



Enterprise Essentials Special Report

Survey: Oracle Customers on Their Cloud Adoption

The economic uncertainties over the past few years have driven many businesses to streamline internal processes, reduce costs, and maximize the performance of their tools. This has led many Oracle users to adopt the cloud. Providing more scalability and easier access to data, cloud providers such as OCI, AWS, and Azure are key choices for companies who are looking to move away from the on-premises data center. In this study, Apps Run The World has surveyed 223 organizations to determine how they are modernizing their technology infrastructure – in particular, their Oracle workloads – and what benefits and roadblocks they have encountered along the way.



Introduction

Despite technical challenges and economic uncertainties, many Oracle customers are finding new ways to capitalize on their cloud migration projects while realizing significant IT and business performance improvement. This is according to a new survey of 223 organizations that are modernizing their technology infrastructure as part of their digital transformation initiatives.

A close examination of these long-time Oracle customers that are actively lifting and shifting a host of on-premise Oracle applications to the public cloud highlights many benefits they are reaping, such as millions of dollars in savings, faster performance speeds, increased availability and easier scalability.

A whopping 99% of these customers cited improved performance and efficiency as perceived benefits of moving to the cloud, especially in running reports and completing tasks such as managing distributed data.

However, nearly half of these customers also reported challenges when it came time to move Oracle to the cloud. This includes: getting the right levels of performance (transaction speed, I/O, latency) attempting to migrate several Oracle databases and applications simultaneously, lifting and shifting complex workloads like Exadata and Oracle Student Administration, and establishing true costs associated with migrating to the public cloud due to capacity constraints during peak and nonpeak hours.

The mixed conclusions from these customers are expected to manifest themselves even further as the majority (82%) of the surveyed Oracle customers continue to operate at least a quarter of their workloads in an on-premises environment. Among the 223 organizations surveyed, 72% have 26-50% of their workloads behind corporate firewalls.

Benchmarking against these 223 use cases, it is fair to assume that many more Oracle customers will move additional workloads to the cloud and generate even more benefits like streamlining their Oracle investments and achieving enterprise-wide efficiency gains. On the flip side, however, performance bottlenecks, limitations and throttles common in any public cloud infrastructure will also multiply, especially if Oracle enterprises do not follow best practices or the right approaches.

For example, a US telecommunications provider overcame the odds with a 10x performance spike after partnering with cloud DB virtualization platform vendor, Silk, by leveraging its data replication and compression technologies even when the telco was under a tight deadline to migrate its Oracle and Exadata workloads to Microsoft Azure before the imminent closure of its data center.

Companies are eager to reduce infrastructure costs by offloading hosting burdens to IaaS providers like Amazon Web Services, Microsoft Azure, and Oracle Cloud Infrastructure. But instead of pinning their hopes on pocketing any short-term savings from closing their data centers or rationalizing software licensing costs, these companies are better off working to intelligently reduce their cloud footprint and total spend through dynamic scaling, thin provisioning, and autonomous resource optimization. This will result in a more sustainable performance boost and greater long-term business value.

Key Findings of the Oracle Applications Customer Survey

- 1. Preferred IaaS Provider:** 57% prefer Oracle Cloud Infrastructure as their IaaS provider due to its heavy investments to build out dozens of cloud regions globally, compared with 32% for AWS and 11% for Microsoft Azure. At the time of this study, Oracle does not support deployments on Google Cloud Platform, so Google Cloud Platform is not on the list.
- 2. What Oracle Workloads They're Moving to the Cloud:** 37% of respondents are pushing E-Business Suite to the cloud, 26% are moving PeopleSoft, 19% are moving JD Edwards, and 10% are moving Hyperion. This underscores their enduring value against an onslaught of third-party cloud applications. Only 6% respondents are Oracle database customers, primarily because many of its application customers also run Oracle database.
- 3. Why They're Adopting the Cloud:** 94% of Oracle customers are in favor of public cloud as the gateway to leverage scalability needed to drive their growth, and 88% of these respondents cite easier access to IT infrastructure on public cloud as the impetus for their continued investment in Oracle applications. This will result in easier upgrades down the road.
- 4. Where They Are on Their Cloud Journey:** 97% of Oracle customers have started moving their mission-critical workloads to public cloud. Meanwhile, 74% are considering similar moves with additional mission-critical workloads. This makes attributes such as cloud performance, stability, and scalability more important than ever as customers entrust their most valuable IT assets to hyperscalers.
- 5. 72% of surveyed companies** run a quarter to half of their workloads on-premises, 18% have less than a quarter still on-premises while 10% report they have more than half on-premises. This is consistent with the hybrid environment facing most companies.
- 6. Performance on the Cloud:** 71% of surveyed companies expect the cloud to deliver consistent performance and 29% are hopeful or not sure they can produce the same results. However, 20% prefer to withhold performance-intensive workloads from hyperscalers in case they aren't able to achieve the performance they require.
- 7. Benefits of the Cloud:** 99% of surveyed companies attribute better performance to the public cloud, 97% call out high availability and resiliency, 94% emphasize digital business agility, and 88% citing lower cloud infrastructure costs as the biggest payoffs in their cloud journey.
- 8. What Other Workloads They Plan to Move To the Cloud:** 63% are planning to move non-Oracle workloads, such as Microsoft SQL Server and open-source databases like MySQL, to public cloud.
- 9. When Did Cloud Migration Projects Take Place:** 50% of all cloud migrations implementations took place in 2019 and 2020. Meanwhile, most legacy Oracle applications deployment – especially those done with heavy customization between 2005 and 2015 – remain on-premises.
- 10. Biggest Cloud Migration Challenges:** 44% of surveyed companies state that their biggest challenge is getting the right levels of performance (transaction speed, I/O, latency), 42% report database migration is also a clear hurdle. And another 41% consider code and architecture changes their primary cloud migration challenge. All these point to technical issues being a major roadblock on customers' cloud journeys.
So far, the growing consensus among surveyed Oracle customers is that they are pleased with early results. However, significant challenges could derail their long and winding cloud migration passage.

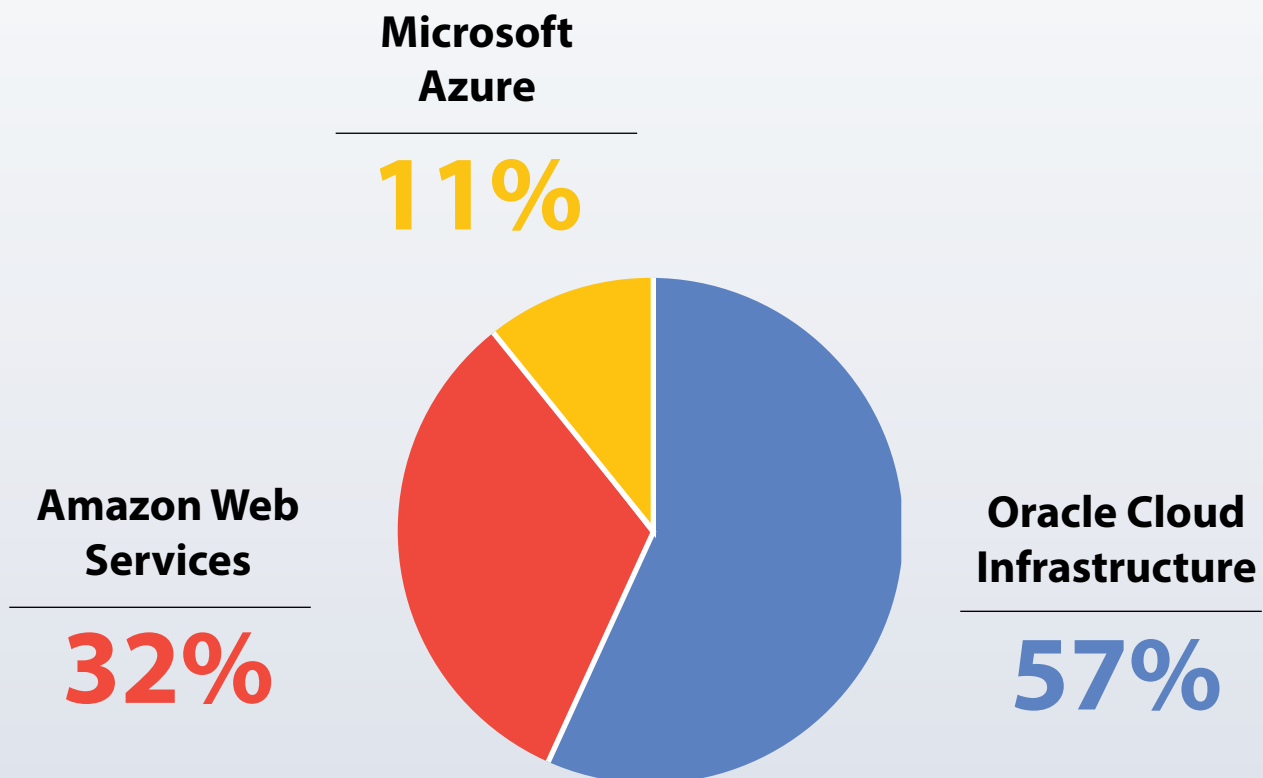
The Implications of Oracle Customers Migrating to the Public Cloud

These survey results are based on our continuous research on tens of thousands of companies every year and their enterprise application implementations. We zero in on their system go-lives, documented one-time and long-term benefits, and implications of such projects on the future.

For this study, we were able to document 223 use cases of Oracle customers across 21 industries and 29 countries who have made cloud migration the centerpiece of their digital transformation initiatives since 2015. The top industries were manufacturing (19%) and professional services (15%). The full breakdown can be viewed in Exhibit 3. In terms of location, 61% are headquartered in the United States, 9% in the UK, 7% in Australia, and 4% in India.

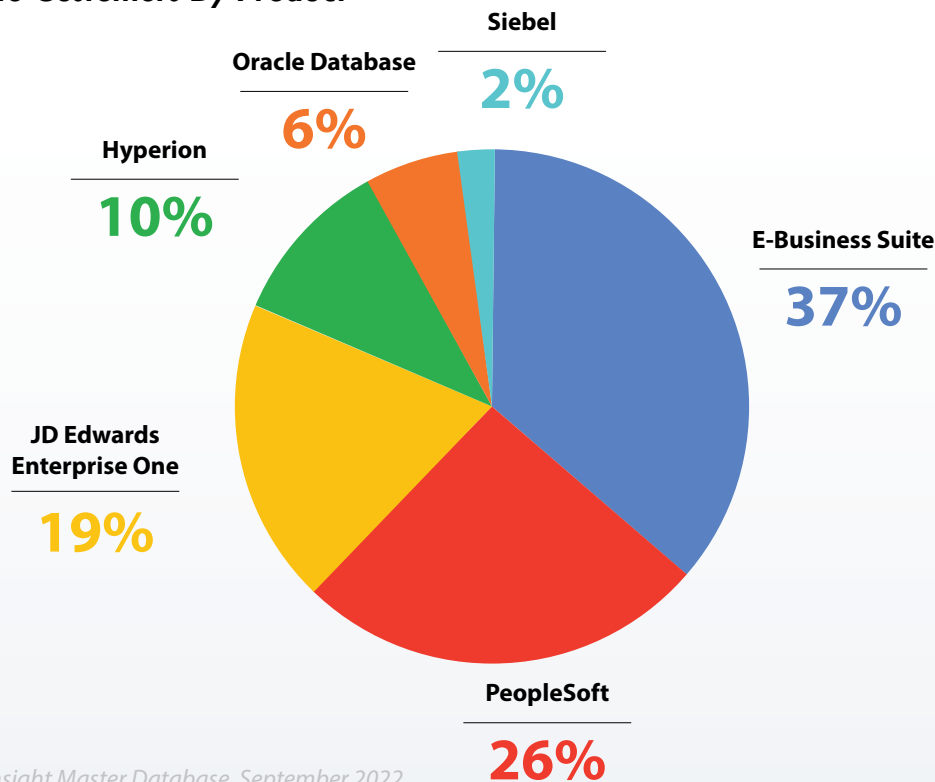
After benchmarking the results from this survey, we compared them with previous surveys conducted regularly and continuously within the past 10 years.

Exhibit 1 – Oracle Customers by Public Cloud



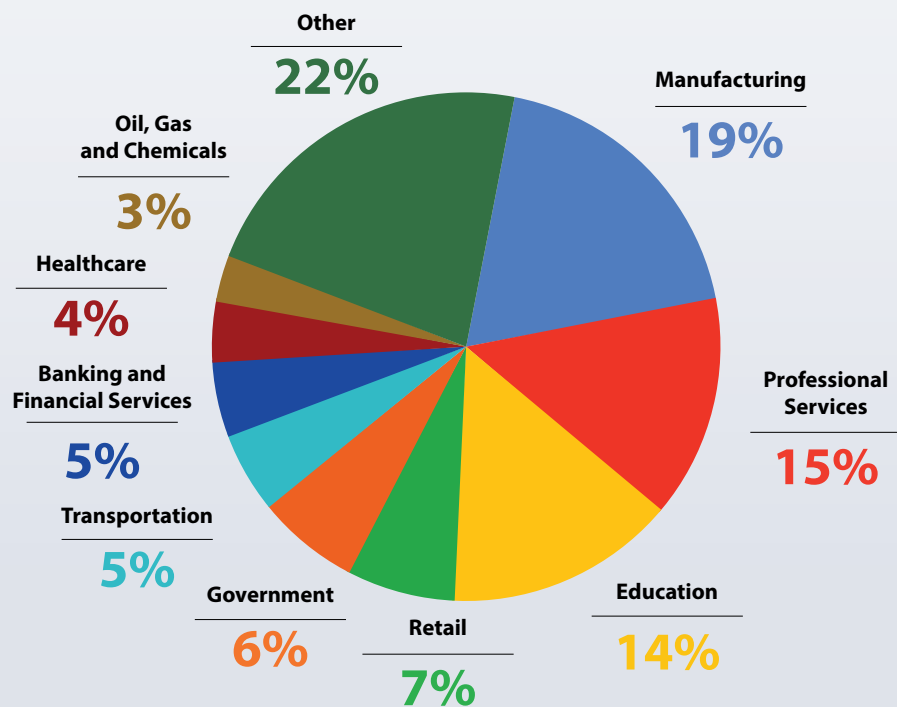
Source: ARTW's Buyer Insight Master Database, September 2022

Exhibit 2 – Oracle Customers By Product



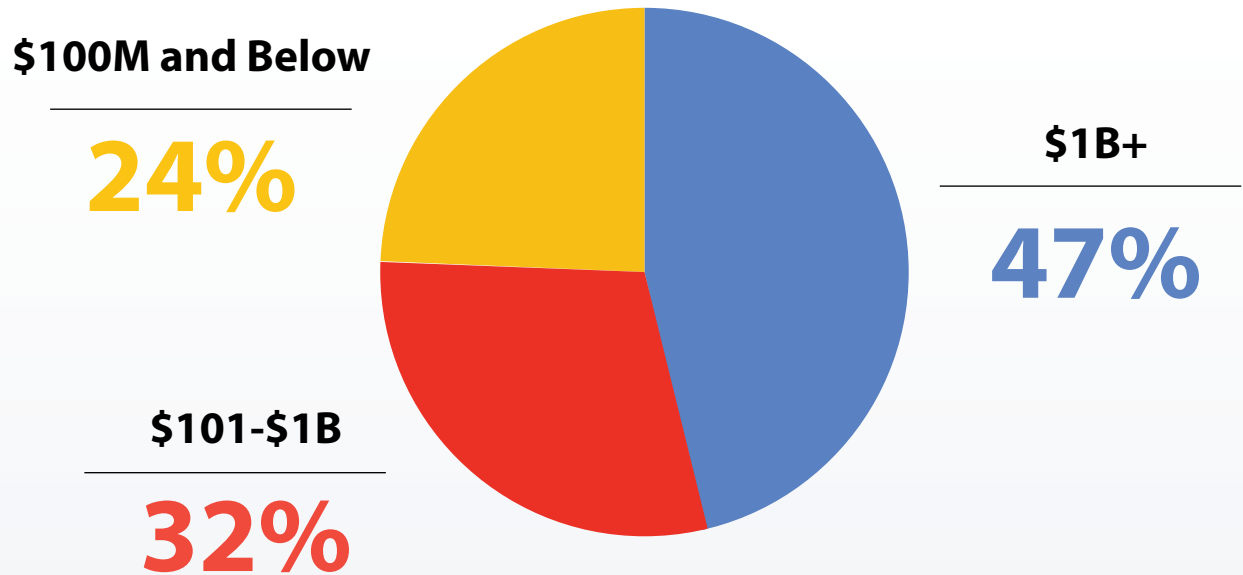
Source: ARTW's Buyer Insight Master Database, September 2022

Exhibit 3 – Oracle Customers By Industry



Source: ARTW's Buyer Insight Master Database, September 2022

Exhibit 4 – Oracle Customers By Revenue



Source: ARTW's Buyer Insight Master Database, September 2022

Exhibit 5 – Oracle Customers By Year of Cloud Migration

Year Purchased	Count	%
2015	3	1%
2016	4	2%
2017	15	7%
2018	41	18%
2019	74	33%
2020	46	21%
2021	29	13%
2022	11	5%

Source: ARTW's Buyer Insight Master Database, September 2022

Exhibit 6 – Oracle Customers By Country

Country	Count	%
United States	137	61%
United Kingdom	21	9%
Australia	16	7%
India	8	4%
Singapore	4	2%
France	4	2%
Philippines	3	1%
United Arab Emirates	3	1%
Brazil	2	1%
Sri Lanka	2	1%
Thailand	2	1%
Germany	2	1%
Ireland	2	1%
Switzerland	2	1%
Argentina	1	0%
Canada	1	0%
Chile	1	0%
Mexico	1	0%
Japan	1	0%
Indonesia	1	0%
South Korea	1	0%
Belgium	1	0%
Denmark	1	0%
Lebanon	1	0%
Netherlands	1	0%
Norway	1	0%
Spain	1	0%
Other	2	0%

Source: ARTW's Buyer Insight Master Database, September 2022

Tangible Results and Implications from Oracle Customers Surveyed

- **FedEx:** It took less than seven months for FedEx to migrate 500 terabytes of production data in E-Business Suite to OCI. The stakes were high since the EBS system with the associated databases manages around 75% of the shipper's accounts receivable. FedEx's finance team in charge of AR can now run daily collections analyses worldwide, while experiencing faster invoice and payment processing and double-digit percentage performance improvements for GUI-based applications.
- **The State of Texas:** The State of Texas is in the midst of a five-year project to migrate its PeopleSoft HCM, Financials and Learning for its 113 agencies and 115,000 employees to OCI with the goal of achieving across the board performance improvements. This includes 60% reduction in PO/AP print run time, 70% reduction in release report run time, 50% reduction in PO dispatch run time, 50% reduction in nightly environment refresh run time, and 40% reduction in production backup run time. The state estimates it will save 50% costs over five years by completing the project by fiscal year 2025.
- **Axalta Coating Systems:** With \$5 billion in sales, Axalta Coating Systems identified \$1.4 million in recurring annual savings by closing a data center and migrating its financial applications, including Oracle Hyperion, to Microsoft Azure.
- **FPG Raffles:** Singapore transportation company, FPG Raffles, determined that its plan to lift and shift workloads to OCI while upgrading PeopleTools and Oracle was too time intensive. This forced it to a temporary Oracle Enterprise database instance for its data pump parallel processing features to save time.
- **BECU:** Credit union BECU eliminated 50% of customizations as well as unnecessary license costs on its PeopleSoft Financials when migrating it to Microsoft Azure, reducing total cost ownership.
- **Birla Institute of Technology & Science:** After migrating its PeopleSoft ERP to OCI, Birla Institute of Technology & Science in India saw the lead time required to double its infrastructure load significantly reduced during busy student registration periods.
- **Brewer Science:** Guided by best practices, Brewer Science spent less than five months during the pandemic migrating its E-Business Suite to AWS. The electronics maker was able to stay within budget while getting clearer visibility into its application performance, configuration, and resource usage.
- **DAE Capital:** Aerospace company, DAE Capital, in Dubai was able to reduce its Oracle footprint by nearly 50% after migrating its E-Business Suite Financials and Discoverer to Microsoft Azure, providing substantial savings.
- **Equifax:** Credit reporting bureau, Equifax, migrated its Oracle E-Business Suite, Hyperion Suite, and Oracle BRM-based billing applications to AWS. It did this by running hundreds of Amazon Elastic Compute Cloud instances and using Amazon Elastic Block Store for persistent block level storage. Early results saw a 300% improvement in performance for its Hyperion environment.
- **GE:** General Electric migrated its on-premise IT environment of hundreds of applications, including Hyperion, to Microsoft Azure in a year-long project that covers more than 500 production workloads.
- **Komori America:** Printing equipment manufacturer, Komori America, experienced close to 50% cost reduction and fixed performance and storage issues associated with its on-premise E-Business Suite by lifting and shifting it to AWS.

- **Riso:** Japanese conglomerate, Riso Inc., decided to shutter its three North American data centers and its Oracle workloads to AWS. This allowed it to realize 3-4x better performance than it had achieved on its own servers.
- **PHI Helipass:** After successfully moving its Oracle applications to Microsoft Azure, logistics provider, PHI Helipass, expects the public cloud to accelerate its innovation quotient faster than what was possible on its legacy infrastructure. All while scaling to meet new demands and international growth.

A few lessons learned stand out from studying Oracle workload migration to the public cloud. The first is that mission-critical workloads with high performance requirements may struggle to achieve that level of performance in the cloud. A common side effect of needing more performance is overprovisioning cloud resources (storage, compute, and capacity) to ensure the right performance levels. This can lead to cloud waste. Thin provisioning of cloud resources will help with this.

The second is that Oracle customers putting workloads on AWS, Azure or the “non-Oracle” cloud are subject to increased Oracle licensing costs as applications and databases run on multiple virtual machines and CPU cores. Workload consolidation and a shared data layer will help with this to minimize vCPUs. And third, Oracle customers hosting workloads on the non-Oracle cloud lose support for Oracle-only technologies, like Oracle Real Application Clusters (RAC) and Oracle Hybrid Columnar Compression (HCC). Other tools, like Oracle Data Guard for availability, and Silk for data compression, are suitable alternatives for the public cloud.

Summary

As the business world struggles to reorient itself in the post-pandemic era, a few essential takeaways appear to be more pronounced than ever:

1. More companies are lifting and shifting their mission-critical workloads to the cloud for cost savings and competitive reasons.
2. Enterprises of all sizes cannot sacrifice performance in their cloud migration journey, especially since every component of the organization is being scrutinized on its ability to continuously improve the business.
3. Regardless of inflationary pressures, IT executives need to be mindful of both improving performance while being conscious of costs. They need to spin up cloud resources quickly that have faster computing performance.

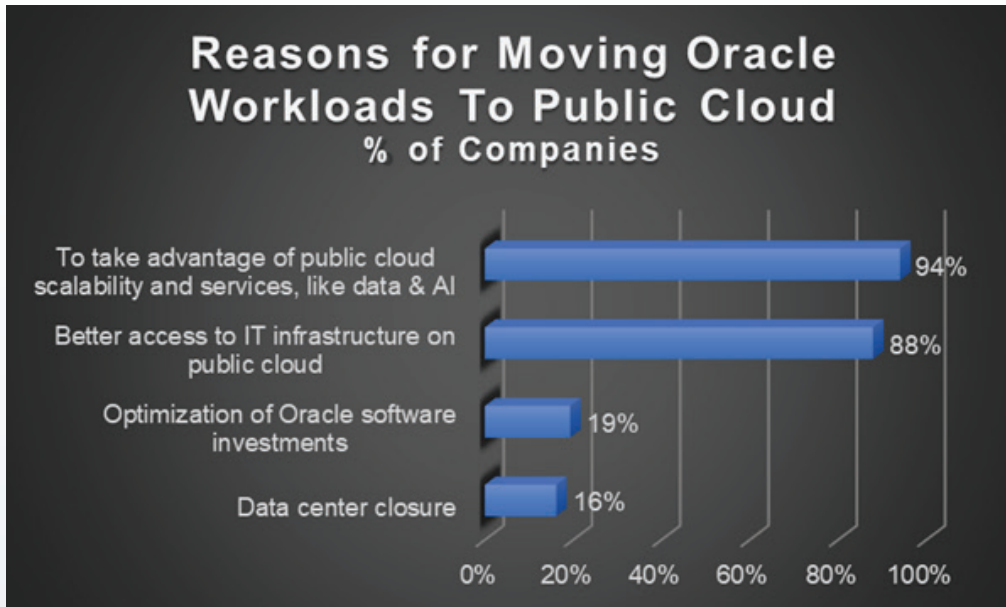
As the economy proves to be more unpredictable than ever, it is imperative that companies do whatever it takes to preemptively navigate and mitigate uncertainty in the business. By engaging third-party tools such as Silk and other cloud accelerators, business leaders can be sure that they are getting the most bang for their buck while maximizing the impact of their cloud migration.

This study illustrates the importance of not just keeping up with industry best practices, but also being willing to jettisoning outdated infrastructure and IT approaches that are no longer meeting the rapidly changing needs of business IT and its future.

Appendix

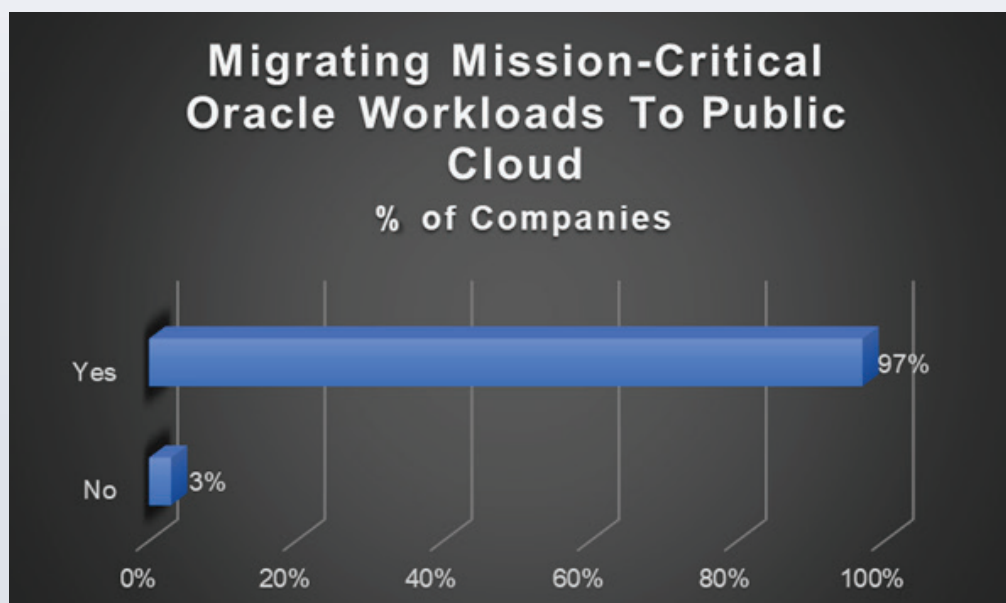
The following exhibits provide excerpts for the Oracle survey per Apps Run The World's continuous research on tens of thousands of enterprise applications customers every year as part of its Buyer Insight Master Database updates.

Exhibit 7 – Top Reasons for Moving Oracle Workloads to Public Cloud



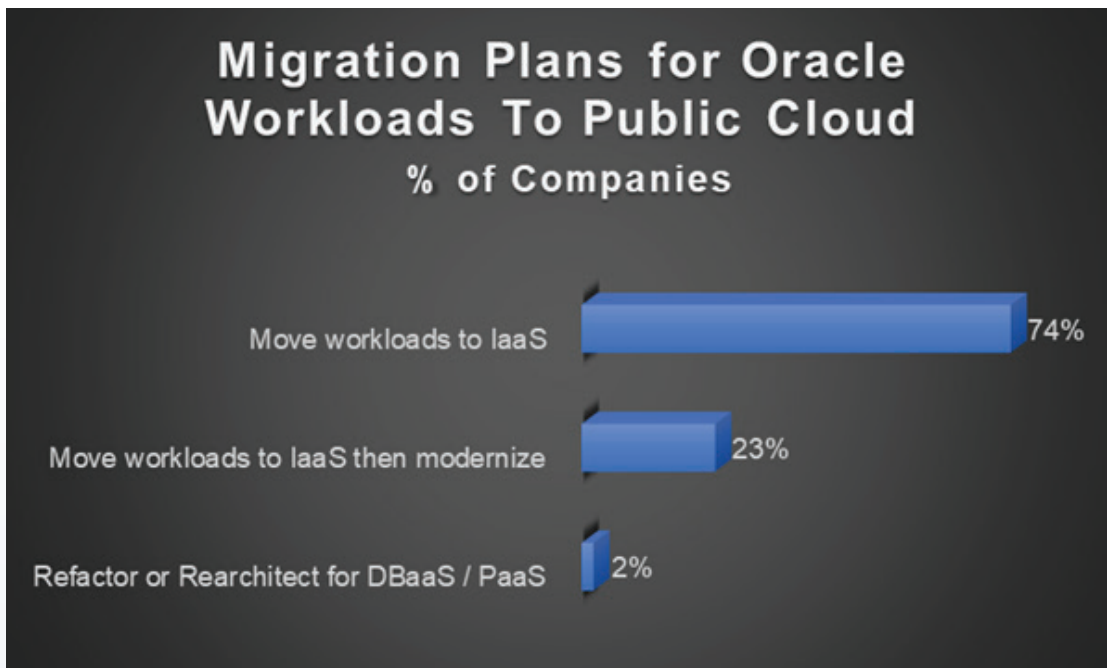
Source: ARTW's Buyer Insight Master Database, September 2022

Exhibit 8 – Migration Plans For Moving Mission-Critical Oracle Workloads to Public Cloud



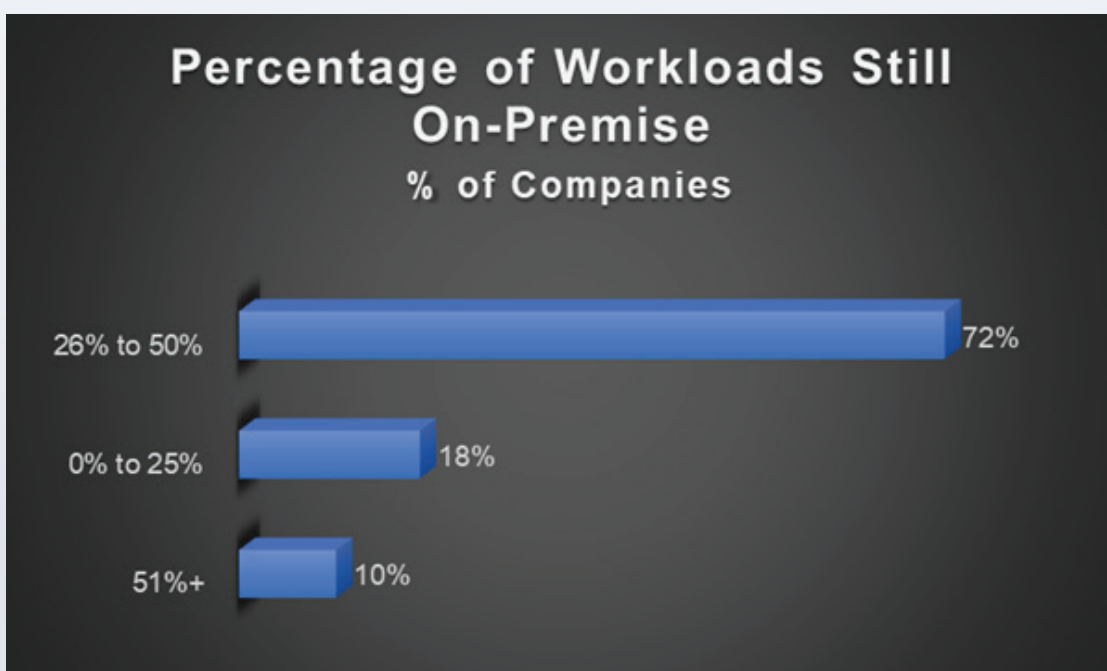
Source: ARTW's Buyer Insight Master Database, September 2022

Exhibit 9 – Migration Plans For Moving Mission-Critical Oracle Workloads to Public Cloud



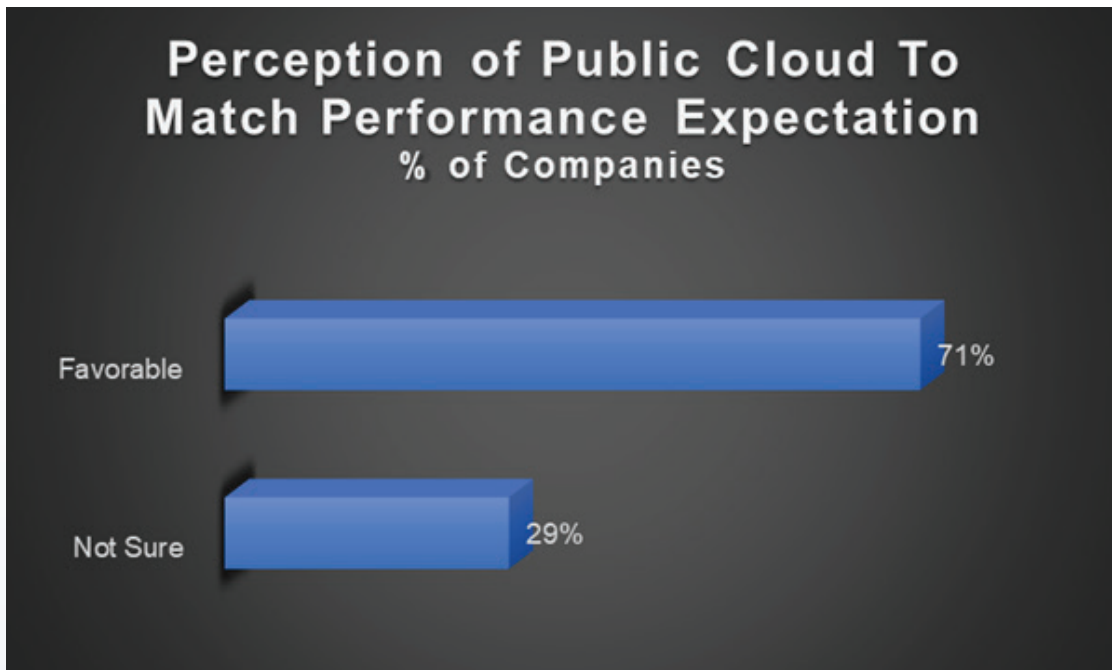
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Exhibit 10 – Percentage of Workloads Still On-Premise



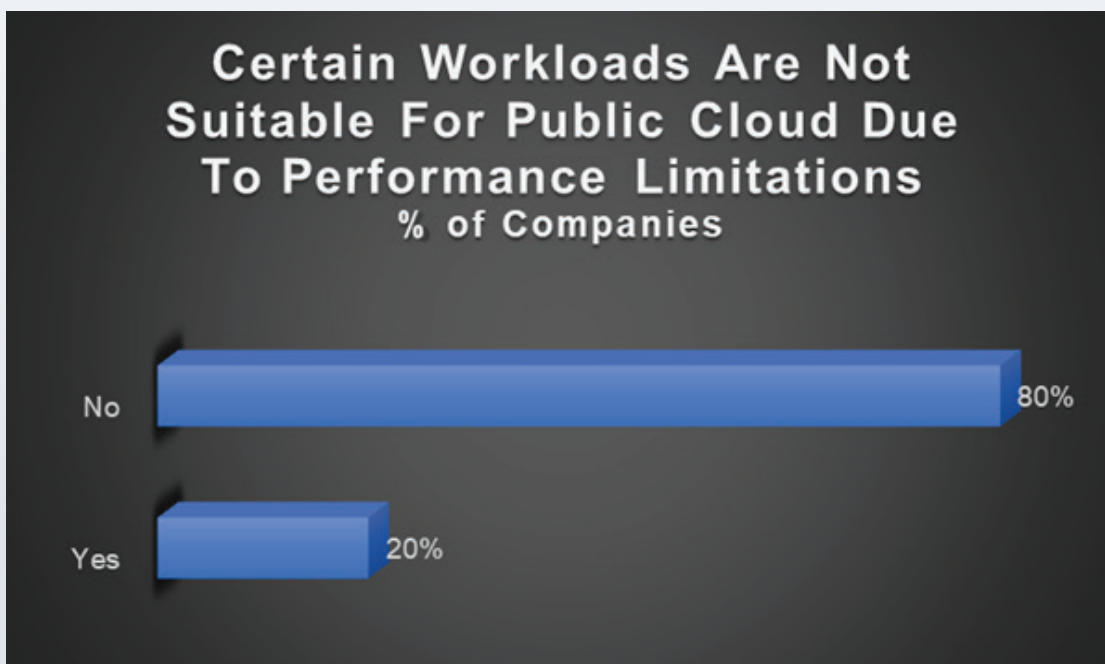
Source: ARTW's Buyer Insight Master Database, September 2022

Exhibit 11 – Perception of Public Cloud to Match Performance Expectations



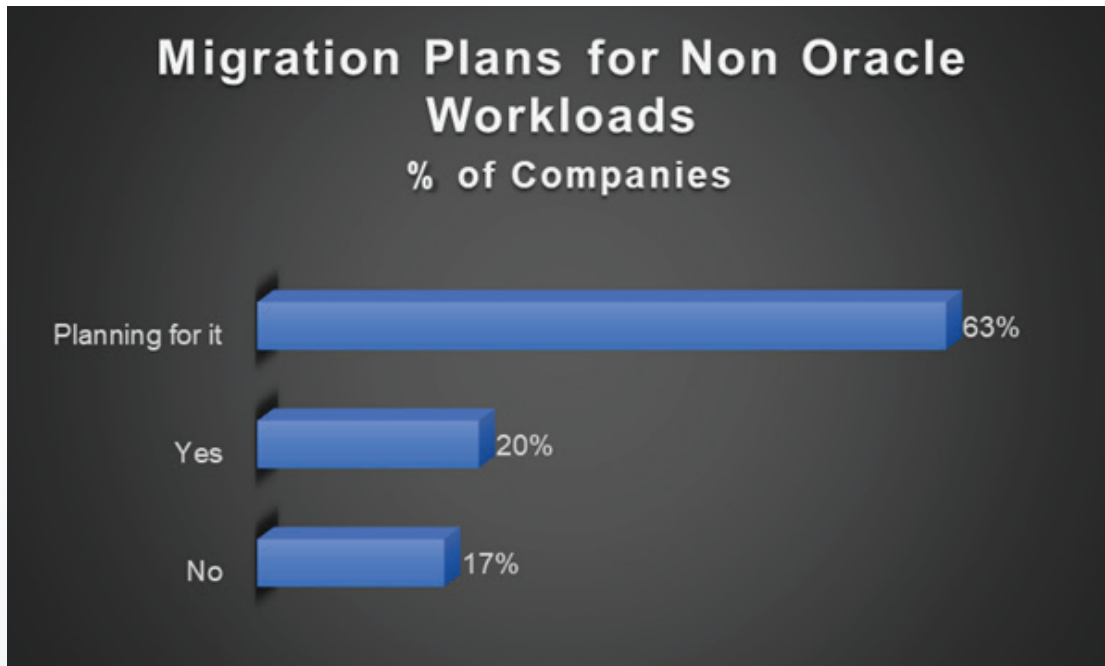
Source: ARTW's Buyer Insight Master Database, September 2022

Exhibit 12 – Certain Workloads Not Destined For Public Cloud Due to Performance Limitations



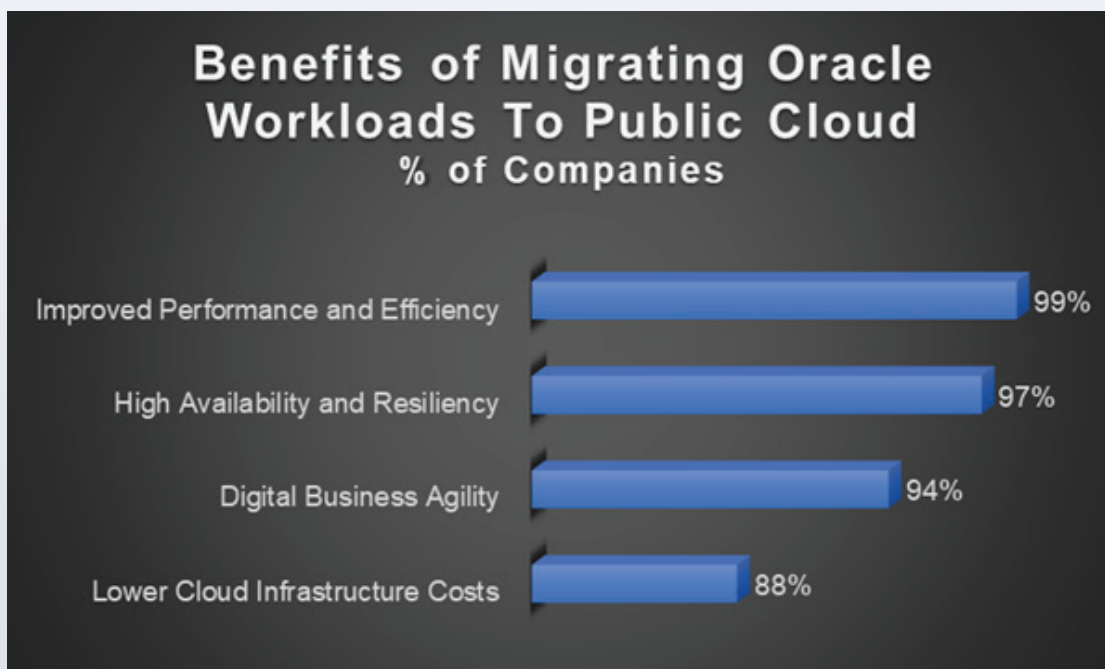
Source: ARTW's Buyer Insight Master Database, September 2022

Exhibit 13 – Migration Plans for Non-Oracle Workloads to Public Cloud, such as SQL Server



Source: ARTW's Buyer Insight Master Database, September 2022

Exhibit 14 – Perception of Biggest Benefits of Migrating Oracle Workloads to Public Cloud



Source: ARTW's Buyer Insight Master Database, September 2022

Exhibit 15 – Common Challenges When Migrating Oracle Workloads to Public Cloud

Common Challenges	% of Companies
Getting the right levels of performance (transaction speed, I/O, latency)	44%
Database migration	42%
Code and architecture changes	41%
Right-sizing workloads for cloud infrastructure	21%
Disruption of service	10%
Additional database licensing requirements	9%
Public cloud vendor lock-in	4%



APPS RUN THE WORLD is a leading technology market-research company devoted to the applications space. Leveraging a rigorous data-centric research methodology, we ask the simple question: Who’s buying enterprise applications from whom and why? And we provide the answers —supported by decades of research— to our clients around the world.

Follow the link below for methodology of the study and the Taxonomy and Market Definitions documents:

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