IT was able to eliminate the SLA violations charged to the group for an entire year.

Elimination of penalties for the DBA group came from two sources: the ability to document other sources of the problem, and proactively working to reduce database resource contention. Using Ignite-generated reports on specific resource waits, the DBAs brought evidence to the monthly meeting demonstrating that outages were caused by network failures and by delays with external providers. Separately, a recurring but hard to reproduce delay related to Oracle latches was diagnosed and resolved, preventing future SLA charges for this area of DBA responsibility.

| | With Ignite | Without Ignite |
|--|-------------|----------------|
| 1st Year Costs | | |
| SLA violations – incorrectly assigned to DBA group | \$0K | (\$50K) |
| SLA violations – Database resource contention induced delays | \$0 | (\$10K) |
| Savings 1 st year – Eliminated SLA penalties | \$60K | \$0K |
| Ignite investment | (\$23.2K) | \$0 |
| ROI – 1 st Year (savings/investment) | 159% | 0% |
| 2nd Year and Recurring Costs | | |
| Annual savings from Ignite | \$60K | \$0 |
| Ignite annual cost | (\$4K) | \$0 |
| ROI – 2 nd Year and recurring | 1400% | 0% |

Savings: Reduced Development Time and Expense

Reducing time and risk in development of business applications has a significant impact on reducing IT costs, and on speeding time-to-market for company business

plans. Ignite delivers an ROI of 659% in the first year, followed by a huge 3972% in subsequent years by accomplishing both.

Internal development of business applications, such as accounting or sales operations typically take 6 months from time of project initiation to production availability. Often this implementation is a the gating item to introduction of new products and customer services. In case 5 below, developers have been able to cut development times by 20% through use of Ignite to identify and resolve database trouble spots in their applications prior to finding them in production environments.

Case 5 – Reduced Development Time and Expense

Input assumptions: A global consumer products company develops applications for operations, ordering and inventory management for use internally and with suppliers and customers. Over the past year, the internal development team meets initial functionality deadlines in test environments, only to spend additional time modifying the new apps to meet volume and performance goals on the production system. Requirement is to find a method of reducing development cycles and costs of integrating new apps into production.

- 3 development servers, 2 CPU each, used for development integration and test of new SQL applications.
- Developers have limited Oracle-specific knowledge. They are skilled at SQL code generation, but depend on DBA expertise from outside to resolve difficult database related code problems.
- Standard cost to develop application requires 2 people over 6 month period, including development, test and integration, with a loaded cost \$8K/person-month, for standard cost of \$96K per application.
- Typical development cycle involves production test, lasting 2 months, with successive revisions, prior to final release. This occupies one third of total development cycle.
- Using Ignite, number of test/revision cycles is cut in half, resulting in total reduction of 20% on total development. Result is standard app development cost cut to \$77K from \$96K
- Management estimates 7 new applications to be developed in coming year.
- Ignite license for all servers cost \$14.4K, with annual maintenance of \$3.3K.

| 1 st Year Costs | With Ignite | Without Ignite |
|---|-------------|----------------|
| Standard application development cost - per application | (\$77K) | (\$96K) |
| Total group development cost – 7 applications | (\$537.6) | (\$672) |
| Savings 1 st year – Reduced development time | \$134.4K | \$0K |
| Ignite investment | (\$17.7K) | \$0 |
| ROI – 1 st Year (savings/investment) | 659% | 0% |

| | | |
|--|----------|-----|
| 2nd Year and Recurring Costs | | |
| Annual savings from Ignite | \$134.4K | \$0 |
| Ignite annual cost | (\$3.3K) | \$0 |
| ROI – 2 nd Year and recurring | 3972% | 0% |

Ignite provides two sources of savings – the reduced use of expensive internal development, test and integration resources; and the more potentially more important impact of reducing the time to introduce new applications for internal business customers.

Note 1: ROI Calculations

In all cases, Return on Investment (ROI) is calculated based on:

$$\text{ROI} = (\text{Savings} - \text{Investment}) / \text{Investment}$$

$$\text{Savings} - \text{Investment} = \text{Net Investment}$$

Any positive ROI indicates a greater return than expenditure. An ROI of 100% or more indicates that \$2 is saved for every \$1 invested.

About Confio Software

Confio Software develops Application Performance Management software which is revolutionizing the way enterprise applications are monitored, analyzed and optimized. Built on an industry best-practice Wait-Time methodology, Confio's Igniter™ Suite improves service levels for IT end-users and reduces total cost of operating IT infrastructure.

IT managers and their organizations spend inordinate amounts of time responding to application performance issues, often in crisis mode. Increasing pressure is placed on them to improve service levels for both internal and external customers. Without tools to find the actual root cause of problems, improvement projects spend billions of dollars on hardware, software licenses, and consulting projects that do not improve user service levels.

Confio's Ignite™ for Java and Ignite™ for Oracle give IT managers the capability to unlock the value of their IT systems, ensure service levels and avoid unnecessary expenditures. Customers worldwide have achieved ROI in excess of 800% using Ignite to identify critical problems and manage their resolution.

Confio Software products today are used by customers in North America, Europe, South America, Africa and Asia whose mission includes getting most value out of their business critical Oracle and Java systems. Customers are reached directly through the Confio sales force and through a network of partners in the US and internationally.

Confio is privately held. Its operations are based out of its headquarters in Boulder, Colorado. For more information email info@confio.com.

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