East Coast Oracle Users Conference

Eastern States OATUG
ORACLE APPLICATIONS & TECHNOLOGY USERS GROUP
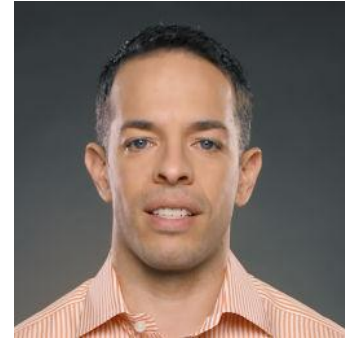
From Policy to Practice:
What Oracle Doesn't Want You to Know

Dr Michael Corey, COO LicenseFortress
Dean Bolton, Chief Architect LicenseFortress

Dean Bolton,
Cofounder & Chief Architect

LICENSEFORTRESS®

- Dean holds a master's degree in Computer Science and Engineering from the Massachusetts Institute of Technology. With over 20 years of professional experience, he is deeply rooted in Oracle database technologies. Before founding, LicenseFortress, he launched VLSS LLC, delivering Oracle database solutions worldwide. Dean is recognized as one of the top technologists in his field and holds several prestigious certifications, including Oracle DBA Certified Master, Exadata Specialist, SQL Certified Expert, Oracle ACE alum, and VMware vExpert.

vmware® vEXPERT

ORACLE Certified **Master**

ORACLE Certified Specialist

ORACLE® Certified Expert

A | ORACLE® ACE

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Dr Michael J. Corey
Cofounder & COO

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eco East Coast Oracle Users Conference

Eastern States OATUG
ORACLE APPLICATIONS & TECHNOLOGY USERS GROUP

Started Working with **Oracle Version 3.0** Beta Tested Oracle 5,6,**6.2**,7,8.X,9.X….. Presented on Technology & Business Topics from Brazil to Australia Worked with Oracle on UNIX, Linux, Windows, MVS, VM, VMS,..

Books Include:

Virtualizing SQL Server with VMware Doing IT Right

Oracle Database 12c: Install, Configure & Maintain like a Professional

Oracle 11g A Beginner's Guide

Oracle 10g A Beginner's Guide

Oracle 9i - A Beginner's Guide

SQL Server 7 Data Warehousing

Oracle8i - Data Warehousing

Oracle8i - A Beginner's Guide

Oracle8 - Data Warehousing

Oracle8 – Tuning

Oracle8 - A Beginner's Guide

Oracle - Data Warehousing

Oracle - A Beginner's Guide

Tuning Oracle

MVP **Microsoft**® Most Valuable Professional
2014-2019

A **ORACLE**® ACE
2012-2025

vmware® vEXPERT
2012-2024

Key Past/Current Affiliations
Past President of the Independent Oracle Users Group
Founding Board IOUG Virtualization SIG & IOUG VMware SIG
Board **Member International Association of Cloud and Managed Service Providers**
Founding Board Member Professional Association of SQL Server
Past Member IOUG Board of Directors
Talkin'Cloud Top 200 Channel Partner Experts Cloud
Past Member Microsoft Data Warehouse Council
Past Member Oracle Educational Advisory Council
Past Director of Conferences IOUG Alive
Past Executive Board Massachusetts Robert H. Goddard Council on Science, Technology, Engineering & Mathematics

BDQ BIG DATA QUARTERLY

http://www.dbta.com/BigDataQuarterly/
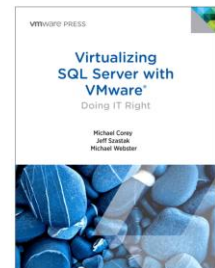
For a given CSI, Oracle's repricing policy **dictates that when some, but not all, licenses are de-supported, the support for the remaining licenses is repriced at list price** (as long as this doesn't exceed what the customer was previously paying).

First Instinct
Make Their Licenses
Coterminous!

SOFTWARE LICENSE Procurement

Step Back, I made my Licenses coterminous

ORACLE
DOES NOT WANT YOU TO KNOW THIS

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ALL VENDORS DO THIS

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Customer Goal <u>Driving Cost Down is in Direct Conflict</u> with Software Vendor Protecting Revenue Stream

- IBM All or Nothing Subscription & Support Requirement

- Oracle Repricing Policy

- SAP All or Nothing Support Policy

- Microsoft Requires Software Assurance to Gain Server Mobility Rights

ORACLE

SAP®

IBM

Microsoft

The World We Live In

SOFTWARE

SOFTWARE VENDORS
PROTECTING REVENUE STREAMS

*"Vendor-imposed and **revenue-motivated audits** are increasing for organizations of all sizes and industries."*

Emerging Players – Currently Ramping up Audit Engines

Trend: Software Audit Are on the Rise

Audits are on the rise, and they're **getting more expensive**. According to Gartner, 68 percent of enterprises get at least one audit request each year, a number that has climbed steadily each year since 2009. The most frequent requests come from the usual suspects: Microsoft, Oracle, Adobe, IBM, and SAP.

Software audits continue to rise

Understand the software vendor's audit playbook

CIO
FROM IDG

Software audits: How high tech plays hardball

'Truing up' licenses amounts to billions of dollars in revenue for the major software makers. Here's where the money goes -- and how it's extracted

Apr 25, 2016

InfoWorld
FROM IDG

SOFTWARE

SOFTWARE AUDITS
ON THE RISE

Trend: Software Audits are on the Rise

"==software vendors are increasing license audits== as necessary compliance checks to ensure fair Compensation…. 75 percent of software vendors believe their software is being overused in violation of the licensing agreements" ==August 2020==

The Patent Lawyer

July / August 2020

GLOBAL REACH, LOCAL KNOWLEDGE

Vendor Software License Audits Have Become More Frequent. Are You Prepared?

Apr 13, 2021

In a nutshell? In our observation, ==over the past year software license audits (and Oracle audits in particular) have been: **(1) increasing in frequency; (2) more prone to prickly interim conflict; yet (3) have been more amenable to hurried resolution.**==

database
TRENDS AND APPLICATIONS

SOFTWARE

SOFTWARE AUDITS ON THE RISE

- **Study finds that predatory software licensing practices continue to escalate amid increased software audits**

February 20, 2025

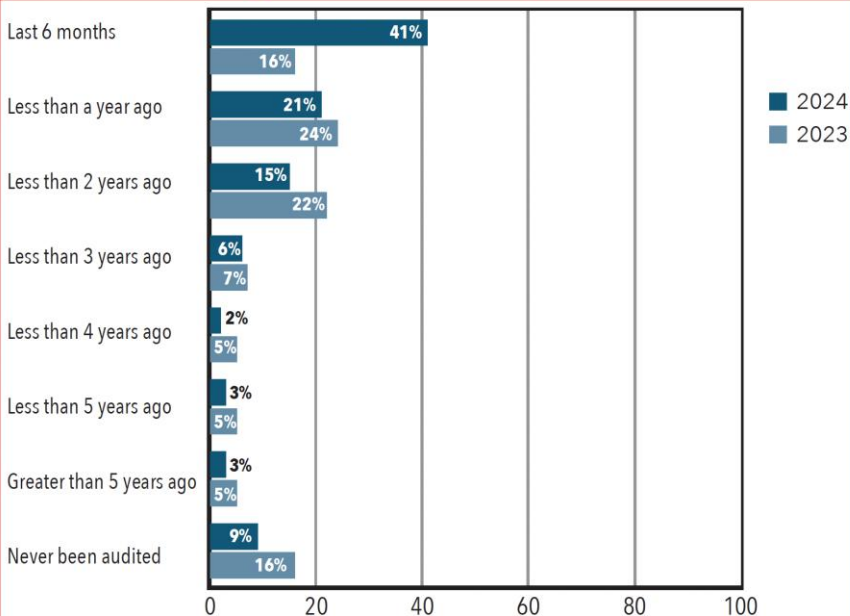**ALL VENDORS DO THIS**

Chart 3: When was the last time your organization was audited by a vendor for software compliance?

	2024	2023
Last 6 months	41%	16%
Less than a year ago	21%	24%
Less than 2 years ago	15%	22%
Less than 3 years ago	6%	7%
Less than 4 years ago	2%	5%
Less than 5 years ago	3%	5%
Greater than 5 years ago	3%	5%
Never been audited	9%	16%

Charts may not add up to 100% due to rounding.

- **62%** Audited By Major Software Vendor Last 12 Months (Up from 40% from Previous Year)
- **66%** of Companies with over 5000 employees audited in the last 12 Months

THE RISING COST OF SOFTWARE COMPLIANCE: 2025 SURVEY ON SOFTWARE AUDITS

Produced by UNISPHERE RESEARCH

https://www.dbta.com/Readers/Subscriber.aspx?Redirect=https://www.dbta.com/DBTA-Downloads/ResearchReports/The-Rising-Cost-of-Software-Compliance-2025-Survey-on-Software-Audits-13940.pdf
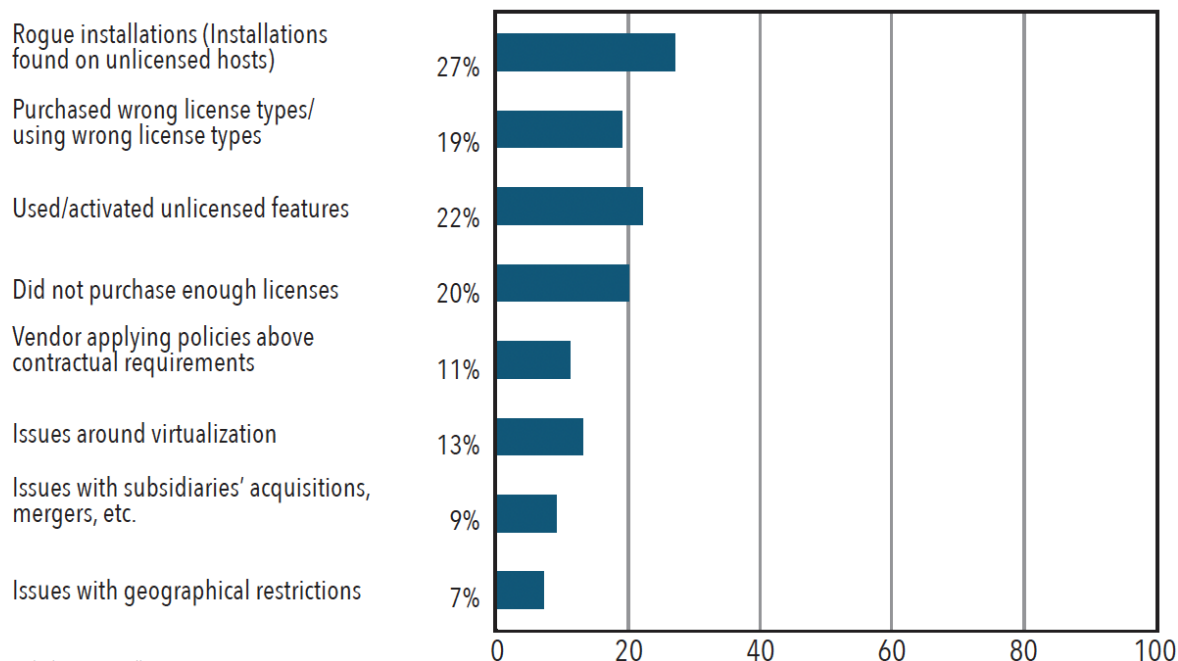
Vendors Most Likely to Audit You

Chart 4: Which software vendors audited you in the last 3 years?

Vendor	2024	2023
Oracle	42%	41%
Oracle (Java only)	29%	
Microsoft	57%	64%
IBM	30%	27%
Adobe	30%	14%
VMware by Broadcom	36%	22%
SAP	28%	19%
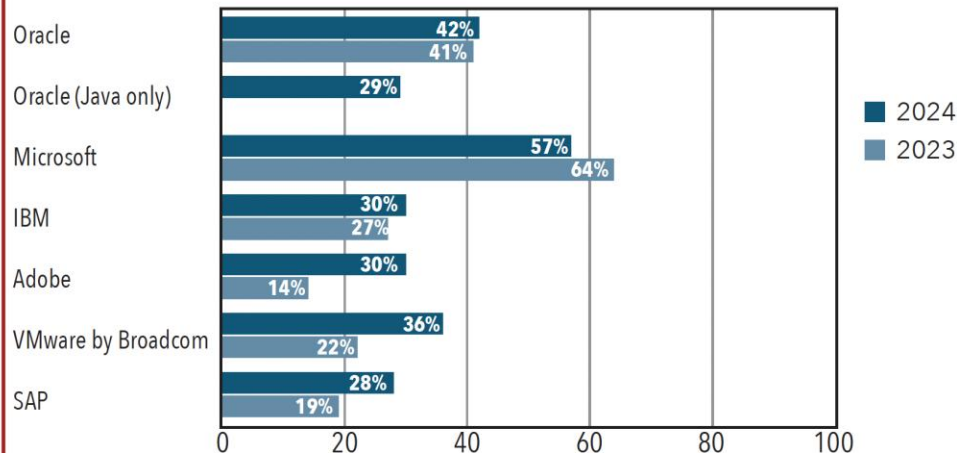
Multiple responses allowed.

- **# 1 Microsoft**

- **# 2 Oracle**

- **# 3 VMware by Broadcom**
  (Accelerating Capabilities > 50% Increase over previous year)

- **Larger customers fared far worse**

https://www.dbta.com/Readers/Subscriber.aspx?Redirect=https://www.dbta.com/DBTA-Downloads/ResearchReports/The-Rising-Cost-of-Software-Compliance-2025-Survey-on-Software-Audits-13940.pdf

THE RISING COST OF SOFTWARE COMPLIANCE: 2025 SURVEY ON SOFTWARE AUDITS

Produced by UNISPHERE RESEARCH

Find These Issues
Before the Audit Happens

Chart 8A: What types of issues were identified by the third-party service firm?

Issue	Percentage
Rogue installations (Installations found on unlicensed hosts)	27%
Purchased wrong license types/using wrong license types	19%
Used/activated unlicensed features	22%
Did not purchase enough licenses	20%
Vendor applying policies above contractual requirements	11%
Issues around virtualization	13%
Issues with subsidiaries' acquisitions, mergers, etc.	9%
Issues with geographical restrictions	7%

Multiple responses allowed.

The Deck is Stacked Against You

- **Licensing rules** are **intentionally complex** and hard to navigate
- **Vendor** and **third-party patches** can silently **enable unlicensed features**
- **Legal gray areas** are **fueling** a rise in **audit disputes**
- A Vendor makes the mistake, **your organization pays the bill —** **who owns the licenses owns the liability**
- Installation steps can shift compliance risk to customer (Java)
- **Vendors operating without license keys**

A Stacked Deck

"What Percentage of the companies Do you think LicenseFortress has found to be 100% License Compliant?"

- "*In the decade I have been performing software License Audits, I have <u>yet</u> to find a company 100% Compliant*"
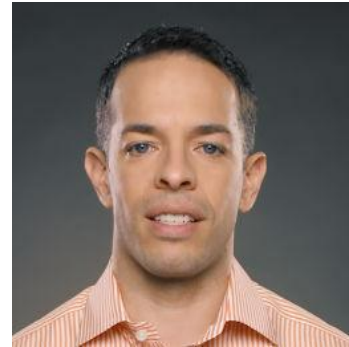
Dean Bolton
Chief Architect & Cofounder

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Audits by Company Size

Figure 4: Audited Over The Last Three Years—By Company Size

1–249 employees — 49%

250–999 employees — 83%

More than 1,000 employees — 7%

(chart axis: 0, 20, 40, 60, 80, 100)
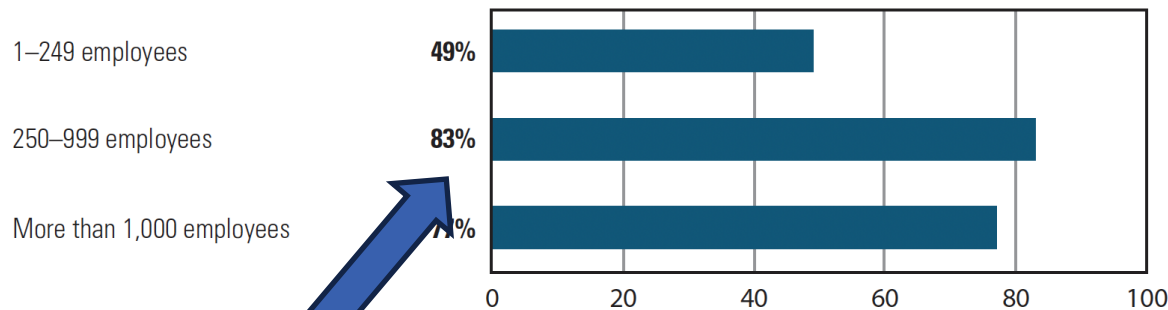
"Sweet Spot"

MANAGING THE SOFTWARE AUDIT:
2022 SURVEY ON ENTERPRISE SOFTWARE LICENSING AND AUDIT TRENDS

By Joseph McKendrick, Research Analyst
Produced by Unisphere Research,
a Division of Information Today, Inc.

September 2022

"Big Enough to Have Money Small Enough to not have Resources to fight off the Audit"

32% Paid Over 1 Million Dollars

Chart 5: Please estimate how much in additional charges your company has incurred as a result of software compliance audits in the last 3 years

Category	2024	2023
No changes	24%	36%
$1k–$99k	17%	29%
$100k–$999k	28%	25%
More than $1M	32%	10%
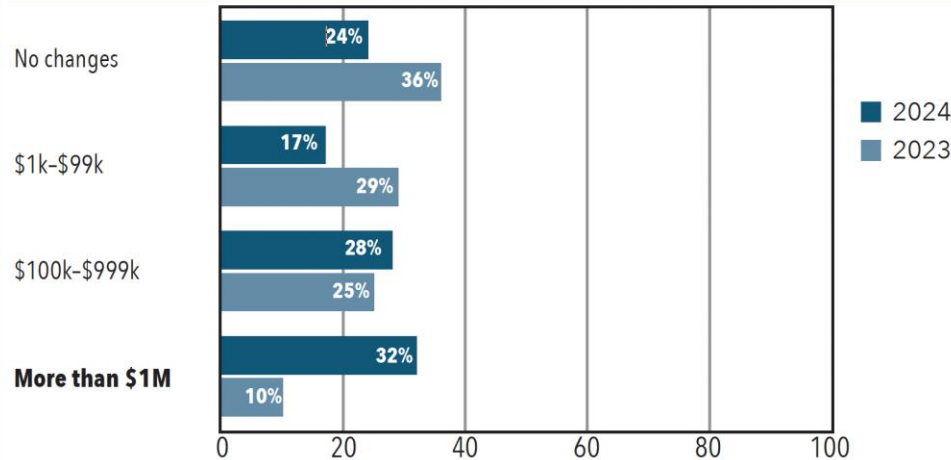
Charts may not add up to 100% due to rounding.

- "Possibly the most remarkable value the 2025 survey reveals is that approximately 32% of the companies measured had to pay over $1Million".

- "Only 10% in 2023 reached that level of financial liability -2X Increase".

https://www.dbta.com/Readers/Subscriber.aspx?Redirect=https://www.dbta.com/DBTA-Downloads/ResearchReports/The-Rising-Cost-of-Software-Compliance-2025-Survey-on-Software-Audits-13940.pdf

Chart 7A: Did you engage a third-party service/tool to assist with negotiating with the vendor conducting the audit?

Yes (2025)	52%
Yes (2023)	34%
No (2025)	48%
No (2023)	66%

Charts may not add up to 100% due to rounding.

Chart 7B: Was the third-party service firm helpful in reducing your liability?

Yes	95%
No	5%
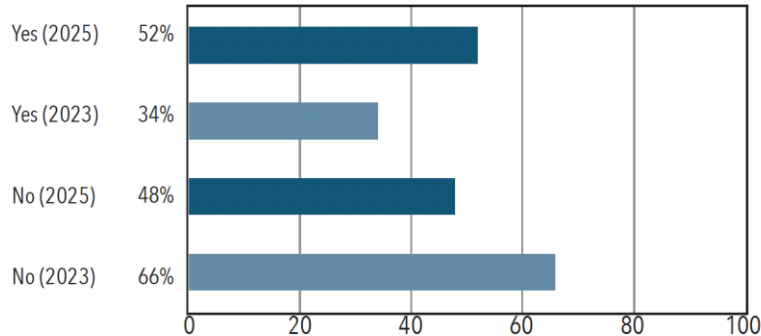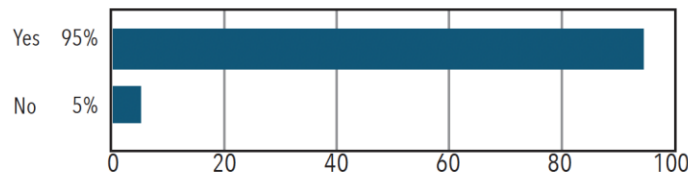
Charts may not add up to 100% due to rounding.

- "Those who utilized the services of experienced Software License Management companies or lawyers with significant experience in this field fared much better".

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THE RISING COST OF SOFTWARE COMPLIANCE: 2025 SURVEY ON SOFTWARE AUDITS

Produced by UNISPHERE RESEARCH

- Oracle on VMware
- Outsourcing Oracle Support
- Rejecting an Oracle deal
- Mergers/Acquisitions or High Growth
- Customer Hardware Refresh
- Displacing an Oracle Solution
- Exiting Existing Oracle Unlimited License Agreement
- Being an Oracle Customer

AUDIT TRIGGER

Oracle Soft Partitioning Policy

Licensing Oracle Software in the Cloud Computing Environment

Approved Vendors

This policy applies to cloud computing environments from the following vendors: **Amazon Web Services – Amazon Elastic Compute Cloud (EC2), Amazon Relational Database Service (RDS)** and **Microsoft Azure Platform (collectively, the 'Authorized Cloud Environments')**. This policy applies to these Oracle programs.

For the purposes of licensing Oracle programs in an Authorized Cloud Environment, customers are required to count the maximum available vCPUs of an instance type as follows:

- **Amazon EC2 and RDS** - count two vCPUs as equivalent to one Oracle Processor license if multi-threading of processor cores is enabled, and one vCPU as equivalent to one Oracle Processor license if multi-threading of processor cores is not enabled.
- **Microsoft Azure** – count two vCPUs as equivalent to one Oracle Processor license if multi-threading of processor cores is enabled, and one vCPU as equivalent to one Oracle Processor license if multi-threading of processor cores is not enabled.

When counting Oracle Processor license requirements in Authorized Cloud Environments, the Oracle Processor Core Factor Table is not applicable.

When licensing Oracle programs with Standard Edition One, Standard Edition 2, or Standard Edition in the product name, the pricing is based on the size of the instance. Authorized Cloud Environment instances with four or fewer Amazon vCPUs, or four or fewer Azure vCPUs, are counted as 1 socket, which is considered equivalent to an Oracle processor license. For Authorized Cloud Environment instances with more than four Amazon vCPUs, or more than four Azure vCPUs, every four Amazon vCPUs used (rounded up to the nearest multiple of four), and every four Azure vCPUs used (rounded up to the nearest multiple of four) equate to a licensing requirement of one socket.

Under this cloud computing policy, Oracle Database Standard Edition may only be licensed on Authorized Cloud Environment instances up to 16 Amazon vCPUs or 16 Azure vCPUs. Oracle Standard Edition One and Standard Edition 2 may only be licensed on Authorized Cloud Environment instances up to eight Amazon vCPUs or eight Azure vCPUs. If licensing Database Standard Edition 2 by Named User Plus metric, the minimums are 10 NUP licenses per 8 Amazon vCPUs or 8 Azure vCPUs.

Example, for Database Enterprise Edition licensing in an Authorized Cloud Environment: Licensing Oracle Database Enterprise Edition on a single instance of four Amazon vCPUs, where multi-threading of processor cores is enabled, would require two processor licenses. (Two Amazon vCPUs are considered equivalent to an Oracle Processor license).

Standard Named User Plus licensing applies, including counting the minimums where applicable.

For Oracle Linux purposes, two VMs whose combined size are no more than 64 vCPUs are counted as a single Oracle Linux Basic Limited or Premier Limited system in Authorized Cloud Environments. A single VM consisting of more than 64 vCPUs is counted as an Oracle Linux Basic or Premier system.

Under Oracle Partition Policy, You must License Every Node

Oracle Policy Cost:	$1,900,000
Actual Contractual Obligation:	$380,000

Oracle Contract Obligation

Oracle Enterprise Edition
47,500 Processor X 8

Cost: $380,000 *

Oracle Policy

Oracle Enterprise Edition
47,500 Processor X 40

Cost: $1,900,00 *

Does not Include Annual Maintenance & other options

Oracle Policy Cost:	$1,900,000
Actual Contractual Obligation:	$380,000

VMware ESXi

NODE A   NODE B   NODE C   NODE D   NODE E

Each Node
8 Processors
64 GB Memory

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ORACLE
DOES NOT WANT YOU TO KNOW THIS

Oracle Partitioning Policy

This document is for educational purposes only and provides guidelines regarding Oracle's policies in effect as of October 7, 2019. It may not be incorporated into any contract and does not constitute a contract or a commitment to any specific terms. Policies and this document are subject to change without notice. This document may not be reproduced in any manner without the express written permission of Oracle Corporation.

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required for a given server, i.e., to license a sub-c... ...ysical cores as an exception from the contractual Oracle Processor definition... ...y modify the definitions and conditions specified in this document from ti...

Why Partition?

Database Administrators (DBAs) ofte... ...vers to achieve the following benefits:

- Ability to run multiple opera... ...or multiple versions of an operating system, on the same server
- Ability to improve workl... ...ng and distribution by managing processor allocations across applications an... ...e server
- Ability to leverage ha... ...els such as "Capacity on Demand" and "Pay As You Grow."

Types of Partitioning

There are two m... ...artitioning available:

Soft Partiti...

Soft parti... ...ents the operating system using OS resource managers. The operating system... ...mber of CPUs where an Oracle database is running by creating areas where CPU resou... ...allocated to applications within the same operating system. This is a flexible way of managing data processing resources since the CPU capacity can be changed fairly easily, as additional resource is needed.

"Let's be clear. Nowhere in your Oracle contract is virtualization ever mentioned. Nowhere in the Oracle contract does it tell you how to control where the Oracle software is installed and/or running".
Dr Michael Corey, LicenseFortress

Source: http://www.oracle.com/us/corporate/pricing/partitioning-070609.pdf

Treat Policy Like Contractual Obligation

"Our Experience suggests that Oracle is interpreting the policy as if it were a Contractual obligation from a Pricing and compliance perspective" – Gartner Research Report

Source: February 8, 2019. How to Minimize BYOL Risks and Costs When Moving Oracle On-Premise Perpetual Software to Public Cloud

Fluctuating Rules & Conditions

Controlling agreement often incorporate the terms of an URL that can change over time.

Example: Oracle dictates the number of license required for different servers in the Processor Core Factor Table. Terms of contract pointed to a URL. **In 2017 Oracle updated the table three times.**

New Licensing Terms

Vendors are constantly upgrading their controlling agreement.

Example: Oracle's new controlling agreement contains a mandatory provision for the running of scripts..

"Click Wrap" Replacement Contracts

Certain vendors are in court right now defending their right to replace long-standing controlling agreements through **low-level employees inadvertently accepting click-wrap agreements.**
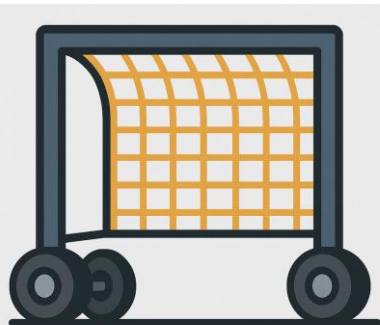
- Older Oracle Customers have **No Obligation** to run the Audit Scripts.

- **No Simple Answer** (Yes, you should, No You should not)

- Contract: You agree to cooperate with Oracle's audit and **provide reasonable assistance** and access to information reasonably requested by Oracle needed to fulfill the audit

- Running Oracle's audit scripts should be done carefully; **unconditional cooperation can establish a precedent or expectation** to do the same in future audits.

- Scripts should be limited to what is needed contractually to fulfil audit

Click Wrap Replacement Contract Examples

Cox Communications v. Micro Focus

Controversy: Integration of new terms through click-wrap agreement.

Micro Focus' Allegation: The terms of the Business Support Agreement were effectively accepted through Cox's online interfacing with Micro Focus.

Cox's Response: Terms of original agreement expressly prevent casual alteration.

Amount in Controversy: Over $11 million.

Outcome: Voluntarily dismissed with prejudice.

Fairview v. Quest

Controversy: Did Fairview change controlling license agreement through a "click to accept" purchase?

Quest's Allegation: New definition for "enabled user accounts" controls ("managed by the Software"), yielding an 80,000 license deficiency.

Fairview's Response: Per the terms of the original agreement, no authorized person could have accepted new terms.

Amount in Controversy: $4,183,178.85

Outcome: Voluntarily dismissed with prejudice.

Be honest — how many of you have *actually read* these agreements?

Troubling Things can be found in the Audit Provisions

Upon 45 days written notice, **Oracle may audit Your use of the Programs to ensure Your use of the Programs is in compliance with the terms of the applicable order and the Master Agreement.** Any such audit shall not unreasonably interfere with Your normal business operations.

You agree to cooperate with Oracle's audit and provide reasonable assistance and access to information reasonably requested by Oracle. Such assistance shall include, but shall not be limited to, the running of Oracle data measurement tools on Your servers and providing the resulting data to Oracle

The performance of the audit and non-public data obtained during the audit (including findings or reports that result from the audit) **shall be subject to the provisions of section 8 (Nondisclosure)** of the General Terms.

If the audit identifies non-compliance, You agree to remedy (which may include, without limitation, the payment of any fees for additional licenses for Programs) such non-compliance within **30 days of written notification of that non-compliance. If You do not remedy the non-compliance, Oracle can end** (a) Program related Service Offerings (including technical support), (b) Program licenses ordered under this Schedule P and related agreements and/or (c) **the Master Agreement.**

As the Vendor this Seems Fair

LicenseFortress Pushes Back Against a $46M IBM Compliance Claim and Wins

Facing a $46M IBM license audit, this enterprise slashed risk to under $100K with LicenseFortress—saving millions and proving compliance.

$100K
Project Cost

$45.9M
Savings

45,900%
ROI

- This could Have Easily Been an Oracle or a Microsoft Case Study
- Common for Auditors to make mistakes

https://licensefortress.com/resource-library/licensefortress-pushes-back-against-a-46m-ibm-compliance-claim-and-wins/

Oracle Announces You Must License Java for Commercial Use – June 21, 2018

Press Release

Oracle Introduces New Java SE Subscription Offering for Broader Enterprise Java Support

Java SE Subscription Provides Licensing and Support for Java SE on Servers, Desktops, and Cloud Deployments

Redwood Shores Calif—Jun 21, 2018

InfoWorld

Oracle now requires a subscription to use Java SE

One-time licenses won't be available for Java SE 8 or later, but separate support contracts also go away

By Paul Krill
Editor at Large, InfoWorld | JUN 22, 2018 3:00 AM PDT

An Oracle customer purchasing a Java subscription at this time had two choices. Purchase a desktop subscription for $30 a year or a server subscription for $300 per processor, per annum. If the customer made a large purchase, typical volume purchase discounts were expected.

"Like the Balloons in the Picture,
Java was Everywhere"

It was hard and labor-intensive to audit for Oracle Java.

January 2023 Oracle Moves to Employee Based Licensing Model

- **Moves away from the processor** and **named user plus license** model

- This means <mark>you license for the number of "employees" you have is not based on the number of users that actually use the product.</mark>

- Galaxy-Based Licensing – Oracle Java Style

- Employee is defined on the Oracle Subscription Global Price List as " *(i) all of Your full-time, part-time, temporary employees, and (ii) all of the full-time employees, part-time employees and temporary employees of Your agents, contractors, outsourcers, and consultants that support Your internal business operations.*"

Definition of Employee is Negotiable

Cost Under New Employee Based Model

Employee Count	Yearly Cost Per Employee	Annual Cost Low Range	Annual Cost High Range
1-999	$ 180.00	$ 180.00	$ 179,820.00
1000-2,999	$ 144.00	$ 144,000.00	$ 431,856.00
3000-9,999	$ 126.00	$ 378,000.00	$ 1,259,874.00
10,000-19,999	$ 99.00	$ 990,000.00	$ 1,979,901.00
20,000-29,999	$ 81.00	$ 1,620,000.00	$ 2,429,919.00
30,000-39,999	$ 68.40	$ 2,052,000.00	$ 2,735,931.60
40,000-49,999	$ 63.00	$ 2,520,000.00	$ 3,149,937.00
50,000+			

Oracle Will See Payment for Past Usage

May 1995

Sun Microsystems Releases Java

June 2018

Oracle Announces You Must License Java for Commercial Use – June 21, 2018

January 2019

$

January 2019, Java SE 8 public updates will no longer be available for "Business, Commercial or Production use" without a commercial license.
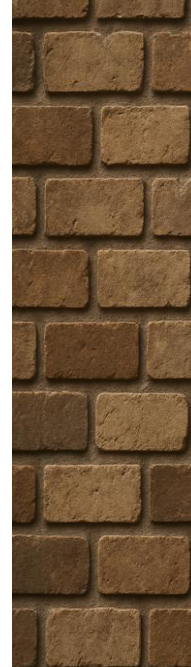
"Old Pricing"

ORACLE — DOES NOT WANT YOU TO KNOW THIS

January 2023

$$$$

June 23, 2023, Oracle moved away from Processor and Named User Plus License Model. Oracle moved to Employee Based Licensing Model, "Employee for Java SE Universal Subscription:"

"New Pricing"

Gartner has also warned that Oracle is ready to test whether users comply with Java licensing terms as it sees them. One in five Java users can expect an Oracle audit in the next three years, Gartner said.

January 17, 2024

"Traditional Software Audits for Java Are Labor Intensive and Difficult"

We're seeing a growing trend of companies like Oracle using **"soft audit" tactics**—initiating **informal inquiries** that **seem harmless** but can lead to significant consequences. These audits often **start with casual questions**, yet **customers may unknowingly disclose sensitive information that's difficult to retract later**—ultimately **weakening their negotiating position**.

Soft Audits, Hard Consequences: The Danger of Soft Audits

- **Throws the Audit Word Out, Without Giving Official Audit Notice**
  - Official Audits Come with **Obligations and Protections**
  - Without an Official Notice, **Protections are not in Place**
- Soft Audit
  - The **vendor is fishing for compliance issues**
  - This is a **shakedown for Revenue**
  - You are under no Obligation to Answer Questions
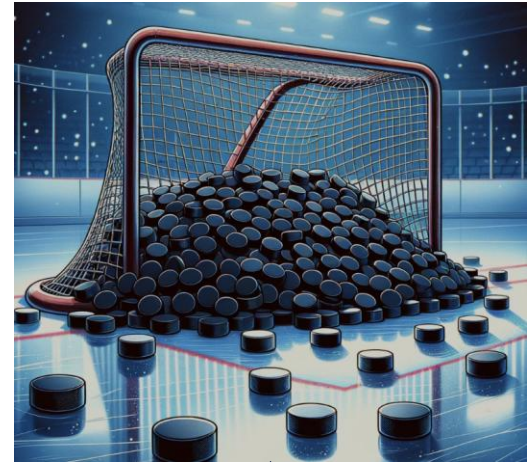
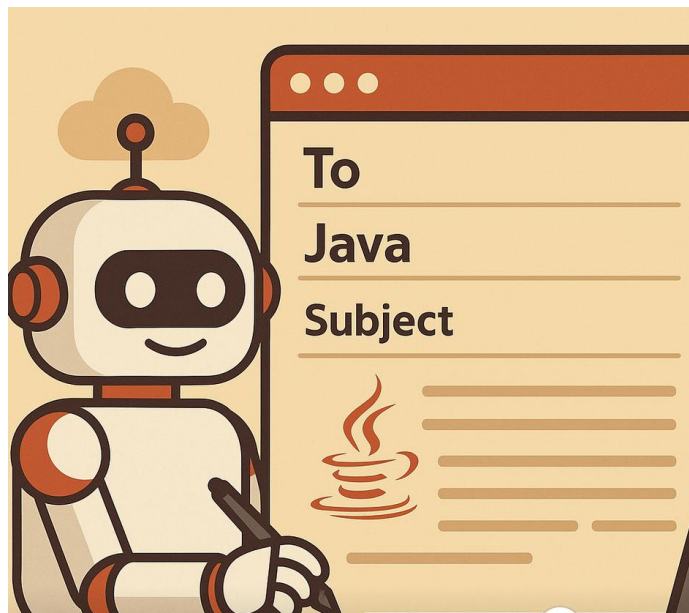**Soft Audit is allowing Auditor to take free shots on the net**

Soft Audits

- *Providing data over what is required makes it easier for the vendor to build a misleading case of under-licensing*
- Only Provide Information Needed to Fulfill your Legal Obligation
- How You Answer Questions Matters/Prevents Scope Creep
- Answer Wrong – Vendor Sees Dollars signs and Pursues you Harder
- **Vendors can and will ask Questions Beyond what is <u>allowed during the audit</u>.**

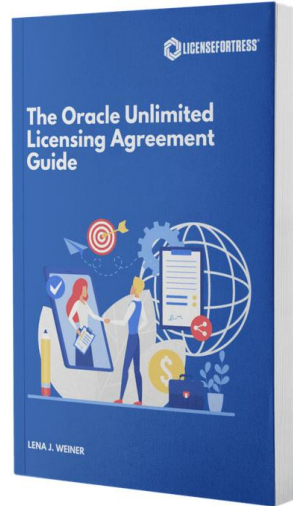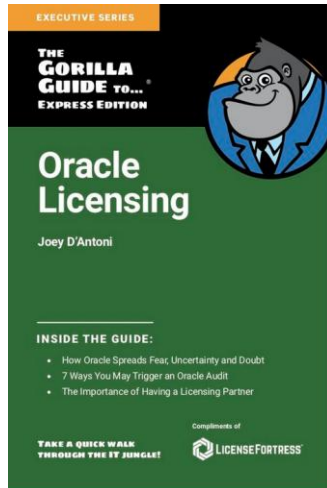"Wrong Answer Moves Vendor Goal Post to More Expensive Location"

- Many times it's an Automated Sales Practice

Great Free Resources, Available from LicenseFortress

https://licensefortress.com/the-resource-center/#rc-ebooks

- https://licensefortress.com/the-gorilla-guide-to-oracle-licensing/
- https://licensefortress.com/the-oracle-unlimited-licensing-agreement-guide/
- https://licensefortress.com/oracle-audit-survival-guide/

Questions

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Michael Corey

Michael.Corey@licenseFortresss.com