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Your Complete Guide to Modern ERP

A handbook for today's innovative business leaders

Handbooks for the Modern Enterprise | Volume 1 | Third Edition

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The Clear Imperative for Cloud Applications

Research shows that legacy ERP 1.0 systems were not designed for usability and insight. More than three quarters of business leaders say their current ERP system doesn't meet their requirements, let alone future plans. These systems lack modern best-practice capabilities needed to compete and grow. To enable today's data-driven organization, the very foundation from which you are operating needs to be re-established; it needs to be "modernized."

Oracle's goal is to help you navigate your own journey to modernization by sharing the knowledge we've gained working with many thousands of customers using both legacy and modern ERP systems. To that end, we've crafted this handbook outlining the fundamental characteristics that define modern ERP.
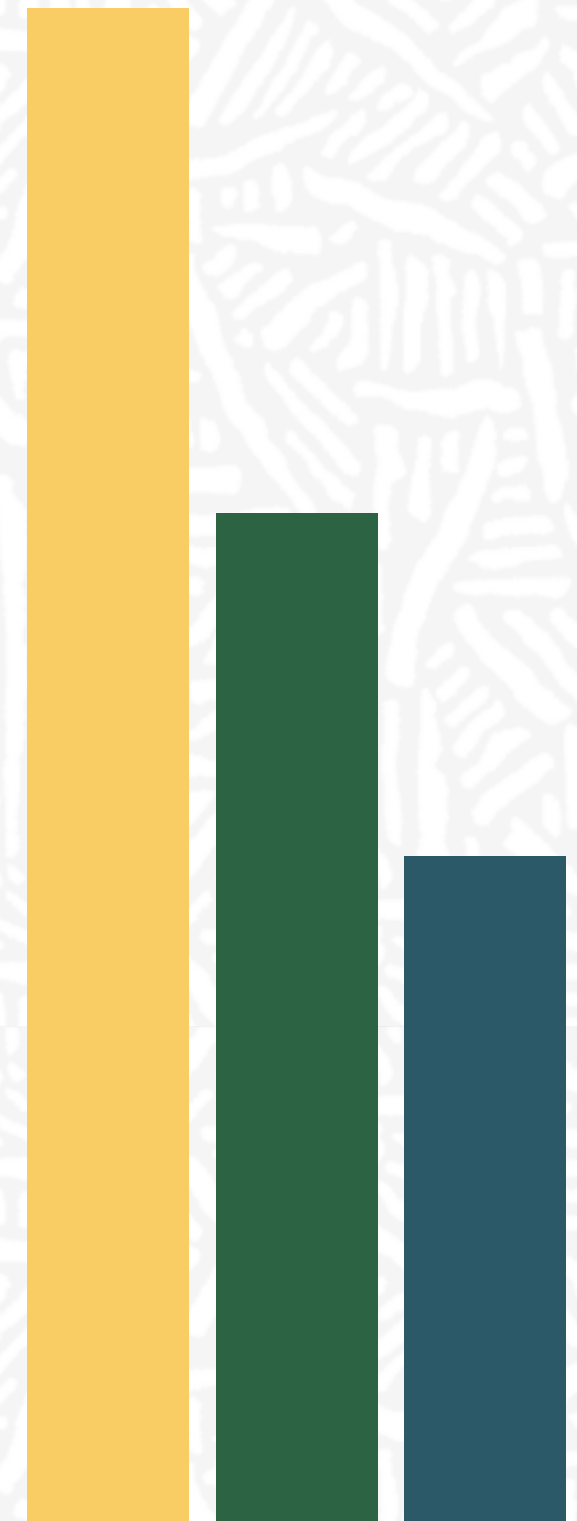
Did you know?

90% of large global companies will mainstream cloud computing in three years

60% of productivity boosting-opportunities during the next decade will be cloud based

40% of clouds serving the manufacturing, oil and gas, and utilities industries will include data from operational assets

Source: "Don't Get Left Behind: The Business Risk and Cost of Technology Obsolescence," MIT Technology Review Insights, 2019.
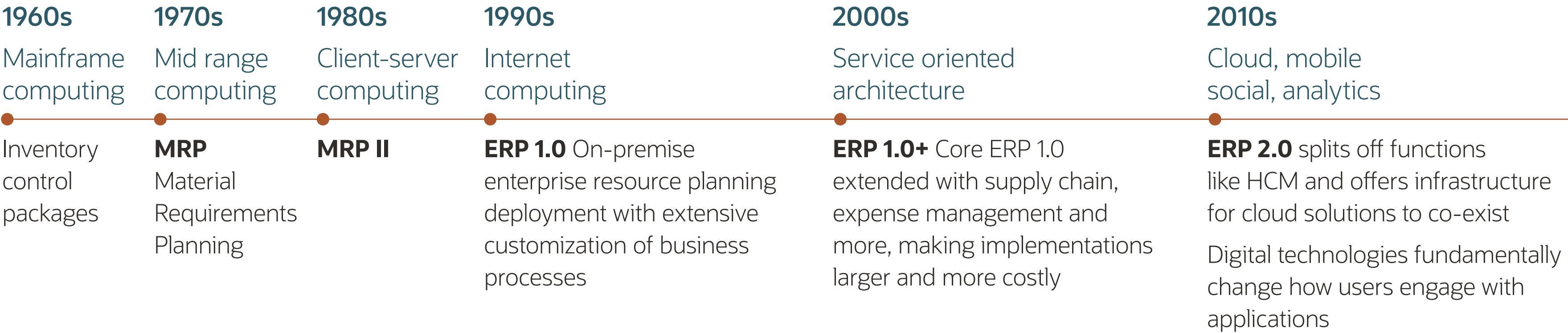
From ERP 1.0 to ERP 2.0

The rapid evolution of the cloud has dramatically altered the ERP landscape for companies of all sizes. Coupled with mobile platforms, our work anywhere/anytime culture requires modern cloud-based ERP systems not tied to yesterday's back office, on-premise environments. This next generation of ERP, or "ERP 2.0," builds upon the formidable history of "ERP 1.0," but eliminates the need for multi-year projects and heavy customization.

ERP 2.0 delivers solutions rapidly through the cloud so organizations can respond quickly to volatile markets and industry disruption, while supporting next-generation employees with security, insight and agility.

Business-critical collaboration and decision making depends upon both enterprise data access and analysis, and modern ERP systems that deliver the infrastructure and tools required to do the job.

The world is far more complex and competitive than when ERP 1.0 first arrived on in-house mainframes. Finance and technology are inexorably linked, as growing volumes of data drive not just operations and reporting, but critical business decisions. Aligning ERP 2.0 with a company's people and products delivers digitally enabled business agility, which translates into greater operational and sales success.

1960s	1970s	1980s	1990s	2000s	2010s
Mainframe computing	Mid range computing	Client-server computing	Internet computing	Service oriented architecture	Cloud, mobile social, analytics
Inventory control packages	**MRP** Material Requirements Planning	**MRP II**	**ERP 1.0** On-premise enterprise resource planning deployment with extensive customization of business processes	**ERP 1.0+** Core ERP 1.0 extended with supply chain, expense management and more, making implementations larger and more costly	**ERP 2.0** splits off functions like HCM and offers infrastructure for cloud solutions to co-exist. Digital technologies fundamentally change how users engage with applications

Chapter 1
Now Is the Right Time to Modernize Your ERP

There is no argument that legacy ERP 1.0 systems deliver significant horsepower to run your organization, set customer experiences, and directly impact how you fare against competitors. However, you need to consider the technological and generational changes taking place in your business and how your current on-premise environment could be holding you back. Regardless of business size, there are three key inflection points where the need to modernize becomes apparent; most organizations are experiencing at least one point today:

01 Operational efficiency—Does your current ERP support your operational goals? Consider if you've acquired a company using a different ERP; your legacy ERP is in need of an upgrade; you're launching a subsidiary; or you're moving to a shared-services model. If you are faced with any of these scenarios, achieving operational efficiency has become a priority; therefore, ERP modernization needs to be part of the conversation.

02 Digital transformation—Today's users demand a level of collaboration and ease not previously expected from on-premise solutions. In addition, their expectations for ERP systems reflect the ubiquity of digital technology in their lives. They also require a single source of truth that cascades all operational functions, real-time analytics with customized role-based dashboards, plus mobile access, with social collaboration—all with ease and speed in upgrades.

03 Growth and confidence—Growth is often synonymous with global expansion, increasing financial complexity with distinct accounting, reporting and compliance requirements. Add in acquisitions, divestitures, new markets, customer growth or IPO preparations, and the need to model these opportunities and their impacts requires having the right systems with processes in place to support increased regulatory scrutiny.

Whichever inflection point describes your organization, you need a modernization strategy that fits your needs, culture, budget, and timeline. Acknowledging where your current ERP does not support your business objectives is the first step in your ERP modernization journey.

Top 10 signs it is time for
Modern ERP 2.0

You need modern ERP when one or more of these conditions are present:

01 ERP upgrade required
Your on-premise system requires an expensive project as it ages past support dates and your competitors deploy cloud solutions

02 Usability dissatisfaction increases
Next gen employees complain about usability and ask why their ERP isn't like smartphone apps

03 Reporting challenges increase
Management reporting is too cumbersome because of ERP 1.0 limitations

04 ERP requires new hardware
Physical ERP 1.0 infrastructure is past due for an expensive capital replacement

05 ERP maintenance costs increasing
System fees and services costs increase annually

06 More non-integrated systems and disparate data
Growth in disconnected systems and enterprise data give conflicting answers to key questions

07 Rapid and global company growth
International expansion, mergers and acquisitions, and core market growth are hampered by your on-premise ERP

08 New compliance requirements
Increasing financial and compliance requirements impact your enterprise

09 Business demands increase
Your business cannot keep up with increasing demands

10 Time for an IPO
You are ready for a public offering which mandates stringent financial information and controls

Chapter 2
Characteristics of Today's Modern ERP

No matter which inflection point represents your organization, there are key components of a modern ERP that should address the top concerns most companies have when considering a move to the cloud. There are seven components that fall into two categories—modern platform parameters and modern business application design. Together, seven components define the standards of a modern ERP. To establish a foundation for agility and growth, these platform components should be considered:

01 Security—Your business data is your business. A multi-layer approach to securing data at every layer of the stack is paramount for maximum data protection. Using a secure data isolation architecture in the cloud reduces risk and enables faster data access and processing.

02 Integration—ERP cloud solutions must seamlessly connect your business, people and processes. Your solution must also connect to other clouds, to your on-premise systems, and to third-party solutions. Consider whether a solution uses a common framework based on industry standards to ensure compatibility and scalability.

03 Personalization (not customization)—With ERP 1.0, non-standard or customer-specific business practices resulted in customizations increasing downstream maintenance and upgrade challenges. Cloud-based solutions built on a **standards-based platform** offer personalization and configuration within the application resulting in "upgrade safe" enhancements. If your on-premise customizations fall into areas such as workflows, integrations and reporting, there is a good chance your requirements will be addressed by cloud-based solutions.

In addition, modern cloud applications should scale with your business and support the latest digital technologies to meet the needs of your business, so should exhibit the following design components:

04 Completeness—Built-in **best practices** permit standardization, which lowers costs and increases productivity. Even if your cloud transition is incremental, access to a complete suite of integrated best practice business processes delivers enterprise standardization. Consider whether a cloud ERP vendor supports a full suite of applications or if integration to other cloud solutions will be required. If you initially select a hybrid cloud/on-premise model—a common operational option—who ensures integrations between on-premise and cloud applications?

05 Globalization—Entering emerging markets and new geographies creates complexity by requiring any ERP cloud solution to support multiple subsidiaries and country localizations. Often, local data centers must comply with data residency requirements. The right cloud ERP must enable sharing of enterprise information seamlessly across operations, business units and headquarters.

06 Insight-driven analysis—An ERP cloud solution must have secure, real-time data access at its financials core to provide a single source of truth across roles, reports and analysis. This ensures timely delivery of accurate KPIs to front-line managers, and dramatically simplifies a process once dependent on a period close or a separate data warehouse extract.

07 Digital capabilities—For the modern back office, digital technologies must be integrated into business processes and transactions to create a seamless, productive and intuitive experience. The user experience needs to be engaging and include mobile accessibility for on-the-go employees, native social integration for secure in-context collaboration, and out-of-the-box optical character recognition for invoice imaging.

On-Premise ERP 1.0 vs Cloud ERP 2.0

Did you know?

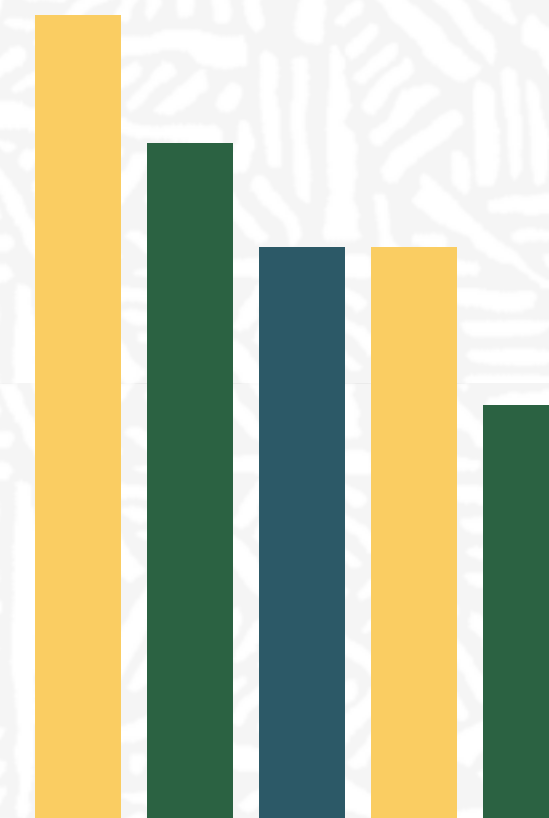The top five reasons for moving from ERP 1.0 to ERP 2.0:

45% Avoid infrastructure investment

38% Lower TCO

33% Avoid on-premise upgrade project

33% Rapid access to new ERP functionality

24% One source of data with a global view

Chapter 3
How Companies Deploy Modern ERP Systems

As you plan your modern ERP strategy, you should pull together a deployment team that includes potential implementation partners as well as cloud providers. Consider the following elements of a modernization strategy, which apply regardless of technology and market size:

01 Clearly define project goals—Establish KPIs that measure business benefits such as productivity, financial close speed, and infrastructure costs. Measurable items help you to build project consensus and approval, keep track of your strategy build, and provide a baseline to assess success at milestones.

02 Document processes and inventory systems—Map your complete IT infrastructure, including internal and third-party solutions and their integration points, plus redundant systems. Include your organizational structure to understand roles in conjunction with data ownership, management and use. It's also critical to define a single source of truth before starting your project.

03 Get strong executive sponsorship—Regardless of company size, **executive sponsorship is critical.** You need continuous executive support throughout your entire project. Coupled with ongoing employee communication, leadership commitment to your new cloud ERP system will help drive success.

04 Select an implementation approach aligned to the organization—A journey to cloud ERP will vary by customer, and does not require deploying all cloud ERP applications at once. Many companies choose to incrementally adopt high-value cloud services that will exist alongside their on-premise solutions, resulting in a hybrid environment. Other companies start a **modernization** journey with core ERP applications, building towards a complete end-to-end transformation.

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How to Cloud:
A Five-Step Guide for Successful Oracle ERP Cloud Projects

How to Cloud—**5 Step ERP Success Guide**

Learn More →

05 Embrace standard best practices built into the application—Modern best practices are built into cloud applications, so you can replace legacy software along with outdated processes and approaches. ERP 2.0 delivers more than 80 percent of common business processes you need with built-in standardization—the perfect place to start your project.

06 Study reporting and analytics early—With cloud ERP, users understand your business in real time. Advanced multidimensional analysis and data visualization providing insights quickly without a data warehouse. Define reporting and analytics early in the project plan. Once live, you can quickly generate meaningful reports.

07 Involve users and process owners from the start—End users of ERP systems determine the success of your project. Throughout your implementation, include demonstrations and tests at regular intervals.

With your strategy and roadmap in place, solution choices made and a partner that supports your vision, you are ready to execute. Now it is time to plan a party…really. Moving your organization to a cloud ERP, even using small, incremental steps, will fundamentally change the way your people work. Celebrate the launch to nurture everyone's commitment and celebrate again when milestones are reached.

Emerging technologies further drive Modern ERP

Faster revenue growth at companies that have deployed emerging technologies (over a 36 month period vs. those that have not deployed)

58% Faster

Intelligent automation is the key to regulatory compliance

74% Agree

Full automation financial close process (within the next five years)

83% Predict

Source: "Emerging Technologies – The Competitive Edge for Finance and Operations. How Market Leaders are Outpacing Change with Cloud-Driven Innovation." Enterprise Strategy Group (ESG), 2020. N=700 global respondents.

On-Premise ERP 1.0 vs Modern Cloud ERP 2.0

Comparing financial models and costs of ownership

	ERP 1.0	ERP 2.0
Business financial model Capital expenses for on-premise ERP systems divert funds from important business growth needs and often incur taxes	**Cap-Ex** Up-front purchase	**Op-Ex** Monthly subscription
ERP software On-premise software requires up-front purchase and taxes; cloud ERP leverages operational expenses month to month	$	
ERP software maintenance On-premise ERP requires annual maintenance fees to be current with security fixes, critical patches, and updates	$	**All included** No additional or hidden costs
Hardware for ERP software On-premise ERP requires additional capital expenses; hardware typically needs physical upgrade every 3 to 5 years	$	
Hardware maintenance On-premise ERP hardware often requires annual maintenance fees or contracts, high-cost space, utilities, and staff	$	

	ERP 1.0	ERP 2.0
Database for ERP software On-premise ERP systems need an on-premises database which often requires staff and contractors for deployment	$	
Database maintenance On-premise ERP requires annual maintenance fees and staff to keep the ERP database secure, current, and optimized	$	
System upgrades On-premise ERP system upgrade projects cost $100K to over $1m per project every 3 to 5 years for software and hardware	$	**All included** No additional or hidden costs
System security All on-premise ERP systems have additional costs for security software and monitoring with staff to monitor and maintain	$	
System disaster and recovery All on-premise ERP systems have large costs for disaster and recovery plans, infrastructure, services, staff, and redundancy	$	

Other important factors

	ERP 1.0	ERP 2.0
IT resources for ERP deployment and maintenance Required for customizations, integrations, reporting, maintenance, upgrades, and partner/subcontractor	**Many** Direct, subcontractor, and partner resources	**Minimal** For business optimization and user assistance
Deployment speed Length of time for project planning and development	**1 to 2 years** or more...	**3 to 6 months**

Chapter 4

Assessing Cloud ERP Results after Deployment

When you are finished crafting a strategic and comprehensive ERP modernization strategy, with carefully documented KPIs, you have the baseline for assessing your results; you simply need to look back in order to look ahead.

When establishing KPIs, be realistic about how you will measure value. Document your "status quo" metrics before you kick off the implementation, and set reasonable intervals to assess results. Based on those assessments, you can configure features to adjust to your business goals and needs—something that is much easier to do with cloud applications.

In addition, it is important to establish baselines for priorities using a maturity model mapped to your organization by assessing and quantifying project goals. For example—a goal to reduce account receivables through rapid, automated invoicing with faster close and reporting processes, plus reduced IT costs. But a comprehensive assessment is not just about technology. People, governance, process and strategy are also key factors for success.

For meaningful results, incorporate holistic measures related to these factors into your KPIs connected back to your original business case. Whatever your path, it's important to **craft a business case** to justify your approach. Leverage resources that help you understand cloud technologies, the positive impact they can deliver, and the financial advantages of modern cloud ERP 2.0.

Non-technology factors drive success

Four factors besides technology directly influence the success of every cloud ERP project.

People—Consensus shapes clear customer strategy

Process—Updated processes deliver desired results

Governance—Proactive guidance lowers risk and cost

Strategy—Proactive involvement drives adoption

Chapter 5

Why Oracle Is Your Best Choice for Modern ERP Cloud

Oracle delivers a single ERP cloud that is enterprise-grade and ready to grow your business today. It's built upon a robust union of platform, applications and approach using financial, procurement, project portfolio, and enterprise performance management.

Our platform and applications include:

01 Modern standards-based platform—Oracle leverages this fundamental, up-front design principle to help deliver:

Security and scalability

Integration and connectivity across enterprise applications

One unified business system

Emerging technologies including AI, blockchain, and IoT

Generation 2 cloud infrastructure

02 Modern best practice-based applications—ERP cloud applications combine modern technology, **best practices** and connectivity with knowledge from decades of experience.

21st century global accounting

Embedded analytics and reporting

One suite for a complete solution

Future-proof enterprise applications

Industry-focused solutions

03 Modern innovative approach—There is **economic benefit** when you modernize ERP in the cloud. Oracle and its partners offer tools to determine the financial advantages of a cloud ERP project to ensure a successful implementation.

Enterprise benefits calculator

Finance self-assessment

Soar to the cloud with Oracle Consulting

Cloud Marketplace partner catalog

In fact, Oracle ERP Cloud can offer substantial savings in an operating expense rather than capital expense model.

Your Journey to Oracle Cloud Starts Today

Every organization can leverage the Oracle Cloud. Our sales teams and partners will get you started on your journey to modern cloud that is the foundation for growth and success. And if you're already an Oracle on-premise applications customer, consider Oracle's unique Customer 2 Cloud program.

Discover Oracle ERP Cloud →

Experience Cloud Demos →

Take a Guided Product Quick Tour →

Customer 2 Cloud* →

Request a Live Demo →

Chat with Oracle Sales →

Call Oracle Sales →

Learn About Industry Capabilities →

*For Oracle JD Edwards, PeopleSoft and E-Business Suite ERP Customers

One complete SaaS solution with comprehensive security, scalable deployment and high performance for:

ERP | SCM | HCM | EPM | CX

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