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Welcome to the postmodern era for public sector ERP

Time to update your public sector enterprise resource planning (ERP)? Consider a postmodern strategy to address your unique requirements.

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The postmodern approach to ERP gives public sector and information technology (IT) leaders a pragmatic way to deliver efficiencies and business insights to stakeholders. By enabling a more flexible and agile approach to transforming your ERP environment, it can help you realize benefits faster and lower costs and risks. Postmodern ERP bridges the gap between the original promise of ERP and the realities of deploying it in the public sector.

Postmodern ERP defined

ERP's long-held promise of economies and efficiencies built on software vendor-provided application integration remains elusive for many government entities. More often than not, governments end up with a myriad of vendor applications cobbled together using custom point interfaces to support ERP functions. Postmodern ERP is an enterprise applications approach that takes into account the reality of ERP adoption history and trends. It allows for a more federated and loosely coupled ERP application layer by moving the promised benefits of traditional ERP integration beyond the core to the foundation layer where applications are integrated. Postmodern ERP improves both the interoperability layer that underpins the broader set of applications and the core ERP application business processes. This approach allows for efficiencies and improved business processes in a more federated application model which is common in public sector. In a federated environment multi-vendor applications can be quickly integrated, with loosely coupled integration, based on capabilities that better address business objectives.

Public sector ERP has reached a critical turning point. As ERP solutions are showing their age, many public sector leaders,

employees, and constituents are asking for improved customer experiences, increased efficiency, and greater transparency. IT leaders are often under pressure to shift attention and dollars to new and emerging technologies—including real-time and predictive analytics, mobility, digital, and cloud—that promise to transform the way government fulfills its mission.

The good news? These technologies have also helped change the public sector ERP landscape for the better. Cloud-based solutions have lowered total cost of ownership, reduced implementation times, and made it easier to incorporate best-of-breed solutions with critical functionality in core ERP. With these new technologies and a new approach, the public sector can address today's ERP challenges, transform the way it fulfills its mission, and build a flexible IT infrastructure for the future.

Federated ERP reality

There is also the growing challenge of agency business leaders acquiring cloud-based applications to support their business requirements without the direct involvement of the central IT organization. Known as "rogue IT," many of these applications extend core ERP capabilities. This is happening more regularly because of the market reality that no single ERP vendor has the breadth of public sector functionality to support all application needs in one ERP suite, especially beyond the core ERP functional areas. Therefore, a federated ERP is the practical reality for most public sector organizations. It is simply unavoidable. Given the reality that public sector organizations can't realistically avoid a federated ERP, a postmodern ERP strategy is becoming

While core ERP integration is still important, this new approach goes further by standardizing tools and processes that extend beyond individual applications.

This can allow for improvement in:

- Integration between ERP and other applications, whether on premises or cloud (loosely coupled integration using an enterprise service bus approach)
- Business intelligence (BI) and analytics
- Security
- Master data management
- Data governance
- Ancillary functions deployment
- Cloud governance
- Robotics Process Automation (RPA)



essential for most organizations. This strategy can loosen control, allowing business leaders to address critical business requirements not adequately supported by the core ERP vendor application, without losing control.

Functionality trade-offs

The public sector has unique challenges when it comes to implementing ERP solutions. In the wake of budget restrictions and increased service-level demands, there is a growing requirement to support more efficient government in the form of process improvement and IT optimization. In addition, with the increased challenge of retiring talent, government organizations will need to look for alternate ways to support aging systems and outdated processes. These systems and processes limit their staff's ability to view key performance indicators (KPIs), provide adequate reports to support decision making, and ultimately improve services to citizens.

These challenges are not easily rectified by a traditional ERP replacement. One of the greatest concerns—and the hardest to tackle—is the need for the highly specialized functionality and controls required within many public sector agencies. This has historically forced trade-offs between business functionality and IT needs, leading to the mix of monolithic systems and industry-specific point solutions most public sector organizations must manage today.

Letting go of the past

Postmodern ERP provides a pragmatic alternative to the either-or approach. It deconstructs the traditional, monolithic ERP suite, especially beyond core ERP. It allows for an environment with a mix of vendors and functionality, on premise or in the cloud. And, thanks to technology innovations like in-memory computing and loosely coupled (enterprise service bus) integration, public sector organizations can now put industry-specific functionality, ease of use, and agility ahead of architectural coherence and full, monolithic vendor integration.

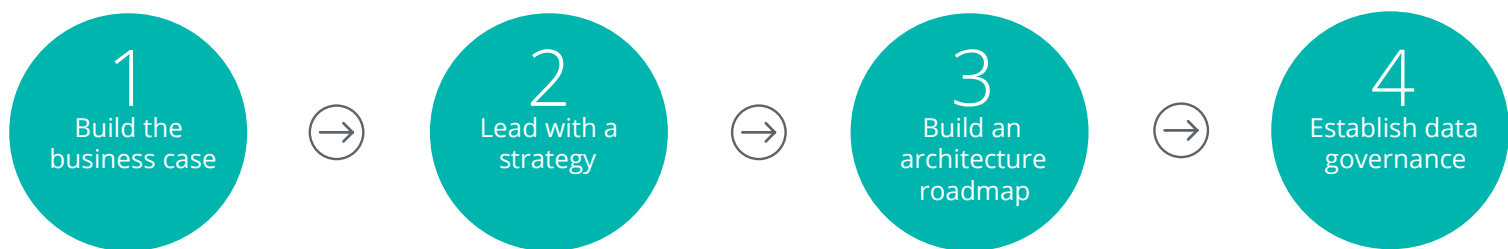
This approach can provide greater agility and improve end-to-end processes across applications, eliminating traditional stovepipes. Plus, it moves organizations toward the long sought after “single version of the truth,” an elusive goal given the complex infrastructure of point-to-point interfaces and nonintegrated shadow systems typical of public sector ERPs.

Postmodern ERP can help public sector organizations achieve promised economies of ERP integration without giving up critical business functionality. It can deliver real-time decision support analytics and reporting capabilities. And it's flexible enough to adapt very quickly to loosely coupled integration while still meeting core business needs, including the most specific vertical requirements.

When considering your postmodern path, recognize your organization is unique. No two public sector organizations have the same mix of services, funding sources, statutory requirements, etc. These differences drive unique ERP application requirements which a postmodern approach can help address. Thus, your best fit mix of ERP and related applications will be a custom fit. Further, you'll likely have a mix of third-party enterprise applications such as permitting systems, tax and revenue management systems, and other agency-specific applications that will continue to integrate with ERP.

Set yourself up for success

A postmodern approach offers many advantages for public sector organizations, but it is not a silver bullet. Business and IT leaders should pay attention to several key areas to realize its full potential.



Build the business case

A solid business case always has been, and always will be, critical to ERP success. The business case should identify incremental steps, including quick wins, to help build momentum for the transformation effort. This can be more challenging for public sector organizations, where traditional ROI measures like cost savings and efficiencies (which are often code for cutting jobs) aren't always politically palatable. Focus instead on process and compliance improvements to better serve constituents. Avoid the traditional ERP trap of simply automating old processes—think about the optimal way to work, then identify technologies to support it.

For example, consider laying the groundwork for a future where everything is a service (XaaS), one of the technology advances highlighted in the Deloitte Tech Trends 2017 report. With XaaS, business capabilities, products, and processes are broken out of their silos and leveraged across organizational boundaries. For example, a customer service module supporting external customers within the ERP system could also be used by IT to manage help desk queries. (Source: Deloitte Tech Trends 2017, “Everything as a service”)

With XaaS or a similar business objective in mind, what is primarily a technical investment can drive greater business value by increasing efficiencies and delivering better experiences for constituents and employees.

Lead with a strategy

A well-defined strategy and architecture roadmap that assesses the current application landscape and the strategic view of the future state is key to the success of this new ERP approach. Early in the process, make strategic decisions about how you will address customization, cloud adoption, implementation processes, and other key capabilities. Your strategy should describe the current ERP application landscape in detail, flag all related application and integration points, and highlight current business and integration challenges and dependencies. You should also prioritize business process improvements and define a five-plus-year migration roadmap for the strategy.

Build an architecture roadmap that aligns with the strategy for the full transformation effort

Identify your unique industry or sector requirements and determine which core ERP system might be the best fit. Assess and identify specialized point applications that can support them.

The roadmap should also prioritize incremental initiatives and define the cloud migration approach, procurement steps and scope, and implementation project timelines and resource requirements, as well as the longer-term plan. Focus on quick wins first and build momentum for the transformation.



As part of your strategy and roadmap development, do an initial evaluation and procurement of vendor solutions to define a vendor ecosystem that supports your unique requirements. Establish the core ERP and supporting interoperability foundation and integrate critical third-party applications. Given the constant evolution of applications and regular innovations, it is often best to plan for evaluating applications incrementally in accordance with the roadmap. It is also important to avoid the traditional trappings of public sector procurement. Technology evaluation criteria, contracting terms, and other factors favor older technologies and drive vendors toward unnecessary software customization—essentially precluding agencies from using modern, agile implementation methods.

Establish standard enterprise data governance

Before implementing any technology, develop a roadmap for the data you will be capturing. What insights will you need to deliver on your mission? Improve performance? Be more responsive to constituents? At Deloitte, we talk with our clients about the “insight-driven organization,” one that embeds analysis, data, and reasoning into the decision-making process every day. This starts with clearly defining data ownership, governance, standards, and approaches for data interoperability. It culminates with becoming an insight-driven organization, one where you define a future-state vision for data assets and analytics that can help your organization make more informed decisions based on data insights.

“Speak the same language” across the organization by establishing policies, procedures, and controls that standardize enterprise data from all relevant business areas. Include the right tools and infrastructure needed to access timely, flexible, and high-integrity data. Finally, organize data into a meaningful format to drive excellence in operations and improve decision making.

Loosen control of application layer without losing control

A postmodern approach to ERP will likely require IT leaders to manage multiple application vendor relationships. They’ll need to recognize that business owners will find ways to adopt third-party applications that must be integrated into core ERP, especially with the emergence of cloud applications purpose built for the public sector. However, you will likely still end up with fewer total application vendors than typically found in the public sector today. Regardless of the number of application vendors involved, this approach isn’t a return to best of breed. It advocates for leveraging vendor-delivered integration in the core ERP and beyond, where critical functionality is required, while providing more flexibility to plug in point solutions to fill functional gaps in lieu of customizing. It also focuses on creating standards and governance for integrating third-party applications.

Manage cyber risk

Not surprisingly, managing cyber risk is top of mind for most states. Forty-five percent of leaders surveyed in the 2016 Deloitte-NASCIO Cybersecurity Study say that cybersecurity is on the agenda for their executive leadership meetings every month—up from only 30 percent last year. (Source: 2016 Deloitte-NASCIO Cybersecurity Study)

Does a new approach to ERP based on cloud technology and third-party vendors raise the cyber risk for the public sector? Not necessarily. The risks already exist with on-premises systems. And since states aren't as well equipped as leading cloud vendors to stay on top of emerging cyber threats, moving to the cloud could actually improve security. Funding constraints and the challenge of recruiting cybersecurity talent to the public sector make it very difficult for states to keep up with the private sector in this area. (Source: 2016 Deloitte-NASCIO Cybersecurity Study)

When evaluating cloud-based options, consider starting from a risk-centered perspective. Which government operations are most vulnerable to cyber risk? How do legacy ERP systems support these functions today and where are the security gaps? How can new features in cloud-based ERP solutions provide security functionality beyond what you have today?

Like many tech innovations, cloud ERP solutions emerged in a cyber-aware era. Unlike predecessor ERPs, newer ERP solutions have cybersecurity integrated from the ground up into a core set of product features like advanced user access control features, which can reduce risk and streamline compliance with data privacy regulations. Built-in analytics capabilities may make it much easier to feed intelligence into security monitoring solutions that can help detect fraud or other forms of abuse.

Establish program governance

Establish an ERP program management organization (PMO) chartered with establishing governance. The PMO should provide standardized processes and tools for project management, software evaluation and procurement, change management, data governance, cloud governance, and other critical ERP success factors. This step is critical to postmodern ERP success. Organizational discipline and strong communications are required to steward the paradigm shift and manage the balance between agency business drivers and the economies and efficiencies of standardization. The PMO should embrace this charter and drive the organizational transformation.

With the right strategy and roadmap aligned to your unique requirements, postmodern ERP can be a more flexible and agile approach to transforming your ERP environment. It is important that business and IT collaborate to address critical success elements.



Let's talk

A postmodern ERP approach can help you update your ERP systems while bridging the gap between the promise and reality of ERP in the public sector. Contact a Deloitte specialist below to discuss getting started on your ERP journey:

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