

TRENDS

The Future of ERP

Digital Business Models Meet Automation, AI,
People-Centric Requirements and Cloud Migration



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EXECUTIVE SUMMARY

Over the past six months, Constellation Research held one-on-one interviews with more than 400 C-level leaders about their overall technology trends and strategies. This report sheds light on the 300 discussions about enterprise resource planning (ERP) ownership and migration to cloud ERP.

Technology leaders that own legacy on-premises ERP systems face massive challenges ahead to balance technical debt and short-term business requirements. This Trends report highlights the major challenges ERP users face and the trends in ERP that will impact the business over the next decade. As users consider cloud ERP options in their upgrade strategies, Constellation provides key strategies on what's required for ensuring a smoother migration to a post-digital ERP solution.

Business Themes



New C-Suite



Technology
Optimization

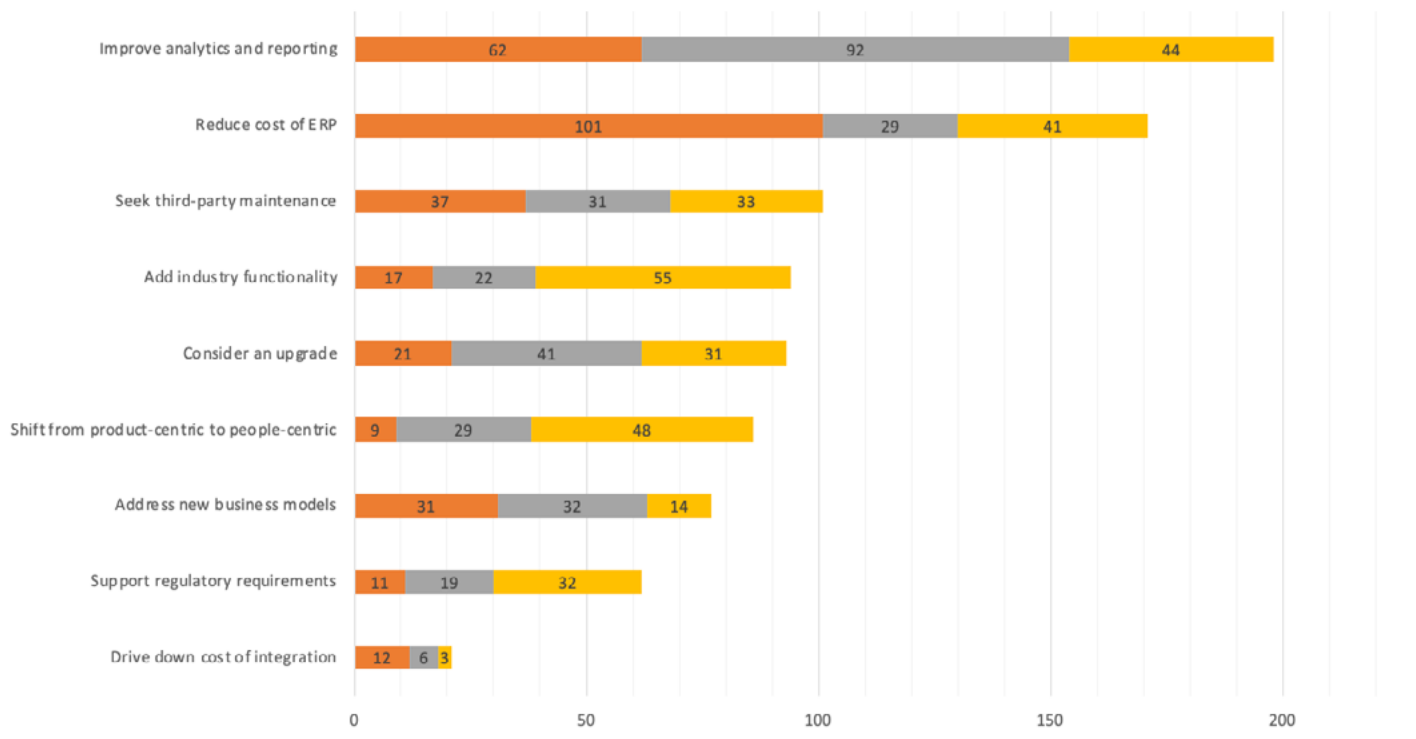
ENTERPRISES FACE CHALLENGES WITH EXISTING ERP SYSTEMS

Customers of enterprise resource planning (ERP) implementations prior to the year 2000 push have slowly begun the much-needed process of upgrading or replacing existing ERP installations. Over the past decade, the slower-than-expected adoption of cloud ERP has mostly stemmed from a lack of functional parity with highly customized legacy systems and from an inability to achieve meaningful return on investment by replacing those systems. However, as vendors double down on reinvestment and users must adapt their ERP to a barrage of changing business models and increasing regulation, a renaissance is occurring.

In conversations with more than 300 CxOs in 2020 about ERP, leaders said they face the following challenges (see Figure 1):

- **Improve analytics and reporting.** Analytics and reporting have moved from afterthought and once-a-week management team discussions to a daily first-and-foremost focus. Teams begin the day with corporatewide dashboards and expect real-time information. A growing number of organizations seek improved forecasting, planning and scenario-building tools powered by some level of artificial intelligence (AI). Existing systems continue to require workarounds and a patchwork of solutions.
- **Reduce the cost of ERP.** Users seek to drive down the cost of ERP ownership. The cost of maintaining a legacy ERP system over five years often exceeds the cost for a replacement cloud ERP system. Customers that want to reduce on-premises licenses face an uphill battle with legacy vendors on maintenance costs. Technology and procurement leaders seek pricing elasticity in user-based, usage-based and platform pricing.
- **Seek third-party maintenance.** Independent maintenance for on-premises systems enables customers to consider a replacement or upgrade strategy while saving as much as 50% in maintenance costs. The money saved in maintenance is often used to fund the upgrade or replacement project. Leaders must make a determination to soldier on with existing systems, upgrade or consider third-party maintenance.

Figure 1. Executives Face Significant Challenges with Existing ERP Systems



Key: Orange: first choice; gray: second choice; yellow: third choice.

Source: Constellation Research

- **Add industry functionality.** The collapse of industries along value chains has shifted what industry functions businesses require from their ERP systems. Deeper out-of-the-box requirements by micro-industries and the ability to configure platforms to deliver on unique business requirements make it challenging for them to work with their current ERP systems. As industry-specific requirements grow and industries collapse, ERP systems face breaking points that often require expensive customizations.
- **Address emerging digital-business and monetization models.** With an increase in post-pandemic business models built on **less density** and more digital business, brands and enterprises must consider digital monetization. Customers seek subscription services, support for digital goods and services and the ability to create new pricing schemes. Organizations also seek post-sale business-model and monetization support from their ERP systems, which were not originally designed for such business models.

- **Consider an upgrade.** Aging systems, pressure from indirect access, audit threats and the need for new functionality plague enterprises with legacy on-premises ERP systems. Business leaders seek more capabilities from their ERP systems but expect to pay less. Legacy vendors expect to grow their accounts with upgrades and more modules sold to show revenue growth. Technology and procurement leaders must find business value in upgrades.
- **Shift from product-centric to people-centric requirements.** Most ERP systems deliver well-refined processes designed for making goods or products. Over the past decade, customers have been seeking ERP systems that also address the services-centric requirements and people-centric approach to humanizing digital processes. From post-market installation, project management and services delivery to warranty management, people-centric processes have blended with the product-centric world and in many cases spawned people-centric-only businesses.
- **Support regulatory requirements.** ERP systems often bear the brunt of all legislation, regulatory requirements and compliance initiatives. ERP systems must address every new whim of government as well as ensure the mitigation of risk to regulatory bodies. Leaders must manage the challenges of keeping their ERP system up to date.
- **Drive down the cost of integration.** Managing and maintaining integration of disparate cloud systems requires competencies in data and process integration. Given the lack of maturity and availability of open APIs and microservices for legacy on-premises ERP systems, most enterprises face a tough challenge managing the cost of integration. Further, the proliferation of cloud systems in marketing, sales, service, commerce and human resources often complicates the overall environment. Legacy ERP systems are expensive to integrate with other key business systems.

ERP ENTERS AN ERA OF CLOUD EXPANSION

Constellation Research estimates the global cloud ERP market will be worth \$43.6 billion by 2025 and have a compound annual growth rate of 8.76%. Global cloud ERP has evolved from the post-digital ERP era to the AI-driven back-office era. In fact, the post-digital ERP era began in 2010 with new architectures built for the cloud and massive data sets. Since then, innovations in post-digital ERP have ushered in a wave of new technology platforms, user experiences and intelligence as well as new opportunities to drive down the cost of ownership while enabling constant streams of innovation. Constellation sees a shift from transaction systems to AI-driven systems in the next decade.

ERP traditionally refers to a transactional system that manages the back-office functions of an enterprise: finance, human resources, supply chain, logistics and project management. Cloud-based systems refers to a deployment option where the software is hosted on a vendor's server. Multitenant cloud solutions refers to a deployment option where only one copy of the software code is available to all customers, although the data is unique to each customer.

Modern global cloud ERP suites encompass a wide range of end-to-end business processes, including:

- Procure to pay
- Order to cash
- Hire to retire
- Assess to acquire
- Financial plan to report
- Project initiation to project closure

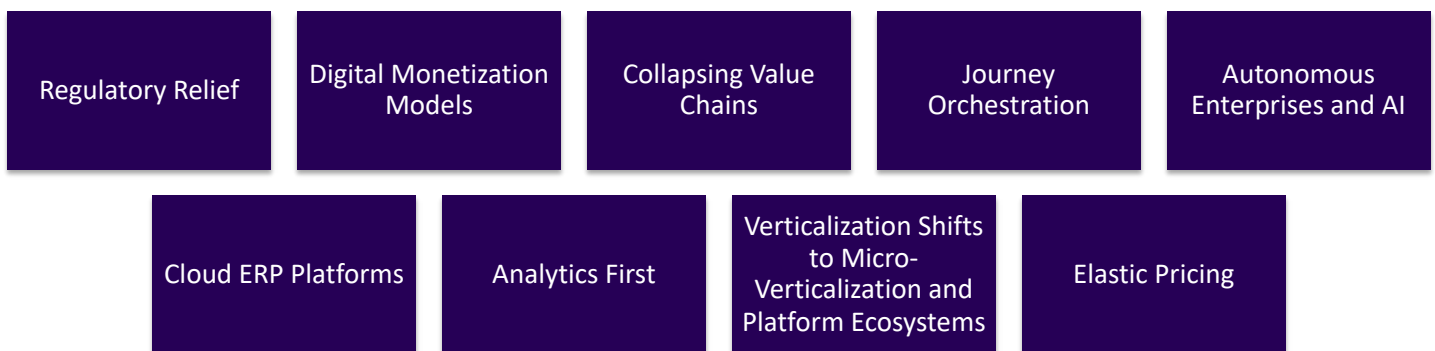
Today's ERP systems are being asked to do more and in some cases are bringing together the supply chain, operations and project management requirements to complete a full back-office suite.

VENDORS START TO CLOSE THE GAP BETWEEN FUNCTIONAL PARITY AND REPLACEMENT ECONOMICS

In our ERP conversations with more than 300 technology leaders over the past six months, 10 major trends have emerged for 2020 and beyond for post-digital ERP users (see Figure 2):

- 1. Regulatory relief as a service.** Users depend on their cloud ERP provider to keep them up to date on regulations, compliance requirements and legislative burdens. CFOs and risk management types have found that cloud ERP solutions mitigate compliance risk as well as ensuring timely implementation of key regulations. While AI has many use cases, fraud prevention helps organizations avoid bad outcomes. Prevention applies cognitive reckoning to identify potential threats. The goal is to mitigate risk, achieve regulatory compliance and prevent disasters. Customers also seek AI to augment human decisions and suggest next-best actions.
- 2. Digital monetization models.** The shift from ownership to access requires ERP systems to support subscription business models. These new models enable post-sale revenue opportunities such as installation, warranty and vendor-managed inventory. Subscriptions also require regulatory compliance for revenue recognition rules such as ASC 606. Expect ERP systems to provide growing support to customer success management platforms and new outcomes-based pricing models.

Figure 2. Global Cloud ERP Trends for 2021 and Beyond



Source: Constellation Research

3. **Collapsing value chains.** Classic mega-processes such as invoice to close, procure to pay, hire to retire and order to cash traversed functional fiefdoms. Early adopters of cloud ERP seek multithreaded value chains that support a multiparty-centric view. These parties could include the employee, customer, supplier, partner and others. The convergence of classic mega-processes makes way for multiparty value chains. Context is key, because each role sees only the relevant information at the right time.
4. **Journey orchestration.** ERP users expect to design, execute and automate end-to-end business processes. Organizations would like to be able to orchestrate external and internal processes and to enable key business leaders to craft their own cross-functional capabilities.
5. **Autonomous enterprises and AI.** From chatbots to mixed reality, AI has entered the ERP market. Systems that mimic four out of the five senses—sight, speech, hearing and touch—have entered the mainstream. Natural language processing and video intelligence enable large quantities of unstructured data such as documents, chats, log files and transactions to be ingested and organized into logical categories by using techniques such as topological data analysis. Customers expect the ability to use voice as an interface as much as they use touch and gestures.
6. **Cloud ERP platforms.** Extension of key capabilities in industry verticals, last-mile functionality and custom requirements will require cloud ERP vendors to open up their platform layers to enable user-based configuration. Users need to extend and expand ERP footprints to accommodate changing business models and new requirements.
7. **Analytics first.** The ERP market landscape has shrunk from hundreds of vendors to a dozen core providers. During the merger and acquisition binge over the past decade, customers have emphasized the stability of a vendor over innovation. With a refresh cycle ahead, customers have increased their expectations for obtaining both stability and innovation from one core vendor.
8. **Verticalization shifts to micro-verticalization and platform ecosystems.** Customers expect their cloud-based ERP solution to deliver on deep industry-vertical functionality. Customers also expect their ERP vendor to provide integration support for adjacent solutions in the ecosystem. Why? Years of experience have taught customers that they need a platform to extend as well as one that is part of a larger ecosystem.

- 9. Elastic pricing.** Customers have gotten accustomed to cloud-based pricing models based on number of users. As complexity in cloud products grows, customers expect to see flexible pricing models based on users, usage and platforms. Moreover, customers who face divestitures and mergers also would like the ability to reduce licenses as needed. Constellation has developed pricing models that clearly state discounting based on volume metrics that enable flex-up and flex-down pricing.

THE BOTTOM LINE: USERS SEEK PRAGMATIC STRATEGIES FOR CLOUD MIGRATION

The inevitable shift to cloud from on-premises ERP will continue over the next decade. Cloud migration will provide an opportunity to re-examine business processes as well as opportunities to optimize existing approaches. Constellation recommends the following in cloud migration:

Map Current Functionality and Future Functionality

Modules from legacy ERP systems often do not map directly with cloud ERP options. Take the time to model existing business process flows with potential solutions to understand what features are provided out of the box, require configuration or may require customization. If migrating to an existing vendor's product, identify areas where functional parity may be delivered in a renamed or rebadged solution.

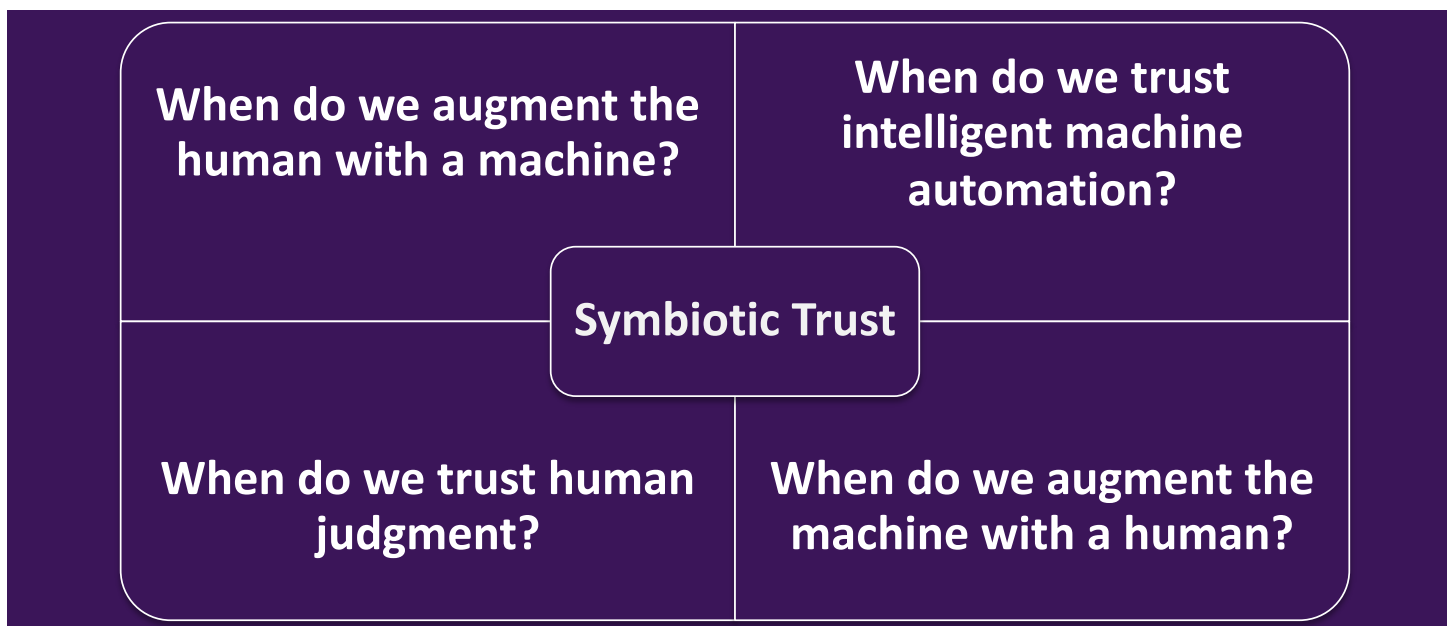
Determine if This Is a Migration, Refresh or Full Replacement

Conduct an assessment on costs of migration, refresh or full replacement. Understand what percentage of capabilities including legacy ERP customizations can be delivered out of the box in the new solution. In many cases, expect a full replacement that includes a more modern ERP platform that enables flexibility in configuration and the inclusion of the latest disruptive technology. Compare costs and benefits along with flexibility and alignment with business objectives.

Identify Opportunities for Process Redesign, Optimization and Automation

Migration to a new ERP system presents an opportunity to improve and even redefine existing processes. Do not slam in existing legacy approaches. Take the time to understand which processes should be reimaged. More importantly, enterprises have the technology to automate business processes at an unimaginable scale. Thus, every organizational leader must determine when to trust the judgment of a machine, augment a machine with a human, augment a human with a machine and trust human ingenuity (see Figure 3). In this autonomous future, machines will deliver services that are continuous, auto-compliant, self-driving, self-healing, self-learning and self-aware. Access to larger data sets and more engagements to refine algorithms will be needed to ensure precision decisions and ever-higher confidence levels.

Figure 3. The Four Most Important Questions in the Autonomous Decade



Source: Constellation Research

ANALYST BIO

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Founder and Principal Analyst

R “Ray” Wang is Founder, Chairman and Principal Analyst of Constellation Research, Inc., and the author of the popular enterprise software blog, “A Software Insider’s Point of View.” He previously was a Founding Partner and Research Analyst for enterprise strategy at *Altimeter Group*.

A background in emerging business and technology trends, enterprise apps strategy, technology selection and contract negotiations enables Wang to provide clients and readers with the bridge between business leadership and technology adoption. Wang has been recognized by the prestigious Institute of Industry Analyst Relations (IIAR) as the Analyst of the Year, and in 2009, he was recognized as one of the most important analysts for Enterprise, SMB and Software. In 2010, Wang was recognized on the ARInsights Power 100 List of Industry Analysts and named one of the top Influential Leaders in the CRM Magazine 100 Market Awards.

Wang graduated from the Johns Hopkins University with a B.A. in natural sciences and public health. His graduate training includes a master’s degree from the Johns Hopkins University in health policy and management and health finance and management.

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Organizational Highlights

- Named Institute of Industry Analyst Relations (IIAR) New Analyst Firm of the Year in 2011 and #1 Independent Analyst Firm for 2014 and 2015.
- Experienced research team with an average of 25 years of practitioner, management and industry experience.
- Organizers of the Constellation Connected Enterprise—an innovation summit and best practices knowledge-sharing retreat for business leaders.
- Founders of Constellation Executive Network, a membership organization for digital leaders seeking to learn from market leaders and fast followers.



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