

# Stop the COTS madness

How DoD can accelerate  
its digital transformation



A PEGA  
WHITEPAPER



Build  
for  
Change<sup>®</sup>

## Executive Summary

As the U.S. Department of Defense (DoD) works to modernize its mission and business systems, there is a need for speed to demonstrate efficiencies and take advantage of budget stability. Guidance from the Secretary of Defense – “pursue urgent change at a significant scale” – does not mean the department must accept more risk to be successful. Decades of modernization efforts have failed to realize intended results while exceeding cost and time estimates, and leaders are right to be cautious and pessimistic. The DoD needs a leading digital process automation solution to enable rapid change and mitigate risks, while producing tangible results.

### The Challenge

The DoD spends billions of dollars each year to acquire and maintain systems that operate functions such as personnel, financial management, health care and facilities management. Leaders often question the need for expensive business systems when the services need to modernize equipment and weapons to support the core mission of protecting the country. Business systems are vital to enable the warfighter to succeed: if training is not tracked properly or pay is not calculated correctly, they are not fully able to focus on their core mission.

While the mission of the DoD is unique, their approach to technology acquisition has mirrored the approach of many commercial entities, taking one of two paths:

#### Custom “build-to-spec” applications

This outdated waterfall software development process is time-consuming, inflexible, and costly. Once custom applications are delivered, the functionality is often obsolete or doesn’t meet new or changing requirements, often with minimal and outdated documentation.

## Commercial off-the-shelf (COTS) applications

Although there is a myth that COTS software is configurable, in reality, this approach fails to address the needs of the DoD out-of-the-box. The software is inflexible and inadequate to address unique situations, forcing DoD buyers to customize. The result is delivery delays, high O&M costs, and limited auditability of customizations and operational controls.

These two approaches have led to silos of data residing in disparate systems across the enterprise. Systems fielded at different times over decades, often to address very specific needs, were never intended to share data or work together – so they don't. This leaves decision makers without a complete or up-to-date view of the enterprise they oversee, impairing their ability to rapidly respond to mission-critical needs or even simple information requests.

In addition, modifying COTS software simply makes it custom-built software, negating the perceived value of “off-the-shelf” and leaving decision makers with the question: “How can COTS be made to meet the unique requirements of DoD without the pain?”

## The Solution

Leaders within the DoD are under pressure to think differently to support the mission, and to act swiftly. They need a new, innovative approach to modernization – one that significantly reduces delivery time, costs, and risk while enabling automation of business processes. Pega offers the DoD a uniquely superior solution for transforming legacy systems. The Pega Government Platform™ is the leading agile, secure,

unified platform that empowers agencies to transform and innovate swiftly without having to rip-and-replace existing systems, enabling the DoD to preserve valuable data while focusing automation on outcomes.

Specifically, Pega provides:

### Wrap and renew legacy systems

Pega wraps around legacy and ERP applications, extending the use of existing investments and making them more usable without adding costly customization. Our software can easily integrate multiple disparate systems, without the need to migrate or replicate using numerous out of the box services and connectors. This provides leaders enhanced visibility into their enterprise operations and enables better, faster decision making. The DoD can retire solutions or pieces of functionality, at a pace users can absorb, without disruption to the mission.

### Low code

With Pega, applications are configured collaboratively by both IT and process users through visually-driven design. The Pega Government Platform™ handles the background work of translating visual process requirements into code, in real time, while automatically generating documentation on the back end. When changes are made to the process model, the code and documentation are automatically updated. This approach allows users to see how their requirements are being incorporated as they define them, significantly reducing the risk of translation error and increasing the speed of implementation.

## Robotic automation and artificial intelligence

Pega’s intelligent robotic automation is fully integrated as part of Pega’s platform and allows enterprises to move beyond task automation to optimize how work gets done. Robotic desktop automation (RDA) and Robotic process automation (RPA) help enterprises integrate technologies and turn existing data and information into insights. In addition, the Pega Government Platform™ leverages AI to drive “next best action.” Deployed via the Pega Customer Decision Hub™, Pega’s AI capabilities provide a transparent view into how all your models operate, from traditional predictive models to advanced machine learning and natural language processing.

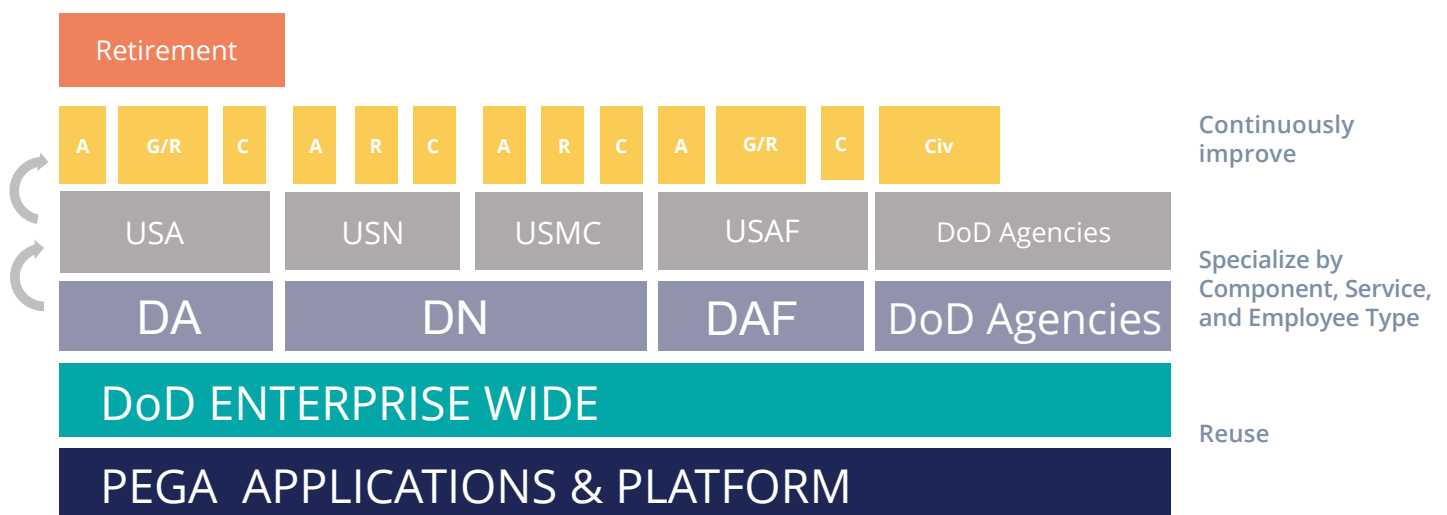
## Reuse and specialization

The Pega Government Platform™ uses a layered architecture that can capture the complexity of the DoD while allowing the reuse of common modules across mission areas, allowing specialization where needed. Only Pega provides this patented, reusable architecture called the Situational Layer Cake™

(SLC). The SLC drastically increases reuse and standardization, and application development is accelerated exponentially when compared with traditional methods. If enterprise wide changes are needed, the modification is made in one place (enterprise layer as shown in the example below) and all the layers above inherit this change automatically. The bottom-most layer contains model instances (case, process, data, integration, UI) that are shared and common across all variations of an application. Going up the stack, the SLC allows specialization according to any number of dimensions. So, if the Department has to change how benefits are calculated for Guard and Reserve service components, due to a policy change, that does not affect Active Duty or Civilian employees, the calculation can be entered in to the payroll system and applied to only those affected while not requiring additional programming to separate payroll data for those not affected.

## Transparency and auditability

Many of the legacy systems in DoD do not have well documented business rules, so process changes often result in unanticipated



system errors, negatively impacting delivery time and increasing cost. The Pega Government Platform™ incorporates all the power of rules, processes, decisions, predictive analytics, and case management into every process step, bringing intelligence to each interaction and providing complete documentation for audit, reporting, and knowledge-based needs. It can maximize visibility, transparency, and control of the entire enterprise operation for all of DoD, at a time when the department is expected to improve the management of internal controls and provide better accountability to Congress and the Administration.

## Scalability

Pega's patented, layered, object architecture is central to Pega's scalability, making it possible for a single Pega app to handle many variations within a large enterprise and deploy different versions of an application. Pega customers get the speed-to-market and consistency that comes with massive software reuse, while ensuring they can meet the needs of the diverse set of agencies and roles in DoD. This unique differentiator underpins Pega's strategic application capabilities and allows organizations to easily roll out sophisticated process automation across entire organizations.

## The Value

Pega challenges the status quo, smashing through data and system silos and streamlining organizational complexity. Rather than continue with the COTS

madness, Pega can empower DoD with rapid deployment of highly automated applications in a fraction of the time and at a fraction of the cost of traditional COTS. A Forrester Consulting Total Economic Impact™ (TEI) study<sup>1</sup> examined the potential return on investment (ROI) organizations may realize by deploying the Pega Platform™. Findings include:

### Development cost savings of 75%

With the adoption of the Pega Platform™ all the interviewed organizations transitioned from traditional programming languages with older development techniques to a model-driven approach with agile methodologies.

Further, organizations achieved savings due to improved reusability, better collaboration and ease of integration.

### Reduced time-to-market by 50%

The analysis found that organizations were able to launch new business applications up to 90 days faster than originally anticipated.

### End-user productivity gains of up to 75%

Interviewees reported their end users had typically achieved between 20 and 50 percent productivity gains as compared with their previous manual processes, and in some cases achieved up to 75 percent more productivity. Per application, an average of 200 end users became 50 percent more productive.

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<sup>1</sup> <https://www.pegacom/forrester-tei>

## Conclusion

Pega brings together dynamic case management, robotic automation, business process management, no-code development, and decision management in a unique, unified, model-driven platform. This enables delivery of a complete end-to-end solution focused on realizing outcomes and future-proofing business systems – an end to the COTS madness. The Pega Government Platform™ can help DoD leaders achieve visibility into the business of their agencies, enabling better decisions and increasing transparency, as demanded by Congress and the Administration. With Pega, pursuing urgent change at a significant scale can begin now.



## ABOUT PEGASYSTEMS

We are Pegasystems, the leader in software for customer engagement and operational excellence. Our adaptive, cloud-architected software – built on the unified Pega® Platform – empowers people to rapidly deploy, and easily extend and change applications to meet strategic business needs. Over our 30-year history, we've delivered award-winning capabilities in CRM and BPM, powered by advanced artificial intelligence and robotic automation, to help the world's leading brands achieve breakthrough results.

For more information, please visit us at [WWW.PEGA.COM](http://WWW.PEGA.COM)