A well-defined strategy that takes account of the disruptive challenges created by postmodern ERP is key to success with ERP initiatives. CIOs and application leaders need to ensure ERP strategy is agreed before any detailed technology evaluation commences.

Key Challenges

- Many senior executives have an outdated view of ERP, equating it to a monolithic suite from a single vendor, which does not reflect the current market reality.
- Most ERP initiatives struggle to deliver the right combination of business value and agility.
- Too many ERP initiatives focus on vendor evaluation and selection before the strategic objectives have been agreed with the business.
- Postmodern ERP creates new technology selection, integration and analytics challenges as more of the ERP portfolio shifts to the cloud.

Recommendations

For CIOs and application leaders:

- Understand why postmodern ERP means ERP is not a "thing," nor is it linked to specific vendors.
- Perform a market scan to identify potential postmodern approaches to ERP, but define and agree ERP strategy before starting formal vendor evaluation.
- Define your current and target ERP architecture in terms of Gartner's "HOOF" model for postmodern ERP — (H)ybrid reality, (O)n-premises monolith, (O)utsourced everything, and (F)lip.
- Plan for IT to relinquish some control and adopt a more collaborative governance model in postmodern ERP.
Introduction

ERP remains a high priority for CIOs, ranking as their No. 4 priority in Gartner’s 2015 CIO survey (see "2015 CIO Survey and CEO Survey: As CEOs Commit to Digital, CIOs Must Flip Their Leadership to Deliver"). Yet 25 years after Gartner first defined the concept of "ERP," it remains a risky and complex undertaking and perceived failure rates are high. Based on our interactions with clients, we estimate that 20% to 25% of ERP projects are late and/or over budget, have failed to deliver any benefits or were abandoned completely. A further 50% to 60% are considered compromised by the organization in some way. The potential risk and complexity of ERP initiatives is increasing due to the challenges created by the emergence of postmodern ERP.

Postmodern ERP, originally defined by Gartner in 2013, continues to take hold in the market and be adopted by organizations of all sizes. Research conducted with Gartner clients in 2014 showed that only 38% of organizations were still pursuing a traditional monolithic ERP strategy; that percentage is expected to fall to 11% by 2019 (see "Survey Analysis: ERP Leaders Must Adopt Postmodern ERP Strategies or Risk Being Left Behind").

Gartner has defined the principles and approach to postmodern ERP (see “2015 Strategic Road Map for Postmodern ERP”) but we still find IT and application leaders faced with business leaders and users who have an outdated understanding of what ERP is. Too many IT leaders are still getting "dumped" with ERP projects by business leaders who hope that implementing a traditional monolithic ERP system will deliver much-needed business change. While this may work in some cases, it is a high-risk approach that is likely to run into difficulties because IT-led ERP projects always struggle to drive the business process change needed to ensure success.
Regardless of your organization’s approach to ERP, most ERP vendors have themselves adopted a postmodern ERP approach and no longer offer a monolithic megasuite, although their marketing messages do not make this clear. This means many organizations will be forced into the postmodern ERP era by their vendors.

This research documents best practices to help IT and application leaders communicate the key concepts of postmodern ERP, and how to get a postmodern ERP strategy on the path to success.

Analysis

Understand Why Postmodern ERP Means ERP Is Not a "Thing," Nor Is It Linked to Specific Vendors

Postmodern ERP is the biggest shift in the ERP market since the move to client/server systems in the early 1990s. In order to understand why this is, it’s important to understand where the concept of ERP came from, and how it has evolved. Gartner’s original definition of ERP in 1990 centered on resource planning and inventory accuracy, as well as visibility beyond the plant throughout a manufacturing enterprise. During the 1990s, the concept of ERP was extended beyond this manufacturing focus to include other business capabilities and came to represent the combination of financials, human resources, order management and manufacturing in a single system.

This is the origin of the monolithic integrated ERP suite that dominated the market (and most ERP initiatives) in the late 1990s/2000s. This is how ERP became a "thing" — the integrated suite was the single thing you implemented to "do" ERP.

However, these monolithic ERP suites became bloated, complex and expensive to maintain, losing business relevance and stifling agility. Integration was valued over fit-to-business requirements and usability. The emergence of cloud business applications disrupted the monolithic ERP suite concept, driving the emergence of postmodern ERP. Postmodern ERP is the deconstruction of suite-centric ERP into loosely coupled applications that are increasingly cloud-based, some of which can be domain suites or smaller footprint applications. These are integrated as needed, but prioritized by functional need and agility over architectural rigor, single-vendor strategies, single codebase, ease of IT management, or other IT-centric needs.

A Revised Definition of ERP

Gartner now defines this new approach to ERP as follows:

"Postmodern ERP is a technology strategy that automates and links administrative and operational business capabilities (such
as finance, HR, purchasing, manufacturing and distribution) with appropriate levels of integration that balance the benefits of vendor-delivered integration against business flexibility and agility."

This definition highlights that there are two categories of ERP strategy: administrative and operational.

**Administrative ERP Strategy.** This focuses on the administrative aspects of ERP, primarily financials, human capital management and indirect procurement. Some industries don't need operational capabilities such as manufacturing or distribution, so they focus their ERP strategy on administrative functions, perhaps augmented by some industry-specific functionality (such as grant management in the higher education and public sectors, or project resourcing, billing and costing in professional services). These industries are generally characterized as service-centric industries.

**Operational ERP Strategy.** Organizations in manufacturing, distribution, retail, etc. (sometimes referred to as product-centric industries) are likely to extend their ERP strategy beyond administrative functions into operational areas, such as order management, manufacturing and supply chain, to maximize operational efficiencies. Also, asset-intensive organizations, such as utilities and mining, may include operations and maintenance of assets in their ERP strategy. These organizations can realize benefits from the integration between administrative and operational capabilities, for example, where operational transactions that have a financial impact are reflected directly in the financial modules.

**Same Goal, Different Technology Delivery and Governance**

The goal of a postmodern ERP strategy remains the same as it originally did with ERP: improving the efficiency and effectiveness of administrative and operational functions. However, in the past, too many ERP initiatives were attempts to bludgeon organizations into changing by forcing a single suite across the entire enterprise. In some cases this worked, but in too many it created problems (see Note 1). While this approach made some business capabilities more efficient, in other areas they increased cost and complexity because they were not a good fit to requirements and did not meet the needs of casual users. Too frequently we hear IT leaders describe their current single suite-based approach to ERP in terms of, "The finance users are happy with the system but everyone else hates it."

In postmodern ERP, ERP is neither defined as a single integrated suite, nor is it a specific set of modules. It is no longer a "thing." Instead, each organization must define its own ERP strategy in terms of the administrative and operational capabilities it encompasses, which applications will be used to support these business capabilities, and how they will be integrated (which may range from tightly integrated to very loosely coupled). Postmodern ERP strategies focus on getting the right mix of solutions to support a range of business objectives rather than forcing a single system too far.
across the organization (see "Use SaaS Applications in a Postmodern ERP Strategy to Drive User Acceptance and Process Improvement").

Postmodern ERP is not a return to the old "best of breed" approach from the 1980s/1990s. Postmodern ERP retains a core ERP solution where integration adds value through business standardization and operating efficiencies. This core ERP, which may be on-premises or in the cloud, is augmented with specialist solutions most likely sourced as cloud services or via business process outsourcers (which add value through differentiation, innovation and user centricity). The governance model for postmodern ERP requires business and IT to jointly govern the strategy and apply balanced control and decision making to ensure an organization does not return to best-of-breed chaos (see "Postmodern ERP Is Fundamentally Different From a Best-of-Breed Approach").

Recommendations:

- Educate senior executives about postmodern ERP and help them understand that ERP is about more than choosing a single ERP system and forcing it through the organization. Use the data in "Survey Analysis: ERP Leaders Must Adopt Postmodern ERP Strategies or Risk Being Left Behind" to show that the majority of organizations have already moved away from a traditional monolithic ERP approach and that this trend will continue. This does not mean a monolithic approach won't be right for your organization, but the only way to find out is to define an ERP strategy first.

- Don't associate ERP with a specific group of vendors, especially in discussion with executives. Postmodern ERP is no longer dominated by megasuite vendors. Shift away from a vendor-centric mindset (see "CIOs Must Flip Their ERP Leadership to a Postmodern ERP Mindset").

- Analyze your own application landscape to see if you are already adopting a postmodern ERP approach by stealth. The emergence of "shadow IT" systems, very often in the cloud, that are acquired by business users as an alternative to IT-mandated ERP systems is evidence that a traditional approach to ERP isn't working.

Perform a Market Scan to Identify Potential Postmodern Approaches to ERP

The ERP Market Is Changing

Postmodern ERP has emerged because the ERP market is undergoing the most dramatic change since the early 1990s. Cloud has disrupted the static market of the 2000s with the dominance of specialist cloud solutions in several domains of ERP, notably human capital management (HCM) and procurement. In HCM, cloud is now the dominant delivery mechanism and the leading core HCM systems are all cloud-based (see "Seven Ways to Compare the Enterprise HCM Suite 'Big Three'"). HCM is an example of a cloud-based domain suite that in most cases is no longer tightly integrated with other ERP capabilities. Gartner sees the same trend occurring in procurement with the emergence of cloud-based procure-to-pay suites that are increasingly preferred to the purchasing modules of broader ERP suites (see "Magic Quadrant for Procure-to-Pay Suites for Indirect Procurement").
At the same time as the fragmentation of the megasuite, the market presence of cloud vendors such as FinancialForce.com, Kenandy, NetSuite, Plex Systems and Workday is growing, and new regional and line of business solutions are emerging from smaller vendors. Established ERP vendors are not standing still. Many are developing new ERP products and delivering their existing applications through the cloud. Some are adopting a postmodern approach themselves by acquiring cloud services that replace capabilities that were part of a tightly integrated monolithic megasuite and now offer a hybrid solution comprising a tightly integrated core suite with loosely coupled domain or line of business applications in the cloud.

This means technology choices are becoming more complex and it is more important than ever to avoid falling into the trap of assuming ERP equals a single vendor suite.

There Is No Single "ERP" Magic Quadrant

Although Gartner tracks overall ERP market size and vendor market share using broad segment definitions (see "Market Snapshot: ERP Software, Worldwide, 2015"), the emergence of postmodern ERP means we do not produce a "single" Magic Quadrant covering every aspect of ERP. This is because there is no logical way of comparing all the different vendors and solutions that could form part of a postmodern ERP strategy. Instead, ERP and application leaders should use the following research to understand the potential vendors and the range of solutions offered that could form part of a postmodern ERP strategy:

- "Market Guide for Core Financial Management Applications"
- "Market Guide for E-Procurement and Regional P2P Suites"
- "Market Guide for Human Capital Management Suite Applications"
- "Market Guide for PPM for Professional Services"
- "Magic Quadrant for Procure-to-Pay Suites for Indirect Procurement"
- "Magic Quadrant for Single-Instance ERP for Product-Centric Midmarket Companies"
- "Magic Quadrant for Talent Management Suites"
- "Technology Overview for Travel Expense Management Applications"

This research highlights the fact that different vendors have different strengths across different business capabilities, that specialist vendors dominate some business capabilities while they are not present in other areas, and that some vendors have different products in different capability areas (and in some cases multiple products in the same area). It is definitely an increasing trend that more organizations are sourcing HCM, talent management and indirect procurement capabilities from vendors that are different from the vendor of their financial and operational ERP capabilities. In some cases they are using multiple products from a single vendor's portfolio, but these are not a single, tightly integrated megasuite and instead are a mix of on-premises and cloud solutions.

Recommendations:
Conduct a "market scan" using the referenced Gartner research to understand the dynamics of the market and the wide range of technology solutions available both on-premises and in the cloud. Undertake research of specialist vendors, using their websites and Gartner analyst inquiry to understand if they would be credible for your organization as part of a postmodern ERP strategy. However, do not engage vendors directly at this stage.

Construct potential postmodern scenarios for your organization that highlight the different technology strategies you could pursue. Use this to illustrate some of the scenarios in the "HOOF" model (see later section in this research). For example, one scenario may be to retain existing on-premises HCM, financials, order management and indirect procurement in a single suite and upgrade to the latest version; whereas another scenario may be to reduce the footprint of the on-premises suite to just financials and order management, and move HCM and indirect procurement to specialist cloud vendors. A more aggressive scenario may be to replace the on-premises suite with loosely coupled cloud solutions for finance/order management, HCM and indirect procurement.

Define and Agree ERP Strategy Before Starting Formal Vendor Evaluation

Although you may have been able to educate your business users and senior executives about what ERP is (and is not), there is still a temptation to rush into a technology evaluation. Executives get excited about the potential benefits of ERP and encourage IT to rush straight to vendor selection. IT is often happy to adopt this approach because it may support an application rationalization initiative, perhaps by eliminating some legacy applications, simplifying the IT landscape and reducing hardware/infrastructure costs. Gartner has seen organizations save 15% to 40% of their ERP operation and support budgets as a result of ERP initiatives. However, Gartner has yet to see an ERP initiative justified on the basis of IT cost savings alone, which is why IT-led ERP projects often fail to deliver significant business value.

Consequently, CIOs and application leaders must work with business users and senior executives to define and agree an ERP strategy before getting too deep into technology evaluation. This is one of the key foundations for ERP success: 83% of the organizations that exceeded the business payback identified in their original business case had an ERP strategy that was approved by the business (see "Working Smarter, Not Harder, Is the Key to Business Success With ERP").

The key steps involved in defining a postmodern ERP strategy are described in "How to Develop a Postmodern ERP Strategy" and its associated toolkit, "Toolkit: Postmodern ERP Strategy Template." Although IT can carry out much of the work in defining the strategy, it is crucial to involve senior executives in a business discussion about the goals and objectives of any ERP initiative and what business capabilities will be included in the ERP strategy. Both these activities are described in the "Business Need Stage" section of "How to Develop a Postmodern ERP Strategy."

Starting these discussions as soon as the ERP initiative has been given the go-ahead will help key business stakeholders identify the fundamental business issues that need to be addressed (such as process standardization), instead of obsessing over building vast amounts of detailed requirements and rushing into vendor demos. Ensure you do not let the "market scan" recommended in the previous section escalate into a formal vendor evaluation until you have agreed and documented
the ERP strategy. Vendors are adept at sucking users into a technology-focused decision, and once this happens, it is hard to make them step back to take a more strategic view.

Recommendations:

- Engage senior executives and business leaders in a discussion about the goals of the ERP initiative and how these support business objectives.
- Start a benefits discussion about the three types of benefits — tangible, intangible and strategic — (see Note 2 for examples) that an ERP initiative could deliver as described in the "Identify ERP Benefits Realization and Monitoring" section of "How to Develop a Postmodern ERP Strategy."
- Undertake a business capability modeling exercise to start a business discussion about the scope of the ERP strategy (see "Toolkit: Business Capability Modeling Workshop").
- Start a pace-layering discussion to identify how business capabilities are categorized as systems of record, differentiation and innovation (see "Best Practices for Applying Pace-Layered Application Strategy to Postmodern ERP"). This will help identify the need for a postmodern ERP strategy because the limitations of a traditional monolithic single suite approach are most frequently exposed in areas of differentiation and innovation.

Define Your Current and Target ERP Architecture in Terms of Gartner’s HOOF Model

Traditional ERP strategies tended to be very static. They focused on a big "project" (like the rollout of a vendor suite) and then assumed nothing much would change for the 10- to 15-year period over which this project was typically amortized. That principle no longer holds in postmodern ERP, which is a more dynamic and evolving environment.

Gartner has identified four postmodern ERP scenarios (the "HOOF" model):

- **Hybrid reality:** Many components of functionality will be delivered as cloud services, whereas others will be maintained on-premises.
- **On-premises monolith:** Megasuite-focused, implemented on-premises, with a desire to reduce the number of instances and a quest for a "single version of the truth" for all business processes. The ERP strategy is equated with a single dominant ERP vendor.
- **Outsourced everything:** Adoption of business process outsourcing (BPO) for ERP processes. This is driven by newer process-enhancing technologies and services (PETS) and cloud-based business processes (business process as a service [BPaaS]).
- **Flip model:** All ERP capabilities have "flipped" to the cloud and are delivered as cloud services, often as smaller-footprint-domain or specialized suites.

None of these scenarios "is" postmodern ERP; they all are. They all exist today and any one of these scenarios may be viable for an organization. It all depends on the business objectives of the ERP initiative. However, our research shows that for most organizations, postmodern ERP is a journey. Many are focusing on retaining a "core" of ERP capabilities on-premises and are shifting other capabilities to the cloud. Over time, they will flip the entire portfolio to the cloud but this
depends on the availability and maturity of cloud solutions for their core ERP capabilities. Some organizations are flipping the entire ERP portfolio more aggressively to the cloud. This is definitely the minority of organizations, which tend to be small or midsize (especially startups or fast-growing organizations), that are service-centric.

It’s also possible to have multiple HOOF scenarios deployed in a single organization, provided this is in line with strategic objectives. For example, one part of the business may have an on-premises monolith deployment focused on manufacturing operations, whereas sales and marketing operations may deploy a more hybrid environment (with the on-premises core ERP focused just on financials) or even flip completely to the cloud as part of a two-tier ERP strategy (see "How to Redefine Two-Tier ERP for the Postmodern Era").

Recommendations:

■ Define which of the HOOF scenarios best matches the organization’s business objectives now, and also how this will change in the next five to 10 years. For example, some organizations will decide that the on-premises monolith is appropriate, because they are likely to have an investment in a core of ERP on-premises functionality, where the engineered integration is needed to support transaction processing efficiencies and process standardization (see "Postmodern ERP: When Staying With On-Premises ERP Is the Right Choice"). Such organizations will seek to deliver economies of scale by expanding the use of the core ERP and will limit the number of specialist applications, only using these when there is demonstrable business value in not using ERP functionality. However, they may also identify that certain business capabilities (for example, talent management) may move to the cloud ahead of other business capabilities.

■ Monitor market adoption and maturity of technologies that underpin the HOOF model scenarios. For example, few large organizations could consider flipping their entire ERP portfolio to the cloud at the current time due to the immaturity of cloud offerings for large enterprises in financial management and operational ERP capabilities. However, this is starting to change (see "Survey Analysis: Core Financial Management Applications Deliver Benefits Both On-Premises and in the Cloud") so it’s important to monitor market adoption to assess when the technologies are mature enough for your corporate risk profile. The outsourcing services that enable the “outsourced everything” scenario are the least mature at the current time.

■ Identify if more aggressive adoption of the “flip model” or "outsourced everything" could deliver strategic benefits. For example, Gartner has spoken with some organizations in the public sector that are aggressively flipping their administrative ERP strategy to the cloud because they are under extreme pressure to reduce costs and see this as a way of achieving cost savings despite the potential risk of being early adopters. One public sector organization that did this justified the move on 20% to 30% cost savings that it expects to realize on the annual support costs for its administrative ERP.

Plan for the Changing Role of IT in Postmodern ERP

In the traditional world of monolithic ERP, IT knew what its role was. Skills and competencies were typically focused on a large on-premises deployment of a single vendor suite. Integration and
analytics were frequently based on tools and technology from the suite vendor. IT focused on controlling users to ensure they adopted the chosen suite and making sure all support and enhancement requests were channeled through them. We would often hear IT leaders describe their ERP strategy as, "We’re a <insert vendor of choice> shop." Much of IT’s focus was on the tools and technologies that formed part of the suite’s technology platform.

Postmodern ERP will force the role of IT to change in three ways:

1. **From centralized command and control to looser control and shared governance.** A postmodern ERP strategy involves IT giving up some control without losing it completely. Balanced control is imperative for success. This means business users must take more responsibility too, especially for the SaaS solutions they implement (see "Hybrid ERP Changes the Importance and Focus of Critical ERP Skills"). Jointly, IT and business stakeholders must execute and govern a strategically planned approach underpinned by great principles.

2. **Understand and embrace new integration challenges and technologies.** In the traditional world of monolithic ERP, the native integration of a single suite was valued above fit-to-business requirements and flexibility. Postmodern ERP challenges that assumption and strikes a balance between tight integration and "just enough" integration as appropriate so that organizations can choose the right portfolio of applications to support their business capabilities. IT will therefore need to provide integration services to support for a more complex portfolio of on-premises applications and cloud solutions using different tools and technologies (see "Adopt a Strategic Approach to Application Integration for Postmodern ERP and Business Applications").

3. **Managing process and data integrity across a portfolio of applications.** Much of the appeal of a monolithic ERP suite was in enforcing end-to-end process integrity and data consistency ("one version of the truth"). Postmodern ERP means IT will have to work with business users to define how processes will be managed where they span multiple applications, and also how analytics will be performed across a variety of data sources.

**Recommendations:**

- Ensure your governance model includes key business users and leaders from domains that will be using and managing specialist cloud services (see "How to Implement Effective ERP Project Governance").

- Shift your ERP support and competency center models to manage a more diverse range of vendors and applications, both cloud and on-premises (see "Postmodern ERP Operations Management Best Practices" and "Change Your ERP and Business Applications Support Strategies as You Move to the Cloud").

- Business analytic strategies based on an enterprise data warehouse can be harder to deploy in postmodern ERP due to the challenges of accessing data from cloud services that increasingly store data in a different way than traditionally architected on-premises relational applications. Ensure you employ the principles of the logical data warehouse as you move to postmodern ERP (see "Avoid a Big Data Warehouse Mistake by Evolving to the Logical Data Warehouse Now").
Note 1 Challenged ERP Projects

The following examples indicate the range and magnitude of risks that can be associated with an ERP initiative that does not work out as intended:

- An organization spent $40 million attempting to implement an administrative ERP system (covering financials, HR and procurement) across its European operations. The project stalled due to change management issues and was abandoned. The organization subsequently implemented a solution focused only on financials and procurement for $5 million, keeping local solutions for HR.

- An organization sued its ERP provider for $100 million for project expenses, as well as the savings and benefits that the project was supposed to deliver. The organization claimed the vendor stated the solution would meet its needs without any customization or enhancements, but found this not to be the case.

- A pharmaceutical company claimed a failed ERP implementation caused its bankruptcy and sued its ERP provider and system integrator for a total of $1 billion. The case was settled out of court.

In each of these cases, it’s hard to lay the blame entirely on the ERP vendor or the implementer. Gartner has found that challenged ERP projects are usually a combination of issues on both sides of the relationship. The first example appears to be a classic case of an organization choosing a system and hoping it will force change across the business, while the organization in the second example could have used a pace-layered application strategy to identify areas of differentiation and innovation that would not be well suited to standard out-of-the-box functionality.
Note 2 Examples of Potential ERP Benefits

**Tangible:** These benefits can be directly measured and quantified in monetary terms. The main categories of tangible benefits include the following:

- IT cost savings, for example, hardware and technical infrastructure savings through application and technology consolidation; reduced support and training costs; and retirement of legacy systems.

- Increased revenue through improved order processing and higher fill rates; procurement and accounts payable savings by reducing contract leakage and making better use of discount terms; and freeing up working capital through better inventory management and reductions in days sales outstanding (DSO) through more effective accounts receivable.

- Productivity improvements and head count reductions. Process improvements usually reduce manual intervention and increase productivity, which generates cost savings. Centralizing and standardizing processes can deliver economies of scale, especially in administrative functions such as finance and HR.

**Intangible:** These are desirable but can be harder to quantify. Examples include reduced time to close the financial books (which can be easily measured but be hard to quantify in terms of tangible monetary benefits); better information visibility, because more transaction data is contained in a single system; and improved collaboration, among employees, across functions, and with customers, suppliers and business partners.

**Strategic:** These are where an ERP initiative enables delivery of key elements of the business strategy. Although still hard to quantify in absolute terms, these are the most impactful in terms of business value.

Examples include:

- **Enabling business transformation through standardization.** Many CEOs are pursuing a "one-company" strategy to standardize business processes on a global basis as part of a major business transformation initiative. Typically, they are moving away from a regional or local focus to an approach focused globally on product lines or customer segments. ERP technologies can be an important foundation for such a transformation effort; in fact, the transformation would be virtually impossible without it because they can provide support for standardized global processes.

- **Providing a foundation for future acquisitions.** Many large organizations have implemented an ERP backbone for the rapid assimilation of future acquisitions. Such organizations have been able to achieve economies of scale more rapidly when acquiring new companies by leveraging their standard ERP platforms and processes.

**More on This Topic**

This is part of an in-depth collection of research. See the collection:
■ ERP Leaders Must Adapt Their Selection Methods and Processes When Executing a Postmodern ERP Strategy