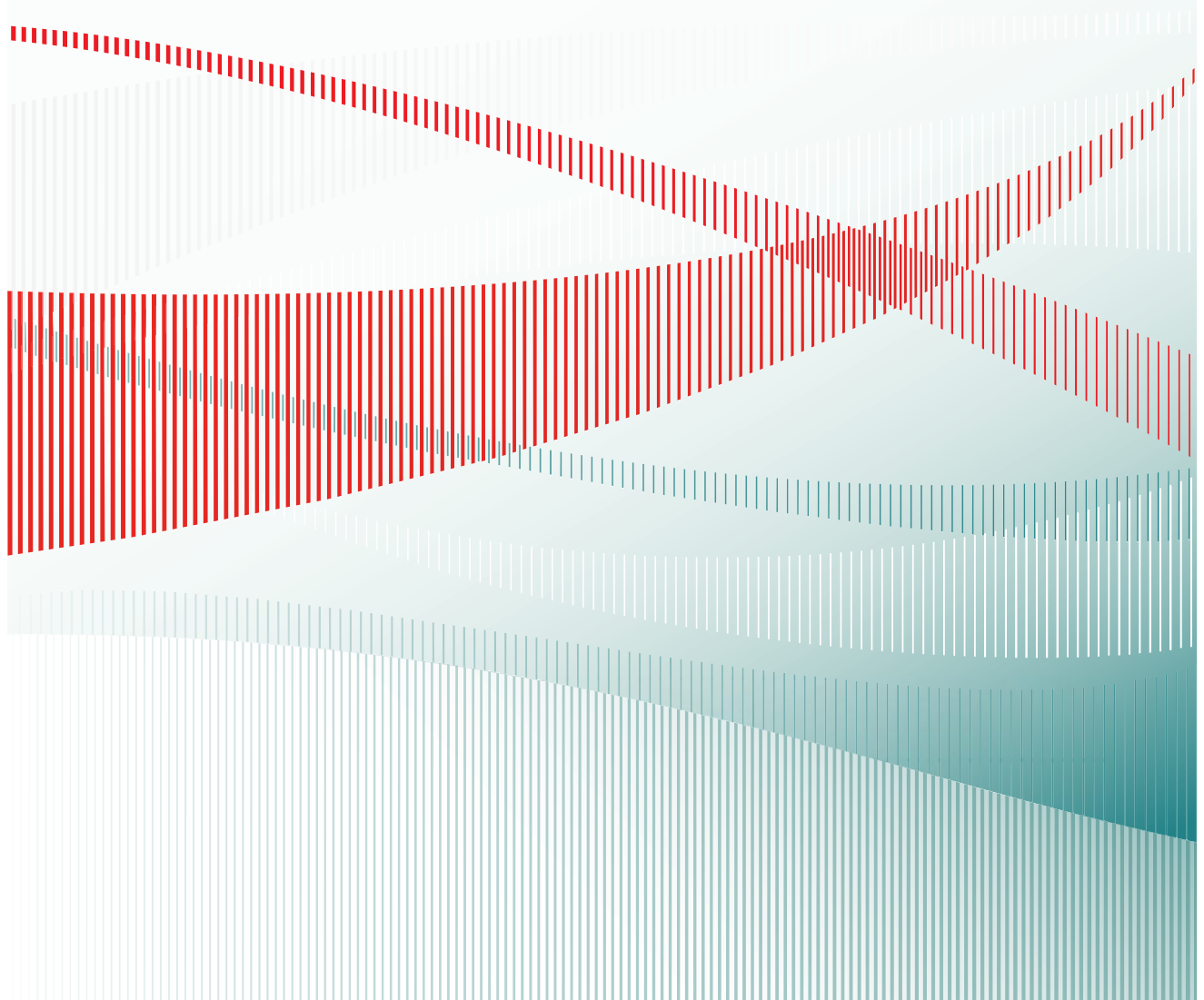**Hardware and Software**
**Engineered to Work Together**

EXECUTIVE STRATEGY SERIES

# CLOUD APPLICATIONS

Driving Enterprise-Grade Cloud Applications:
The Benefits of Cloud Without Compromise

ORACLE®

## The Promise of Cloud:
## It Should Be More than Just Lower Up-Front Costs

Organizations are looking to the cloud to change not only how they
buy and consume IT, but also how IT actually impacts the business.
No longer just about lower up-front costs, the cloud promises to deliver
greater agility and free up resources to focus on innovation versus running
and maintaining systems. But are organizations actually realizing these
benefits? What happens after the group hug and assurance from your
niche cloud provider that your business process will be simple?

The full promise of cloud is not being realized by customers who entrust their
business to multiple niche cloud providers. While almost 9 out of 10 companies
expect more IT agility with cloud, only 47percent are actually getting it.[1] These
niche cloud customers have also seen the promises of lower costs, efficiency
gains, improved security, and compliance go unfulfilled. Having one cloud
provider for customer relationship management (CRM) and another for human
capital management (HCM), and then trying to glue these proprietary systems
together while integrating to a back-office financial system can add to complexity
and long-term costs. Completing a business process or generating an integrated
report is cumbersome, and leverages incomplete data.

Why can't niche cloud providers deliver on the full promise of cloud? It's simple:
you still need to complete business processes. You still need reporting that
enables you to take action using data from multiple systems. You still have
to comply with SOX and other industry regulations. These requirements don't
go away just because you deploy in the cloud. Delivering lower up-front costs
by enabling customers to buy software as a service (SaaS) is the easy part.
To get real value that lasts longer than your quarterly report, it's important to
realize the benefits of cloud without compromising on functionality and while
having the right level of control and flexibility. This is the true promise of cloud.

Oracle's cloud strategy centers around delivering the benefits of cloud—without
compromise. We uniquely empower our customers with complete solutions
and choice. From the richest functionality to integrated reporting and great
user experience. It's all available in the cloud. And it works not just with other
Oracle cloud applications, but with your existing Oracle and third-party systems
as well. This helps protect your current investments and extend their value
as you journey to the cloud.

We've made the necessary investments not only in our applications but also
in the underlying technology that makes it all run—from the platform down to
the hardware and operating system. We make it all. And we've engineered it
to work together and be highly optimized for our customers, in the cloud.

With Oracle enterprise-grade cloud applications, you get the benefits of
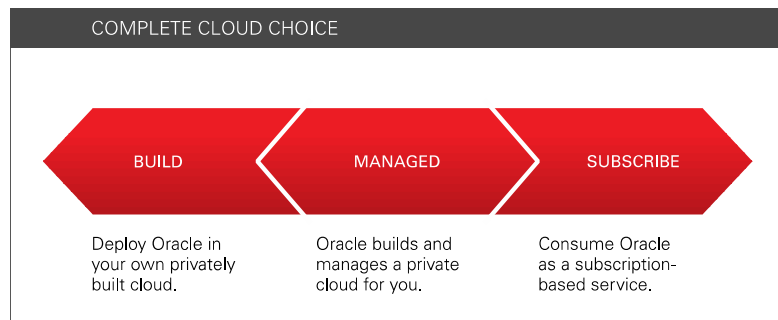cloud plus more power, more choice, and more confidence.

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[1] "2011 State of Cloud Survey," Symantec Corporation, 2011

## Oracle Cloud Strategy: The Cloud, Any Way You Want It

Oracle delivers complete cloud choice. Our customers have the flexibility to deploy and consume their cloud applications any way they want, and change their cloud strategy as their business requirements change—all the benefits of cloud AND the benefits of complete solutions engineered to work together.

In addition to traditional on-premise models, customers can deploy and manage their applications in their own private cloud, or in a private cloud built and managed by a third-party cloud provider like Oracle. This latter option is often referred to as managed cloud services. Customers can also consume Oracle Applications as subscription-based services in Oracle Cloud. This model is called software as a service, or SaaS. Customers can also choose any combination of these deployment models based on their specific business and industry needs. This would be considered a hybrid cloud model—having both private and public cloud services.

COMPLETE CLOUD CHOICE

| BUILD | MANAGED | SUBSCRIBE |
|---|---|---|
| Deploy Oracle in your own privately built cloud. | Oracle builds and manages a private cloud for you. | Consume Oracle as a subscription-based service. |

Why choose one cloud model over another? It comes down to how much control you need, and how fast you want to be able to adopt the latest technology and innovations. In a private cloud that you manage, you get the most control but are also 100 percent reliant on your own IT organization. In a managed cloud-service scenario you still own the license, but maintain control over when or if you upgrade. You can also have significant levels of customizations. Yet, you still benefit from increased scalability and lower, predictable IT costs. In a SaaS model, you can scale up or down almost instantly, and automatically adopt new functionality. Software is subscribed to as an operational expense, and often without the need to involve IT. Up-front costs are lower with no hardware to buy or resources needed to manage the software. However, this increased speed of adoption and agility comes with less control over situations such as when you upgrade and where your data is located.

## Not All Clouds Are Created Equal

Not all clouds are created equal, and one size does not necessarily fit all. Unfortunately, many organizations are finding out the hard way that the value of lower up-front costs is often overshadowed by the inherent problems with most niche cloud applications.

These problems include common challenges like incomplete business processes and reporting capabilities. Fragmented user and customer experience is also a big problem, especially for sales and marketing organizations. And, as mentioned earlier, many organizations will plan to adopt a hybrid approach to the cloud. This creates the need for the flexibility to easily move data between clouds and on-premise systems, without the risks of data silos and lock-in. Unfortunately, proprietary niche systems make this difficult because the data schema is different from one vendor to the next. Making changes and tailoring processes to meet specific business needs becomes cumbersome and expensive.

Finally, the most common concerns about the cloud are security and operational risk. Regardless of how your business applications are deployed and who is managing them, your customer and company data must be safe, secure, and highly available. More often than not, niche cloud providers will outsource the management of their cloud applications to a third party and rely on multiple partners to complete their solution. It is difficult at best to understand who has access to your data and isolate accountability when something goes wrong. Auditing and compliance are also quite challenging.

| NICHE CLOUD PROVIDERS |
| --- |
| Incomplete Processes and Insight |
| Fragmented User Experience |
| Deployment Lock-in |
| Inability to Customize |
| Security, Scale, and Reliability |

### Limited Power

Niche cloud providers offer incomplete business processes and immature functionality with limited scope. Initial up-front cost savings are often realized by avoiding the purchase of supporting technology and hardware, but the lack of cross-functional pillar business processes and the need to license several additional partner products to fill in the gaps can erode these short-term benefits.

As mentioned earlier, you still need to complete business processes that span multiple and often separate systems. This is where open standards and integration become critical. Niche clouds were never built to work with other systems. Hence, information and data silos are common and expensive and difficult to bypass.

While many niche cloud providers tout they have embedded intelligence and reporting within their application, it's important to consider what kind of reporting you need to actually do and where this data is coming from. If you only require data from one system, then this strategy might suffice. However, if you require integrated reporting from multiple systems like an order-entry and accounting tool, a customer data hub, and your CRM application—then a siloed approach to business analytics just won't get the job done.

## Limited Choice

One of the most important areas to investigate before contracting with a cloud provider is how much flexibility and control you will have over your data and business applications. Will you be able to move in and out of the cloud, or from a private to a public cloud? Is your cloud portable? In other words, can you move your systems back on-premise if your business requirements or regulatory needs change?

Most niche vendors have built their solutions using proprietary platforms and quick fixes to solve the inevitable need to integrate their cloud services with other clouds and on-premise applications. Proprietary clouds are also expensive and difficult to change and extend, forcing customers to retrain resources on these tools rather than leverage common and open standards. This also traps customers by offering no real exit strategy or portability between clouds. If you decide to end your subscription, all you typically get from your niche cloud provider is a giant spreadsheet separated by commas.
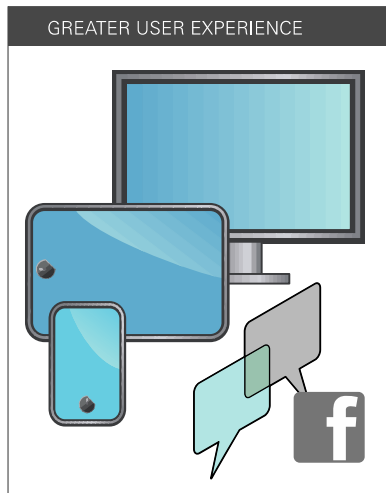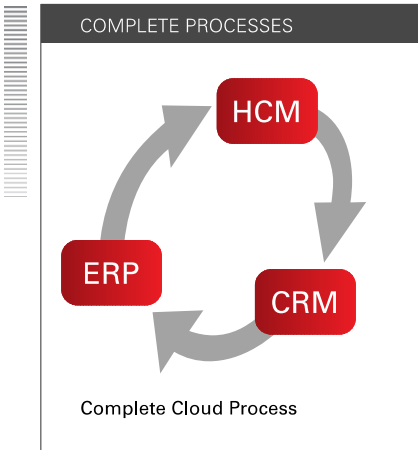
There also must be choice in levels of security, performance, customizations, and other data requirements often driven by a customer's industry, size, regulatory landscape, or unique business processes. Most niche providers enable economies of scale by providing a one-size-fits-all cloud model. This strategy assumes, for instance, that the performance requirements for a tier-one bank would be the same for a midsize manufacturing company. This lumping of customers together can create performance and utilization challenges, leaving you with either over or underutilized cloud services.

## Limited Confidence

Do you know where your data is and who has access to it? Can you automatically audit and report against this across your cloud and on-premise applications, or is this a manual process? How do you demonstrate compliance with SOX and other regulations? What if you have offices outside the U.S.?

According to a recent study by *Information Week*, identity and access orchestration is usually at the top of the list of pain points when it comes to customers using niche SaaS providers[2]. This is because they leverage third parties to provide and manage the underlying technology, and/or support only one piece of a business process. This creates finger-pointing when something goes wrong, and makes it difficult to isolate where data is located and control user access.

[2] Michael Biddick, "Return of the Cloud Silos," *Information Week*, July 2011

**COMPLETE PROCESSES**

HCM

ERP

CRM

Complete Cloud Process

**GREATER USER EXPERIENCE**

This lack of accountability also slows response time and scale. Problems cannot be proactively detected and thus minimized before they escalate or impact other customers. Niche cloud providers simply lack the necessary control over their cloud service at every layer. Latency and performance are also challenges, especially for e-commerce and financial transactions, or organizations operating on a global scale.

## Enterprise-Grade Cloud Applications: More Power, More Choice, More Confidence

### More Power

Oracle has been delivering cloud services to large and small organizations around the globe for more than a decade. Our strategy has focused on providing the highest-impact cloud capabilities across our enterprise and industry applications that can help our customers become more agile and adopt new functionality and innovations faster.

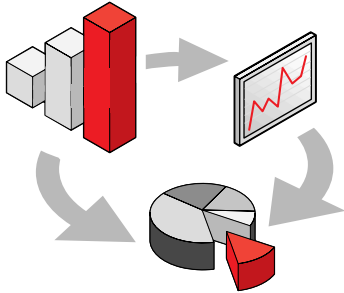### Rich Functionality Spanning Complete Processes

Oracle has a strong legacy in providing best-of-breed functionality when it comes to business and industry applications. This richness of functionality and mature processes can also be consumed in the cloud. Whether it's an HR system, sales and marketing solution, or back-office ERP financial system, customers can leverage a complete suite of cloud applications that incorporate best practices and end-to-end business processes. We know they are best practice because we've built our cloud applications based on the work and input of thousands of our enterprise customers across every major geography and industry. It's now the richest and most complete capabilities across functional pillars that you can uptake faster and more easily in the cloud.

### Consistent and Optimized User Experience

Only Oracle provides a unified, personalized user experience across business processes, customer channels, and devices. This includes complete, best-in-class customer service with integrated capabilities across the Web, social networks, and contact centers. It's the best and most complete B2B and B2C experience available in the cloud.

Your employees also benefit. Business users automatically receive the most relevant information from across systems to accomplish their job more effectively and make better decisions. They are also uniquely empowered to tailor and customize their own user experience. Using simple business composers, a broad range of business users can modify applications and processes, edit their experience, and easily change how they consume information. The result is a great and consistent user experience for both employees and customers alike.

**INTEGRATED CLOUD BI AND REPORTING**

**ANY CLOUD. NO LOCK-IN**

### Social and Mobile

Oracle cloud applications have embedded social capabilities directly into business processes where it makes the most sense. From activity streams, discussion forums, and integration with popular third-party social networking sites business users, customers, partners, and suppliers can better collaborate and share information.

Oracle cloud applications are also truly mobile, optimizing the way customers and business users consume critical information across multiple devices. Our mobile experience is modern, secure, and robust—supporting both real-time or offline data access. Your IT organization can also leverage the same standards-based development tools to rapidly build and deploy your own custom mobile applications. This enables a consistent, collaborative work environment that connects people and content together, no matter where they're located or which device they prefer to use.

### Integrated Intelligence and Reporting Across Systems

In addition to the business intelligence embedded into the individual application transactions, Oracle delivers the visibility and control users need to make better business decisions using information across systems and clouds. Niche cloud vendors can't do this because their information is siloed in their respective application clouds. This strategy is not conducive to good business analytics and reporting.

By contrast, Oracle cloud applications provide self-service business intelligence and reporting capabilities that can extract information from multiple systems and across application pillars. All the business user sees is a unified dashboard or report with integrated BI and even predictive analytics. For example, within the talent management area, not only can you analyze who your top sales performers are in real time, you can also map that to which ones are at the highest risk of turnover.

## More Choice

### Flexibly Deploy Oracle in a Public, Private, or Hybrid Cloud Without Lock-In

Oracle customers have complete freedom to choose among a variety of deployment models to meet their organization's specific and changing business requirements. They also have the flexibility to change their mind, without the risk of being locked into one particular cloud or deployment model. This is often referred to as having deployment portability—the flexibility to move from a public cloud back to a private cloud or on-premise, and back again.

Why does this matter? Having flexibility to change the way you consume software is important because without it, you can compromise the level of control and flexibility needed to satisfy organization or industry requirements. Inevitably, your business and/or regulatory requirements will change. Preferred financial treatment of your company's IT assets will change. Maybe you have operational

budget today, but next year your CFO will prefer capitalizing a purchase. Perhaps you want to test out a short-term project using a public cloud, but plan to eventually bring it in-house if the project increases in scope or is successful.

Fast adoption of new technologies and low up-front costs are important benefits of cloud. But the real impact of longer-term benefits is realized when this is combined with the choice to leverage any deployment model without lock-in. Oracle cloud customers are uniquely empowered to do just this—benefiting in the short-term and the long-term.

### Subscription-Based Applications in Oracle Cloud

Oracle offers a broad range of enterprise and SaaS applications in Oracle Cloud. Since these applications can be consumed as a subscription-based service, there is no software license or hardware to buy and manage. Supporting underlying technologies are taken care of. The purchase can be treated as an operational expense. Very little—if any—involvement from your IT department is needed to get started. This can empower lines of business to efficiently drive these projects and adopt the latest functionality very quickly.

Oracle offers a variety of rich functionality that can be consumed in a SaaS model. This includes sales and marketing, customer service, e-commerce, human capital and talent management, and integrated social collaboration tools. Customers can also extend Oracle Applications (whether they are deployed in the cloud or on-premise) or even build their own custom cloud applications in Oracle Cloud. This is done by leveraging our platform as a service (PaaS) offerings, which are also entirely based on open standards like Java and SQL.

### Managed Cloud Applications

If you have elected to license your Oracle application, you can choose to have it deployed in a private cloud that is built and managed by Oracle through Oracle Cloud Services. Customers can also have any of their existing Oracle on-premise applications migrated and delivered by Oracle as a managed service. We provide great flexibility to accommodate preferences over where your applications and data are located—in one of our state-of-the-art global data centers, or in your own or a partner's data center. Either way, you get the expertise and benefits of Oracle managing Oracle for you.

Deploying in a private managed cloud is an option that spans our entire application portfolio, including Oracle E-Business Suite; Oracle's PeopleSoft, JD Edwards, Hyperion, and Siebel solutions; Oracle Fusion Applications; and many of our industry-specific applications. Oracle currently manages millions of users on behalf of our customers, and has been recognized as a premier cloud-services provider to both small- and large-enterprise organizations across the globe.
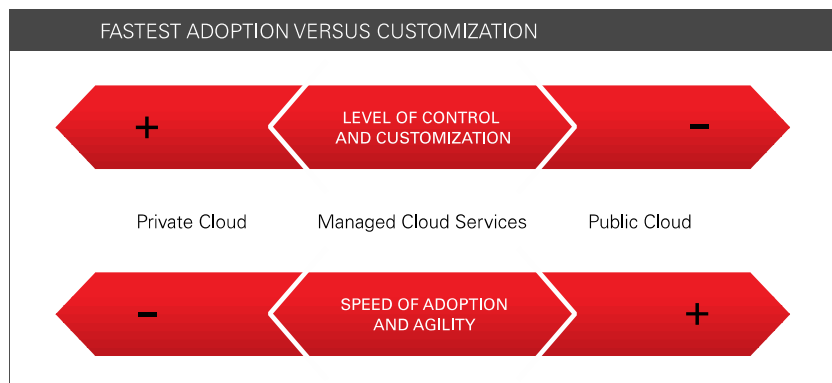
When deploying in a private cloud (whether your own IT shop manages it or you have it built and managed by a third party like Oracle), you typically have a greater level of control over your systems and data compared to a public cloud.

For instance, in a private cloud, you have more flexibility and control over when you upgrade and where your data is located, and the ability to support significant configuration/customization, extension, modification, localization, and integration (CEMLI) requirements. Hence, a private cloud allows for more control over when you uptake new functionality compared to a public cloud where upgrades and patches are automatically pushed out. There are also additional data location and security options available that may influence your preferred deployment model, commonly driven by your location or industry.



FASTEST ADOPTION VERSUS CUSTOMIZATION

+ | LEVEL OF CONTROL AND CUSTOMIZATION | −

Private Cloud    Managed Cloud Services    Public Cloud

− | SPEED OF ADOPTION AND AGILITY | +

### Hybrid Clouds

Many of our customers have or plan to deploy Oracle Applications in a hybrid or integrated cloud model. For example, a company can deploy more sensitive or select application modules in a managed private cloud, still benefiting from greater scale and cost advantages but without sacrificing control over data location, upgrade timing, or CEMLIs. This customer may also prefer to deploy certain other application modules in Oracle Cloud where this same level of control is not required, or perhaps there is a preference to automatically adopt the latest innovations. It all comes down to how fast you want to uptake functionality and balance this with the right level of control for your particular requirements. This combined or hybrid approach often translates to having the best of both worlds for many of our customers.
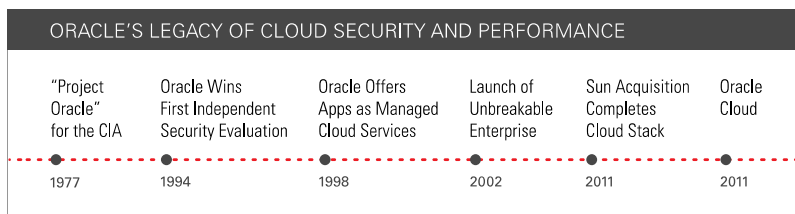
## More Confidence

Oracle's history in cloud computing runs deep. Since 1998, Oracle has offered business applications as managed cloud services to customers across the globe. We also provide the technology that powers the top public SaaS vendors today. And Oracle clouds are second to none when it comes to security and performance. From the physical security in our global data centers, to the logical security we've embedded at every layer of the technology stack that supports your business applications, no other vendor has made the necessary investments to deliver our customers' confidence in the cloud.

We made the decision that it is best to have this application hosted by the people who really know about it, and let them manage it so we can sleep peacefully at night."

Mainak Sarkar, Director of Financial Systems, Skechers

| SECURE AND COMPLIANT |
|---|
| Commercial Services - SOC-1 |
| Healthcare - HIPPA |
| Financial Services - PCI DSS |
| Federal Agencies - NIST |
| Life Sciences - 21 CFR Part 11 |
| ISO 270002 |

"The security services we receive, the technical expertise, and the ability to have our systems managed effectively has all been possible through the cloud."

Steve Ayala, Senior Vice President of Accounting Operations, LPL Financial

### ORACLE'S LEGACY OF CLOUD SECURITY AND PERFORMANCE

| "Project Oracle" for the CIA | Oracle Wins First Independent Security Evaluation | Oracle Offers Apps as Managed Cloud Services | Launch of Unbreakable Enterprise | Sun Acquisition Completes Cloud Stack | Oracle Cloud |
|---|---|---|---|---|---|
| 1977 | 1994 | 1998 | 2002 | 2011 | 2011 |

### Engineered Together for Extreme Performance and Scalability

Oracle Cloud Services protects your data and fine-tunes systems performance at every technology layer, from applications to disk. Because Oracle manufactures and designs every layer of the technology stack that our cloud applications run on, we are uniquely able to optimize how all these systems work together. This in turn delivers extreme performance and scalability that meet the requirements of even the largest and transaction-intensive businesses.

When customers deploy in Oracle's cloud, they are backed by a team of more than 15,000 Oracle experts around the globe who manage and protect your applications and data around the clock. This level of IT support can rarely be replicated by other cloud providers, let alone by individual organizations. The Oracle Cloud Services team is also uniquely positioned to work hand in hand with the Oracle Applications development organization. This enables us to proactively fix any existing or potential problems very quickly, as well as test and deliver newly developed applications and modules. If you want the latest innovations optimized for your business, this is where you get them.

### Industry-Leading Security and Compliance

Oracle applies a variety of leading security and risk management tools and processes to protect your data and comply with the most recent industry- and country-specific regulations. When it comes to security strategy, our standardized and best-practice processes, controls, and monitoring techniques are nothing short of comprehensive. We leverage the ISO security framework and ITIL-based standards and processes. From event correlation and monitoring to automated compliance testing and regular scanning, our technical designs and configurations have been tried and tested with hundreds of customers.

### State-of-the-Art Data Centers and Global Operations

When you deploy your applications with Oracle Cloud Services, your systems and data are hosted and managed directly by Oracle experts in one of our state-of-the-art data centers located around the world. Armed guards, biometric scans, 24/7 surveillance, redundant power and cooling, and Oracle's advanced security architecture and layered defenses offer the latest in physical and logical security. This can help address a variety of specific performance and compliance considerations, including customers operating in different parts of the world, requiring very low latency such as with e-commerce and financial transactions and other industry requirements.

## Conclusion

Deploying your business applications in the cloud can deliver both short- and long-term benefits, including cost savings, improved agility, and faster innovation—but only if your cloud is enterprise-grade. When evaluating your cloud strategy, it's important to consider the level of control and choice you will either maintain or have to give up to achieve some of these benefits. There are also additional risks to consider when outsourcing all or part of your applications to a third-party cloud provider, making it important to always evaluate the quality of these services as a key purchasing criteria.

Only Oracle provides enterprise-grade cloud applications and services. We are able to uniquely do this because we have made the necessary engineering investments in our applications and across our Oracle engineered technology stack.

**More Power**. Oracle cloud applications deliver rich, proven functionality that spans complete business processes. This is combined with a consistent and optimized user experience and integrated information and reporting. We have also empowered business users to easily change and customize their experience.

**More Choice**. Oracle cloud customers have tremendous choice on how they consume our cloud applications. Whether in a public, private, or hybrid cloud, you can deploy our applications any way you want, with the flexibility to adapt your strategy to changing business requirements. This includes cloud portability so you are never locked in.

**More Confidence**. No other cloud provider has made the level of investment on a global scale that Oracle has made to protect and secure your information in the cloud and to offer accountability at every layer of the technology stack. Oracle delivers confidence that your cloud is protected and will perform as expected. Oracle Cloud Services customers are backed by more than 15,000 Oracle experts, the latest security and performance technologies, and proven processes that offer extreme scale and flexibility.

For more information on Oracle cloud applications and services, please contact your Oracle representative or visit **oracle.com/cloud**