Migrate Any Application to Oracle Cloud

Open standards, unrivaled security, and comprehensive migration services motivate organizations to embrace cloud-based information systems.

“By working with Astute, who has built our managed solution on Oracle Cloud Infrastructure, the university is saving $1 million annually compared with competing solutions that we explored. We also benefit from their joint expertise with PeopleSoft and the latest public cloud infrastructure.”

- Francisco Acuña Castillo
Asistentes Universidad de Santiago de Chile

For most organizations, the promise of trouble-free, cloud-based information systems remains an elusive goal. Although cloud technology is pervasive, today’s installations primarily consist of new applications in private clouds managed by in-house IT staff. The vast majority of enterprise applications and infrastructure still remains on premises.

But that’s changing fast.

Oracle allows you to migrate any workload to the cloud, setting the stage for a new era of cloud-based data, applications, and infrastructure. Find out how your organization can transition to a secure, scalable, high-performance public cloud—quickly, easily, and with no interruption to your business operations.

Oracle Cloud: Proven for All Applications and Workloads

Application Development and Testing

- Move selected application development activities to the cloud
- Choose the languages, tools, and open source technologies you need
- Gain versatile infrastructure options—not just Oracle Database and Oracle Applications, but thirdparty middleware and apps as well

Production Deployments

- Move your entire environment to the cloud — IaaS, PaaS, and SaaS
- Run Oracle Database, Oracle Applications, and Oracle middleware
- Include non-Oracle databases, applications, and middleware
- Launch new apps in days rather than weeks
- Enjoy unified management with complete visibility and control

Why Should Your Organization Migrate to Oracle Cloud?

Cloud computing has entered the mainstream—and it's here to stay. According to 451 Research, 41 percent of all enterprise computing workloads are already running in some type of public or private cloud, and 60 percent of all computing workloads are expected to be in a public or private cloud by the middle of 2018.1

However, IT leaders often hesitate to move critical applications into the hands of cloud service providers—partly because they don't see a clear migration path for entrenched legacy assets, but also because they aren't sure whether public cloud services are ready for enterprise needs. They are right to be skeptical: Most public cloud offerings are characterized by insufficient deployment choices, limited compatibility between on-premises and cloud systems, and a lack of enterprise-level management capabilities.

A Realistic Approach to Cloud Computing

Oracle has a realistic view of cloud computing that encourages a hybrid cloud infrastructure, with prepackaged applications and tools for rapid provisioning, migration, centralized management, and integration. In the remainder of this brief, you'll learn how these tools can simplify your journey to the cloud.

The Cloud That Stands Apart

Oracle Cloud represents the industry's most complete offering. It spans the infrastructure, platform, and application layers, with integrated consumption models and centralized management.

This highly versatile cloud platform offers choice of deployment—private, public, and hybrid cloud options, with similar technology in each category and easy interchangeability among them. It supports many different applications, languages, operating systems, and data types. It's ideal for both Oracle applications and third-party applications. And all apps run identically, whether deployed on premises or in the cloud.

1 451 Research, September 2016, 451research.com/blog/764-enterprise-it-executives-expect-60-of-workloads-will-run-in-the-cloud-by-2018.

Built around multiple levels of defense, Oracle Cloud is incredibly **secure**. Oracle's extensive cloud security includes physical data center access controls, encryption of data, and a multilayered, "defense in depth" security strategy that encompasses all layers of the technology stack.

Oracle Cloud is based on open **standards**, which ensures optimum flexibility as your business' needs change over time. You can use existing skill sets and talent across all environments and technology stacks—and run both Oracle and nonOracle workloads in the cloud.

You don't have to compromise **performance** for your application workload in the cloud—it is built into the Oracle Cloud infrastructure at all levels. With Oracle Bare Metal Cloud Services, your application workload enjoys the predicable performance it needs with dedicated resources to avoid "noisy neighbors." For mission-critical workloads, you can deploy Oracle Database Exadata Cloud at Customer to ensure the extreme performance your business workload requires.

Oracle Cloud helps you easily migrate to the cloud while **reducing the costs** of IT modernization. You can preserve existing investments with familiar tools, and you don't have to rewrite code to migrate your software assets. Elastic capacity through "cloud bursting" gives you the capacity you need without having to oversubscribe. The biggest savings come from eliminating capital expenses by lifting and shifting entire workloads to the cloud and retiring data center assets.

Support for Any Workload or Application

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Of course, Oracle Cloud supports much more than just Oracle applications and infrastructure. For existing customers currently running Oracle software (such as Oracle E-Business Suite; Oracle's JD Edwards, **PeopleSoft**, and Siebel applications; as well as Oracle Database and Oracle WebLogic Server) on premises, these applications can simply be repackaged for a seamless deployment experience in the cloud.

The truth is, you can migrate any workload to Oracle Cloud—and most customers do. The majority of application workloads that are deployed on Oracle Cloud consist of Microsoft Windows, IBM WebSphere, Tomcat, and JBoss, along with third-party databases such as SQL Server, DB2, Mongo DB, Cassandra, Postgres, and Sybaseenter assets.

Solutions for Every Use Case

Operations in the Cloud

DevTest Environments

Running Big Data Analytics

Archiving in the Cloud

Moving Apps to the Cloud

Infrastructure Refresh

Application Consolidation

Moving Data Center to the Cloud

Typical Savings Achieved by Oracle Cloud Customers

- As much as 50 percent CapEx savings on database licenses
- As much as 28 percent savings by eliminating duplicate administrative resources
- As much as 74 percent reduction in operational overhead in their data centers

Tools for a Safe and Productive Journey—with Unwavering Business Continuity

Oracle has consolidation tools to estimate the resources you will need to ensure adequate performance and enforce existing service level agreements (SLAs), as well as performance management tools to proactively identify and fix problems before they impact your production systems.

Oracle also offers cloning tools to seamlessly copy applications and data to the cloud. With what we call “lift and shift” migrations, you can move existing systems to the cloud intact—quickly and easily.

- Deploy on-premises backup or standby databases in the cloud for disaster recovery. Oracle Cloud is purpose-built to support highly available, enterprise-scale, business-critical workloads.
- Oracle Maximum Availability Architecture enables high availability capabilities including backup service, Oracle Real Application Clusters (RAC), and disaster recovery.

For customers with mission-critical workloads that cannot tolerate business disruption, Oracle offers a zero-downtime migration option called Oracle GoldenGate Cloud Service that enables you to move applications and databases to the cloud without impacting production operations. Oracle GoldenGate Cloud Service features a real-time data replication service so you can move data in bulk, and even transform dissimilar data types to one consistent format to simplify operations.

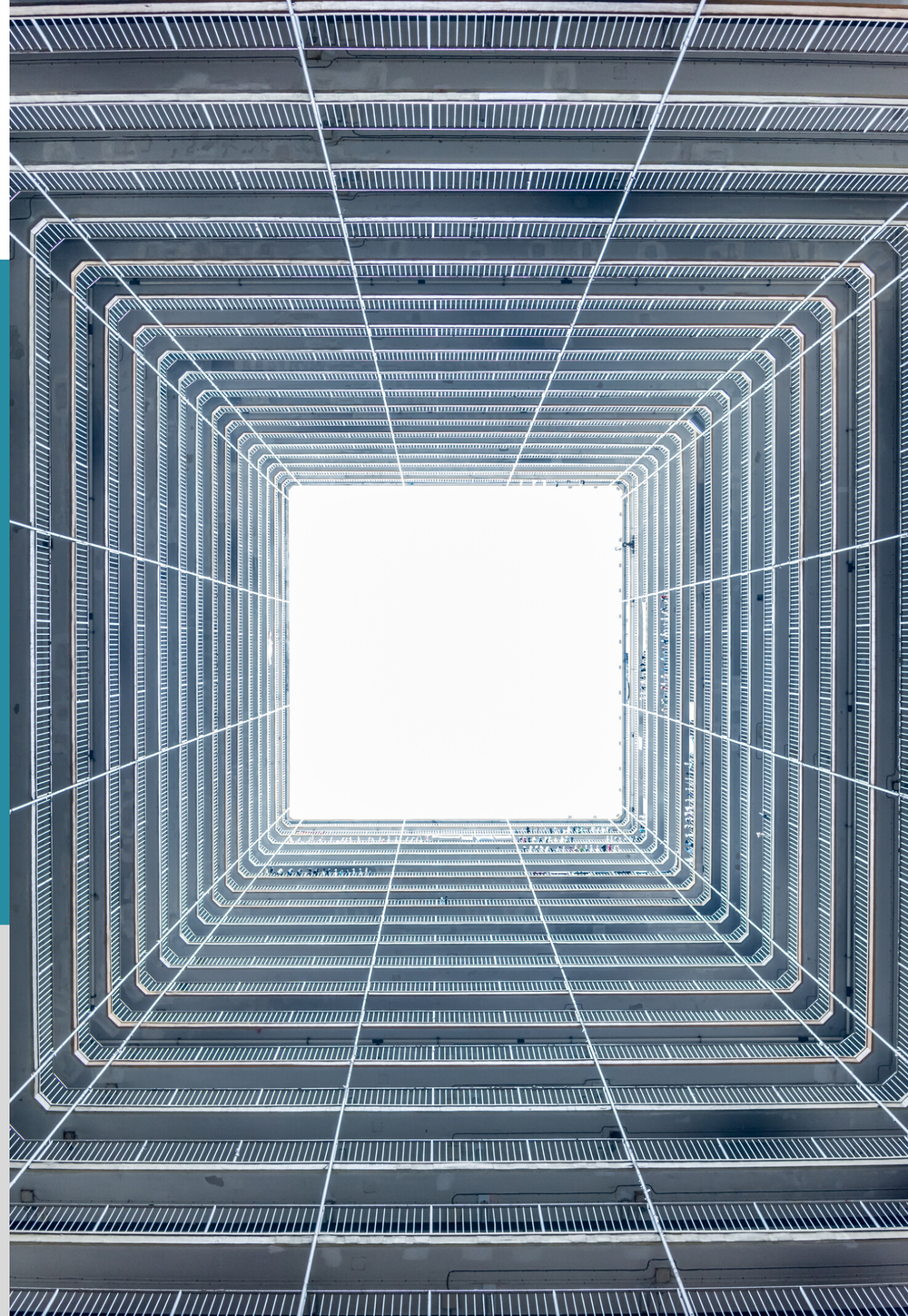
Oracle also offers tools for lifting and shifting VMware and KVM workloads to the cloud without any changes. As a final reassurance of business continuity, you can run your on-premises and cloud apps in parallel until you are certain the migration has been completed successfully.

Data Warehouse in the Cloud

Oracle Cloud is ideal for data warehouse workloads. Database administrators (DBAs) have instant access to preintegrated infrastructure such as servers, network, storage, and database platforms. This makes it easy to migrate existing on-premises data warehouses to the cloud—or create a new one altogether.

You can migrate mixed workloads—such as online transaction processing (OLTP) and analytics—of any size, from small applications to enterprise information systems. Oracle Cloud supports structured and unstructured data such as NoSQL and Hadoop. Your DBAs will enjoy cloud-based tools for monitoring, analytics, and management. They can also take advantage of a wide range of platform services for business intelligence, as well as use Oracle's cloud-based integration services to accommodate third-party analytics.

For high-performance data warehouses, consider Oracle Database Exadata Cloud Service, which includes preconfigured hardware and software to eliminate costly data warehouse builds—and offers extreme performance for instant analytics.



A Successful Migration to the Cloud

GALLAUDET UNIVERSITY

The Organizaton

Gallaudet University, federally chartered in 1864, is a bilingual, diverse, multicultural institution of higher education that ensures the intellectual and professional advancement of deaf and hard of hearing individuals through American Sign Language and English. Gallaudet maintains a proud tradition of research and scholarly activity and prepares its graduates for career opportunities in a highly competitive, technological, and rapidly changing world.

"Working with Astute Business Solutions has been critical to the success of Gallaudet University's migration to Oracle Cloud. We chose Astute because of their OCI migration experience, ability to meet aggressive timelines, testing applications, and the overall cost savings of the project. At the end of the day, I wanted to be able to go home at night and not worry about upgrades, migrations, or a reliable disaster recovery plan. By having Astute as a trusted advisor and Managed Service Provider we've been able to focus more of our time and resources on our core mission."

- Daryl Frelich, Director of Enterprise Information Systems, Gallaudet University

The Challenge

Faced with business and IT challenges, Gallaudet University was distracted from its core mission which as to serve its student population and their global customers and partners.

- Aging and retiring workforce leading to a potential knowledge drain
- Systemic performance issues impacting online and batch processes
- High TCO due to dependence on contract labor to run and maintain PeopleSoft applications and infrastructure
- No Disaster Recovery Plan for on-premise, mission-critical PeopleSoft applications

The Strategy

Astute conducted a Cloud Workshop to assess Gallaudet's needs and designed a solution to run PeopleSoft on Oracle Cloud Infrastructure to help Gallaudet overcome the above-mentioned challenges. The solution included the following key elements:

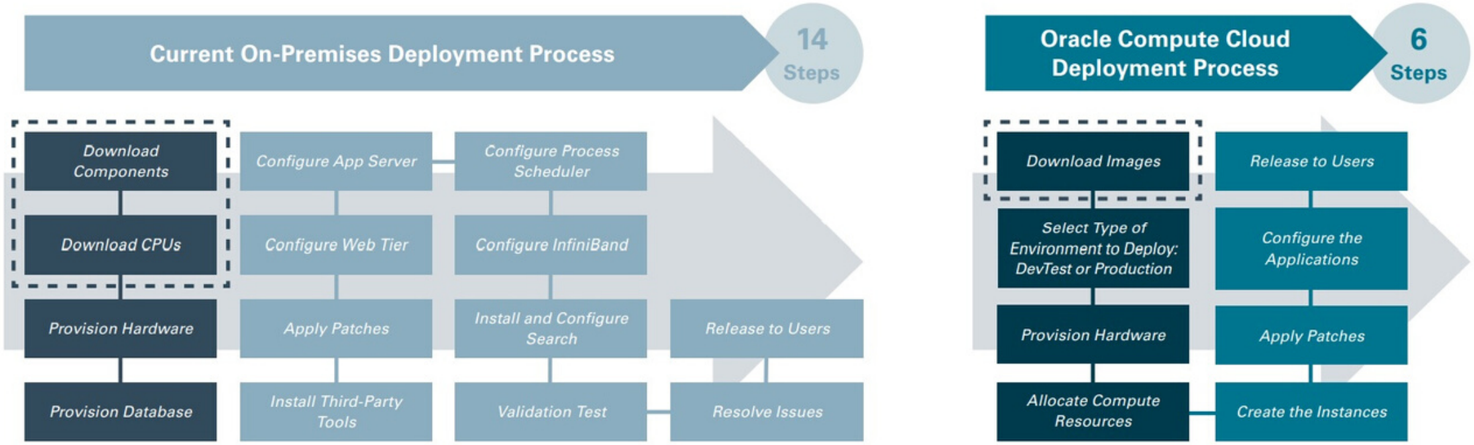
- Enabling, automating and migrating on-premise Peoplesoft HCM, FSCM and Campus Solution applications to OCI
- Protecting applications with Disaster Recovery on OCI
- Operating and monitoring business-critical PeopleSoft applications with PeopleSoft Managed Services on OCI
- Terraform automation for PeopleSoft deployment and management
- Standardizing business processes through Cloud automationTrimming resources, dependencies, and TCO by migrating to the Cloud

The Success

- Reduced TCO by 1 million dollars by moving PeopleSoft to the Cloud!
- Performance: Over 50% improvement in application batch performance by moving to OCI.
- Disaster Recovery: A reliable, working, and automated disaster recovery solution on OCI.
- Monitoring: Production monitoring on Oracle Management Cloud combined with OEM which gives them complete transparency into performance uptime and utilization.
- Taking advantage of the OCI Gen 2 Infrastructure the Financial NVision reporting process has been reduced to 2 hours from the previous 4 hours.
- Allows Gallaudet to focus on its core mission of being the premier institution of learning, teaching, and research for deaf and hard-of-hearing college students.

Easier Deployments—From Now On

The average on-premises, multitier application deployment requires 14 steps, from downloading components and configuring servers to provisioning hardware, configuring each tier of the infrastructure, and resolving issues. Oracle Cloud deployments involve only six steps, as shown in the diagram below.



Oracle's automated deployment process improves productivity and reduces the risk of human error.

If you are interested in rapid provisioning, you can select prepackaged applications directly from Oracle Cloud Marketplace. These turnkey apps give you reconfigured functionality, along with proven tools for deployment and single-console management.

With Comprehensive Management of Cloud Resources

TOther cloud vendors offer management tools that only support their specific cloud infrastructure, forcing you to invest in multiple management solutions for whatever additional hardware and software you add to the cloud. Oracle Management Cloud, by contrast, gives you a complete view into all applications and systems across both Oracle and third-party environments, minimizing costs and reducing complexity. Only Oracle offers heterogeneous, cloud-native management solutions that spring from a unified platform. With Oracle, you get complete visibility into your entire environment from one console.

You can accelerate your migration with help from with Oracle cloud experts. Oracle's cloud experts will help you determine what to migrate and where to start, perhaps selecting a pilot project as a test case. They will also explain how to clone your application environments, both for DevTest and production resources, and demonstrate how to optimally maintain cloud assets. (You can also use your own management team, if you prefer, and simply call on Oracle Cloud experts as needed).

The Most Complete Cloud Services—at the Lowest Cost

Some companies sign on with a commodity cloud vendor, and then realize that they need advanced platform capabilities that the vendor can't offer. Only Oracle supports hybrid cloud deployments that give you freedom to move workloads from your data center to the public cloud and back again, with mature migration tools to simplify the move. That means you don't have to throw away decades of on-premises investments, or perform expensive application rewrites to move your IT assets to the cloud.

If you want to establish your own infrastructure platform in Oracle Cloud, you can subscribe to Oracle Bare Metal server and storage infrastructure, then install the exact operating systems, middleware, databases, and applications that you need. Dedicated servers deliver predictable performance and extensive control so you can optimize your applications. In addition, you can take advantage of industry-leading technologies such as Oracle Database, Oracle RAC, and the wide range of Oracle IaaS and Oracle PaaS cloud services.

Oracle Brings the Cloud to You

Some customers can't move their data and applications to the public cloud because of data privacy concerns, industry regulations, or unique security constraints. Fortunately, they can still take advantage of the scalability, affordability, and ease of public cloud technology by using Oracle Cloud technology in their own data center. Based on a flexible subscription model, Oracle Cloud at Customer is ideal when data must remain on premises for regulatory, privacy, legal, or performance reasons. This is another service that only Oracle offers.

In other words, if you can't move to the public cloud, Oracle will move the cloud to you by deploying and operating an instance of Oracle Cloud Machine or Oracle Database Exadata Cloud at Customer behind your firewall. You will enjoy the same robust cloud platform services, the same automatic software updates, and the same subscription-based pricing model as all Oracle Cloud customers do. Rather than purchasing hardware and software, you can simply subscribe to it, and let Oracle handle every aspect of installation, configuration, patching, lifecycle management, upgrading, and monitoring. You get a "mini" Oracle Cloud—all fully managed—behind your firewall.

Customers with existing on-premises licenses can leverage that investment to use Oracle Database Cloud at a fraction of the old PaaS price. Oracle Bring Your Own License (Oracle BYOL) allows Oracle Database customers to seamlessly migrate to the cloud. With Oracle's 100 percent workload compatibility and license mobility, you can preserve your existing investment. In addition, running Oracle Database in Oracle Cloud is faster and much more cost effective than with Amazon AWS, delivering the industry's lowest total cost of ownership.

Problems with Third-Party Clouds

- Insufficient deployment choices
- Cumbersome migration requirements
- Limited compatibility between in-premises and cloud environments
- Fragmented management tools Inconsistent performance
- Gaps in security, visibility, and control
- Lack of availability and redundancy for critical workloads

The Superiority of Oracle Cloud

- Unified management tools for monitoring applications and infrastructure
- Superior utilities for capacity planning, compliance, scheduling, and log analytics
- Compute services that are 11.5 times faster than commodity servers, yet cost about 20 percent less
- Storage capacity at about one-seventh the cost of commodity cloud alternatives

Conclusion: Beyond Migration

Only 15 percent of corporate IT workloads are running in the public cloud today2 —but that's changing fast. Many of these workloads already reside in Oracle Cloud and the remainder are on their way to joining them. The reason is simple: Oracle is in the best position of any cloud provider to move customers forward on this important journey.

\Why Migrate to Oracle Cloud

INNOVATION

Accelerate business transformation

RESOURCE ALLOCATION

Improve resource utilization

VALUE

Add business value without infrastructure headaches

PEACE OF MIND

Lower risk with singlevendor accountability

AGILITY

Gain agility for rapidly changing environments

2 Barclays, "Cloud Survey: Adoption to Increase Steadily, Costs Aren't the Only Driver," October 5, 2016

You can start your journey to Oracle Cloud from any point: new clouds, legacy environments, and hybrid implementations. Oracle's complete and integrated approach makes it easy to get started and even easier to expand. You can start by lifting and shifting application workloads to Oracle IaaS, such as Oracle Bare Metal Cloud Services. Or you can migrate workloads to Oracle PaaS on Oracle Cloud infrastructure. Either way, you will have the flexibility to migrate any type of workload, use any type of development methodology, and upload many different types of data—including big data and large analytic workloads.

It's time to gain the advantages of connecting all applications and business practices—both from Oracle and other vendors. Once your assets are in the cloud, Oracle experts can help you run, manage, and maintain those assets for as long as you wish.

With Oracle, there is no workload left behind—and no compromise.

Enabling the Journey to Cloud

- From any starting point
- New cloud, private cloud, and hybrid cloud
- All workloads, developers, data, apps, and business practices

Oracle Cloud Platform

- **Complete:** Best-of-breed and integrated solutions in every cloud category—data, software, platform, and infrastructure
- **Open:** Standard-based platform that supports all workloads, apps, languages, open source, and data types
- **Secure:** Automatic, always-on protection that extends throughout the entire cloud stack, all the way down to the silicon layer
- **Choice:** Flexible deployment options—public, private, Oracle Cloud at Customer, and hybrid cloud
- **Intelligent:** Artificial intelligence and machine learning in every cloud category—data, software, platform, and infrastructure

Thousands of customers, including some of the world's most recognizable brands, have embarked on the journey to transform their business processes with Oracle's robust cloud platform.

Contact Astute Business Solutions to start *your journey* to the cloud, or visit us at www.beastute.com to learn more.

Sources: Oracle.com, Oracle Partner Network

ASTUTE BUSINESS SOLUTIONS

ORACLE Gold Partner Cloud Standard