The IT & Business Leader’s Guide to Oracle Cloud Applications

6 Principles for Building a Better Business with the Oracle Platform
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Building the future of business with Oracle Fusion Cloud Applications

Your business applications are like a house: Similar to the way that your plumbing, electrical, and HVAC systems need to work together in order to keep everything running smoothly, your business has various software and technology systems that need to work together in order for you to respond to your customers in a timely manner, manage your employees, keep up with the competition, and be profitable. These applications need to process, share, and analyze information; protect your data; and help you extend outside of your legacy systems.

Building a house from scratch is not an easy process, and remodeling a house can be even more painful—and the same is true for building or updating your technology systems, especially if you don’t have the right tools or partner. During this process, businesses often struggle with responding quickly to customer demands and changing business requirements, ensuring data security and system performance, sourcing and retaining talent, and integrating new applications or systems with legacy systems. But system performance, reliability, and scalability are all required to deliver a high-quality, timely product.

Many of the challenges that homeowners are facing today have evolved. For example, natural disasters and extreme weather weren’t as much of an issue twenty years ago. The world of information technology has also evolved rapidly during its brief history: mainframe, mid-range, PC, and now cloud. Why is the cloud different? Rather than just improving existing business practices, it upends how business is done—in other words, it lays a better foundation to address challenges in a world that’s rapidly evolving.

As an IT leader, your job is to keep your company’s systems running smoothly to support business operations today while laying the foundation to address tomorrow’s unprecedented challenges.

We built Oracle Fusion Cloud Applications and its underpinning technology around six principles: unified data, full technology stack, in-depth security, pervasive analytics, business integration, and right-time innovation. This ebook will walk you through each of these principles with the goal of demonstrating how the right applications and technology can help you build the best possible “house” for your business.
1: Unleash the power of data with the suite approach

At the core, businesses are all about data. We’ve learned to store vast amounts of data in the most cost-efficient manner, but is your business using data to make timely decisions, uncover new market opportunities, serve your customers, or find and retain top talent? Unifying your data ensures that it’s more accurate, and the suite approach allows your entire organization to operate from a single source of truth—helping you bring teams together and make better decisions faster.

Getting ahead with composable business technologies

In today’s digital world, many companies are turning disruption into opportunity by adopting composable thinking and business technologies. Composable organizations recognize that business conditions for everything from customer demands to financial models often change, so they empower their employees to respond and adapt to those new conditions.

We know that companies like yours have heterogeneous environments—a mix of hardware and software from a variety of vendors accumulated from the entire lifespan of your organization. It wouldn’t be realistic or empathetic to assume that any company could simply switch everything over to a brand-new platform with all new applications overnight.

That’s why you need a partner that not only offers a complete cloud solution to cover any solution you might need, but also one that is modular to work with the software that you already have. This allows you to adopt exactly what you need when you need it.

Fusion Applications is the world’s most complete and innovative suite of applications.

We offer applications spanning all business functions—finance, supply chain and manufacturing, HR, marketing, sales, and service—as well as industry needs. With Fusion Applications, you can adopt as many or as few of these applications as you want; the advantage to having more applications is unified data.

Unified data, a common workflow engine, and a consistent user interface ensures that data is not trapped in silos. Instead of an application layer to synchronize different databases in different apps, all Fusion Applications access the same database instance. Users in different lines of business make decisions using real-time reporting based on the same data, even though they might be using different apps. Also, security measures implemented at your database layer apply to all Fusion Applications, reducing risk and administration costs.

Just like you need an architect to convert your needs and vision into a cohesive design for your house, a suite approach with unified data will be the fundamental principle to incorporate the latest technology to address any business challenges. By implementing innovative software that is composable by design, you can be prepared to weather difficult conditions and establish a strong foundation for thriving in an uncertain future.

For more information:

Brief: The Synergies of Unified Data
2: Develop, deploy, and manage robust enterprise applications with a full stack technology platform

Oracle Cloud Infrastructure (OCI) is our next-generation cloud designed for Fusion Applications. Our applications run on brand-new networking, hardware, security, database, and operating system technologies in state-of-the-art data centers.

Oracle is the only cloud provider that runs its applications on its own cloud. Our infrastructure delivers not only the performance, security, and reliability you need for critical business operations, but also the tools and technology powering the innovations in Fusion Applications. We rely on OCI to realize the strategic directions in security, intelligence, integration, and technology adoption.

Performance and reliability

When we switched over to OCI, Fusion Applications had 30% better performance and increased reliability. We raised our SaaS Service Level Availability (SLA) commitment to customers from 99.7% to an industry-leading 99.9%. As a result, our customers have less downtime and higher productivity.

With over 40 public and government cloud regions worldwide and more planned, Oracle Cloud is available where and when you need it. Our fast-growing networks of cloud regions support data residency requirements and regional compliance. Our data centers have component and power redundancy with backup generators in place, and Oracle may incorporate redundancy in one or more layers, including network infrastructure, program servers, database servers, and/or storage.

For customers that require strict data residency, data privacy, and security or low-latency connectivity and data-intensive processing, we can run Fusion Applications in their data centers. OCI Dedicated Region is certified to run Oracle SaaS products, such as Oracle Fusion Cloud ERP, HCM, and SCM—offering a completely integrated cloud experience while all data, including API operations and metadata, remains local to the region.

Monitoring and management

Oracle Cloud Console for Fusion Applications provides a “single pane of glass” visibility and management capability for your Fusion Applications environment and all your OCI services. To access your important information at a glance, you can configure dashboards to monitor application performance, check availability metrics, review billing and usage, and more. From the console, your Fusion Cloud Administrator can manage the end-to-end lifecycle of the Fusion Applications Environment, including the provision of a new test, dev, and production environment. Additionally, you can easily access the wealth of compliance, learning, and support resources from the same centralized location.
Cutting-edge functionality

With the power of OCI at our disposal, we can quickly adopt cutting-edge technology to provide new functionality inside Fusion Applications and with fully integrated cloud services:

**AI and machine learning** are embedded throughout Fusion Applications, helping you decide the timing to pay a supplier for payment discount, predict the most likely outcome of your plans from financial and operational data, take best actions to close more sales deals, and connect skilled individuals with jobs and opportunities to find best-fit talent more easily.

**Digital assistants (chatbots)** can field questions and requests from customers and employees as well as help with tasks such as creating expense reports, scheduling a field service technician, managing projects, getting shipment updates, and coordinating period-end close activities.

**Blockchain and IoT** form the foundation of Oracle Intelligence Track and Trace to provide real-time visibility within trusted supply chain networks.

**Oracle Content Management** allows you to easily create, syndicate, and distribute relevant and consistent content through digital channels for better customer experience.

Powering your innovation

No matter how fast we innovate, we recognize that some customers will want to add their own features or industry-specific capabilities. With our new Oracle Applications Platform, you can use the same design system and tools that our developers use to extend and personalize our applications to fit your needs without breaking any updates. You can leverage Oracle Applications Platform to extend Fusion Applications or build your own.

Our Redwood Design System comes with pre-built templates and components to help you create the same user experience as our applications, including conversational experiences, search, data visualizations, and intelligent recommendations. These components offer the most engaging and productive user experiences by taking full advantage of the power of the cloud services we own to tailor recommendations and search results down to individual user level.

Because we own the entire platform from applications to infrastructure, our customers experience enhanced security, resiliency, stability, and availability, which are foundational to deriving business value. Since we continuously fortify OCI with the latest technology, this is like having a solid foundation in a house that will never deteriorate. With this technology foundation, Fusion Applications will continue to draw on the power of OCI to provide even greater benefits to your business.

For more information:

- Oracle cloud regions
- OCI dedicated regions
- Oracle AI strategy
- Oracle Intelligent Track and Trace
- Oracle Content Management for CX
- Redwood Design System
3: Safeguard data with layers of built-in security

The security and threat landscape is changing fast. With increasing amounts of data, changing government and industry compliance and regulations across industries, and changing business requirements, managing the security of your business-critical data is more challenging than ever before.

More and more critical business functions and infrastructure (water, power, etc.) are connected to the internet and face increasing security risks. These threats are evolving as quickly as emerging technologies like AI are—even connected devices such as IoT sensors have the potential to become an entry point for a security threat or breach, let alone ransomware that could completely disrupt business operations. The combination of connectivity and AI creates even more potential for new types of security breaches to occur.

Cloud computing is fundamentally different from traditional on-premises computing. In the traditional model, organizations are typically on their own to fend off any security threats. In the cloud, organizations leverage resources and practices of the cloud service provider while still retaining choices over the security measures of their IT solution. Managing security and privacy in the cloud is a joint responsibility between the cloud customer and the cloud service provider.

Oracle takes a holistic approach to information security, implementing a multi-layered defense security strategy where network, operating system, database, and software security practices and procedures complement one another with comprehensive internal controls, governance, and oversight. Without having to rely on a different cloud service provider or technology vendor, we architected Oracle Cloud Infrastructure with security in mind from its initial design. OCI was designed to enable continuous and seamless protection from infrastructure to applications. Here is how we approach security at every layer:

**Physical security:** Oracle’s layered approach to the physical security of data centers starts with the building itself. We build and work with partners to build data center facilities with durable materials designed to withstand impact from light vehicle strikes. The buildings use perimeter barriers, security checkpoints, and cameras to monitor vehicle and personnel access. Every person who enters a data center must have a site-specific security badge or present government-issued identification with approved access requests.

**Network security:** We designed Oracle Cloud Infrastructure architecture for security of the platform through isolated network virtualization, highly secure firmware installation, a controlled physical network, and network segmentation. Our physical network architecture isolates customers’ racks, routers, and switches from each other to limit the risk of threat proliferation. To safeguard network access for both physical devices and software-based systems, we maintain strict security policies, including authentication and authorization requirements, deactivation of unused network ports, and regular review of personnel access assignments. Oracle staff must use approved devices equipped with secure Virtual Private Network (VPN) to connect to Fusion Applications. Of course, data transmitted over our network is always encrypted using a variety of standards-based, secure protocols such as TLS 1.2 or greater and IPSec.

**Business continuity:** Oracle maintains a comprehensive Risk Management Resiliency Program to establish a framework that helps provide an efficient response to business interruption events. Our business continuity policy, standards, and practices are generally aligned with International Standards Organization (ISO) 22301.

With 40+ years of secure data management in government agencies and highly regulated environments such as financial services, Oracle is constantly innovating in cloud security.
Organization security: Organizational and operational security focuses on people, processes, and procedures. Oracle aligns system and physical access with work responsibilities using the principles of need to know, least privilege, and separation of duties. We maintain a large in-house workforce of professionals dedicated to the security of Oracle Cloud infrastructure and SaaS Security. Additional compliance teams focus on alignment with regulations and certification programs such as ISO/IEC 27002 Code of Practice and National Institute of Standards and Technology ("NIST") 800-53 and 800-171.

Data security: Within Fusion Applications, data access is secured with job roles and security profiles. Users are denied access by default and can only access the data granted through their business function duties. To secure data from access outside of Fusion Applications such as database admin, we use Oracle Database security solutions that include encryption, key management, privileged user access requirements, activity monitoring, system auditing and more. The application data is encrypted at rest using Oracle Transparent Data Encryption (TDE). For additional security, Fusion Applications customers can use Database Vault and Break Glass to manage their TDE master encryption keys and control Oracle’s admin access to their Fusion Applications environment with authorization workflow.

Secure development: To ensure that Oracle products are developed with consistently high security assurance, and to help developers avoid common coding mistakes, Oracle employs formal Secure Coding Standards.

Application security: Within Fusion Applications, Risk Management Cloud helps you control user access to your Oracle Fusion Cloud ERP financial data, monitor user activity, and meet your obligations to compliance regulations through automation. To protect Fusion Applications from broader malicious threats, we leverage Oracle Cloud Infrastructure's built-in security architecture, including Oracle Web Application Firewall and identity and access management. OCI’s identity management enables first-time users to immediately benefit from some features such as flexible access policies that allow access to the right people at the right time with adaptive authentication techniques and identify life-cycle management capabilities.

Oracle continues to innovate with security architected into Fusion Applications and the cloud infrastructure; it is not bolted on as an afterthought. Just like we should all take a proactive and multilayered approach to home security (from building a fence to installing cameras), Oracle has built security into every layer of our solutions for continuous and seamless protection, so you have peace of mind.

For more information:

OCI Security
Cloud Compliance
Access Security

Network Security
Business Continuity
Data Security

Security Development
Application Security
4: Make better decisions faster with accurate analytics at the ready

To survive and thrive in this increasingly volatile, uncertain, and complex world, businesses must have a constant pulse on performance and make decisions more quickly than ever before. While organizations look to find benefits through improved customer acquisition and retention, engaged employees, and operational efficiency, most organizations are struggling to build a data culture that values and practices data-driven decision-making. This is partly because decision-makers often struggle to quickly get the numbers they need to monitor the performance of every part of the business. When every department uses different tools that yield different results and conclusions, decision-makers are forced to spend a lot of unnecessary time extracting the numbers they need from multiple sources. Manually connecting siloed data is not only time and resource intensive, but also prone to error.

Our analytics strategy is to help you to get timely access to critical insights, regardless of department, with consistent, accurate KPIs and metrics. We provide real-time reports and KPIs to support day-to-day operations and decision-making within Fusion Applications. When you need advanced features such as in-depth trend analysis, machine learning, and predictive analytics, Oracle Fusion Analytics provides ready-to-use, cross-departmental analytics.

Unified analytics across the entire business with prebuilt solutions

Oracle Fusion Analytics offers a comprehensive family of prebuilt, cloud-native analytic applications for Oracle Cloud Applications (ERP, HCM, CX, and SCM) that provides line-of-business users with ready-to-use insights to understand every part of the business for fast decision-making.

For most businesses, transactional applications (ERP, EPM, SCM, HCM, CX) manage all the transactional data. With Oracle Fusion Cloud Applications, you can analyze this data in real time and in memory. Oracle cloud applications aren’t isolated islands, either; with Fusion Analytics you can analyze across these transactional applications data as well as non-Oracle data sources to become the single source of the truth for your company.

Oracle’s unique breadth and depth of combined analytics and application capabilities enable organizations to unify analytics with a single, common view of performance across departments. Oracle Fusion Analytics offers a set of packaged business application analytics that works against a single, cross-functional data model. Decision-makers can go to one place to get a comprehensive view of important numbers, aligning teams and departments with a standard definition of business performance for better collaboration.

These solutions eliminate time-consuming design, development, and integration tasks by offering prebuilt components for the entire analytics workflow:

- Ready-to-use best practice key performance indicators (KPIs) and dashboards
- Prebuilt native data pipelines for Oracle Cloud Applications
- Prebuilt single analytical data model and business views to Oracle Cloud Applications data
- Inherited role-based security from Oracle Cloud Applications
A future-ready data analytics platform to build your foundation

Oracle Fusion Analytics is powered with the innovative, robust platform services of Oracle Analytics Cloud (OAC) and Oracle Autonomous Data Warehouse (ADW), empowering business users, data engineers, and data scientists to enrich their analytics. Access ready-to-use services across the business analytics workflow for connecting, preparing, modeling, exploring, sharing, and consuming insights from all data.

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**Work quickly with an intuitive user experience.** Whether you’re at home, at work, or in the boardroom, you’ll have a consistent and secure user experience from any device—and will be able to get the answers you need (whether visual answers or spoken narratives of the results) with a simple search via text or voice.

**Create custom visualizations, dashboards, and reports** with self-service ease to create compelling, visual with key numbers.

**Extend analyses with additional data sources** beyond Oracle Cloud Application’s data, whether in the cloud, on-premises, or in a hybrid deployment. The platform offers the option to load external data into the same data model as your Oracle Cloud Application data or connect to various sources via native connectors, such as Google BigQuery, Salesforce, and Snowflake.

**Get more accurate predictions with machine learning.** Oracle Fusion Analytics provides ready-to-use machine learning (ML) for specific business processes. Additionally, users can leverage the same Fusion Analytics platform to build their own ML-powered use cases or easily apply self-service ML and predictive analytics with a few clicks, supporting business users, analysts, and data scientists.

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For more information:

- Oracle Fusion Analytics
- Oracle Fusion ERP Analytics
- Oracle Fusion HCM Analytics
- Oracle Fusion SCM Analytics
- Oracle Fusion CX Analytics
5: Connect your entire business ecosystem with powerful integrations

Your business doesn’t operate in isolation. Integration is a fact of life. While unified data and a common workflow engine provides a single point of truth among Fusion Applications, chances are you will need to connect with an external business service or application.

Fusion Applications provide out-of-box integrations with service providers or organizations that have established strict standards and protocols that must be followed—for example, integrating with tax partners for sales tax calculation and enabling payment file transmission to financial institutions for electronic payments.

For fast integration with other applications, Fusion Applications leverage prebuilt adaptors in Oracle Integration and OCI Process Automation to meet different business needs:

- Discover web services (SOAP), business objects, and REST API and generate automatic mapping to simplify the technical complexity of dealing with low-level APIs. These APIs offer near real-time access to data records in Fusion Applications.

- Securely upload bulk data files to refresh data in Fusion Applications business tables. These are large data volumes processed in batch jobs, such as refreshing the personnel data of your contingent workers from your agencies.

- Automate business processes based on events such as generating customer invoices after receiving delivery confirmations from freight carriers.

- Leverage well-defined security roles and privileges to implement new protocols, such as facility access badges for new employees and work certificate verification.

In fact, Oracle even relies on this integration for our on-premises and other cloud applications to support our customers’ digital transformation. We understand that our customers need to synchronize data with their existing systems while rolling out Fusion Applications, maintain existing business processes involving other apps (on-premises or in the cloud), or orchestrate new processes involving Fusion Applications, third-party systems, and human activities.

With Oracle Integration, our customers can quickly build connections with other ERP, HCM, or CX applications with our extensive collection of prebuilt adapters, automate business processes with drag-and-drop design, and get ML-powered recommendations for their data mapping exercise. When in production, Oracle Integration provides customers with a centralized dashboard to manage and monitor data flow/traffic and gain insight on their business processes spanning multiple applications with near real-time analytics.

Oracle understands that your business must be connected to the rest of the digital economy, just like the utilities of your home need to connect with provider services. We are adding more APIs and out-of-box integration in Fusion Applications and pre-built adapters to Oracle Integration so you can spend your time growing your business with your trading partners—rather than figuring out how to connect with them.

**For more information:**

- Oracle Integration Cloud
- Oracle application integration
- Prebuilt adapters
- Oracle Process Automation
6: Innovate at your own speed with the latest enhancements and tools

Continuous change requires continuous innovation. Oracle makes sure you have the latest functionality and technology to stay competitive and address evolving market conditions.

Rated as a cloud applications leader by analysts, Fusion Applications are updated quarterly with new capabilities and features, delivered alongside the latest enhancements and patches for the database, operating system, and security measures on top of our infrastructure services. This not only greatly reduces the risk of having your applications out-of-sync with the underlying platform environment, but also gives customers access to innovations and next-generation capabilities such as ML, AI, and NLP to power better business insights, drive real business value, and turn change into opportunity.

While customers can’t skip quarterly updates, the delivered new enhancements impacting user experience are turned off by default. So, after an update, the system is designed to work exactly as it did the day before—so you can decide whether or not to opt in to a new feature.

Create your own enhancements

Customers with unique needs can extend the existing features of Fusion Applications or create their own applications using the tools and technology in Oracle Applications Platform:

**Redwood UX Building Blocks:** This software development toolkit provides UX resources to help you efficiently create consumer-grade applications, including the Redwood reference application, page templates, component repository, reference architecture, and design guides.

**Telemetry:** With telemetry components embedded within the UX components and integrated with DevSecOps tools, you gain detailed out-of-the-box analytics on real world usage behavior and quality of service.

**Search:** With AI and machine learning-enabled suggestions and typo-tolerant text search, you can embed fast and scalable search capabilities within your apps and preserve learned results across devices.

**Conversational experiences:** Embedded Oracle Digital Assistant components help you quickly and easily build apps that are simple to use and promote desired user behaviors.

**Business logic:** With the ability to serve up the most likely data input or next action based on user behavior history, you can create predictive and productive user experiences without any additional coding.

**Low-code development:** The Oracle Visual Builder Studio helps you extend your Fusion Applications or build new ones without the need for complex software development skills.

**Data visualization:** Redwood analytics components from Oracle Analytics Cloud help you embed data visualizations within your Redwood apps to provide data insight where needed.

Just like we sometimes need renovations or extensions in our homes, your business may need to implement features that address your unique needs. Our continuous innovation delivery helps eliminate technology debt and provides you with all the latest tools and products when you need them. With Oracle Applications Platform and Redwood Design System, you can truly make your Fusion Applications your own.

For more information:

- [Fusion Cloud Applications Quarterly Update](#)
- [Redwood Design System](#)
- [Oracle Applications Platform](#)
- [Oracle Cloud Applications Leadership](#)
Start your cloud journey today

When building a house, the ultimate goal is to provide a shelter that will last well into the future. Similarly, the IT decisions you make today can greatly impact the future of your business. You need an experienced partner that will be there for the long run and help you overcome changing business conditions along the way.

With a decades-long history in secure data management and over 430,000 customers in over 175 countries worldwide, Oracle is the partner you can trust. We have empowered countless organizations with innovations from our technology to overcome the disrupters that have come their way.

At Oracle, we built resilience into our own company by modernizing our business processes in the cloud. What we learned from that experience helps us provide guidance on how to take advantage of the benefits of the cloud and successfully phase in an enterprise-wide digital transformation.

Every aspect of Oracle’s business worldwide now runs in the cloud, and we’ve invested over $64B in R&D over the past decade to bring the best technology to our customers. Whether you want to improve an existing or new business process, innovate in one key area, or reduce data silos with a unified suite of applications, we are here to support your journey every step of the way.

“Only Oracle has the deepest, most complete set of SaaS applications for every aspect of business, with the most advanced global cloud infrastructure available in the market today.”

Larry Ellison, Executive Chairman and Chief Technology Officer, Oracle

Get started with these resources:

- Oracle’s cloud journey
- Why Oracle Fusion Cloud Applications and Oracle Cloud Infrastructure are better together
- Oracle Fusion Cloud Application Suite
- Talk to us