

Ignite 8 or OEM?

The DBA says the answer is both!



This article by Sr. DBA, Kathy Gibbs, discusses her experience using both OEM and Ignite at her position in Denver-based financial services company.

Did you know 90% of Confio's Oracle customers use both Oracle Enterprise Manager (OEM) and Ignite to solve performance issues? Based on my personal experience as a DBA in a large financial services transaction environment, this is not surprising. The combination of OEM and Confio Ignite 8 provides the kind of help I needed to better understand database performance issues and save time, money, and frustration.

Here are the three key reasons why you should considering using Ignite alongside OEM, and why I think it is necessary if you are serious about improving your performance as a DBA:

- Quickly gets you directly to the source of the problem
- Simple enough for everyone to use, without impacting production instances
- Provides charts and graphs that managers and developers understand, so you can make the case about the source of a performance problem

Apples and Oranges

There are some very distinct differences between OEM and Ignite. OEM (sometimes referred to as Grid Control) was created to help manage the Oracle database environment. Citing Oracle documentation, "Enterprise manager is a system management software that delivers centralized monitoring, administration, and life cycle management functionality for the complete Oracle IT infrastructure, including systems running Oracle and non-Oracle technologies."

In contrast, Ignite 8 is a tool that is focused on database performance monitoring using wait time analysis. "Confio Ignite is a comprehensive database performance analysis and monitoring solution for DBAs, IT managers, and application developers. Ignite 8 identifies performance bottlenecks, improves application service, and reduces overall cost of Oracle database operations."

Because Ignite is dedicated to solving performance issues, Ignite fills a niche that OEM does not. If a DBA is looking for the root cause of a performance issue, they can use Ignite to identify the root cause in 3 to 4 clicks.

Can't we all just get along?

Ignite is a great collaboration tool. Ignite is completely agentless and puts a negligible load on the databases being monitored and their hosts. Since there is a very light load put on the monitored server from Ignite, there is no worry about granting read only access (or more where appropriate) to developers and even management. This enables DBAs and developers to fight problems, not each other. The tool is easy to read and easy to use, so everyone can see the same the same information from the database thus helping to break

"The vast majority of Oracle DBAs using Ignite use OEM for database management (resource usage monitoring, user management, storage management, etc.) and Ignite for end-user performance analysis, monitoring, and problem resolution..."

Kathy Gibbs, Sr. DBA
Denver, CO

Read more about the differences between Ignite and OEM. www.confio.com

down those not-so-invisible barriers -- otherwise known as communication “silos” -- between departments, management, and worker bees. This is especially useful when I needed to articulate technical issues to management. With Ignite’s graphing capabilities, even the less technical people can better understand the impact of performance related issues.

Standard Edition? No packs, no problem.

Another place where Ignite fills a void is when a company has a combination of Oracle Enterprise Edition (EE) and Standard Edition (SE). You get OEM Grid with both versions; however the diagnostic and performance tuning packs are not available for the SE version. Using Ignite with SE can be a lifesaver because Ignite doesn’t need the tuning pack tables so the monitoring will be the same for EE as it is for SE. Ignite allows you to follow alarms to see problem queries, server resources, trends and sessions.

Common Performance-Oriented Tasks

Here is a short of list of some DBA performance-oriented tasks. The list identifies which tasks are better executed by OEM vs. Ignite.

| Task | Ignite | OEM |
|---|--------|--|
| Performance analysis based on wait events with historical trend analysis by: SQL, Waits, Programs, Machines, DB Users, O/S Users, Files, Plans, Objects, Modules, Actions | x | The data is kept in the OEM repository; however the default is only 7 days. The trend data is also not automatic in OEM, you have to build your own reports or screens if you want to see trending |
| Monitoring system resources | x | x |
| Recent wait event data detail | x | x |
| Monitoring across all tiers | | x |
| Patching | | x |
| One dashboard/point of entry for multiple db platforms out of the box | x | |
| Single dashboard provides performance health check for all monitored databases | x | |
| User wait time by Explain Plan | x | |
| User wait time by table and index | x | |
| Filter wait time by end user, program, and server | x | |
| Agentless architecture. Less than 1% load on monitored server | x | |
| Use of ASH/AWR tables | | x |
| Requires Tuning/Diagnostic Packs | | x |
| Full functionality for 8i, 9i, 10g, and 11g | x | |

| | | |
|---|---|---|
| Performance diagnostics for SE | x | |
| Follow alarms to see problem by hyperlink in alarm email | x | |
| Monitor Data Guard health and log shipping statistics | | x |
| Break CPU time into actionable info – what CPU is waiting on | x | |
| Assign names to SQL statements for management reporting | x | |
| RAT (Real Application Testing) analysis | | x |
| Graphs for high-level analysis, understandable by non-DBAs | x | |
| Measure user wait time, not just wait events | x | |
| Point in time analysis | x | x |
| Analyze typical daily distribution of performance bottlenecks | x | |
| BI Analysis to identify trends, correlations, anomalies | x | |

Sample Scenarios

Below are three scenarios that help illustrate why Ignite compliments OEM and vice versa.

Scenario 1 : User receives an alert from OEM. The alert stats that the tablespace is 97% full for a particular database from OEM Grid. You log into OEM and add a datafile to the tablespace to get the percent full to go under 75%.

Scenario 2 : DBA receives an alert from OEM. The alert states that the I/O is running very high. The DBA logs into OEM and confirms the I/O is high, the performance tab shows there are several SQL statements running but you can't pin point exactly where the problem is. The DBA opens Ignite and sees there is one query that is causing 90% of all the wait. After drilling into the SQL statement, it is found that this is new code that was put in the previous night, and it is returning 10 times the amount of data due to a mistake in the code migration. You notify the developer and the code is reverted, fixing the problem.

Scenario 3: Every Monday morning, a user has an Ignite report that lists the top 15 SQL statements across their databases. This morning there is a spike on the report for a particular database from Saturday evening. The DBA goes into Ignite to find out more about what caused the spike and drills into the Saturday incident and sees that, because it's of end of month, the Accounting department was working over the weekend and ran a customized report that caused the spike. You can then email the graph that points this spike out with the SQL associated with it to management for your daily OPS meeting to explain what caused the performance incident. Since Ignite is easy to read, it is easy to share this information among all the groups.

The Ignite Advantage

Some Oracle OEM users might assume they would use either tool but not both. I don't think this is correct. The vast majority of Oracle DBAs using Ignite use OEM for database management (resource usage monitoring, user management, storage management, etc.) and Ignite for end-user performance analysis, monitoring, and problem resolution. This reduces time consuming tasks a DBA has to perform in their day to day job making them faster and more efficient; saving money for the company. All DBAs are being asked to take on more tasks and management of more databases in their organization. Ignite is a critical tool in a DBA's toolbox.

About Confio Software

Confio™ Software is focused on database performance monitoring. Ignite is a comprehensive database performance solution for DBAs, IT managers, and database application developers. Ignite helps eliminate performance bottlenecks, speed problem resolution, and reduce the cost of operations for SQL Server, Oracle, DB2, and Sybase databases and VMware Servers.

Confio Software
Boulder, Colorado, USA
(303) 938-8282
info@confio.com
www.confio.com