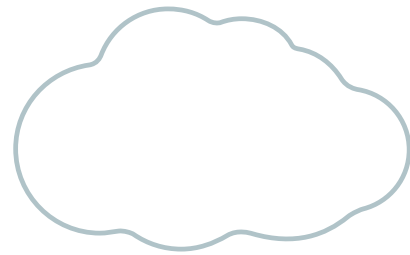


ORACLE®



A Secure ERP Cloud for the Digital World

ORACLE®

ENTERPRISE
RESOURCE PLANNING
CLOUD

You hear about security breaches all the time, but are you aware of all the implications?

It's an issue that faces all companies, so if you haven't been thinking about it, you should be. Data breaches are more common than you may realize—not all of them make the headline news. In a recent survey of CFOs, 74% had data security concerns and 53% said they have data privacy and data loss concerns.¹

The job of keeping business data safe has spread across the organization to become an enterprise wide concern. The critical question now—the one that's being asked, not only by IT but also by CFOs—is “Whether it's on-premises or in the cloud, how do you keep sensitive data secure?” Your cloud provider should be able to provide the right answers. You shouldn't trust your data to just anyone, and when it comes to security, not all cloud providers are created equal. But if you find a cloud provider that truly understands data protection—a provider that “does cloud right”—then security can actually be an important reason for you to move to the cloud.

World-Class Security and Compliance

Regulatory compliance is an important aspect of the Oracle Cloud.

Most of Oracle's cloud solutions have industry standard reports available in formats such as:

- SSAE16 SOC1
- SOC2

Also, many of Oracle's cloud solutions adhere to the requirements or guidance of well recognized industry standards.

Examples of these standards include:

- International Organization for Standardization (ISO) 27001
- Payment Card Industry Data Security Standard (PCI DSS)
- Federal Risk and Authorization Management Program (FedRAMP)

Applicability of different standards and reporting formats varies by service, but Oracle is committed to providing assurance about our cloud solutions in industry recognized frameworks.



“I know that Oracle is a very secure environment, even in the cloud. I love the idea that Oracle is cloud-based, it is cutting-edge, just like our research.”

Alison Brown, CFO, California Academy of Sciences



Why Should CFOs Care About Cloud Security?

We know security is a top concern for CFOs. There are several areas where security is important in the world of Finance. Some of these include data privacy, security of financial reporting and performance and local data residency and compliance.

Financial Reporting Performance

When running financial systems, you can't afford to have your transaction processing slow down especially during peak times at the end of the quarter or end of year. System performance is critical for not only the Finance organization but how the Finance organization supports the other lines of business as well.

Local Data Residency

Because of the increasing number of countries that specify where data can and cannot be stored, cloud providers must be in compliance with industry and country data standards. And, should your business require it, your cloud provider must be able to provide regional storage for backup and recovery data.

Data Privacy

Data privacy is of utmost important especially in a consumer environment. Social security numbers, addresses, phone numbers, and other personally identifiable information (PII) must always be kept confidential.

Many countries also have regulatory requirements concerning the privacy of employee data and penalties for data breaches. Protecting employee data not only secures your most valuable asset, but also averts the risk of identity theft (and other potentially disastrous occurrences) that can happen when Personally Identifiable Information (PII) gets into the wrong hands.

Financial Data Security

A data breach of company financials could affect company performance and have serious repercussions for the organization, including bad publicity, negative analyst reports, and declining stock prices. Keeping financial information—including sensitive employee and customer data—confidential should be a top priority not just for CFOs but for all LOB leaders.

The Oracle Advantage

Oracle is a proven technology leader for over 40 years of secure data management and continuous innovation in the cloud.

Oracle's investment in the cloud is shown in our multi-layer approach to security at every layer of the technology stack and the secure data isolation architecture we use to physically isolate customer data. With the broadest portfolio of cloud applications and a presence around the global, Oracle continues to invest in financial data security.

Three Advantages of an Oracle modern secure cloud for Finance:

- Viable & Reliable
- Designed to Be Secure At Every Layer
- Secure Data Isolation Architecture



Viable and Reliable

Is your cloud provider viable? Will they be around tomorrow? Does your provider have a long and proven track record of security in the cloud? Does your provider have strong financials? Your cloud provider should be viable enough to serve your business for the long term.

Oracle has been a technology leader for the past 40 years with a history of secure data management and continuous innovation. The ongoing investments and continuous innovation in the latest technologies can be shown in Oracle's multi-layer approach to security and the fact that it maintains the broadest portfolio of cloud applications in the industry.

Oracle supports over 70 million users worldwide and supports over 33 billion transactions each day across global data centers. Making a decision about your ERP application is very important for your business. It is important for your cloud provider to be a strategic partner for the long term. Oracle is a trusted ERP cloud provider that you can partner with in confidence.



Designed To Be Secure At Every Layer

Oracle's Cloud is the only cloud designed to be secure at every layer, from physical data center security, to network, to hardware, chip and operating system, to storage, disk, database, to platform, to the application layer.

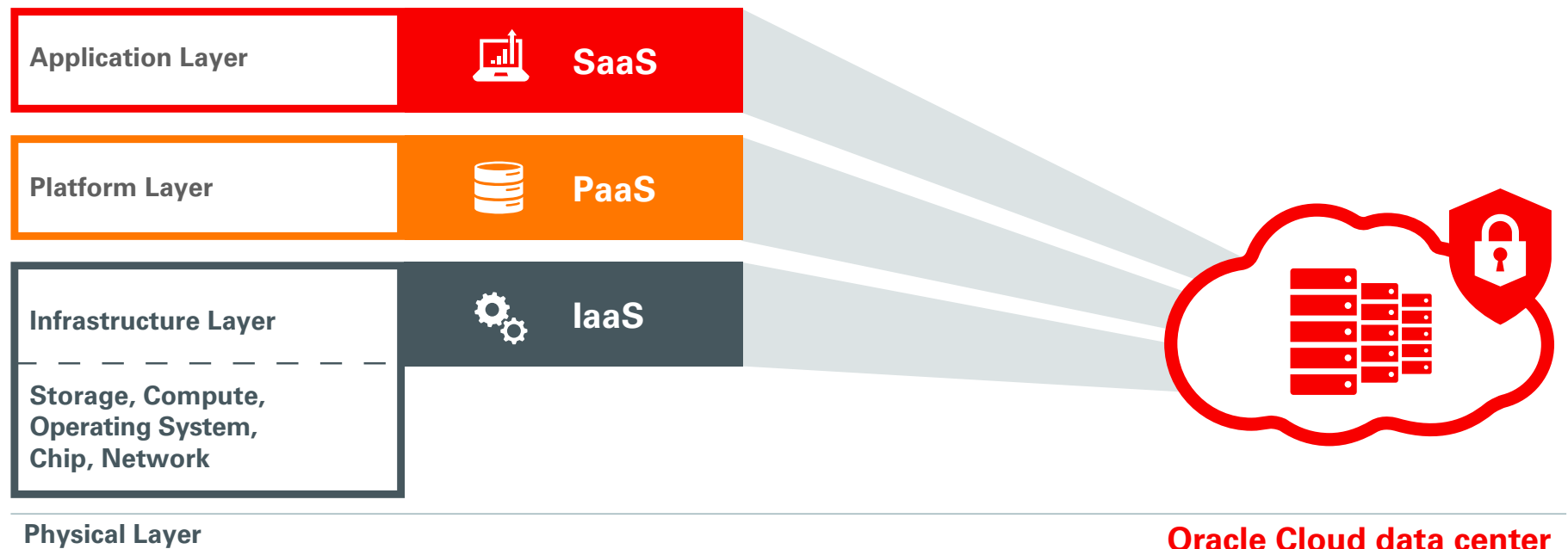
Here is a description of how a modern cloud is designed to be secure at every layer:

- The **application layer** provides user role-based access. Users only see field level data that is necessary for their role.
- The **platform layer** provides global access controls, identity management of users, with consistent onboarding and offboarding.
- At the **storage layer**, data can be stored encrypted – there are a variety of advanced options in this area for customers who require more security.
- At the **chip and hardware layer** whenever using our Oracle/Sun systems with Solaris OS.
- At the **network and physical layers**, we design networks with VPN access, and firewalls and physical security at the data centers. Some use mantraps and biometrics access, armed guards. Some folks call it “embassy” grade security.

A Modern Secure Cloud

Designed to be secure at every layer

Oracle's multi-layer security



Data backups come standard and with varying levels of redundancy as customers require, with many data centers across the globe and growing.

All supported by Oracle badged security and data management experts looking after your database, infrastructure and applications 24x7.

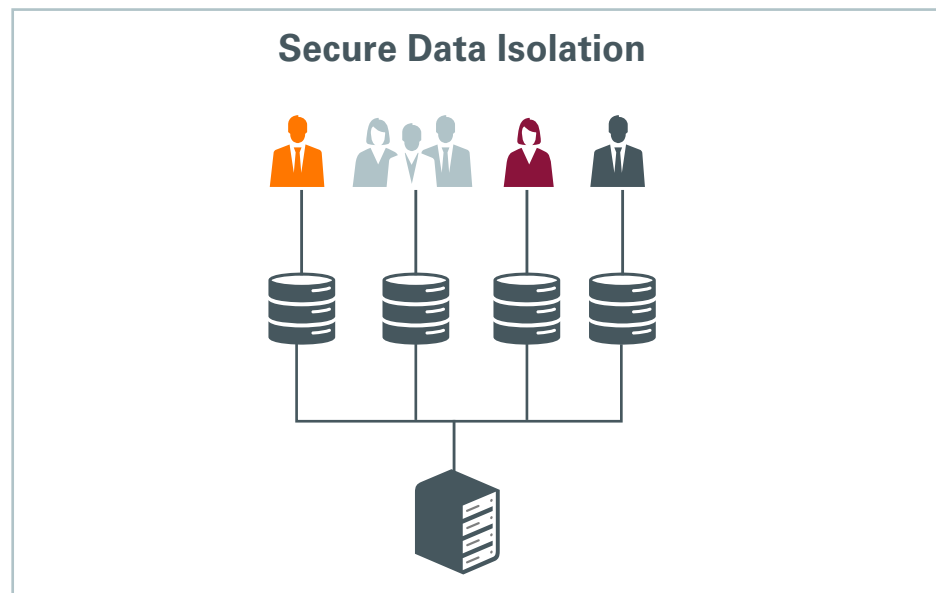
Oracle is the only cloud provider that **innovates at every layer of the stack** and offers this multi-layer security approach from physical layer all the way through the application layer.

And Oracle is always investing and creating new innovations in securing data.

Secure Data Isolation Architecture

Oracle Cloud enables you to leverage shared resources across the cloud eg (hardware etc) where it makes sense, to keep costs low. However, with Oracle's secure data isolation architecture, Oracle isolates data to reduce risk and enable high performance scalability.

Choose a provider that does not commingle your data with other customers' data - one that uses secure data isolation.



Share resources when it makes sense;
keep resources isolated when it doesn't.

With Oracle Cloud, each customer has its own database instance in the cloud. Without your own database instance you won't have noisy neighbors all commingling data in the same database. On the next page, we give an example of a cloud noisy neighbor.



Example: Cloud Noisy Neighbor Syndrome

One example of the impact of a multi-tenant cloud noisy neighbor in Finance is as follows.

Imagine you are sharing a multi-tenant cloud model from another cloud provider (not Oracle) with a large telecommunications company. This company has millions of mobile phones and is tracking and depreciating fixed assets. In order to calculate depreciation, they generate millions of journal entries. What's even worse is that their asset book is so big they need to process these journal entries in batches. What if each batch took 2 hours each to process and they had 10 batches a day. That is 20 hours of processing time.

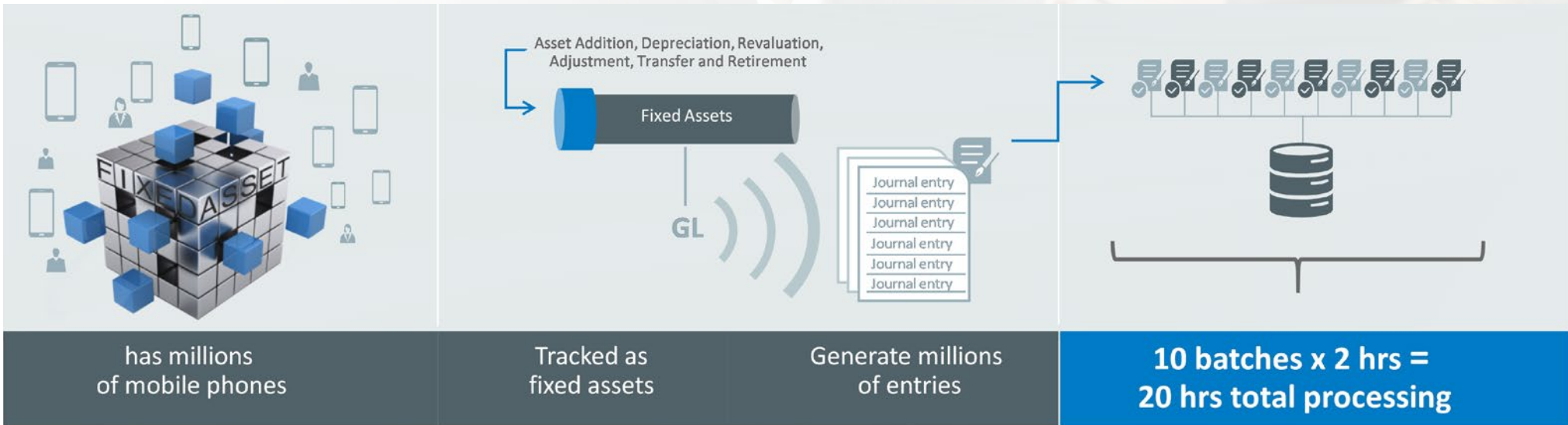
Imagine sharing a database with this company and even many others like it. Imagine the impact on your processing time if you are sharing a database with this user. It will affect the processing speeds and reporting performance available to you.

Your period end or quarter end close could take days rather than minutes, if you are sharing a database with one of, or even many of these noisy neighbors.

This doesn't happen with Oracle's secure data isolation architecture. Oracle does not comingle data in a single database. Your data is isolated and secure. In addition to being secure and minimizing risk, you are also allowing for high performance and scalability.

Here is an example of a cloud noisy neighbor:

Impact of Cloud Noisy Neighbor in Finance



Other Important Considerations to Look for in a Cloud Provider

Here are some additional areas you should consider when it comes to security in the cloud.

When it comes to security, look for a provider that also offers:

- Upgrade selection
- Global unified access controls
- Local data residency and compliance
- Data center operations
- Advanced data security

Upgrade Selection

Oracle provides its customers with the added flexibility of choosing when you upgrade. You can select an upgrade window to your advantage that works best for your business. This allows you to take advantage of the latest cloud innovations.

Global Unified Access Controls

Damage can be done if unauthorized users have access to business critical data. The ideal cloud provider enables access controls globally. For example:

- When users join your company, they have the correct level of access; when they leave, their access to all relevant systems and data is revoked globally and consistently.
- Only approved users have access to relevant data (least privilege) both across clouds and on-premises with centralized identity management and federated single sign-on (SSO).
- Role based controls (RBAC) are put into place to allow for segregation of duties (SOD) to prevent unauthorized access to confidential information.
- Users see only data that's related to their job-specific duties. Administrators configure job roles that map to job functions and data privileges.

Take The Long View

When it comes to data security, it pays to take a long-term view. Where will your security needs be in five years? Can the ERP Cloud solution you're considering grow with you and adjust to new or changing requirements?

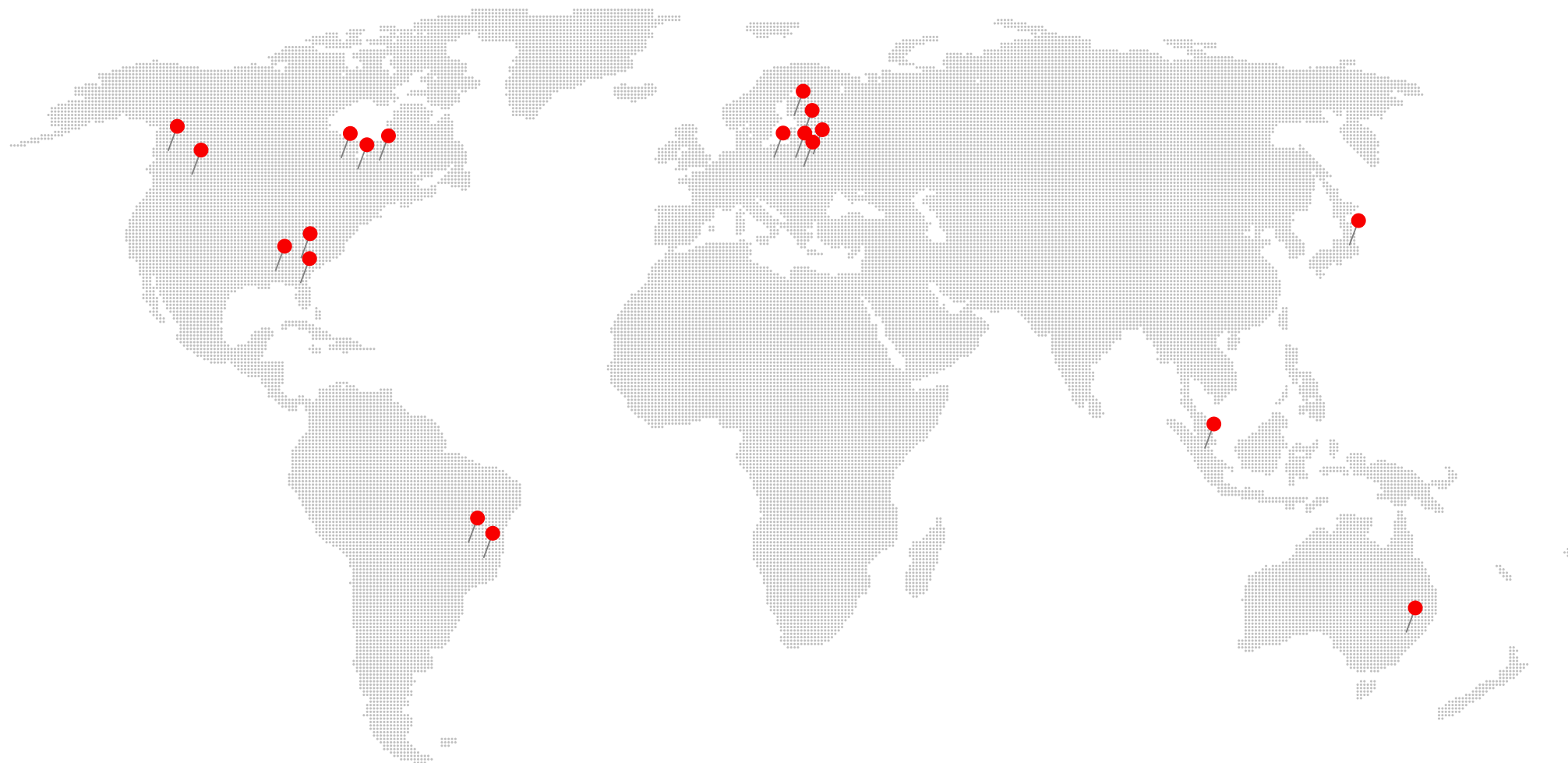
You don't want to choose cloud providers again. Choose a viable and reliable cloud provider that can secure your data and innovate for the long term.



Local Data Residency and Compliance

If you are expanding your business globally, it is important to have a cloud provider that has 24/7 global data centers that can serve your users in all regions worldwide and that meet local data residency requirements while still adhering to industry specific compliance requirements. Global data centers should be best in class from an availability, proximity, and physical security standpoint.

Back-ups should be kept within region if you have specific local data residency requirements. Likewise, the cloud provider should also provide the option of keeping backups within region.



Data Center Operations

Your cloud provider should have state-of-the-art physical data center protection, logical data security, and data privacy protection policies already in place. In addition, the cloud provider will provide proactive security engagement and monitoring as well as leading-edge disaster recovery.

Advanced Data Security

A world-class cloud provider offers advanced security options in the cloud when your business requires additional security measures. Some of the advanced data security services to look for:

- Oracle Transparent Data Encryption to prevent unauthorized use of sensitive data
- Oracle Database Vault with additional controls over data and administrator access to prevent unauthorized use, views or sharing of employee information
- The ability to extend Identity Management solutions to cloud applications for hybrid cloud models*

* Coming soon as a service.

A Modern Cloud for the Modern Global Enterprise

In today's digital age, modern businesses need more than just a cloud—they need a modern cloud to power innovation and drive change. Oracle provides a complete, data-driven, personalized, connected, and secure cloud that takes your business to the next level and enables you to stay ahead of the competition.

- **Complete.** One cloud for your entire business with best in class applications that you can consume incrementally and grow with no matter the size of your business.
- **Data-Driven.** Unified, actionable information you can trust with embedded intelligence so you unlock the value of data every level.
- **Personalized.** SaaS applications are configurable per user and that can be enriched for your unique business.
- **Connected.** Connect any part of the business, connect any person anywhere with embedded social and mobile and connect any “thing”.
- **Secure.** Designed to be secure at every layer of the stack with reliable performance without limits.

A Cloud Provider You Can Trust

Oracle has a complete cloud strategy with more than 15 years of experience in running enterprise clouds with over 70 million users supported every day.

With more than 40 years in secure data management, Oracle has demonstrated its commitment and its ongoing investment in secure innovations at every layer of the stack to process and protect data in the cloud.



A SaaS Security Checklist for Finance

The modern business and Finance needs a global, and holistic approach to data security in the cloud. As a modern cloud provider, Oracle supports your business with:

- **Cloud provider viability.** Oracle has more than 40 years in secure data management, more than 15 years in running enterprise clouds, and supports more than 70 million users every day.
- **Secure data isolation architecture.** Shared resources where it makes sense, isolated where it doesn't. Each customer has their own isolated database for secure and reliable performance without limits.
- **Global unified access controls.** Across the enterprise, only approved users have access to data in cloud and on-premises systems. Centralized identity management with federated SSO and RBAC prevent unauthorized access.
- **Local data residency and compliance.** When your data must be stored in a particular location, Oracle has many data centers across the globe to offer local data residency. In addition know that Oracle badged security experts pro-actively monitor cloud security for the data centers. Oracle also provides best-in-class industry-based compliance.
- **Data center operations.** Oracle operates enterprise-grade cloud data centers with highly redundant infrastructures and high availability.
- **Advanced data security.** Oracle offers advanced data security options when your business has additional security needs: Oracle Transparent Data Encryption, Oracle Database Vault, Oracle Identity Management solutions to cloud applications for hybrid cloud models*

* Coming soon as a service.



Oracle Invests and Innovates

Oracle recognizes that not all customers' needs are the same. Some have global requirements and some have local data residency requirements in other countries. Some have regulatory compliance or reporting requirements that are specific to their industry. As our customers' needs grow Oracle continues to invest and innovate to offer secure data management offerings at the level your business requires.

How it Works

When you subscribe to an Oracle Cloud service, service level and security standards are presented in the cloud service contract.

Tens of millions of Oracle subscribers use Oracle cloud everyday. Based upon their input, we have provided security standards with every cloud service contract.

When your business has additional security needs Oracle has advanced data security offerings and will continue to innovate for future needs.

Modernize and Thrive

It's time to modernize and secure your business and thrive in the digital age. Make the transition to a modern and secure Oracle ERP Cloud for the digital world.





To learn more, call **+1.800.ORACLE1** to speak to an Oracle representative or visit oracle.com/applications

Outside North America, find the phone number for your local Oracle office at oracle.com/corporate/contact/global.html

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