Software Asset Management Guidance for Oracle License Compliance

Oracle license compliance requires a disciplined asset management program

Rimini Street®

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Executive Summary

Are you concerned about potential Oracle license compliance management issues that could be revealed during an Oracle software license compliance audit? Do you know what licensed products your company possesses and how the usage of these products will be measured? Have new features or functionality been implemented without consideration to potential licensing implications? A disciplined process is a key software asset management tool in maintaining Oracle license compliance. With the seeming rise in the number of Oracle software audits in the marketplace,[1] licensees should be conscious of their license usage and take efforts to proactively maintain compliance.

This white paper documents license and asset management concepts to guide Oracle licensees on best practices and tools, helpful to successfully mitigate potential Oracle license compliance risk, which include:

- Implement a formal software asset management program
- Inventory your software assets
- Understand license metrics and associated policies
- Institute formal provisioning and deprovisioning processes
- Conduct regular internal audits for license usage

This white paper focuses on Oracle licenses, but the concepts outlined here may also apply to other vendors. Importantly, the descriptions throughout this white paper are based on typical Oracle licenses, practices, and policies. Therefore, we recommend that Oracle licensees carefully review all Oracle agreements including, but not limited to, purchase agreements, order forms, addendums, and appendices for their organization with their counsel to understand their Oracle license entitlements.

If you have any questions or if you are being audited by Oracle, contact our Rimini Street License Advisory Services. las@riministreet.com

Software Inventory

In order to maintain compliance with vendor license agreements, Oracle licensees will need to know all licensed programs, metrics, and license quantities that are owned by their organization. As a best practice, assign software asset management responsibility to someone within your organization. In discussing the importance of a software inventory during an Oracle software license compliance audit, Ryan Bendana, IT asset management professional at Anglepoint, writes, "Without a comprehensive understanding of your license inventory and entitlements, there is no way to verify if Oracle's assertions are true, accurate, or even correct. And if you fail to wrap your head around your license inventory, you're in no better position for the next audit either."[2] An Oracle Install Base Report is a good starting point to establish your Oracle license inventory. If you are still on Oracle support, you can request this from your Support Renewal Representative.

We recommend that this report be delivered in Excel format and list the product name, support identification number, order number, and license quantity of all licensed programs. If your organization has ordered Oracle programs under multiple entity names or under subsidiaries or affiliates, be sure to request these entities as part of your report.

If you are already under Rimini Street support but don't have an Install Base Report of your Oracle-licensed programs, you can contact the Oracle support hotline, log a nontechnical service request, and advise the support hotline that your organization would like an Install Base Report — a comprehensive list of all Oracle-licensed programs that your organization owns. Again, you should identify all entities, subsidiaries, or affiliates that may have purchased Oracle licenses.

After receiving the Install Base Report, a best practice is to organize the data by similar product lines (i.e., all database programs in one section, application modules in another, etc.). Please note that all like products may not be named in the same way. In some cases, Oracle product naming has changed over time. If you have any questions about product names and associated functions, you can refer to your Oracle Ordering Document for licensed program definitions. In our experience, Ordering Documents are also used as proof of ownership of Oracle licensing, so any discrepancies or conflicts should be resolved via your Ordering Documents.

License Considerations

Application Licensing

Oracle applications are generally licensed by an enterprise metric or a user-based metric. Other less-common metrics exist, such as the number of order lines or sales orders, but the majority of Oracle applications will fall under an enterprise or user-based metric.

Enterprise Metrics

An enterprise metric is where the software is licensed by an employee metric and/or a revenue metric. A revenue-based metric is based on the reported revenues of the licensed entity. The definition of the revenue metric should be included in the Ordering Document and may include affiliates or subsidiaries if they use, or benefit from use of, the software. Similarly, the employee metric will typically be defined in the Oracle Ordering Document and will likely include the licensee's full-time, part-time, and temporary employees as well as agents, contractors, and consultants who have access to, use, or are tracked by the software. Modifications to this employee definition are possible and, in some cases, may include employees of any outsourced business functions that provide outsourcing services and have access to, use, or are tracked by the software. Be sure to review your enterprise metric definitions carefully to understand the scope of the audience to be counted.

Both the revenue metric and employee metric are typically subject to Oracle Incremental License Fees (ILFs). ILFs are additional license fees that are due to Oracle when a customer grows beyond a set threshold on the employee and/or revenue metrics. ILF triggers and fees should be defined in the Oracle Ordering Document and should be reviewed to understand future license implications. Typically, ILFs are set up under a 10/10 rule. In this 10/10 example, when reporting a value that exceeds the current enterprise metric, a licensee will purchase a license increment that is 10% higher than the existing enterprise metric and pay 10% of the original license fee. If a customer experiences rapid growth during an annual period, multiple ILFs could be required under a single license true-up purchase. In our experience, Oracle requires that customers report their employee counts and corporate revenues on an annual basis. Likely due to this reporting requirement, enterprise metrics are typically not part of an Oracle software license compliance audit, unless a problem with the reporting on these metrics is suspected.

User-Based Metrics

User-based metrics are as they sound, designed to count the number of users of the software. Oracle will typically sell application user licenses by module or in some cases, as a bundle. User-based metrics will often have minimums or a base number of users who must be licensed by module. Review your Oracle Ordering Document for more information on user-based minimums. As implied, user minimums are the minimum number of licenses that are required. An organization must also have sufficient user-based licenses to cover the actual users accessing the software or module.

Types of User-Based Metrics

Concurrent user: Concurrent-user metrics are designed to count the number of users accessing the program at any given time. If an organization is licensed for 20 concurrent users, there could be 40, 60, or more authorized users of the software, but no more than 20 users can access that software at any given time. Oracle no longer offers a concurrent-user metric, so existing organizations with this metric need to carefully monitor usage, because exceeding licensed quantities during a software license compliance audit may result in a forced migration to a current named- or application-user metric where every authorized user must be counted.

Named user: Application-user or Named User metrics are user-based metrics that count every authorized user of the software or module. Named User metrics usually have two components relating to Oracle license compliance. The first is user minimums. User minimums are the minimum number of licenses required by software module. The second component is the actual user count. Any user with access to the software program will be counted as a Named User. When an organization has a Named-User metric, a best practice is to actively maintain user access to the software. When an employee is terminated, disable the associated software user on the termination date or at a regular interval agreed upon by the asset management team. Oracle license compliance consultant Brian Lowinger highlights the importance of this practice and states, "As long as an individual is provisioned, Oracle can and likely will deem them to be licensable during an audit, even if that user no longer works for the company in question."[3]

Limited-use or specified-use user metrics: There are many instances in Oracle licensing where a user-based metric is restricted to a specific function or functions. These license metrics will be discussed here as limited-use metrics.

Examples of limited-use metrics are Read-Only users, Employee Self-Service users, E-Business Suite Professional users, or users who are only authorized to approve transactions but do not enter transactions. Limited-use metrics will typically be clearly defined in the Oracle Ordering Document. Restrictions on these metrics must be followed, or a software license compliance audit may require licensing of improper use as a full Named User license.

User Provisioning: For application-based software programs employing user-based metrics, a best practice is to regularly maintain the authorized users of the program. When provisioning and deprovisioning users, you should institute formal processes that manage user access to application modules and deactivate users upon termination or at regular intervals that are agreed upon with your software asset management team. During a vendor software license compliance audit, you should be prepared to show the list of users who have left your company and their associated termination dates. Review assigned user roles at least annually to ensure that assigned roles are required for a user to perform their business duties. Manage role assignments conservatively because unused assignments will require a user license regardless of actual usage.

Other Application Metrics

Transaction-based metrics: Oracle has other less-common application metrics that count the number of transactions being processed. Examples are Electronic Order Line for Order Management, Expense Reports for Internet Expenses, or 1K Invoice Line for iReceivables. These metrics are based on the number of transactions being processed on an annual basis and not on the number of users accessing the applications.

Legacy metrics: Oracle licensing has changed over time. Licensed product names and license metrics are often subject to change based on new functionality or changing technology. In our experience, Oracle typically focuses on auditing old metrics to convert customers to new metrics, which could require a completely new agreement, and, in turn, often result in more license revenue for Oracle. As part of the asset management process, maintain a database of license metrics, associated user minimums, or other license requirements associated with the metric. All license-metric definitions, minimums, or other requirements will typically be documented in your Oracle Ordering Document.

Oracle Database Licensing

Oracle Database licensing is typically influenced by several factors including CPU cores, processor core factors, user minimums, countable versus uncountable user populations, server virtualization, and even the type and source of data being entered/imported into the database. In our experience, these factors will affect whether databases are licensed under the correct metric and with an appropriate license quantity.

The start of any database license evaluation should begin with identifying all database instances that are installed and running in your server environment. If you are in the process of an Oracle software license compliance audit, you may be asked to complete an Oracle Server Worksheet. This worksheet is usually provided by Oracle, but several variations are available online or via third-party

Simply deleting users from the profile table doesn't typically remove liability because user fingerprints remain in the transaction tables.

compliance or software asset management firms. The key fields on such a document typically include:

- Server name
- Server make/model
- Virtualization status (Y/N) and type of virtualization being used
- Database instance names (used to confirm that all instances are accounted for)
- Oracle products installed (Database, Database Options, Middleware)
- CPU model
- Number of cores per server
- Number of cores used by Oracle instances (if server is not dedicated to Oracle programs)
- Oracle processor core factor
- Oracle processors required for licensing (the result of multiplying the number of cores on each server by the associated processor core factor)
- Front-end applications or front-end user populations (used to help identify user counts if applicable)

Additional information on the Oracle Server Worksheet is available by contacting Rimini Street License Advisory Services.

All Oracle instances including production and test and development environments as well as failover/standby environments with Oracle software installed/running should be documented on the Oracle Server Worksheet. Disaster recovery environments can have licensing implications depending on their configuration and usage. Refer to the Oracle Disaster Recovery Document for additional information.

After documenting all instances, use this data to calculate the number of Oracle processors required for licensing (which is the result of multiplying the number of cores on each server by the associated processor core factor). Refer to the Oracle Processor Core Factor Table to populate the processor core factor column of the Oracle Server Worksheet.

Server virtualization is also an important factor to consider with Oracle Database licensing. If a server has Oracle software installed and running on a portion of CPUs/cores using a virtualization methodology, Oracle's policy on soft partitioning versus hard partitioning of the server may impact license requirements. Oracle typically does not recognize soft partitioning as a means to limit Oracle license requirements. Oracle will typically only recognize its approved hard-partitioning methodologies to limit Oracle licenses required in virtualized environments. For more information see the Oracle Partitioning Policy.

Server virtualization and Oracle's typical position on soft partitioning is a common cause of software license compliance management issues for Oracle customers. Do not ignore Oracle's partitioning policy if you have a server that is not completely dedicated to Oracle products. Oracle has been challenged on its audit process. In an article on Oracle audits, PCWorld writes about a license review (audit) of Mars, Inc. "After providing a whopping 233,089 pages of documentation at its own expense in its efforts over several months to satisfy Oracle's demands, it said, Mars finally filed a lawsuit last fall in a San Francisco Superior Court petitioning the court to order Oracle to scale back its audit efforts."[4] This suit was dropped in December 2016, and terms of the settlement were not announced. We recommend that licensees consult with their legal departments or qualified third-party license compliance firms regarding Oracle virtualization policy and its contractual implications.

Once the Oracle servers are identified and the Oracle processor license calculations have been established on the Oracle Server Worksheet, the recommended next step is to map existing Oracle-licensed programs and license quantities to the identified servers. A key factor in this assignment process is to understand the user populations and sources of data in the databases. In situations where a database serves an uncountable or unlimited population, such as a customer or suppler internet portal application, the server should be licensed by a processor metric. In cases where a database serves a well-defined user population, the server can typically be licensed by a Named-User or Named-User-Plus metric.

Note that under a Named-User/Named-User-Plus-license metric, all sources of data in the database must be accounted for — both human and nonhuman devices. Devices such as barcode scanners or temperature monitors are counted as users under the Named-User/Named-User-Plus metric. Programs or interfaces that mask the actual number of user connections via a multiplexing connection will require users to be counted at the front end or source of entry for that data. In some cases, you may have so many users or sources of data in the database, that the processor metric may be a less costly license option than a Named-User metric. Typically, a test/dev environment with limited internal users is well-suited for the Named-User/ Named-User-Plus metric.

The process to map licensed programs to actual usage is complex and requires in-depth knowledge of Oracle license policies and business practices. Oracle has provided database licensing examples and guidelines in the following documents:

Oracle Database Licensing

Oracle Software Licensing Basics

An annual license usage assessment is an important part of any software asset management program. If you have any questions, consult Rimini Street License Advisory Services for guidance on how to deal with license usage analysis. Referral to a third-party license compliance firm may be recommended to accurately assess your Oracle software license compliance managment position.

Oracle Database Options

Oracle Database Options are add-on products for Oracle Database Enterprise Edition. In our experience, these programs are very easy to enable, and Oracle has not restricted access to the programs. In some cases, Oracle Database Options are installed by default; however, license obligations for database options may not apply to the default installation against Oracle system tables. Ensure Oracle DBAs understand what options have been licensed for use and educate this team not to utilize other functionality without consulting with your software asset management team regarding license obligations.

Oracle Runtime Licensing

When an Oracle customer purchases a software application, in some cases Oracle will offer use of Oracle technology programs as a runtime license. Note that the use of a runtime license typically comes with specific restrictions. If a restriction is broken, Oracle may require full-use licensing of the technology program.

An example of runtime licensing is when a customer purchases Oracle E-Business Suite. When a customer purchases E-Business Suite, Oracle grants a restricted-use license to Oracle Database and Middleware programs. The restricted-use license may have two key restrictions:

1. No modifications can be made to the database or to Java-based programs associated with Oracle Middleware. If modifications are made, a full-use license is required.

2. The Restricted-Use licenses can only be used with the E-Business Suite programs.

See the Oracle Application Licensing Table for more information.

In most cases, licensees will need to make some type of modification to the Oracle Database or to Java-based programs associated with Oracle Middleware. While Oracle runtime licensing may seem like a no-cost solution to run Oracle technology under Oracle applications, in many cases additional technology licenses will be required.

Conclusion

Maintaining compliance with vendor software license agreements is challenging. It requires an in-depth understanding of licensed assets and associated license metrics, as well as contractual obligations of software license usage. Implementing a disciplined software asset management program will help an organization manage its licensed assets more effectively and mitigate the risk of potential Oracle license compliance issues from a vendor audit. If unsure about how to start this process, Rimini Street License Advisory Services can provide guidance around license compliance including asset management. Take the first step by reviewing the Software Asset Management Checklist below.

Software Asset Management Checklist

- Assign a resource to manage software license assets
- Obtain and manage a software license inventory
- Implement a software asset management program:

    - Manage user access and roles assigned to end users
    - Create a formal process to enable new instances or functionality
    - Institute formal provisioning and deprovisioning processes

- Create and maintain an Oracle Server Worksheet
- Conduct a license usage evaluation annually

    - Self-audit or solicit a third-party provider review

Need assistance with managing your software asset management program? Rimini Street is offering Software Asset Management services to our clients for a low annual subscription. For more information, please contact us at las@riministreet.com.

Rimini Street's License Advisory Services team empowers our clients to more confidently manage vendor license agreements and software compliance positions to reduce licensing and audit outcome-related costs, while also saving 50% off their base Oracle annual support fees with Rimini Street's ultra-responsive support. We provide best practices, documentation, and specific guidance to help clients navigate vendor license complexities and minimize their software license compliance management risk. Certain Rimini Street License Advisory Services are available at no additional cost as part of your Rimini Street annual support fee. For more information, please contact us at las@riministreet.com.

License Advisory Services

Rimini Street License Advisory Services works with clients to understand license compliance risk by providing guidance on vendor license policies, compliance best practices, and audit pitfalls. Our license advisors are available to discuss both broad concerns and recommendations around compliance strategies.

Additional Resources for Oracle License Compliance

What Causes an Oracle License Audit?

How To Come Out on Top of an Oracle Audit

Save Money by Understanding the Oracle Licensing Model

The Seven Deadly Sins that Lead to an Oracle Audit

Oracle Licensing Quick Guide

Four Best Practices to Reduce the Pain of an Oracle License Audit

All You Need to Know About Oracle Database Licensing with VMware

Questions? Contact Rimini Street License Advisory Services at las@riministreet.com.

References

[1]Ryan, Matt, "Oracle Audits Will Get Worse in 2018," Net(net), March 28, 2018.

[2]Bendana, Ryan, "Oracle's Black Hole: What You Need to Know about Oracle License Inventory," LinkedIn, March 29, 2017.

[3]Lowinger, Brian, "Oracle Application User Metric – Best Practices for Remaining Compliant," SoftwareOne, July 2016.

[4]Noyes, Katherine, "What does an Oracle audit look like? This one certainly wasn't pretty," PCWorld, Jan. 20, 2016.

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