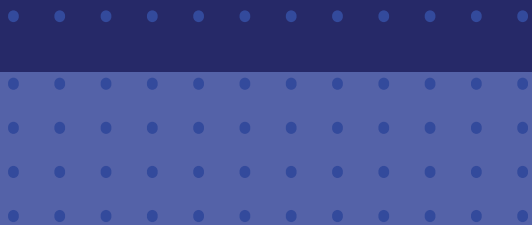
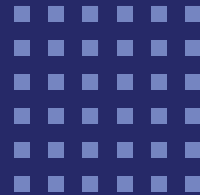


# Governments Building For Change

Achievements and Best Practices



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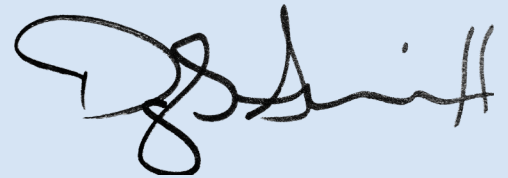
# Executive Foreword

## Welcome to the twelfth edition of **Governments Building for Change**,

a collection of government client case studies showcasing the power of workflow automation and AI powered decisioning in overcoming challenges and unlocking new opportunities. As we navigate the complex and ever-evolving landscape of public administration, the transformation that leaders have highlighted here show the potential of technology to drive positive change and deliver efficient, citizen-centric services.

Governments worldwide are confronted with an array of pressing challenges demanding innovative and effective solutions. From ensuring public safety and security to promoting sustainable development, from managing healthcare crises to fostering economic growth, the scope of responsibilities entrusted to governments is vast and varied. In the face of such challenges, the need to drive real and immediate outcomes has never been more important.

The case studies featured here encompass diverse domains and highlight the creativity, resilience, and adaptability demonstrated by governments in their pursuit of digital transformation. We hope you are inspired by the accomplishments of these courageous and innovative government leaders as their experiences serve as blueprints for others, illustrating how technology can be harnessed as a force for good and a catalyst for progress.



**DOUGLAS AVERILL**

Global Government Industry  
Markets Leader  
Pegasystems





# Government Achievements and Best Practices





# Civilian Government









# Australian Community Support Organisation

## OVERVIEW

The Australian Community Support Organisation (ACSO) is a not-for-profit organization operating across Victoria, New South Wales and Queensland, Australia. ACSO provides a wide range of programs and services for people transitioning from prison back into their community, as well as those who are in or at risk of entering the criminal justice system.

The organization's goal is to reduce crime, prevent recidivism, and improve public safety by managing a full range of services – including mental health and residential services programs, drug and alcohol assessment, and treatment services – to help its clients achieve independence. Many of ACSO's clients are referred to ACSO through agencies operating within the criminal justice system, such as police, courts, and prisons, or through government departments and health providers, or other agencies.

Managing each client's case requires a complex chain of business processes. ACSO chose Pega to create more effective and efficient administrative and client case management, with greater flexibility to adapt as its case management or client requirements change. The ultimate goal: to afford ACSO caseworkers and staff more meaningful time with clients to improve client outcomes.

**Implementing the Pega Platform and Customer Service strategic app has transformed client case management at ACSO. The power and flexibility of the Platform has enabled us to enhance our client case management, streamline and improve our business processes, create efficiencies, and provide deep insights from our data and reporting which ultimately has resulted in improved client outcomes. We've been delighted with the Platform and the strong partnership we've created with Pega which has allowed us to maximise our ROI and design a flexible, scalable and fit-for-purpose case management system."**

- ANONYMOUS, TLC PARTICIPANT

## Improving lives through business process transformation

Before ACSO began migrating its existing systems to the Pega Platform™, its case management processes – referrals, intake, assessments, and treatment programs for each client – were cumbersome and inefficient. Case workers and administrative staff had to pull data from disparate sources, both internal and external, sometimes cutting and pasting from emails and spreadsheets or even retyping from faxes and paper forms. Generating reports for case management and funding bodies was time-consuming and complicated.

Now, caseworkers can easily generate highly customized reports and case note compilations. They also have the option of a real-time dashboard view, where they can view all interactions they've had with a given client at any point in time, in addition to delivering caseloads across and within each portfolio of programs. By making all relevant information readily available to anyone providing client care, ACSO has directly enhanced the client experience and ensured that responses and interventions are tailored to each client's individual needs and experiences.

Recently, ACSO implemented a tailored case management system solution for residential services, ensuring all client and house-related tasks are raised for completion at required intervals and documented clearly. The House 360 integrated feature allows for recurrent and ad-hoc scheduling, reporting, and tracking of all key house-related tasks and functions. This includes vacancy management, emergency planning, and relocation, as well as access to all key documents required by staff in the maintenance of the residential service (physical building). At the end of every shift, staff members sign off on all required tasks and confirm hand over to the incoming residential staff member. This allows ACSO to carefully monitor the completion of necessary functions, ensuring optimum client care, staff and client safety, and the smooth upkeep of the residential facility.





## A more flexible, collaborative, and outcome-focused development process

Using the Direct Capture of Objectives (DCO) capability within Pega, ACSO operations and IT staff can rapidly collaborate to design, iterate, and deploy changes or stand-up new programs (case types) – ensuring the end results meets the customer needs. Before Pega, designing applications required ongoing back and forth between operations and IT, whereas now IT can bring operations staff into the room and demonstrate the lifecycle of their programs. Operations can immediately see and understand how the program will work and provide their feedback in real time. When program requirements change or new functionality is needed down the road, IT can easily make the necessary changes in collaboration with operations..

### KEY FACTS

- Report time reduced from three or four days, down to hours
- 20,000 clients served per year
- 10+ complex programs supported, including substance abuse, mental health and disability services, justice, employment and residential services, and research and advocacy
- Real-time business and IT collaboration to ensure the end result meets customer needs

## The future of public safety: predictive analytics

In the future, ACSO hopes to use the Pega Platform to implement predictive analytics and decisioning – all to improve outcomes for their clients. Such a program would be able to look at the variables within a given client's case – substance abuse and mental health history, criminal justice history, treatments and programs used, etc. – and then predict what the likely outcomes for the individual will be, based on outcomes for other clients with the same set of variables. The program could then recommend which services and interventions would be most beneficial for that client.

# Dutch Ministry of Economic Affairs

## OVERVIEW

A shared IT service center within the Dutch Ministry of Economic Affairs, DICTU is responsible for delivering IT services to multiple public organizations within the Dutch central government, such as inspection agencies, ministries, and monitoring organizations. DICTU hosts 1,500 applications, 800 of which are customized to support primary processes. DICTU also employs more than 1,300 people.

Until recently, independent organizations within the Dutch government were responsible for their own IT, supported by 40 different data centers. The result was a highly fragmented system of platforms and applications with few opportunities for sharing or avoiding duplication of applications between different ministries and the departments within them. The Dutch government wanted to change that and achieve greater cost and time efficiency. DICTU is playing a critical role in the process, with help from the Pega Government Platform™.

## The goal: A standardized solution for government

DICTU's goal was to establish a single shared case management service for different types of unique organizations within the Ministry of Economic Affairs to support their primary processes for permits and licenses, public services, and inspections – something that had never been done before by the Dutch government.

The legacy systems in place were hard-coded and highly customized and therefore difficult to update, adapt, and upgrade in accordance with new laws, security regulations, and procedures. Meanwhile, it was next to impossible for various divisions within each agency to duplicate or share applications with each other and then tailor them as needed. Manual procedures, such as using documents, email, and spreadsheets, were commonplace.

**On the new platform, if a certain process, such as licensing, works well for one customer, another customer can benefit from it. That saves time and money for the taxpayer. It's great that we can offer this kind of smart technology to our customers within the government.**

**WIM VAN DER LINGEN**  
ENTERPRISE ARCHITECT, DICTU

DICTU began searching for a cloud-based platform that would satisfy all of its requirements for developing case management applications:

- Turnkey IT for governmental inspections and agencies
- Improved business continuity and agility
- Short time-to-market
- Ability to do more with less
- Reuse and specialization (Situational Layer Cake™ approach)
- Improved customer satisfaction
- Compliance with strict government security best practices

Pega was a 100% match for all of the requirements. DICTU soon began using the platform to develop shared case management services for the agencies within the Dutch Ministry of Economic Affairs, beginning with Health Inspection, the Telecom Agency, State Inspection of the Mines, and the Council for the Administration of Criminal Justice and Protection of Juveniles.

## A more efficient and collaborative way of working

Moving to the new platform required a mindset shift for ministry agencies, both in terms of how it developed IT and the way it did routine work. The phased approach of Agile scrum methodology was new to most people, but was quickly embraced when its benefits, namely speed and improved collaboration, became clear. Likewise, employees found that the case-oriented approach of the new platform – as opposed to the task-oriented approach they'd used previously – yielded better collaboration, efficiency, accuracy, and quality of service to government customers.

## Looking ahead: Government as a Platform

Now that the implementations for the first four government ministries are complete or close to finished, DICTU will help other agencies move to the new case management platform, via its subscription-based service, RijksZaak. With DICTU's solution, the digital transformation for civil servants and government customers is well underway.

### KEY FACTS

- A single case management platform for small- and medium-sized organizations within the Dutch government
- DICTU serves 240 different locations in the Netherlands, including 14,000 work stations and 13,000 mobile devices
- Improves the quality and effectiveness of the supervisory function of government inspections
- Improves business continuity and agility and reduces costs to taxpayers
- Leads the way in digital transformation for civil servants and government customers









# Intellectual Property Australia

## OVERVIEW

Intellectual Property (IP) Australia is the government agency responsible for administering Australia's IP rights system across four key divisions – trademarks, patents, industrial design, and plant breeder's rights. The agency employs around 1,100 people to meet a growing volume of IP service requests, advises the government on legislation development, and promotes intellectual property awareness.

IP Australia is in the middle of a major business information and communications technology transformation program, known as the RIO (Rights-In-One). Partnering with Pega, the agency has transformed its case management technology from multiple legacy systems into one application to help it assess IP Rights applications faster.

In 2016, the agency designed, developed, and deployed its first Pega application for designs. In 2018, the deployment was expanded to cover trademark business processes as well.

## IP Australia transforms operations and customer service

### REDUCING APPROVAL TIMES WITHOUT COMPROMISING QUALITY ASSURANCE

Demand for IP Australia's services has experienced steady growth in recent years – a healthy indicator of the growing ideas economy. The agency processes approximately 850,000 customer service interactions each year, including approximately 160,000 new applications for IP rights, with nearly A\$210 million worth of revenue coming in through the organization.

To handle increased demand and transform the way Australians interact with IP Australia, the agency embarked on a digital transformation of its design administration and examination processes. Using the Pega Platform™, the agency deployed and now maintains a streamlined digital process for application lodgment and processing. The deployment included the migration of approximately 17.5 million data records, an upgrade of front-end processing components, and the full replacement of the internal designs management system.



**We knew that the agility and flexibility of Pega would allow us to meet the demands of our customers moving into the future.**

**ROB BOLLARD**

CHIEF INFORMATION OFFICER, IP AUSTRALIA

### PART OF A WIDER TRANSFORMATION PROGRAM

Essential to IP Australia's transformation was the creation of an agile development environment. Prior to implementing a range of technical solutions, including Pega, the agency could take approximately six months to roll out new functionality for its users and customers or respond to legislative changes. Now, as part of a broader program of work around continuous delivery, changes can be made and issues resolved in near real time.

It is within this new, agile environment that IP Australia has been able to expand its deployment to other areas. As the next step in its transformation, the agency deployed Pega Robotic Process Automation to streamline processes. Previously, staff had to access and move data across as many as seven different systems. With automation, routine data-entry tasks can be completed faster and more effectively. As a result, staff are now able to focus on the more complex parts of IP examination and administration.

Thanks in part to Pega, IP Australia has been able to migrate 500 million records from an aging Adabas Natural database on the Mainframe into RIO. One of the key drivers for undertaking digital transformation is reducing technical debt and complexity. Moving from legacy systems to a single dynamic platform has allowed IP Australia to decommission 35 systems and reduce the cost of ICT by A\$1.4 million each year in annual licensing costs. Over the life of the new system, IP Australia will realize benefits of A\$87 million.



**KEY FACTS**

- Improved online transactions from 12% to 99.6%
- Migrated approximately 17.5 million designs and 500 million trademark data records
- 160,000 new applications each year
- Sped up approval times with streamlined digital process
- Increased volume of transactions while maintaining quality assurance
- Migrated complex cases from existing systems and manual processes
- Created an agile environment where change can be effected easily and quickly
- Used Pega Robotic Automation to automate data entry tasks





# Registers of Scotland

## OVERVIEW

At over 400 years old, Registers of Scotland (RoS) is the world's oldest land registry. By providing a state-backed guarantee of ownership, RoS protects the public from fraud and financial loss, which could be caused by a lack of transparency in land transactions and land ownership. The agency is responsible for the management and administration of 18 land, property, and judicial registers.

RoS embarked on a business transformation in which Pega played a key transformative role to modernize client interactions, improve efficiency and responsiveness, and establish RoS as the default organization for register management in Scotland.

Registers of Scotland went live on the Pega Platform™ using a new case management application to replace their current paper-based systems for first registration of land ownership in Scotland. The initial solution deployment supports the default regular registration process path, with further work underway to enhance the application for exceptional registration paths and digitize additional processes.

## Registers of Scotland improves efficiency and customer responsiveness

### THE NEED TO MODERNIZE AND AUTOMATE PAPER-BASED PROCESSES WHILE COMPLYING WITH LEGISLATION

RoS needed to modernize existing inefficient paper-based processes for land ownership registration. The agency had to comply with the Scottish Minister's request to digitize all historic registers of land ownership, as well as enable online registration and conveyancing. RoS also needed to modernize to have more flexible processes, systems, and workforce to adjust to changing economic circumstances and, in particular, variations in the property market.

Registers of Scotland has been in existence for 400 years and has built an enviable reputation among our peers globally. With the implementation of the Pega Case Management solution we now have an important element in our transformation to provide digital services that fully meet our customer's expectations.

**CHARLES KEEGAN**

REGISTRATION AND TRANSFORMATION DIRECTOR,  
REGISTERS OF SCOTLAND

**ACCELERATING LAND REGISTRATION AND PUTTING ALL HISTORIC PAPER RECORDS ONLINE**

The RoS Case Management System (CMS) is a solution that accelerates the registration of land ownership in Scotland and supports migration of all land deeds to online, map-based records. The Pega solution handles the "First Registration" process, which is the initial registration of a property that is not currently registered digitally. The solution automates the creation of a registration case, including the scanning of paper documents, review, mapping, registration, quality assurance, and final return of the physical case documents to the submitting agent.

The previous paper-based process has service level agreements (SLAs) that are at 20 days for simple applications and 130 days for complex applications. Much of the processing time involved physically moving the case documents to be dealt with by various participants. The results of the initial go live case processing indicates that simple case resolution in a single day for all cases is achievable, and caseworkers are able to handle more cases than before.

**THE INITIAL RELEASE OF CMS ADDRESSES FOUR KEY VALUE OUTCOMES:**

1. Digital case routing: Faster movement of the work according to business rules that determine the preferred routing
2. Digital case documents: Associating scanned digital copies of the submitted documents that preclude the manual movement of physical case documents (process acceleration) and reduce the risk of moving original paper deeds around RoS offices
3. Improved business intelligence: Enable the quantitative analysis of the workflow to identify and prioritize efficiencies
4. Quality assurance: Allow automatic sampling of work for quality assurance review and remediation of identified quality issues

**OTHER AREAS OF VALUE INCLUDE:**

- Enhanced monitoring of case status; currently, cases which exceed SLA can expose RoS to reputational damage and financial penalties
- Hands-free processing of steps that are currently done manually
- Management of digital case documents to support archiving and reuse in the future
- Electronically secured historic paper records to avoid risk of loss/damage and improve auditability
- Greater ability to handle cases throughout, with reduced headcount, enabling RoS to maintain financial sustainability through a changing economic environment
- Non-personal electronic information held has potential for sale to interested third parties and potential value add across other public sector organizations

**THE WIDER CONTEXT AND CONSIDERATIONS**

RoS recognized the need to improve the immediate issues surrounding initial land registration, but also the wider need for end-to-end digital transformation. The Pega Platform™ allowed for a phased agile approach to this transformation, with early payback with initial registration but potential to reuse solution components for exception paths. The ease of integration into the existing IT estate is key to the longer term ambitions for the wider use of the Pega enterprise platform. In addition, skills transfer and training of an internal RoS team allow them to be self-sufficient with changes to the existing solution and implementation of new ones.

**KEY FACTS**

- Oldest land registry in the world – established 400 years ago
- Deals with roughly 400,000 land registrations a year, of which there are ~41,000 First Registrations
- Initial use of CMS shows the average time for processing of simple cases reduced from 17.7 days to 8.9 days – with further potential to reduce cycle times





# Shared Services Connected Ltd: A service strategy designed for enhanced efficiency, savings and employee experience

## OVERVIEW

As a provider of shared services for over 20 government departments, from the Metropolitan Police to the Ministry of Defence, Shared Services Connected Ltd. (SSCL) provides support to nearly 600,000 public sector employees in a constantly evolving environment.

For years, SSCL, a joint venture between the UK Government Cabinet Office and Sopra Steria, relied on manual, resource-heavy processes to manage payroll, respond to queries, and oversee administrative tasks. But taking an age-old approach to handling 7 million transactions, 2.5 million calls, 2 million invoices, and £50 billion in annual payments soon became a complicated endeavor.

SSCL knew it needed a faster, more efficient strategy for ensuring the delivery of services, many of which UK citizens and businesses count on for quality of life, personal well-being, and positive business outcomes.

## A powerful platform

In response, SSCL deployed SSCL Service+. Based on Pega Customer Service™ technology, SSCL Service+ works by providing a streamlined process for tracking, managing, and resolving workplace queries while delivering end-to-end visibility of work across multiple channels. By doing so, the platform is not only helping SSCL improve operational efficiencies but also foster a more productive and engaged workforce.

Case in point: SSCL agents receive thousands of emails per day relating to a wide variety of issues, from existing service requests to job applications. In the past, managing these vast volumes of email in Outlook proved challenging for SSCL's time-strapped teams. Already juggling more than 500 functional mailboxes, the organization's email deluge was only growing. Without channel visibility and a consistent approach to routing email queries, duplicate efforts among agents, missed service level agreements (SLAs), and inconsistent answers were becoming increasingly commonplace.

That all changed, however, with the launch of SSCL Service+, which provides end-to-end visibility of work. Service+ properly routes queries and provides employees with a 360-degree view of all communication. Whether it's an email, phone call, or even a web chat, queries are automatically routed to the correct person, who can provide the right information with greater accuracy and consistency.

### END TO END VISIBILITY

Intelligently routing queries to the right support agent also provides more timely delivery of accurate information. As a result, SSCL expects to reduce query volume by 60%, while allowing workers to focus on more critical tasks rather than non-value-add activities.

**This innovation is helping to make SSCL a great place to work, enabling our staff to really focus on providing a world class customer experience.**

**GRAHAM COCKCROFT**  
HEAD OF INNOVATION, SSCL

Take the example of a government employee who receives an email informing him that he's been overpaid due to a processing error. Previously, SSCL's overpayments team would have to spend days searching for a resolution. Service+, on the other hand, grants agents instant access to details, ranging from the source of an error to correspondence details, for faster time-to-resolution.

A holistic view of all communication across SSCL channels also allows support teams to prioritize tasks and perform triage. For example, a payroll query may need to be answered more quickly than a financial query. Enabling teams to recognize and act on priority tasks ultimately allows for better customer service.

### THE REWARDS OF AUTOMATED RECEIPTING

SSCL Service+ is also transforming the organization's bank receipting process. In the past, this process involved painstakingly matching bank receipts from a wide array of government departments to Enterprise Resource Planning (ERP) system records. The biggest problem was the sheer volume of receipts, closely followed by a wide array of departmental standards that team members had to memorize in order to process receipts properly.

Today, Service+ ingests receipts across agencies, payments are matched with ERP records and processed automatically, and cases are created to manage any exceptions to service level agreements (SLAs). This matching and automation helps eliminate mundane tasks, while at the same time improving auditability, reducing human error, and cutting operational costs. In fact, since deploying Service+, SSCL has realized some tangible business outcomes. For example, in the past, receipting errors required employees to file a service incident report. However, with Service+, the organization has realized 60% matching success from day one. This is anticipated to increase to over 80% with fine tuning over the coming months.

### A LOOK TO THE FUTURE

Beyond improving operational efficiencies and enhancing employee experience, the next step for SSCL entails moving toward intelligent and automated shared services on the cloud for anywhere, anytime accessibility. In the meantime, SSCL will continue building on Service+ and delivering repeatable services for its government clients in today's ever-evolving environment.





# StepChange

## OVERVIEW

StepChange Debt Charity, based in the UK, provides the country's most comprehensive problem debt advice service. StepChange helps more than 600,000 people in financial difficulty each year. As the debt landscape changes and client needs evolve, the organization reacts to the emerging issues that people face. Over the past 25 years, StepChange has served more than 5 million people experiencing issues with debt and helped clients repay over £4 billion.

By 2022, StepChange aims to double the number of people they advise every year, as well as more proactively reach and assist clients before they get too far into debt. The increase in demand for the service is driven by issues such as family breakups, mental health, drug abuse issues, and the increasing cost of rental property in the UK. To do this, the organization knew it was essential to invest in new technology, modernize its ways of working, and introduce new services and online tools for clients. StepChange chose Pega to help make it happen.

**With our legacy systems, we wouldn't be able to achieve our goal of doubling the number of clients we help over the next three years. With Pega, we now have a customer service platform that dramatically simplifies and accelerates the customer journey while improving the level of service we provide.**

### PHIL ANDREW

CHIEF EXECUTIVE, STEPCHANGE DEBT CHARITY

## From disparate systems to a seamlessly unified platform

Using the Pega Platform™, StepChange implemented a unified customer service solution, PULSE, that's faster and easier to use, allowing the organization to improve their customers' experience and streamline their operations. Previously, debt advisers were using a number of different systems that didn't always work together, in combination with paper-based processes, spreadsheets, and email. This led to duplication and human error. Meanwhile, switching between systems to find and enter information added significant time to client sessions.

The new PULSE solution seamlessly integrates new and legacy components to handle every aspect of the debt advising process, such as registration and financial information capture or providing solutions for the client using complex decision logic to verify and process information for downstream legacy solutions. An integrated knowledge center allows employees to access information right in PULSE – instead of opening and searching in separate applications. Progress bars and dashboards let clients and advisors see real-time progress as they work so they know exactly where they are in the advice journey.

## THE NEED FOR A ROBUST, OMNI-CHANNEL EXPERIENCE

StepChange chose Pega in part because it was the platform best suited to support the omni-channel experience the organization considered key to meeting its objectives. Over 60% of the debt advice StepChange offers is online. The organization therefore needed to create a solution fully compatible with all handheld and mobile devices, and able to support live chat and co-browsing. The target is for 70% of clients to self-serve and seek advice via chat and co-browse rather than telephony alone, which will allow the organization to serve more clients.

PULSE improves the telephony experience as well, both for customers and advisors. Previously, many client calls lasted over an hour. StepChange expects that once the new solution is fully ramped up, calls will be 20% quicker. With PULSE, advisors can easily access client data online, tailor the questions they ask based on that information, and get recommendations and action plans from the system based on the client's profile and responses. By merging advisor teams and types of calls, employees will have more variety in their work as well.

## STRONG RESULTS OUT OF THE GATE

StepChange is still in its first stages of ramp-up, but already the results have been positive: high levels of employee satisfaction; reduced call times; an increased number of online users successfully completing the online journey; and successful channel switching, giving users the flexibility to seek advice on their own terms and timelines.

### KEY FACTS

- StepChange helps 600,000 people in financial difficulty manage their problem debt each year
- Drives problem debt avoidance through proactive outreach and financial education
- New solution is omni-channel and mobile-friendly, supporting live chat and co-browse
- Call handle time expected to be 20% faster
- Immediate ROI with employee satisfaction, customer engagement online, and successful omni-channel switching for customers





# Ministry of the Presidency, Justice and Parliamentary relations

## OVERVIEW

The Ministry of the Presidency, Justice and Parliamentary Relations is the department of the Spanish Government responsible for developing government policies to promote the judicial system, focusing on criminal, civil, commercial, and procedural matters, supporting the Justice Administration and legal and international cooperation. This ministry is responsible for making the Spanish judicial system as accessible as possible to all citizens, legal professionals, and companies.

Since 2020, following the publication of the Justice 2023 Plan ([www.justicia2030.es](http://www.justicia2030.es)), the Justice Administration has been promoting a very ambitious challenge: to change the perception that citizens have about justice and how they relate to it by means of digital transformation. The objective is to offer new digital services, to make justice more accessible for citizens, justice professionals and companies, and to achieve a close, agile, and efficient Justice Administration

## A paradigm shift: from document-based justice to data-driven justice

The Ministry of the Presidency, Justice and Parliamentary Relations selected Pega technology to develop a reform programme for which a paradigm shift is essential: to change from document-based justice to data-based justice. This means that, in a judicial procedure, the material ceases to be “written” in the form of standardised documents, instead replaced with data that eases the management of all the parties involved, and which provides an extraordinary amount of information. Being able to work with data instead of documents is revolutionary not only for Spain, but also at an international level.

The choice of Pega was driven by the fact that the Pega platform provides a new, more dynamic way of working and can develop applications much faster, with no need to outsource each application or compete with in-house resources. This would be impossible with traditional development technologies.

The challenge was enormous as there was a lack of understanding in the Ministry of the Presidency, Justice and Parliamentary Relations of data-driven and agile working methods, and a lack of awareness of new tools and methodologies. Applications were only updated two or three times a year while the delivery time for an application could take more than a year.

## Insolvency law: a new era for microenterprises in Spain

The clearest example of how such profound changes are being implemented in the justice system can be found in the reform of the Spanish Insolvency Law, a law for micro-enterprises with an annual turnover of less than €700,000 or liabilities of less than €350,000 and employing an average of less than 10 workers.

The objective: to speed up bankruptcy proceedings and provide a way for viable companies to continue operating. In collaboration with Pega, the Ministry of the Presidency, Justice and Parliamentary Relations is developing two services to implement this new law:

- The Microenterprise Electronic Service
- The Electronic Platform for the Settlement of Assets

To develop this project, the Pega platform was integrated with several existing solutions used by the judicial system in Spain. It was implemented nationwide in record time, with implementation beginning on 1st September 2022 and ending on 1st January 2023. This enabled the new Insolvency Law to come into force only 4 months after it was passed.

These two new services are impactful for microenterprises for a number of reasons:

- They create a single point for the whole of Spain where all interested parties can complete and submit data forms across the different stages of insolvency proceedings. This eliminates the territorial gap, or regional variations, for microenterprises in Spain.
- More than 10,000 bankruptcy files are processed each year.
- The duration of the process has been reduced from years/ months to weeks.
- The services integrate with more than 20 other services.
- The process is simplified by working with standardised data, forms, and services.
- Eliminates unnecessary and inefficient steps in the bankruptcy process.
- Efficiency is maximised, thanks to a better classification and use of data.
- Process actions are executed with no need for the intervention of a lawyer, solicitor, or other court staff.
- The data generated is of great value in setting new government policies, and this data becomes an asset available to the public.



### A NEW JUSTICE MODEL FOR CITIZENS

The impact that the development of these two applications has had on the Ministry of the Presidency, Justice and Parliamentary Relations goes far beyond the objectives defined for the bankruptcy law project and has enabled a qualitative leap in working methods and changes in expectations for all new projects:

- Agility has been standardised, it is now possible to release new applications and implement new versions at a much faster pace.
- Awareness has been raised about the importance of functional managers and technical teams working more closely together to develop better applications.
- Tasks and processes that were previously performed manually have been automated.

These new capabilities have allowed the Ministry of the Presidency, Justice and Parliamentary Relations to move to a collaborative model of application development with multidisciplinary teams, which is the current trend. Pega's solutions allow the Ministry and the Courts to move from offering services exclusively to lawyers and professionals to offering services to all citizens. They also allow citizens and professionals to interact with the justice system in an agile, data-driven, natural language and user-friendly way. The process of changing citizens' perception of justice has begun, and it is unstoppable: from now on justice will be digital or it won't be justice.

#### KEY FACTS

- **Delivery time reduction:** from one or two versions per year to as many versions as desired.
- **Development time reduction:** from one and a half or two years to four months.
- **Deployment time reduction:** from two months to one week.
- **Bankruptcy proceedings time reduction:** from one year to three months.
- **Obtaining statistical data:** the calculation is automated, and the data is managed in the micro-companies in real time.

With Pega, the IT department of the Ministry of the Presidency, Justice and Parliamentary Relations has evolved from being a supplier to being part of the organisation's strategy, allowing a constant dialogue between functional and technological managers and a democratisation of technology. Under traditional technologies, we would never have reached such agile developments, nor with such data-oriented quality. Without Pega we would never have achieved this.

#### JAVIER HERNÁNDEZ DÍEZ

DEPUTY DIRECTOR GENERAL FOR THE PROMOTION AND INNOVATION OF DIGITAL JUSTICE SERVICES  
GENERAL DIRECTORATE FOR DIGITAL TRANSFORMATION OF JUSTICE ADMINISTRATION  
MINISTRY OF THE PRESIDENCY, JUSTICE AND PARLIAMENTARY RELATIONS.

# Sveriges a-kassor: The Swedish Federation of Unemployment Insurance Funds

## OVERVIEW

Sveriges a-kassor, the Swedish Federation of Unemployment Insurance Funds, supports approximately 4 million members with unemployment insurance benefits. The 25 independent unemployment insurance funds, which cover citizens of employment age in Sweden, are generally organized by occupation. If a member becomes unemployed, the funds use member data and information such as occupation and salary to ensure that unemployment income is delivered as efficiently as possible. Sveriges a-kassor provides each of the 25 funds with IT system development, legal support, and a common IT infrastructure that enables secure payments.

When Sveriges a-kassor wanted to improve service to members and create a more efficient and accurate case management process, they partnered with Pega. Now, the organization's various unemployment insurance funds are unified under a single, consistent IT platform that enables reuse and specialization; ensures consistency; and offers a web-based, digital experience for members and caseworkers. The robust, member-centric platform serves as the backbone of customer service, payments, the public facing portal, and case management – unifying the 25 organizations into a single source of truth.

## Faster case resolution and better service for those in need

Sveriges a-kassor aims to ensure that members are able to pay their bills and support their families in times of need. To do this, the organization needed to move from slow, paper- and phone-based processes to digital, web-based self-service – all for faster case resolution. Now, instead of mailing forms, members can submit their information through an online member portal and even upload files if necessary. With the new system, members can submit an online unemployment claim on Monday and receive payment as quickly as Thursday – whereas in the past it took weeks. Online member usage has increased from 65% to 97% since the new platform was implemented.

## STREAMLINED PROCESSES THAT RISE TO THE DEMANDS OF THE COVID-19 PANDEMIC

The COVID-19 pandemic has resulted in an increase in unemployment claims, which the new system has successfully scaled to meet. With 120,000 cases processed each Monday morning and as many as 80,000 concurrent mobile users in a four-hour time frame, caseworkers need to be able to work with maximum efficiency. With the new digitized platform, there's minimal need for caseworkers to re-enter or reformat member information, saving time and reducing the risk of error. Case managers have been able not only to meet the increase in demand; they're now available to spend more quality time with members to ensure their needs are met. Sveriges a-kassor hopes to make even more productivity gains in the future, with new analytic and reporting functionality to aid in caseload distribution and management.







### MEETING THE DEMAND FOR OMNI-CHANNEL ACCESS

Citizens today expect to interact with the government through whatever channel they choose, including smartphones, tablets, and traditional personal computers. Now, Sveriges a-kassor members can check their eligibility and process claims through any channel. The omni-channel nature of the Pega Platform™ means that each application only needs to be designed once and will be reflected across any user interface. It's not necessary to redesign for each channel.

### A 360-DEGREE VIEW OF THE CITIZEN

Thanks to the new platform, Sveriges a-kassor case has a complete picture of the end-to-end member journey, including all interactions between members and case managers. The integration of multiple data sources means that case managers can easily determine where an unemployed member has previously worked, securely view previous salaries earned, and see what, if any, payments or assistance they're receiving from other government programs. All members' employment history is securely digitized and available in one place, making the benefit payment process quick and efficient, while protecting member privacy. The process is more transparent for members as well. They can view the delivery date of their unemployment payment in advance simply by checking online, allowing them to better plan and prepare.

### REUSE, SPECIALIZATION, AND THE AGILITY TO CHANGE

Thanks to the robust reuse capabilities of the Pega Platform, the 25 Sveriges a-kassor funds all use common processes and data while accessing specialized functionality for their unique needs. For example, each fund can easily customize its portal to reflect its own brand identity and occupation-specific language. Another advantage of the new platform is that when there are regulatory or business process changes, the applications can be quickly adapted where relevant without the need to reinvent the wheel.

Meanwhile, because of the platform's intuitive user interface and consistent processes across all of the funds, minimal caseworker training is required. This reduces risk associated with worker inexperience, increases productivity, and enables better customer service.

#### KEY FACTS

- Improved scalability across 25 organizations and 4 million members
- Shortened case resolution times from weeks to minutes
- Increased online member usage from 65% to 97%
- Reduced time of unemployment payment processing to four days from initial request
- Supports 120,000 cases processed each Monday and 80,000 concurrent mobile users in a 4-hour timeframe

**With Pega, the 25 Sveriges a-kassor unemployment insurance funds can serve citizens more quickly and conveniently in a time of real need. At the same time, the system frees up caseworker time and brings ownership of system changes in house.**

TOMAS ERIKSSON, CEO, SVERIGES A-KASSOR



# U.S. Bureau of Alcohol, Tobacco, Firearms and Explosives

## OVERVIEW

The Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) is a law enforcement and regulatory agency within the U.S. Department of Justice focused on protecting communities from violent crime. The agency is responsible for bringing to justice criminals and criminal organizations that illegally use and traffic firearms; illegally use and store explosives; commit acts of arson, bombings, and terrorism; and divert alcohol and tobacco products. ATF also has responsibility for the licensing and regulating of the firearms and explosives industries.

To support its operations, ATF had been using a suite of applications called the National Field Office Case Information System (NFOCIS). Special Agents, Industry Operations Investigators, Intelligence Specialists, and other ATF employees use these systems to enter, track, and compile diverse types of data for criminal investigations, regulatory inspections, and evidence management. In 2015, ATF launched the Spartan Program Management Division to complete a business modernization effort and deliver a platform that would integrate the four legacy NFOCIS systems into a single, streamlined solution for processing criminal investigations and regulatory inspections. To achieve that goal, ATF chose the Pega Platform™.

**We've been able to take a business-driven approach, as opposed to an IT-driven approach. We included experts from the different business areas in the ATF as part of the project team and collaborated using agile best practices to create a system that most effectively supports the needs and mission of field agents and improves public safety.**

## A.J. FRY

SUPERVISORY SPECIAL AGENT,  
BUREAU OF ALCOHOL, TOBACCO, FIREARMS AND EXPLOSIVES

## The need for a modern, unified case management system

The NFOCIS applications were first developed and deployed in 1998 and are, with one exception, based on a client-server architecture. Their age, infrastructure, and lack of functionality presented multiple challenges:

- Since the applications are built with custom code, making changes and updates is cumbersome and slow.
- Users had to rely on a disjointed array of methods – handwritten notes, paper forms, spreadsheets, email, etc. – for collecting, tracking, and compiling case data, often having to type and retype the same information multiple times.
- Since the applications were separate and siloed, each with different structures and interfaces, it was extremely difficult to share data between them or compile data from across the suite, hampering ATF's ability to detect, deter, and respond to criminal activity.

ATF needed to replace its outdated systems with a single, state-of-the-art system that uses the latest web-based, mobile-capable, process-based IT tools to meet its mission requirements with greater speed, efficiency, and accuracy.

Using the Pega Platform, ATF is working with Accenture Federal Services to create a unified case management system. ATF employees can enter, access, and compile data whether they are in the office or in the field. All data will be instantly accessible across the entire system rather than compartmentalized in different applications. The new system also enables process automation for both of the agency's critical mission areas, criminal investigations and regulatory inspections. Spartan offers robust mobile capabilities with support for geographic information system (GIS), offline usage, and camera.





## Achieving speed and efficiency through agile methodology

ATF is leading the way in the cultural and organizational adoption of agile methodology in government. With the new platform, business and IT can collaborate to ensure the end solution meets the mission-critical needs of the field. As a result, the regulatory inspection application was developed with efficiency and deployed a full month ahead of schedule. In the months that followed, ATF deployed one to two updates a week – a pace of change that would have been impossible with the legacy system.

The agency has now fully deployed its regulatory inspection application, which supports uniform onsite explosives and firearms inspections. Spartan uses mapping and linking capabilities, tracks approval history, and connects and stores documentation. Through end-to-end agile scrum development, functionality can be iterated, implemented, and changed quickly as the agency's experience with the new system grows and as ATF's Special Agents' and Investigators' needs change.

Spartan is hosted in the Amazon Web Services GovCloud. On-demand scalability of the cloud enables ATF to address unanticipated needs that are triggered by major security events. It also allows ATF to rapidly deploy new releases of the software at the completion of each two-week development sprint.

## Delivering speed, accuracy, and convenience that serve justice

ATF is using Pega to maintain its Fugitive database. This database contains a list of wanted persons and related arrest warrants, used to support the Joint Support & Operations Center (JSOC) at ATF headquarters, who coordinate with federal, state and local law enforcement agencies across the country when a fugitive is located. This allows ATF to confirm within minutes that there is an active warrant for the person's arrest. Errors or delays can make the difference between a criminal getting caught or getting away. Spartan provides ATF with efficiency and assurance that they can access accurate and reliable information at all times, improving the effectiveness of law enforcement coordination across the country.

ATF is now working on a new system for supporting criminal investigations. The new Criminal Enforcement application will support criminal investigations by enabling Special Agents to enter notes, photos, and other data directly into their mobile devices while in the field. Special Agents will then be able to easily assemble the data to open and generate robust investigations which can be worked on collaboratively throughout ATF.

### KEY FACTS

- Successfully achieved the agile development process
- Deployed first application one month ahead of schedule
- Deployed one to two updates a week – a pace of change that would have been impossible with the legacy system
- Consolidated four legacy systems into a single, modern, and unified solution for entering, accessing, and compiling data
- Empowered ATF personnel to access accurate and reliable information in real time
- Currently used by 1,000 ATF employees spanning 75 field offices



United States<sup>®</sup>  
**Census**  
**2020**







# U.S. Census Bureau

## OVERVIEW

The U.S. Census Bureau serves as the leading source of quality data about the nation's people and economy. Census data is used to inform a variety of social, economic, and political decisions, from congressional seat distribution to community planning to the distribution of more than \$675 billion in federal funds.

The Bureau uses a series of data collection methods to gather this data, including the Decennial Census of Population and Housing, which happens every 10 years. To modernize and streamline its data collection and processing operations, the U.S. Census Bureau launched the ECaSE (Enterprise Census and Surveys Enabling) project to create an integrated, enterprise solution for shared data collection and processing. The aim of the solution was to lower complexity and deliver savings for all censuses and surveys, with an initial focus on the 2020 Census.

Another modernization initiative for the 2020 Census was a new customer relationship management (CRM) system for the Bureau's partner program. The CRM provided an integrated, digital communications platform for the Bureau's Community Partnership Engagement Program (CPEP) and Census National Partnership Program (NPP), both of which aimed to increase awareness and participation in the 2020 Census.

Pega played a key role in both data collection and partner program initiatives. The Bureau used the Pega Government Platform™ for its ECaSE operations, including:

- Survey Operational Control to manage and orchestrate case workloads and track the progress of response data collection across survey collection channels, including web, mobile, paper submissions, and the Census telephone call centers.
- Field Operational Control that ingested all workload information across Census field operations, such as Address Canvassing and Non-Response Follow Up (NRFU), and assigned cases and distributed work orders to field workers.

## DATA COLLECTION:

- Survey response management to process and control survey data collected from the Census website, paper form submissions, field enumeration collection via mobile devices, and by phone through the Census' telephone call centers.
- Field enumeration for collection through an application on the Apple iPhones used by field enumerators, so they can perform surveys with residents that didn't respond online, via phone, or via a paper questionnaire.
- Self response instrument for response collection, used by Census Questionnaire Assistance (CQA) agents in call centers to interview respondents that contacted a call center.
- Self response case and event consolidation for all responses collected from the Census website and paper form submission along with sufficiency checks to determine cases to be enumerated.

**Going digital with an automated system from Pega helped manage our village with more ease and efficiency than ever before. Plus, by implementing agile technology, we found ourselves very prepared for unpredictable changes and were able to pivot quickly as needed.**

### ZACHARY SCHWARTZ

DIVISION CHIEF, IT SERVICE MANAGEMENT OFFICE AT THE U.S. CENSUS BUREAU (GOVERNMENT CIO MEDIA & RESEARCH, SEPTEMBER 23, 2020)

**Our response system has not had a single minute of downtime since we first invited people to respond online.**

**STEVEN DILLINGHAM**

DIRECTOR, U.S. CENSUS BUREAU (STATEMENT BEFORE THE HOUSE OVERSIGHT AND REFORM COMMITTEE, JULY 29, 2020)\*

#### **TESTING THE NEW DATA COLLECTION PLATFORM IN THE RAMP-UP TO 2020**

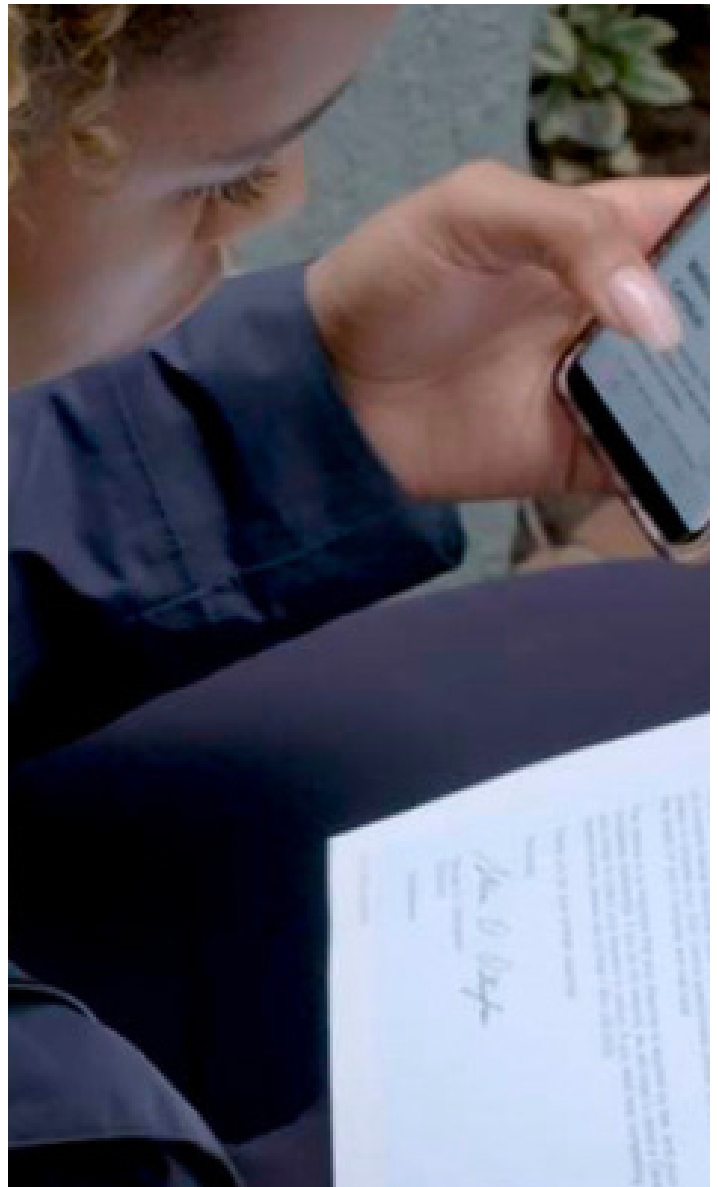
The 2020 Decennial Census marked a major shift from a primarily paper-based process to an automated, digital process for collecting data from every household in America. With shifts of this transformational magnitude, the Census planned and conducted a series of live operational field tests to validate the technology, operational plans, and support of the new systems. This included the 2017 Census Test and the 2018 End to End Test.

These tests were particularly important to help the Bureau test its new mobile platform. In the 2020 Census, for the first time, enumerators were able to complete all aspects of their work on mobile devices, including receiving assignments; viewing the most efficient order for visiting each household; submitting their hours; and securely recording, encrypting, and transmitting each respondent's information. The mobile application enabled huge productivity gains: In 2010, enumerators completed 1.05 cases per hour worked, whereas in the 2018 End to End Test, they completed 1.56 cases per hour worked – a 48.57% improvement in productivity.

#### **DIGITIZING AND OPTIMIZING THE PARTNER PROGRAM FOR BETTER PARTICIPATION**

In the lead-up to the 2020 Census, the Census Bureau recognized a massive opportunity to use digital tools and other resources to communicate more efficiently and effectively with its partners. The partner program integrates two programs whose goals are to increase awareness and participation in the Census: the Community Partnership Engagement Program (CPEP) and the Census National Partnership Program (NPP). The CPEP includes tribal, state, and local governments, as well as community-based organizations, faith-based organizations, schools, media, businesses, social services, ethnic organizations, and others, while the NPP builds and strengthens relationships with businesses, industries, and organizations with national reach.

In the 2010 Census, many of the partner management and communication processes were highly manual and cumbersome, which proved challenging for employees and partners alike. By going digital with these efforts, the Bureau was able to efficiently communicate with its 400,000 partner organizations, sending automated alerts, reminders, and calls to action and giving them the appropriate resources to drive Census awareness and participation.



**...Our census takers achieved, cumulatively, a productivity rate of 1.92 cases or addresses per hour. This far exceeded the 1.55 projection. This was absolutely due in large part to the use of technology that was designed and deployed to the 2020 census, a major innovation over past paper-based censuses...the productivity rate of field staff in 2020 was literally nearly double that achieved during the 2010 Census.**

**TIM OLSON**

ASSOCIATE DIRECTOR FOR FIELD OPERATIONS, U.S. CENSUS BUREAU (CENSUS.GOV)



Our handhelds can tell you how long each question took to input the question. It can tell you how long the interview took. It can tell you exactly where you were standing relative to the address that you were supposed to be enumerating. It provides us with a tremendous amount of data and it provides that data in near real time, and so it allows us to have a very professionally refined quality review of things going on in the field.

**AL FONTENOT**

ASSOCIATE DIRECTOR FOR DECENNIAL CENSUS PROGRAMS  
(FEDERAL NEWS NETWORK, SEPTEMBER 18, 2020)



**EXCEEDING EXPECTATIONS FOR DATA COLLECTION AND PARTNER ENGAGEMENT**

The results of the 2020 Census were impressive, with the ECaSE system playing a pivotal role. Thanks to the realtime data and analytics on response rates that the ECaSE system supplied, the Bureau was able to accurately target low-response rate geographies and retarget to drive self response rates. This ability to react and respond quickly was especially critical in instances where weather events, public health concerns, or other circumstances made getting survey responses challenging.

The Bureau was also able to seamlessly bridge the gap between their data collection program and partner programs: If responses were lagging in a given community or region, the Bureau could use the new CRM to quickly identify and reach out to partners in those areas, providing them with the resources they needed to increase education and awareness in their communities.

By the end of July 2020, four months after the Bureau had first invited people to respond to the Census, they had already received responses from almost 63% of households surveyed, with more than 92 million households counted. About 80% of those chose to respond using the internet. Moreover, the response system did not have a single minute of downtime. By mid-September 2020, with a full six weeks to go before the original October 31 deadline, the Census was already 90% complete. 220,000 enumerators in the field had completed more than 42 million surveys, despite months of delay due to the COVID-19 pandemic.

**KEY FACTS**

- The 2020 Census was the first to use a primarily digital process for data collection
- Pega software processed all responses for the 2020 Census, including via online, telephone, and paper responses in addition to the mobile app
- New data collection system was multichannel with a mobile platform for door-to-door enumerators
- New CRM platform automated communications with more than 400,000 partner organizations
- Zero system downtime
- 80% of self-responses received through the internet
- 48.57% increase in enumerator productivity
- Census was 90% complete a full six weeks before the deadline
- 400,000 unique logins supported in one weekend



# U.S. Department of Agriculture Natural Resources Conservation Service

## OVERVIEW

The U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) provides America's private landowners with technical and financial assistance, including voluntary Farm Bill conservation programs that benefit both agriculture and the environment. Clients that work with NRCS through Farm Bill programs prioritize conservation and improve agricultural operations by upgrading soil productivity, improving water quality, and irrigating more efficiently. The goal of NRCS programs is to sustain farming, ranching, private forest lands, and wildlife for both current and future generations.

To improve overall customer service for private landowners receiving technical and financial assistance, including those participating in Farm Bill programs, NRCS introduced the Conservation Delivery Streamlining Initiative (CDSI) program. NRCS partnered with Pega to develop the integrated Conservation Desktop (CD) application, which implements streamlined business processes, improved information technology (IT) services, and enhanced financial management and accountability.

## A single interface for delivering conservation

Before the integrated CD application was created, staff at NRCS spent large amounts of time logging into disparate systems and disparate databases to provide technical and financial assistance requests from customers. The CD application, built using the Pega Platform™, unifies those legacy and disparate systems into a single, consistent interface and centralizes all the processes, workflows, and features inside one portal. This enables NRCS employees to offer options and alternatives to the private landowners faster and more accurately, and to deliver services more efficiently. The primary goal for CD is to provide a "single pane of glass" for the field office (FO) staff. And with the help of systems integrator ASRC Federal Systems for CDSI delivery, NRCS and FPAC Business Center have adopted Agile methodology to help reduce delivery risk and increase speed of delivery.

The integrated CD application provides foundational services for the FO staff, including document management, task management, and audit history throughout the lifecycle of technical and financial assistance request processing. Conservation Desktop also provides technical assistance through the creation of a science-based conservation plan, built with the creation of a geospatial map-driven process with enhanced geospatial layers and tools.

**With the CDSI program, our field office (FO) staff are able to spend significantly more time in the field supporting our customers and conservation, and less time in the office working on manual, administrative work.**

### GEORGE W. CLEEK IV

CONSERVATION SECTION CHIEF, INFORMATION SOLUTIONS DIVISION, FARM PRODUCTION AND CONSERVATION (FPAC) BUSINESS CENTER, U.S. DEPARTMENT OF AGRICULTURE



The screenshot displays the 'CONSERVATION DESKTOP' interface. At the top, it shows 'A CDSI Solution' and 'DEV Site (V2R3)'. The main area is a satellite map of a farm with several tracts outlined in yellow and labeled with IDs like 'Tract #1413 Farm #4226' and 'Tract #1396 Farm #4463'. A red outline highlights a specific area on the map. The left sidebar shows the user 'JEFF A LIANG' and 'SMITHLED---SMITH ED' with a menu of actions such as 'Manage Client Associations' and 'Create New Practice Schedule'. The bottom of the screen features a navigation bar with tabs for 'Active PLUs', 'Case PLUs', 'Practice Schedule PLUs', and 'Practice Schedule', along with a footer containing various policy and support links.

## REDUCING MANUAL WORK THROUGH AUTOMATED TASK MANAGEMENT AND GEOSPATIAL MAPPING

One of the primary goals of the new integrated CD system was to free FO staff to focus more time on land, providing site specific conservation planning. With the task management capabilities included in the Conservation Desktop system, authorized NRCS employees can automate work from task to resolution, allowing them to collaborate more effectively across specialists and support staff and focus more of their time in the field providing conservation planning and enhanced customer service. The system automation gives USDA real-time visibility into their work at any point in time, which helps managers track progress while delivering real-time data that supports more informed and timely decision-making.

Another key feature of the new Pega-enabled system is geospatial layer configuration, which helps NRCS incorporate approved and secured third-party geospatial technology into the mapping tool suite within CD. This enables the efficient development of NRCS conservation plans, including the layout and management of land units and planned or applied conservation practices. Conservation Planners can spend more time focusing on developing and discussing conservation plans with customers and less time navigating across multiple applications.

## SIGNIFICANT TIME SAVINGS FOR BOTH STAFF AND CUSTOMERS

When complete, the CDSI program is projected to allow NRCS to redirect a total of 1,523 staff years from inefficient administrative work to higher value work spending time on the land with its clients. That means redirecting employees to field-based conservation planning and direct customer support. In addition to improving internal NRCS staff efficiencies, CDSI estimates, conservatively, that the new processes and tools will save customers more than 750,000 hours of time annually.

### KEY FACTS

- Projected to redirect 1,523 staff years from inefficient administrative work to higher value work
- Automates manual work and improves efficiency
- Provides simplified conservation delivery for landowners and employees
- Enhances financial management and accountability
- Optimizes travel time for customers and NRCS employees
- Embraces Agile methodology to help reduce risk and increase speed of delivery









# U.S. Department of Agriculture Office of the Chief Financial Officer

## OVERVIEW

On May 15, 1862, President Abraham Lincoln signed legislation to establish the U.S. Department of Agriculture (USDA). Two and a half years later in his final message to Congress, Lincoln called the USDA, "The People's Department." For more than 150 years, the USDA has impacted the lives of generations of Americans by providing leadership on food, agriculture, natural resources, rural development, nutrition and related issues based on public policy, the best available science, and effective management.

Today, the USDA is made up of 29 agencies and offices with nearly 100,000 employees who serve the American people at more than 4,500 locations across the country and abroad. The Office of the Chief Financial Officer (OCFO) is responsible for the financial leadership of the overall USDA enterprise and manages approximately \$208 billion in assets and \$143 billion in annual spending.

Over the years, and in response to a number of executive orders, the OFCO's administrative charter evolved and it became a certified Federal Shared Service Provider for both financial and human resource (HR) management across the federal government. As such, financial, HR, and payroll services are provided to customer agencies on a cost-recovery basis and are defined under service level agreements. Under the purview of the OCFO, the National Finance Center (NFC) assists other federal agencies by providing cost-effective, standardized and interoperable financial and human resource management solutions that support their strategic missions.

With the recent success of the Food and Nutrition Service's \$70 billion grant program, the USDA's CFO began talks with other USDA and non-USDA agencies to use ezFedGrants, the USDA's grants management solution. ezFedGrants is a comprehensive grants management solution, capable of administering from cradle to grave, the nearly \$100 billion of USDA loans, guarantees, and insurance that flow annually in support of American farmers and ranchers, and has been built to scale to meet the grant requirements of additional external federal agencies. To accomplish this objective, the USDA chose Pega to serve as the grantee-facing, self-service portal, and core technology used to automate the many complex processes of the grants management lifecycle across many disparate organizations.

ezFedGrants is a holistic, modern grants management solution that allows USDA to meet its aggressive customer service, operational efficiency, visibility and compliance goals. As an example, USDA has been able to streamline the payments process using Pega integrated with SAP Financials and CRM from six to eight months on average down to just three business days.

**CHRIS COPPENBARGER**  
SENIOR POLICY ADVISOR, USDA

**BEFORE PEGA:**

- Payments required 14 human touches
- End-to-end payment processing took six to eight months on average
- Employees spent a disproportionate amount of time tracking down the status of awards and payments for grant customers

**AFTER PEGA:**

- Human touches are reduced down to a single touchpoint
- Payment processing now takes three business days, one of which is because of electronic funds transfer processing
- Customers are able to see award and payment status online through the Pega portal

## USDA holistic grants management solution improves efficiency, visibility and compliance

### **AUTOMATED PROCESSES DRAMATICALLY IMPROVE CUSTOMER SATISFACTION, INCREASE EMPLOYEE PRODUCTIVITY AND LOWER OPERATIONAL COSTS**

The USDA was able to capture, standardize, and consolidate undocumented processes into Pega, allowing for massive operational efficiencies and cost savings with the very first go-live with the Foreign Agriculture Service (FAS). Soon after, the Food and Nutrition Service (FNS) successfully went live, processing its \$100+ billion portfolio through the ezFedGrants solution. Prior to this solution, many of the grant processes within these agencies were paper-based and could take months to transact. This inefficiency was compounded by the USDA having 17 individual and autonomous grant-making organizations. USDA employees fielded high volumes of calls on a daily basis to track status of awards and payments. Time spent responding to these calls impeded employees from focusing on more important, value-add mission activities.





Once the USDA completes the rollout of its shared-service grants solution to all 17 USDA organizations, it will have one, uniform solution for grants across the department. Since the solution harnesses the USDA's lean Six Sigma grants management process, the department is confident that 97% of its grant programs across the enterprise will be automated in ezFedGrants using Pega's iterative, agile methodology. The cost savings from the number of systems that will no longer be needed within the individual organizations is significant. It is expected that the system will process more than \$500 billion in the next two years once external agencies begin migrating to ezFedGrants.

### **FULLY INTEGRATED SOLUTION ELIMINATES DATA REDUNDANCY AND ENABLES COMPLIANCE WITH HUNDREDS OF REGULATORY AND STATUTORY REQUIREMENTS, ALLOWING FULL TRANSPARENCY TO STAKEHOLDERS**

The USDA selected best-of-breed technical platforms and integrated them together to form one holistic grants management solution. The USDA used Pega's self-service portal to interface with external users and standardize many disparate grant program processes across the department using Pega's robust intelligent business process management capability. The Pega solution is integrated with SAP CRM to manage transactional contracts and SAP Financials to meet its federal financial management and reporting requirements. Grants are now reconciled to the financials throughout the program lifecycle as automated alerts communicate discrepancies to external organizations and allow for reconciliation to the general ledger – the single source of truth. Additionally, the solution captures the agreement terms and conditions, makes certain that checks and balances are in place and an audit trail exists to prove separation of duties.

Many other integrations exist including Grants.gov and USAspending.gov, which allow for ease of posting opportunities and enable maximum transparency to the taxpayer. Additionally, ezFedGrants is integrated to the United States' System for Award Management (SAM) vendor registration solution, allowing the USDA to track important metrics such as vendor type and status, as well as manage the Department of Treasury's, "Do Not Pay Effort." This holistic solution allows the USDA to manage grants throughout the entire lifecycle – from initial request for proposal to close out. Solution functionality allows the USDA to accommodate scope changes, reimbursements, awards through standard payments, advances, or electronic draw payments. Complex workflows allow for the USDA to follow the many federal, department, agency, and program regulatory requirements, while allowing both internal and external stakeholders full visibility into the status of its transactions. Easily configured dashboards give the USDA management team a 360-degree view of its programs in real time, allowing for greater operational efficiencies, as well as the ability to decrease potential fraud through improved visibility, tracking, and transparency. Moreover, stakeholders' user acceptance and confidence in the accuracy of the data has increased exponentially since the single, integrated solution eliminates data redundancy and inefficiencies.



Grant Lifecycle	Grant Creation (Program & Recipient)	Application	Review (ARP)	Agreement (Award)	Grant Execution Period	Grant Ends (Closeout)
<b>Core CRM (Internal)</b> 	<ul style="list-style-type: none"> <li>• Program Creation w/ Search</li> <li>• Recipient Management</li> </ul>			<ul style="list-style-type: none"> <li>• Agreement Creation with Search and Workflow</li> <li>• Amendment Creation with Search and Workflow</li> </ul>	<ul style="list-style-type: none"> <li>• Claim Creation-Payment Request with Search and Workflow</li> <li>• Progress Reporting</li> </ul>	<ul style="list-style-type: none"> <li>• Grant Closeout Processing</li> </ul>
<b>Core CRM (Internal)</b> 	<ul style="list-style-type: none"> <li>• Opportunity Management with Search and Workflow</li> <li>• Grants.gov Integration</li> </ul>	<ul style="list-style-type: none"> <li>• Grants.Gov Integration</li> </ul> 		<ul style="list-style-type: none"> <li>• Application to Award</li> </ul>		
<b>Core CRM (External)</b> 		<ul style="list-style-type: none"> <li>• Application Submission with Search and Workflow</li> </ul>		<ul style="list-style-type: none"> <li>• Electronic Signature</li> </ul>	<ul style="list-style-type: none"> <li>• Award Monitoring</li> <li>• Claim Submission (AP) with Search and Workflow</li> <li>• Progress Report Submission</li> </ul>	

The Pega solution is integrated with SAP CRM to manage transactional contracts and SAP Financials to meet its federal financial management and reporting requirements.



**AGILE SOLUTION IS BUILT TO REUSE COMPONENTS AND SCALE**  
 Standardizing to one integrated solution that allows for reuse of processes is projected to save the USDA millions of dollars. Since the capabilities of the ezFedGrants have built off of one code base, derived from a single model development paradigm, the solution will continue to meet unique or changing grant requirements while meeting compliance objectives. Employees can focus on their mission instead of being overwhelmed with administrative minutia while meeting the rising expectations of their customers. In short, the USDA can rest assured it has a robust, sustainable solution for the future.

**KEY FACTS**

- Enables the USDA to meet its mission more efficiently
- Improves service delivery and customer satisfaction
- Enables and improves employee productivity, while lowering the cost of managing grants
- Meets federal, department, agency, and program compliance requirements
- Improved accountability and transparency







# U.S. Department of Veterans Affairs

## OVERVIEW

The U.S. Department of Veterans Affairs is responsible for administering programs to support Veterans, their families, and survivors. Second in size only to the Department of Defense, VA has more than 400,000 employees and encompasses a network of more than 2,000 medical facilities, clinics, and benefits offices nationwide. The VA has partnered with Pega since 2010 to continually improve services and ensure those who have served their country can receive the absolute best care possible.

## Saving millions of taxpayer dollars and adapting to rapidly changing invoicing needs

To ensure the most advanced medical equipment and services are available for Veteran care, the VA Financial Services Center (FSC) implemented the Invoice Payment and Processing System (IPPS) on the Pega Platform™. IPPS is a unified, online invoice certification system that VA FSC uses to process payment on behalf of medical facilities nationwide for the purchase of hospital equipment.

Previously, multiple, siloed systems were stitched together, making communication among systems slow and expensive to maintain. With IPPS, VA FSC streamlined operations, improved accuracy, and decreased invoice processing costs by 33%.

The ability of IPPS to accommodate rapid change has allowed VA to leverage the application's existing functionality and adapt it to meet the unique payment types for other areas of VA. IPPS is now the enterprise commercial payment platform serving all three administrations: The Veterans Health Administration, the Veterans Benefit Administration, and the National Cemetery Administration. It will also be the payment solution for the future VA Integrated Financial and Acquisitions Management System.

With IPPS, VA has seen:

- 66% increase in annual invoice volume, to 2 million (up from 1.2M)
- 33% increase in dollar value of payments processed, to \$21 billion (up from \$14B)
- No increase in payment processing staffing levels, despite 66% volume increase
- Cumulative cost reduction estimated at 40%
- Record-setting results on performance metrics, such as late payment rates and discounts

## ACHIEVING DIGITAL TRANSFORMATION ACROSS THE VA

VA chose the Pega Platform to transform processes across the agency, replacing manual and paper-based systems with digital ones, to increase efficiency, transparency, and accuracy, and to improve the customer experience.

- **VA Debt Management Center** transformed its debt collection process from a highly manual, personnel intensive operation into a viable shared-service offering. The transformation reduced overall process cycle time and allows quicker transparency into a Veteran's case information, positively impacting the customer experience.

- **VA Centralized Patient Accounting Centers** used the Pega Platform, in combination with the FSC document management system, to automate the storage and retrieval of more than 7 million historical documents and process an additional 800,000 document pages per year from their seven sites. Cycle times for document storage have decreased from days to hours, and the cost of physical storage space has been eliminated.
- **VA Office of Acquisitions and Logistics** selected the Pega Platform to transform the ratification of unauthorized commitment process VA-wide. The new platform includes enhanced user interfaces and flexible workflows to improve transparency, cycle times, and reporting.
- **VA Financial Services Center** currently has two Pega Robotic Process Automation™ (RPA) use cases in production, which already are saving significant person-hours that were previously spent in manual human effort.

## BUILDING A BETTER CUSTOMER EXPERIENCE

To increase visibility into customer requests, consolidate disparate call centers, and improve the customer experience, VA FSC implemented the enterprise-level Pega Customer Service application. As of 2019, Customer Service, also known as Customer Relationship Management (CRM) has been implemented for 12 product lines and counting, including payment services and local payroll support. The CRM suite includes two customer self-service portals, the core CRM interaction portal for call center staff, and a back-office portal to enable full visibility into a customer request from start to finish.

One of the key capabilities of the CRM is the Customer Engagement Portal (CEP), which allows VA commercial vendors and medical providers to have self-service access to invoice and medical claim status and payment details online, 24/7. This new portal reduced a time-consuming manual registration process from an average of 3 minutes per request to under 30 seconds. It also is a critical first step toward converting manual faxed forms into webforms, eliminating the current fax submission process, and improving visibility for customers into the status of their requests. With this capability, FSC will leverage Robotic Process Automation (RPA) to capture data from the webform and populate it without the traditional data entry process.

In addition, FSC is now able to use customer data to understand customer needs and pain points to drive process and system improvements. The new CRM using Pega validates that services meet customers' needs, ensures FSC can quickly identify any issues, and evaluates larger trends and impacts to make long-term process improvement decisions.



ABOVE: Quantico, Va. (June 28, 2015) U.S. Navy veteran Petty Officer 3rd Class Redmond Ramos pushes off strong to run in the men's 200-meter dash. The Department of Defense Warrior Games are an adaptive sports competition for wounded, ill, and injured service members and veterans. Approximately 250 athletes, representing teams from the Army, Marine Corps, Navy, Air Force, Special Operations Command, and the British Armed Forces are competing in archery, cycling, track and field, shooting, sitting volleyball, swimming, and wheelchair basketball. (U.S. Navy photo by Ensign Joe Scannell/Released)

RIGHT: SAN DIEGO (July 16, 2011) Retired Navy Captain Dr. Wayne Lapetoda pulls a tooth from a homeless veteran during the Veterans Village of San Diego Stand Down 2011. The stand down offered more than 1,000 homeless veterans with free services such as health and dental care, substance abuse counseling, legal and employment assistance and food and clothing distribution. (U.S. Navy photo by Mass Communication Specialist 3rd Class Dominique Pineiro/Released)

#### KEY FACTS

- Second largest department in the U.S. Government, with more than 400,000 employees and 2,000 medical facilities, clinics, and benefits offices nationwide
- Invoice Payment and Processing System (IPPS) for VA Financial Services Center streamlined operations, improved accuracy, and decreased invoice processing costs by 33%
- IPPS now the enterprise commercial payment platform serving all three administrations within VA
- IPPS enabled:
  - 66% increase in annual invoice volume, to 2 million (up from 1.2M) with no increase in staffing;
  - 33% increase in dollar value of payments processed, to \$21 billion (up from \$14B); and
  - cumulative cost reduction estimated at 40%;
- Pega Platform being used to transform processes across VA, replacing manual and paper-based systems with digital ones
- VA Centralized Patient Accounting Centers automated storage and retrieval of more than 7 million historical documents and processing an additional 800,000 document pages per year
- Robotic Process Automation expected to deliver up to a 50% cost reduction
- New CRM reduced the manual registration process from 3 minutes per request on average to less than 30 seconds





# The UK Health Research Authority

## OVERVIEW

In the UK, the Health Research Authority (HRA) is an arm's length body of the Department of Health and Social Care. The HRA works alongside colleagues in Northern Ireland, Scotland, and Wales to review applications for health research, with the goal of protecting and promoting the interests of patients and the public as well as supporting high quality research that improves health and well-being. The agency handles approximately 5,000–6,000 applications per year across various types of health, medical, and social care research.

The HRA provides the IT infrastructure that research institutions, pharmaceutical companies, and others use to submit applications for approval to undertake research. With multiple application routes and manual processes, the application and review process can be complex and time consuming for applicants, burdensome for HRA employees, and expensive to run. The HRA needed to streamline its business processes and create a simpler pathway to application review and approval to bring the potential benefits of health research to the public more quickly – a need that has become much more obvious as researchers pursue treatments and vaccines for COVID-19. The HRA felt these improvements were critical to maintaining the UK's reputation as an excellent place to do research. As its IT partner, HRA chose Pega.

**We have started the journey with Pega to deploy more efficient processes to help researchers bring their knowledge to the public faster. The COVID-19 pandemic has highlighted the importance of streamlined systems to support health research in the UK. Our journey with Pega is just beginning, and we're now looking to migrate other HRA processes to the platform.**

### MARY CUBITT

RESEARCH SYSTEMS PROGRAMMES DIRECTOR, UK HEALTH RESEARCH AUTHORITY

## Combining ways of working for a more streamlined application experience

The HRA began its modernization efforts with a collaborative initiative with Medicines and Healthcare Products Regulatory Agency (MHRA), known as the Combined Ways of Working (CWoW) pilot. The agency used the Pega for Government™ platform to support a single application route and coordinated ethics and regulatory review for clinical trials. Previously, applicants had to apply separately to multiple regulators – including the HRA or its equivalents in Northern Ireland, Scotland, and Wales, whose focus is legal and ethical issues and ethical review – and a second government agency, MHRA, which deals with medical considerations.

With the new system, which facilitates the jointly-developed business process, applicants apply once and receive a single UK approval. As a result of the business and IT support, the application and approval process has accelerated significantly, from an average of 91 days end to end down to an average of 54 days. This means that researchers can commence work sooner and bring the potentially life-saving benefits of their work to the public without delay. This process is still in its pilot phase with a number of applicant partners who are helping to further refine the development before it is rolled out further.

More recently, the HRA added functionality allowing research applicants outside of the CWoW pilot to book a time for a study review online, rather than having to call for an appointment during business hours. This makes the process very convenient, especially in a post-COVID world, where working hours are less predictable. Staff previously tasked with telephone bookings are now free to provide more value-adding support to their applicants. Ultimately, this functionality will be used for all types of research applications that the HRA handles, including those involving tissue samples and medical devices.

An additional development has released further functionality for researchers outside of the CWoW pilot to be able to submit changes to their legacy applications online. This has resulted in a more modern way to make these submissions and reduce staff time spent uploading documents to legacy systems.





### THE AGILITY TO ITERATE, ADAPT, AND DELIVER RAPIDLY

The HRA wanted to be able to iterate and add new functionality incrementally, while also keeping aspects of its legacy system in place for ongoing management of already-approved research – all to avoid the risks of big-bang implementations and large-scale migration of data. Pega was able to meet the complexity of that challenge.

At the same time, the HRA needed to be able to deliver quickly and make changes easily to accommodate variations in regulation, government policy, and process. This capability was of particular importance to the HRA, given the UK's imminent transition from the EU and the various process and regulatory changes accompanying the transition. The HRA can rapidly adapt and deploy solutions, which not only saves time and money but mitigates risk.

Pega also enables the HRA to deploy solutions with managed levels of access for different organizations and participants in the application process. This is critical, as there are a wide range of public and private sector players in the health research application process.

### LOOKING AHEAD: EXPANDING TO OTHER FORMS OF RESEARCH

The HRA is continuing to develop and refine the CWoW process, and in due course, will gradually expand beyond the pilot group it began with to more clinical trial applicants. Research transparency is part of this refinement: the HRA is making it easier for applicants to make information about their clinical trials available in the public domain, for the benefit of researchers elsewhere and as information for the public. An applicant dashboard will further enhance the application process, allowing applicants to see clearly where they are in the review and approval process and to make amendments to their submission. The HRA plans to widen the use of Pega as a strategic platform, replacing the back-office case management system and related capabilities as well.

Looking ahead, the HRA hopes to build upon the experience of CWoW for the other types of research they manage. This will require integrations with other government agencies and data sources. The robust reuse and specialization capabilities of the Pega Platform™ are well suited to this task, allowing the HRA to reuse and specialize functionality as needed for various processes.

The HRA chose Pega in part because it had the capacity not only to address the authority's initial challenge but could, over time, be used to improve other parts of the business as well. The authority is building its IT expertise in-house and is now actively exploring other opportunities for using Pega to achieve business efficiencies and improvements.



#### KEY FACTS

- Streamlined clinical trial application process to a single path, supporting a shortened application and approval process from an average of 91 to 54 days
- Added online, 24/7 booking of study review appointments
- Added functionality for online submission of amendments to legacy applications
- Plans to extend functionality to all application types, an average of 5,000–6,000 per year
- Poised for agile adaptation to any potential post EU transition regulatory changes
- Planning to use Pega to transform other research application and business processes









# U.S. Federal Bureau of Investigation

## OVERVIEW

The Federal Bureau of Investigation (FBI) within the U.S. Department of Justice is an intelligence-driven and threat-focused national security organization with both intelligence and law enforcement responsibilities. Staffed by nearly 35,000 agents, analysts and other professionals, the FBI works around the clock and across the globe to protect the U.S. from terrorism, espionage, cyber-attacks, and major criminal threats, and to provide its partners with services, support, training and leadership.

As part of its mission, the FBI National Instant Criminal Background Check System (NICS) helps save lives and protect people from harm by preventing guns from falling into the wrong hands. It also ensures the timely transfer of firearms to eligible gun buyers. As part of a federal mandate, NICS is used by Federal Firearms Licensees (FFLs) to instantly determine whether a prospective buyer is eligible to buy firearms or explosives. Before ringing up the sale, FFLs check with the FBI to ensure that each individual meets all of the eligibility requirements to purchase firearms or explosives. To improve scalability and to support future changes in legislation, the FBI partnered with Accenture Federal Services, who used Pega Infinity™ for case management to modernize the NICS program, further strengthen safety controls and adapt to changing citizen demands.

## FBI modernizes to address firearm legislation and purchase volumes

### KEEPING PEOPLE OUT OF HARM'S WAY

To improve scalability and more quickly respond to future changes in legislation, the FBI has modernized NICS using the Pega Infinity. The Bureau replaced its legacy system to support rules-driven background checks and continued robust integration with nationwide systems of record. With more than 38 million checks performed in 2021, the system is expected to scale effectively to handle large numbers of background checks or sudden spikes in volume. Furthermore, the FBI now provides a unified omni-channel end-user experience through its website as well as the NICS call center.

## RESPONDING TO CHANGING CITIZEN DEMANDS

As the political environment fluctuates and as crises occur, the United States experiences rapid spikes in gun purchases. By law, a background check must be completed within three business days of the request. This requirement helps protect the Second Amendment rights of U.S. citizens while enforcing existing gun control laws. The FBI has responded to these changing demands by implementing a system that can handle those volumes while ensuring accuracy for all background checks.

## THE SOLUTION

By using Pega Infinity, the FBI created a public-facing website that is the interface for all registered firearms dealers. When an individual attempts to purchase a firearm, an authorized user can securely log in and quickly submit a background check request to the FBI. Using an omni-channel approach, the authorized user also has the option to pick up the phone and call the FBI NICS call center. Pega serves as the workflow engine to appropriately route requests where they need to go. If a request is denied, then it is routed to a separate system.

Prior to implementing Pega, background check requests were processed manually and could potentially result in long wait times. With Pega, case routing between investigators and the contact center personnel is automated and accurate. As a result of significantly reduced call volumes to the contact center, FBI personnel will be able to process a larger number of background checks even with limited resources.

### KEY FACTS

- Over 20 million background checks annually since 2013, processing over 38 million in 2021 alone
- NICS breaks record number of background checks on March 17, 2021 – 236,295 checks
- Acquired RPA to automate secondary investigations processing
- Quick response to changing firearms legislation
- Omni-channel user experience
- Adheres to the United States Constitution while enforcing gun control laws

# Defense and Intelligence





# Air Force Research Lab

## OVERVIEW

The Air Force Research Lab (AFRL) is a global technical enterprise, leading the discovery, development, and integration of warfighting technologies for U.S. air, space, and cyberspace forces. With a workforce of more than 12,000 people across nine technical directorates and 40 other operations across the globe, AFRL conducts research and development across a wide variety of scientific and technological domains.

AFRL was looking to modernize its legacy IT and improve information reuse across the organization. The enterprise began looking for a platform that would use accurate and relevant data to optimize management, performance, and decision-making across the enterprise. It was important to AFRL to find a platform that would allow different units across the enterprise to easily create, share, and adapt applications and processes to fit the needs of each directorate or local conditions. After conducting extensive market research and a competitive down-select process, AFRL selected the Pega Government Platform™ for further evaluation through a competitive "Other Transaction Agreement for Prototyping" legal agreement.

## The challenge: Burdensome, code-based Tools

Since 2006, AFRL had been relying on a commercial-off-the-shelf (COTS) system that had been significantly customized over the years to enable AFRL to manage its science and technology programs. The customizations were problematic: Whenever AFRL had to upgrade the core COTS product, it had to spend substantial amounts of money to put customizations back in place. Moreover, adoption of the tool across the organization was poor, as the tool didn't fit the way people worked. Most importantly, the tool was purely a data collection tool. What AFRL really needed was an intelligent business process management suite (iBPMS).

Another major weakness of AFRL's existing IT solution was that it didn't enable different directorates to share applications. AFRL has IT shops in each of its directorates as well as headquarters – with each shop having disparate platforms and technologies. This meant that if one directorate within the enterprise had an application that another directorate wanted to use, the application would have to be recoded to fit its specific environment and requirements. It was costly, time consuming, and inefficient.

## A flexible, open platform to meet both enterprise and local needs

AFRL found a flexible, open solution that would meet the needs of their enterprise processes and could be configured to the various local needs and conditions within different parts of the enterprise. The platform met four key selection criteria for AFRL: to inherit enterprise applications and be able to configure them to meet local conditions, provide a unified design experience for developers, optimize decision-making, and adhere to defensive cyber protection requirements.

**Moving to the new platform will achieve better data quality as we'll have applications that fit the way people work. With better visibility, we will reduce data calls and increase the speed at which we make informed decisions to support the warfighter.**

### CHADWICK PFOUTZ

DEPUTY DIVISION CHIEF, ENTERPRISE BUSINESS SYSTEMS  
DIVISION, AIR FORCE RESEARCH LABORATORY

Currently, AFRL is prototyping four different applications. The first is a task management application which can be used broadly throughout the organization. The others are for the management of science and technology programs: a planning application for POM (budget request submissions); a work unit management application that manages by cost, schedule, and performance (which can all be reported out to the Department of Defense); and a program management application. AFRL has a list of over 100 different applications currently in use – some which are particular to very specific units and others that are used in multiple units – which will ultimately be transitioned to the platform.

## Improved data quality for empowered decision-making

The broader goal for AFRL in moving to the new platform is to improve data quality. In the legacy system, teams and leaders relied too often on spreadsheets and presentations to find the data they need – rather than looking to the system itself. With better data and, ultimately, data visualization tools and advanced reporting, leaders – whether at the division, branch, or enterprise level – will have greater visibility into projects and therefore be able to make more informed decisions. Meanwhile, accurate data from past research and projects will be readily available and accessible for future projects. With this advanced level of capability, agility, and reuse, AFRL is proving to be an innovator in defense IT modernization.

### KEY FACTS

- Adheres to defensive cyber protection requirements
- Inherits enterprise applications and allows for configuration to meet local conditions
- Optimizes decision making
- Improves operations and eliminates redundant costs across the enterprise
- Unified design experience for developers
- Intuitive user interface
- Scales for the AFRL workforce of 10,000 globally
- Open, flexible platform for federated development
- Ability to easily share and customize applications

# United States Marine Corps – Program and Resources (P&R)

## OVERVIEW

The U.S. Marine Corps' mission as America's expeditionary force-in-readiness since 1775 is to win the nation's battles swiftly and aggressively in times of crisis. Marines fight on land, sea, and air, and provide forces and detachments to naval ships and ground operations.

In support of this mission, and in response to strategic imperatives from the National Defense Strategy, National Defense Business Operations Plan, Commandant's Planning Guidance, the Department of the Navy Business Operations Plan, and others, the Marine Corps is undertaking significant enterprise system modernization projects to reduce risk and increase efficiency, agility, and responsiveness. The initiative is being led by the Program and Resources Department (P&R), the principal staff agency responsible for developing, defending, and overseeing Marine Corps financial requirements, policies, and programs.

Within the P&R department is the Enterprise Business Transformation (EBT) Office, which is tasked with modernizing the force, reforming business operations, and reducing business operations costs. EBT is responsible for the Business Mission Area (BMA) IT portfolio, which includes 14 functional area managers, among them Human Resources, Logistics, Financial, Acquisition, and Training and Education. The BMA's objective is to optimize the business operations portfolio such that funding can move to core warfighting missions.

## The challenge: Improve access to data while reducing manual workarounds and cost

HQMC P&R EBT oversees the business operations across over 100 business systems and a few hundred applications. In many cases, critical data and information were getting trapped within disparate business areas, systems, and applications, limiting information sharing, obscuring risk, and creating duplicative work. The Marine Corps needed to evolve from siloed, bespoke systems and applications to a cloud-based, shared services environment that will accelerate modernization. They reached out to srcLogic, a Pega Gold Implementation Partner, who used the Pega Government Platform™ as the roadmap for its pilot plan to replace the Marine Corps' legacy systems with a cloud-based, Agile, connected platform.

Changes to a defense agency enterprise architecture take time. U.S. Defense agencies must meet a number of controls to gain the Authority to Operate (ATO). In May 2018, the EBT Office began building out the new cloud architecture on a commercial cloud provider. And in April 2019, EBT received an ATO for the base cloud layer. Over the next six months they built platforms on top of that base cloud layer. One platform, the Pega Government Platform, provides security control inheritance for 390 of the 403 controls typically required for a moderate level application.

With the foundation in place, developers are now able to more quickly build and approve applications within weeks, not years. By sharing application management controls, rule sets, and services built on the Pega Platform™, EBT can reuse objects and components, building out application functionalities once, then implementing across other applications. For example, a function for digital signatures can easily be applied across all applications.

Shared services also make reuse possible across the organization. Capabilities can be shared across enterprises, organizations, and even other defense agencies with a Pega deployment. When an agency doesn't have to build each application from scratch, time to production is dramatically reduced.

## STARTING SMALL AND ACTING FAST

The Marine Corps has a long-term vision for transformation. By working with srcLogic on one application to start, EBT helped the Marine Corps successfully create an Agile environment while demonstrating the long-term potential of the platform. The first application addressed MIC-P, the Managers' Internal Control Program (MICP), which provides the Marine Corps with a standardized process to safeguard its assets, check the accuracy and reliability of its accounting data, promote operational efficiency, and encourage adherence to prescribed managerial policies. The MICP evaluates and reports on the effectiveness of internal controls throughout the organization to ensure effective operations; safeguard against fraud, waste, and mismanagement; and comply with laws and regulations.

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**The amount of time previously spent collecting information was time not being spent on the Marine Corps mission. Our system modernization has saved thousands and thousands of person-hours and related costs, ultimately allowing us to focus on the mission**

## CAPTAIN ANDREW HUTCHEON

U.S. MARINE CORPS, IT PORTFOLIO MANAGER, HQMC, ENTERPRISE BUSINESS TRANSFORMATION OFFICE

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Quote sourced from: AFCEA Signal Webinar, "The Time is Now: Adopt Low-Code Automation to Make Agile Happen", July 22, 2020.



Previously, complying with the MICP required hundreds of thousands of worker hours to gather and organize data from disparate sources, including Excel spreadsheets and Sharepoint. Many more man-hours were spent manually compiling reports to demonstrate compliance and explain issues not compliant with the managers' controls, then track the actions required to resolve issues and achieve a clean audit opinion. To help automate the process of tracking issue resolution and providing accurate reporting to senior leadership, the Marine Corps and srcLogic developed an application called Managers Internal Controls Remediation and Reporting (MICRR).

With the new MICRR application, the Marine Corps was able to deliver a production-ready initial operating capability (IOC) in three months and full production rollout within six months – all while leveraging an Agile delivery methodology and using the low-code application development capabilities of the Pega Government Platform. Since initial delivery, the combination of low-code capabilities and Agile delivery has enabled the Marine Corps development team to develop and deliver applications significantly faster, with new apps being built every three to four months. Plus, by using a comprehensive inheritance model for risk management framework control, the majority of application control issues are already resolved, leaving developers with just a handful of controls to address. The Marine Corps has fully embraced Agile methodology.

Just as Pega provides developers with coding guardrails, Agile provides process guardrails. It provides a structure that enables flexibility but keeps a project moving quickly, successfully, and smoothly. "Organizing this work into an Agile methodology has definitely paid off for our implementation," says Captain Andrew Hutcheon, who is leading the Marine Corps' Financial Management IT Portfolio modernization.

The ability to develop and implement applications across lines of business more quickly is a significant improvement for the Marine Corps. Another important benefit of the modernization product is the way data is collected and shared. By creating a structure for data collection and a single data environment, reporting can now be done in real time. This provides leaders with more visibility into risks as well as the ability to apply business intelligence to help identify further opportunities for improvement.

#### KEY FACTS

- Agile delivery methodology transforming manual to automated processes in months, not years
- The Marine Corps implementation of the Pega Platform operates under a Continuous ATO; speeding up the delivery of applications from years down to weeks
- srcLogic, a Pega Gold Implementation Partner, delivered the full production version of MIC-RR in six months





# State Government





# California Department of Public Health

## OVERVIEW

The California Department of Public Health (CDPH) is one of the largest healthcare organizations in the U.S., serving 39 million people in the sixth largest economy in the world. With 10 agencies employing approximately 8,000 employees, CDPH ensures the health and safety of California state residents and maintains public health-related data and statistics. CDPH provides a wide range of services, including community health monitoring, health education and outreach, healthcare facility assessments, and medical certification and licensing. The agency's programs currently issue more than 600,000 licenses annually – from environmental to food and prescription drug licenses.

CDPH implemented Pega to help streamline and integrate its licensing and monitoring services across multiple business units and services. Traditionally, obtaining a license took weeks or months – manually typing license applications into a legacy mainframe system, mailing paper applications, or processing in-person ones – slowing down state commerce. With Pega, CDPH is automating licensing practices so constituents can easily apply online and receive automated eligibility and approvals, reducing the process time from months to days.

## California improves customer experience with licensing program built for change

### CREATING A MORE AGILE WAY FORWARD

Pega is being used across four CDPH departments as part of an enterprise licensing program – Clinical Laboratory Professional Licensing; Electronic Laboratory Field Services; New Online Licensing Application; and the newest program, National Cannabis Licensing Services – with additional projects planned as CDPH modernizes its licensing processes department-wide.

Processing 600,000 healthcare-related licenses annually, we needed an application that could support a large volume and be scalable across the State of California. With Pega, we have reduced manual processes and expedited the licensing process from months down to days.

### GARY NODINE

FORMER CIO, CALIFORNIA DEPARTMENT OF PUBLIC HEALTH

## RESPONSIVE TO CHANGING REGULATIONS IN REAL TIME

California was the first state to legalize the sale of cannabis for medical use and, as of January 1, 2018, became one of the first to issue licenses for the sale of recreational cannabis. The state needed an efficient system to address an influx of new license requests, spanning multiple license types. CDPH turned to Pega to create a technology infrastructure that reduced these typically complex, time-consuming processes to a centralized, user-friendly system that quickly and accurately determines eligibility and provides approvals. Using the Pega Platform™, CDPH was able to design and implement the new system in a matter of months.

CDPH can now efficiently issue licenses and integrate with multiple data sources, departments, and other government agencies, allowing for easier background checks and ensuring public safety. CDPH is also poised to quickly add new license types, integrate with additional systems and applications – including those from outside vendors – and respond to changing regulations in real time. The system will ultimately be part of the Track and Trace system that monitors cannabis production from “seed to sale,” an important system for public health and safety.

### KEY FACTS

- Reduced processes from months to days
- Automated and eliminated manual processes
- Improved government employee productivity
- Decreased development and deployment time
- Able to respond to changing regulations in real time



<sup>1</sup><https://www.forbes.com/places/ca>



# Energy Safe Victoria

## OVERVIEW

As the state's safety regulator for electricity, gas, and pipelines, Energy Safe Victoria (ESV) knew it could no longer rely on paper-based processes to ensure the safe generation, supply, and use of electricity, gas, and pipelines. In response, ESV launched ESVConnect, an online hub that consolidates all the agency's application systems onto a single, online platform.

But while ESVConnect effectively streamlined critical processes, it began to encounter performance issues as electrical workers flocked to the site to obtain licenses and submit safety certificates.

"As more and more people logged into the system, there would be a peak of heavy workloads," recalls Manish Arora, Information Services Manager for ESV. It was difficult for ESV's servers to keep up with such demand. As a result, customers became unhappy with a potentially unstable system.

Part of the problem was ESV's reliance on on-premises servers to support ESVConnect. Scaling on-premises servers to meet fluctuating demands can be a costly and time-consuming endeavor. At the same time, satisfying such increasing demand often requires costly investments in new hardware and devoted IT teams.

## TIME IS OF THE ESSENCE

Adding greater urgency to the situation is the fact that Victoria is currently leading in Australia in economic growth, according to the Australian Bureau of Statistics. Between 2021 and 2022, as the Australian economy recovered from the COVID-19 pandemic, Victoria's real gross state product grew by 5.6% due to the removal of border restrictions and lockdown measures across the country – that's more than South Australia (5.1%), Northern Territory (4.7%), and Queensland (4.4%).

Given the area's burgeoning growth and heightened user expectations, ESV knew it needed to migrate ESVConnect from on-premises servers to cloud technology from Pega for greater speed and enhanced performance.

Today, ESVConnect features services, which license Victoria's electrical workers, as well as issue and audit Certificates of Electrical Safety (COES) for completed work. GasTrac, on the other hand, is ESV's online gas installation acceptance system for managing gas applications. Users can electronically submit information on complex gas installations, check the status of active applications, and submit exemption applications.

## The cloud equation

Migrating ESVConnect to the cloud has delivered significant benefits for the state agency. Chief among these advantages is the ability to automatically scale in accordance with increasing and decreasing demand – a capability that ensures reliable and consistent system performance. Faster turnaround on accepting and issuing gas supply approvals through GasTrac also provides users with a more positive online experience.

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**Since we moved to the cloud, platform maintenance has become easy, and it has also uplifted ESVConnect's security posture. Pega is responsible for making sure the system is always secure.**

**MANISH ARORA**

INFORMATION SERVICES MANAGER, ENERGY SAFE VICTORIA

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Ease of management is another advantage to migrating to a cloud-based system. In the past, Arora says ESV relied on an in-house IT professional to oversee maintenance and security activities.

This not only ensures greater system reliability and security, it also frees ESV employees to shift focus from mundane maintenance tasks to more mission-critical activities, such as designing and deploying new system features. Better yet, in the past, deploying new features required providing industry partners with 10 days' notice that the online system would be down while undergoing improvements – a step that Arora says often resulted in poor customer experience.

However, by relying on the cloud, Arora says new features, such as the ability to reset one's password, can be easily added while "the system is always up and running." This helps us to focus on more priority features that can be deployed in ESVConnect.



ESV's cloud-based solution also provides the state agency with critical data intelligence, as the system automatically logs information, such as number of users at any given time, how long it takes for users to log in, and processing times for certificates – data that can be used for system improvements and an enhanced user experience.

#### **A LOOK TO THE FUTURE**

To ensure a smooth transition to the cloud, ESV created an internal working group of subject matter experts, representing various functions across the agency, to collectively assess risks and review challenges.

ESV also opted for a phased approach to migrating to the cloud to ensure the safe and secure transfer of data and carefully integrated code to minimize disruptions. Together, these best practices culminated in a successful cloud migration that has encouraged ESV to embark on new initiatives.





# Multi-state disaster recovery: New Orleans Deepwater Horizon Economic Claims Center

## OVERVIEW

The Deepwater Horizon oil spill in 2010 was the largest marine oil spill in history, releasing gallons of crude oil into the Gulf of Mexico and leaving businesses and citizens across a broad spectrum of industries in deep economic and ecological hardship. The resulting Deepwater Horizon Economic Claims Center (DHECC) settlement provided compensation to claimants across the Gulf South and beyond, providing relief for citizens in Louisiana, Texas, Florida, Mississippi, and Alabama as well as those impacted globally.

By 2012, hundreds of thousands of claims had been filed and the process had come under widespread criticism for lack of speed, transparency, and accuracy. In early 2012, as part of the settlement, the DHECC was created. In 2014 and 2015, the claims system was retooled using the Pega Platform™ to enable workflow, fraud, analytics, and reporting. Since then, DHECC has brought more than \$10 billion in claim awards to the Gulf South, resulting in unprecedented economic and ecological development.

**The way Pega handles complexity, scale, and change was critical to the success of our systems. With 500-plus major rule changes, it was essential we have a platform that allowed us to quickly and easily make changes.**

**CHRISTOPHER READE**

CIO, DEEPWATER HORIZON ECONOMIC CLAIMS CENTER

## Reinventing a claims process already in motion

DHECC was faced with formidable challenges in creating a new, more streamlined claims system: a 1,000-page settlement document, 24 claim types with multiple variations of each, and ongoing changes to rules and policies. When DHECC was created, hundreds of thousands of claims were already in process – so the new system had to handle all of the legacy claimants and claims that were part of the Gulf Coast Claims Facility (GCCF) and deduplicate awards already made. Finally, the system needed to integrate with more than 12 external systems, including a fraud and abuse solution, and four major vendors who had to physically review and adjudicate each claim and supporting documents as well as document their findings.

As a court-supervised settlement program based in New Orleans, robust documentation was still required to ensure the program was meeting legal standards. The program was under significant public scrutiny as well, due to the difficulties around the claims management process.

## BUILDING FOR CHANGE AND SEAMLESSLY INTEGRATING MULTIPLE SYSTEMS

After an extensive search, DHECC chose to partner with Pega for its new claims management system. A team of developers worked to fully customize Pega's business process management framework, integrating the workflow with fraud analytics, a complete lifecycle and ticketing system, and change control processes.

Since DHECC first began the claims process, there had been more than 500 changes to rules and policies around claims handling. Because Pega automatically updates and documents every instance where a change has an impact with no need for manual coding, DHECC has been able to incorporate ongoing changes. The new claims system automatically maintains a complete log of what ruleset was in place at the time of each claim so that a full audit trail and justification for payment amount can be demonstrated.

The other strength for DHECC is Pega's open system integration and flexible architecture. The claims process is complex and multilayered, consisting of multiple systems, applications, and technology vendors. DHECC was able to build a system that streamlines it seamlessly on one unified platform.





### MANAGING CLAIMS ON A MASSIVE SCALE

DHECC's claims system has significantly increased efficiency and reduced the time from claim submission to resolution, while complying with all legal and security requirements. On an average day, tens of thousands of users access the claims application, including thousands of attorneys, unrepresented claimants, the oil company itself, class counsel, and approximately 2,000 reviewers. DHECC has processed claims from hundreds of countries, all 50 states, and multiple industries – consisting of more than 20 million documents. The very last of more than 500,000 Deepwater Horizon claims are now being processed and are scheduled to be completed within a year.

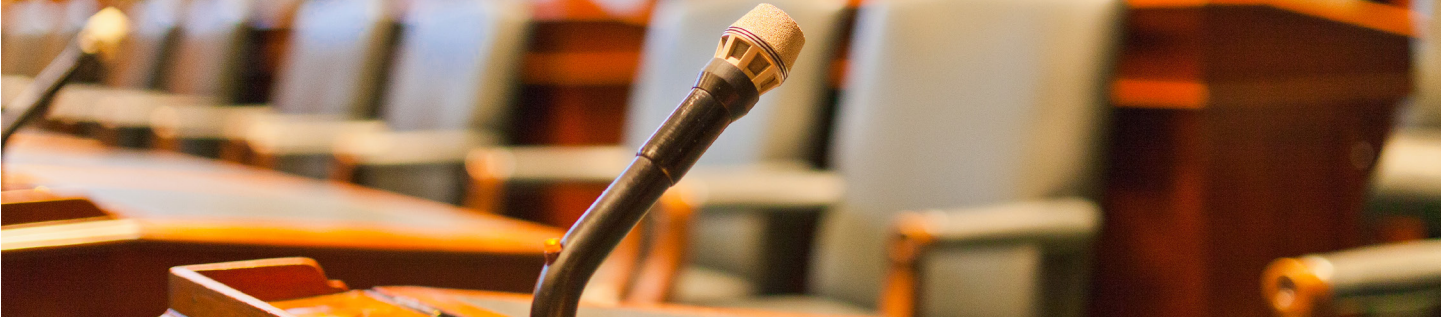
### KEY FACTS

- Largest class action lawsuit of all time
- 1,000-page settlement document
- More than \$10 billion in paid claims
- 500+ changes made to settlement rules and policies along the way
- Tens of thousands of users accessed the claims application daily throughout the claims process
- Since 2012, processed more than 500,000 claims









# New Jersey Courts

## OVERVIEW

Courts and law enforcement officers are the most visible part of the legal system. Although many legal issues and disputes never reach a courthouse, each year approximately 7 million new cases are filed in New Jersey's courts. In those cases, judges are called upon to decide disputes involving topics such as criminal law, motor vehicle violations, divorce, domestic disputes, wills, contracts, defective products, and basic American rights. The agenda of New Jersey Courts (NJC) is set through these cases, and it is through these cases that the courts influence their citizens.

While modernizing its legacy court case management systems, New Jersey passed revolutionary criminal justice reform legislation in November of 2014. This reform helped create a fairer criminal justice process for its citizens and is improving public safety. To meet legislative mandates and transform their organization, NJC:

- Developed multiple applications with an agile approach, beginning with the Unified Complaint Entry (UCE) project
- Created Public Safety Assessment (PSA) application to assist judges with real-time decisions on a defendant's risk to society based on proven statistical models as well as assess the likelihood of a defendant appearing in court
- Implemented speedy trial policy changes to increase efficiency and productivity of the justice system from arrest to trial
- Retired three legacy applications and created a unified system that streamlined complaint entry for more than 40,000 mobile law enforcement officers
- Modernized case management applications across the court systems and reused functionality to lower development cost of ongoing projects
- Developed a mobile application for pre-trial services staff to monitor and communicate with defendants prior to their trial

## New Jersey Courts leads the way in criminal justice reform

### IMPROVING EFFICIENCY AND AUTOMATION FOR LAW ENFORCEMENT AND THE COURTS

Approximately 2,500 municipal court staff members and 40,000 law enforcement personnel access New Jersey Courts' (NJC) applications for criminal or traffic information. To streamline the justice process for police officers and court administrators, NJC retired three legacy applications and developed a Unified Complaint Entry (UCE) system in less than nine months.

The quick development time was a result of NJC's clear vision. With UCE, all 40,000 New Jersey police officers enter complaints or tickets directly into a mobile unified complaint entry system, such as a traffic violation or arrest. The system automatically tracks each case from initial entry, generates the court date for the defendant, and manages the entire lifecycle of the case. The Pega Platform allows NJC to execute business rules, automate business processes, and manage the lifecycle of each case to ensure the efficient and accurate flow of information to all judicial parties.

NJC successfully transformed the pre-trial detention process – from fingerprinting to a judge's release decision. The organization is now capturing every event, process, and decision point within the Pega Platform™, meaning that from start to finish, NJC staff can now process a defendant in under 20 minutes. This process would have previously taken the courts three hours to complete – signifying an 89% reduction in defendant processing time. This includes an in-person interview, recommendation to a judge, and risk assessment processing. NJC processes around 80,000 defendants per year, and the time savings from this process alone are significant. There are many other benefits expected from criminal justice reform, including a fairer and more objective approach to pre-trial release decisions and a significant reduction in costs to manage the state's correctional facilities.

**With 40,000 New Jersey law enforcement officers and 2,500 municipal court staff using Pega for automated end-to-end criminal justice processes, we are now able to do great things with the processing power in front of us.**

**JACK MCCARTHY**  
CIO, NEW JERSEY COURTS

### **IMPROVING CITIZEN LIVES WHILE PROVIDING JUDGES WITH REAL-TIME DECISION SUPPORT**

To improve public safety and fiscal responsibility, NJC developed the Public Safety Assessment (PSA) application that assesses defendant risk. Using business rules defined by a third-party and approved government policy, PSA generates a score that assesses the risk of a defendant to society based on factors including criminal history. The PSA also provides a score to the judge that assesses the risk of the defendant failing to appear in court. These risk scores enable judges to make more informed, real-time decisions when determining the appropriate next best action for a defendant pre-trial.

### **ENSURING THE RIGHT TO A SPEEDY TRIAL WHILE REDUCING TAXPAYER COSTS WITH CASE MANAGEMENT**

With nine out of 10 U.S. individuals awaiting trial in jail because they cannot afford bail<sup>1</sup>, criminal justice reform helps ensure low-risk defendants are able to continue earning income for their families before trial and high-risk defendants remain in jail. It also reduces jail overcrowding and the associated taxpayer costs. A study published by pretrial.org found that pretrial incarceration costs taxpayers \$9 billion each year or anywhere from \$60 to \$200 per bed per night<sup>2</sup>. To reduce incarceration costs and increase judicial process efficiency, a defendant now must be indicted within 48 hours after arrest and a case must go to trial within 90 days. NJC is able to remain compliant and streamline the judicial process from arrest to trial using automated business processes and built-in case lifecycle management.

### **EFFECTIVE AND EFFICIENT PRE-TRIAL MONITORING**

To improve pre-trial appearance outcomes for both the court and defendants, NJC implemented the Pre-trial Monitoring (PTM) application. Using electronic monitoring, pre-trial services officers can efficiently monitor defendants released by the court and remind them of their upcoming court dates and other court orders. Case lifecycle management helps the pre-trial services officer better manage a smooth pre-trial process and helps defendants remain compliant with court orders.

## **Modernizing the courts**

### **SIMPLIFYING CASE MANAGEMENT WITH APPLICATION REUSE**

Managing the lifecycle of each individual case has been made easier by centralizing the entire court system, integrating multiple systems of record, and automating processes. With the Municipal Automated Court System (MACS) application, NJC now has an inventory of case management services and a framework to maximize application reuse with every new release in the future. In addition to eliminating redundant processes and systems, NJC has a unified entry system for all of its court functions, including scheduling and calendaring, charges and statutes, payment processing, and bail and document management – enabling efficiency and real-time decisions.

## **New Jersey Courts adapts with confidence**

### **KEEPING THE COURTS IN SESSION**

To get work done, New Jersey courts internal customers, including law enforcement officers and municipal court staff, rely on the ability to digitally enter cases and complete tasks such as maintenance, calendaring, scheduling, depositions, and processing fees.

Migrating the bulk of that work into Pega Cloud in the years leading up to the COVID-19 pandemic allowed New Jersey Courts to continue running the bulk of its calendar completely remotely. In total, 400 courtrooms were transitioned to virtual environments nearly overnight, and since then New Jersey Courts have used the technology to welcome 25 million participants to court events.

### **MAXIMIZING UPTIME**

Before migrating to the cloud, New Jersey Courts' previous legacy infrastructure impacted uptime. It was managed by an in-house team, who needed to continually ensure things were running smoothly. By migrating to the cloud, New Jersey Courts' infrastructure is now nearly automatically maintained, with patches, updates, and infrastructure refreshes regularly conducted during a defined maintenance window with zero downtime.

“Since migrating to the cloud, our uptime has been 99.99%, which is something we want to continue to achieve. We’ve seen that when we’re doing application development and we want to get something out into production as quickly as possible, we’ve eliminated an entire procurement cycle of trying to buy new hardware, having our staff stand the hardware up, installing all the software on the server stack, and getting it running.”

**JACK MCCARTHY**

CHIEF INFORMATION OFFICER, NEW JERSEY COURTS

<sup>1</sup><https://www.washingtonpost.com/posteverything/wp/2015/07/20/theres-never-been-a-better-time-for-bail-reform/>

<sup>2</sup><http://www.pretrial.org/the-problem/>



### NEW JERSEY COURTS SAVES TAXPAYERS \$10M THROUGH REUSE

New Jersey Courts (NJC) saved \$10 million by identifying 18 common use cases and reusing those processes across all of its court systems with a unified platform. This means common processes, such as scheduling and payment processing used by the municipal, criminal, probation, civil, and family courts, can be reused. As a result, the agency was able to reduce development time by 10,000 hours and save more than \$10M in development cost through application reuse and the agility of the Pega Platform™. The agency also expects to see significant savings in future maintenance costs, as the unified platform allows NJC to be flexible for any changes.

Keys to NJC's success include the organization's:

- Vision to transform and digitize its business
- Commitment to train over 100 staff members on the Pega Platform
- Use of the agile methodology for application development

NJC continues to evolve and is well positioned to complete its digital transformation while keeping up with the pace of change in legislation and business need.

#### KEY FACTS

- ~7 million new cases filed annually
- 80,000 defendants processed annually
- 40,000 New Jersey law enforcement personnel empowered with mobile complaint entry
- 89% reduction in defendant processing time – from three hours to only 20 minutes
- 90% increase in efficiency to enter a complaint
- \$10 million+ in savings from reusing functionality across the courts
- Reduced development time by 10,000 hours
- 96% reduction in cost through electronic defendant monitoring
- Developed new complaint entry application in nine months, resulting in the retirement of three costly legacy applications
- Embraced agile methodology to help reduce risk and increase speed of delivery
- Trained over 100 staff members on the Pega Platform while maintaining project delivery speed



# New South Wales Department of Planning and Environment

## OVERVIEW

The New South Wales Department of Planning and Environment (DPE) provides Australia's most populous state with a wide range of services related to planning, zoning, building, and conservation. As the Department has grown in size, so has the complexity of its projects, systems, and procedures. Since 2019, with help from the Pega Platform™, the Department has transformed the way citizens, property developers, local councils, and professional bodies submit applications to and interact with the NSW planning system through the NSW Planning Portal (the Portal).

Since the NSW Planning Portal was first envisioned in the government's whitepaper in 2012, over 310,000 registered users, 32 digital planning services, and 128 councils have been onboarded to the Portal between 2019 and today. The NSW Planning Portal is not only servicing NSW, the broader general public also plays a key role in supporting inter-agencies, such as the Department of Customer Services Strata portal program, Transport for NSW, and ServiceNSW. Most recently, through the spatial information captured in the Portal, the NSW Digital Twin represents near real-time changes to NSW urban features. Advances in artificial intelligence have also been implemented to assist the customer experience and shorten response times.

At the federal government level, the Australian Bureau of Statistics (ABS) is releasing councils from manual monthly reporting on building approval requirements due to ABS's digital integration with the Portal and the confidence in the data received.

## The need for more streamlined processes and a better customer experience

Previously, the planning system utilized a significant number of bespoke applications across the various councils and the Department. Not only were these applications costly to run, they also demanded a high level of effort and resources to stay fully operational. Additionally, there was a high reliance on many cumbersome paper-based systems that frequently required inconvenient face-to-face interactions.

The Department knew that it needed to make sweeping changes to meet legislative demands, improve operational efficiency, ease the burden of the planning process for local and state government, and improve the application process for citizens. To address these issues the agency initiated a digital transformation of its planning process. The goal is to eliminate paper-based processes, improve application completion times, increase transparency, and ensure greater accountability of all stakeholders.

## A BETTER, FASTER, MORE TRANSPARENT EXPERIENCE FOR CUSTOMERS

The Department used the Pega Government Platform™ on Pega Cloud® to create the NSW Planning Portal, where state and local government can engage the community and industry and meet their legislated obligations from the convenience of their home or office in a 24/7 environment. The application process has been digitized and integrated into a single digital platform – a seamless alternative to what was previously a disparate range of manual processes that could only be conducted in person and during business hours.

The new system also integrates spatial information from across NSW in near real time and provides base data to inform NSW's digital twin. The moment an applicant puts in the location of their proposed development, they get an indication of what will be required in their application process and so gain a clearer understanding of the process. This transparency of planning information also helps improve the quality of the applications lodged.

## AN AGILE, COLLABORATIVE APPROACH FOR GREATER EFFICIENCY AND FLEXIBILITY

Given the organization's size and its large breadth of projects, the Department wanted to take a staged, agile approach to rolling out new applications. Another consideration was how rapidly the Department and local councils would be able to make changes in response to legislative changes, user needs, and consumer feedback. Scalability, flexibility, and the ability to reuse applications were also high on the Department's list of priorities. Pega was the platform that met all of these requirements.

With Pega, local councils have been able to participate in the design and build process, enabling them to ensure that applications meet their process and workflow needs. All 128 NSW councils have adopted the digital planning services – with training completed in a matter of hours instead of days or weeks – and onboarding is nearly immediate.

**With Pega, the Department of Planning and Environment was able to work efficiently together with small groups of stakeholders including councils, state agencies, and industry, to design a fully integrated digital solution. Improving the customer experience was a top priority and central to our design methodology.**

## GINO CAVALLARO

EXECUTIVE DIRECTOR, NEW SOUTH WALES  
DEPARTMENT OF PLANNING AND ENVIRONMENT



### OFF TO A STRONG START AND READY FOR FURTHER EXPANSION

The NSW Planning Portal has become the leader in driving the shift from running uncoordinated efforts within silos to launching an integrated operational improvement program organized around customer journeys. It encourages adoption of the digital planning services and enables councils and agencies to shift away from using individual technologies, which limit operational capabilities and foster piecemeal approaches to planning processes. Councils and agencies can now focus on customer journeys in combination and in the right sequence to achieve compound impact.

The Portal has developed a very strong capability and has worked with industry stakeholders to support the integration, as this entire government solution impacts councils and other state agencies. The focus has always been to improve the customer journey with simplification and clarification of process. By bringing together the end-to-end services online, access to information via a single online portal for stakeholders to interact with is created – for a transparent and traceable view opportunity and a digital-driven decision-making process.

### KEY FACTS

- During its launch year, more than 200,000 development applications (DAs) exceeding \$1 billion were submitted through the Development Application Online digital service
- The NSW Planning Portal now hosts over 310,000 registered users, including all 128 councils and over 2,500 private certifiers
- Across NSW, all planning applications are submitted annually by citizens, property developers, certifiers, agencies, local councils, and professional bodies
- The number of digital planning services has grown from a handful to over 30 digital services on the same platform within the last 18 to 24 months
- Average submitted application completion time has fallen from 40+ days to less than 20 days
- Reduced application determination times of over 50%
- Consistent customer satisfaction (thumbs up) rates, averaging 86% over the last year
- Increased department efficiency due to the continuous release and improvement of the digital services built on Pega – via rapid delivery within a 4–10 week release cycle

The NSW Planning Portal has been a bold and overdue capability build. It is a centerpiece in the much-needed micro-economic reforms to enable a smarter and more trustworthy build world. #ePlanning Portal, the initiative, not only underpins new levels of transparency and productivity in public service delivery, they are part of an unstoppable momentum to drive micro-economic reform and build public confidence in the making and maintenance of today's apartment buildings.

**DAVID CHANDLER, OAM**

NEW SOUTH WALES BUILDING COMMISSIONER,  
NEW SOUTH WALES DEPARTMENT OF CUSTOMER SERVICE



# New South Wales Strata Building Bond and Inspection Scheme

## From building repairs to rebuilding trust and transparency

### HOW MODERNIZING THE BUILDING BOND MANAGEMENT PROCESSES IS SUPPORTING CITIZENS IN NEW SOUTH WALES

The Strata Building Bond and Inspections Scheme (SBBIS) commenced in 2018. The scheme provides protection for owners of new multi-storey residential buildings by mandating that funds – or ‘building bonds’ – be set aside up-front to cover the cost of fixing defective work not covered by a developer within the scheme’s timelines. The SBBIS is part of significant regulatory reform prompted by growing consumer concerns about the quality of multi-storey developments, as witnessed by high-profile evacuations of the Opal and Mascot Towers which have led to residents having to pay significant money to rectify building defects or, as in the case with Mascot Towers, losing their homes.

But while the SBBIS aims to protect consumers and restore confidence, the cumbersome and resource-intensive process of manually filling out paper forms caused cracks to emerge in the government initiative. Applicants needed to fill out up to 36 paper forms through eight stages of a building’s post construction lifecycle, all while relying on manual monitoring of timelines and due dates. At the same time, with only a very small team managing the SBBIS process using Excel spreadsheets, it was highly labour intensive and complex.

### FINDING THE ANSWER ONLINE

To eliminate time-consuming, paper-based tasks, the NSW Government simplified how the scheme is managed - creating more frictionless service, and ensuring results are achieved more quickly for all stakeholders.

The result is a powerful combination of a new online site, called Strata Hub, and a mobile app, known as SBBIS Inspect - both powered by the Pega Platform™. The Strata Hub is a seamless digital platform that supports the construction and maintenance of apartment buildings in NSW. It works by streamlining required data inputs and pre-filling known data, while also helping NSW Government on the back end with compliance support and improved cybersecurity.

The SBBIS Inspect app also ensures greater speed and efficiency by modernizing the way NSW building inspectors complete their reports. In the past, inspectors would visit a site, take photos of a building defect, and manually file a report. However, with the SBBIS Inspect mobile app, inspectors can capture all necessary data and evidence on the spot. This convenience allows inspectors to shift focus from submitting reports to high-risk compliance matters while at the same time enhancing report efficiency and accuracy.

### SIGNIFICANT SAVINGS

Today, Strata Hub has more than 2,500 unique visitors a week, and the SBBIS has significantly increased its holding of building bonds to fix building defects.

More than simply a show of enthusiasm, these figures also point to huge cost savings on the part of consumers since the inception of the scheme. Previously, when owners discovered structural issues in their buildings, they would often cover repair costs, rather than the developer. Now consumers can avoid having to pay thousands of extra dollars a year in levies to fix something that the developer is responsible for. These savings are likely to grow exponentially given that over 50 percent of Sydney’s population is expected to live in strata by 2040.

### BENEFITS BEYOND THE STANDARD

The benefits of digitizing the SBBIS expand beyond increased speed, efficiency, and cost savings. Modernizing the entire building bond process promises to change human behavior, increase consumer trust, and provide NSW government agencies with prime opportunities to use data to improve community health and safety.

For example, by simplifying the building bond management process, Strata Hub gives the New South Wales community greater assurance that when they purchase an apartment, it will be built the way it should be. And in the event that it isn’t, there will be money available to fix it within the scheme’s coverage periods.

In fact, New South Wales has become the first Australian jurisdiction to authorise 10-year serious defects insurance for apartment buildings in order to protect owners. This initiative aims to eliminate the lengthy and expensive litigation process some owners must begin against developers if any serious defects arise within 10 years of completion of the building.

Inspector behavior is also evolving as the SBBIS Inspect app supports offline working, preventing disruptions when workers are inspecting basements or other areas with limited connectivity. In the past, building inspectors spent time manually filling out a 22-page checklist – a tedious activity that took days to complete.

However, because the SBBIS Inspect app lets inspectors work offline, an inspector could be three storeys down in the dungeon of a car park, input information, take photos, and have all of that data automatically sync to their device as soon as they return to a Wi-Fi or Internet zone. Everything is instantly downloaded and a report is then produced that brings together the valuable information owners corporations need to be aware of defects in their building that to be fixed.





Another advantage of Strata Hub is its ability to integrate data into a single repository, providing users with easy access to critical information. In another area of the Strata Hub, users simply enter the number of a particular strata into the system to gain insight. Information includes things like the number of lots in a strata scheme, whether mandatory reporting is complete, and a handy satellite map of the neighbourhood. Either way, the result is a better-informed consumer.

#### LOOKING TO THE FUTURE

By geocoding its scheme data and connecting Strata Hub to other NSW Government systems, the NSW Government could significantly improve public health and safety.

Yet for all of the advantages of Strata Hub and SBBIS Inspect app, driving adoption of new technologies and systems, especially in a traditional industry like building, can be challenging. In response, the NSW Government took extensive measures, from involving stakeholders in the testing process to hosting webinars and roundtables to ensure all stakeholders felt comfortable using the solutions and that their feedback was incorporated into the final product design.

It was worth the legwork. Today, Strata Hub and the SBBIS Inspect app are bolstering consumer trust, increasing stakeholder accountability, and changing human behavior in ways that promise to make major cities safer places to live and work in.

#### KEY FACTS

##### SBBIS in the Strata Hub

- Deployed on the Pega for Government Platform
- Replaced 36 manual forms
- Streamlines required data inputs and pre-fills known data
- 110,000+ unique visitors in its launch year
- Desktop portals for 6 personas
- Building bonds grew three-fold in six months

##### SBBIS Inspect Mobile App

- Modernized the way NSW building inspectors complete their reports
- Boosts speed and efficiency
- Used onsite while conducting building inspections
- Offline capabilities for poor and no reception areas
- Available in both Google Play Store and Apple App Store

##### Combined, Strata Hub + SBBIS Inspect Mobile App

- Manage up to \$353 billion worth of NSW strata investment
- Support and protect the lives of more than 1.5 million people living in strata across NSW
- Support more than 3,000 strata managers and more than 84,000 strata schemes across the region









# New South Wales Transport Management Centre

## OVERVIEW

The New South Wales Transport Management Centre (NSW TMC) in Australia is the state government authority dedicated to improving customer experience on the NSW transport network. NSW TMC controls all vehicle, rail, ferry and bus operations across 18,000 kilometers of roads and more than 5,000 bridges and tunnels. To minimize delays and provide timely and accurate information to travelers, the NSW TMC enhances transport coordination services, as well as its monitoring and management of the NSW road network. The agency partnered with Pega to develop a proactive incident management system, incorporating its existing road sensor network, intelligent transportation systems, electronic message boards, and billboard signs for thousands of users.

**In just four months, we have already seen significant benefits from Pega and our fault management solution, including improved utilization of engineering resources and prioritization of fault handling, leading to faster response times.**

### CHRIS RUWOLDT

PRINCIPAL MANAGER TRANSPORT OPERATIONS SYSTEMS,  
NEW SOUTH WALES (AUSTRALIA) TRANSPORT MANAGEMENT CENTRE

## Improving the travel experience and reducing costs in four months

To ensure a positive experience for individuals traveling in New South Wales, the agency built the Fault Management Service (FMS), a seamless, decision-based incident management solution. FMS more efficiently tracks, manages and responds to a myriad of transport-related events. As a result of agile methodology and Pega capability, the agency was able to deliver results in just four months.

## MANAGING TRANSPORT ACTIVITY AND INCIDENTS FASTER

FMS enables the agency to dynamically route and resolve faults reported from more than 20,000 remote devices, including variable message and speed limit signs, traffic signals, and monitoring devices. The solution enables NSW TMC staff to more quickly resolve incidents, using Pega's business rules to automate prioritization and escalation as well as facilitate dynamic process flows to technicians in the field.

## BETTER CITIZEN SERVICE AND REDUCED COSTS

NSW TMC improved citizen service levels by using more accurate communication and smoother travel, and was able to reduce costs with more efficient operations. Through better utilization and prioritization of remediation activities, the organization evaluates and responds to events faster.

## PREPARING FOR FUTURE CHANGE

Now the agency has an agile incident and case management system that enables sophisticated intelligent response. The agency chose Pega because it supports current requirements as well as provides an agile foundation for future changes within the agency and associated organizations. Over time, NSW TMC expects to continuously reduce response times as processes are further refined based on data. Specifically, the agency plans to incorporate collaborative incident management, allowing even better collaboration among support and operations personnel.

### KEY FACTS

- Go-live results in just four months
- Smoother experience for travelers in New South Wales
- Faster response to device faults
- Seamless, transparent fault management network-wide

# Queensland Department of Education

## OVERVIEW

The Department of Education in Queensland, Australia provides services to more than 800,000 school students and almost 300,000 children enrolled in early childhood services across the state. Queensland is Australia's second largest and third most populated state, and its most culturally and geographically diverse.

Each year, the Department of Education responds to complaints from parents, students, and other customers – on topics ranging from policies and procedures to departmental decisions and actions; to student resource scheme fees. In the 2017–2018 financial year, the department received just under 7,000 customer complaints.

Recently, the department engaged Pega to develop a new system for managing customer complaints that would allow it to more efficiently and effectively address the needs of its customers and meet its reporting and compliance obligations.

The Department of Education previously relied on spreadsheets to track and manage complaints for each business unit and significant manual effort was required for data collection and reporting. There was also limited complaint information available, which hampered the ability to efficiently review and analyze customer complaints to identify trends, issues, and opportunities for improvement.

## A seamless enterprise solution for complaint management

The department's new Customer Complaints Management System (CCMS) provides a comprehensive, enterprise solution for collecting, storing, and analyzing customer complaints. Automated notifications and escalations within CCMS assist with resolving complaints within required timeframes, while streamlined workflows and business processes are generating efficiencies for frontline complaints staff.

The Pega Government Platform™ provides the Department of Education with a simple, easy-to-use interface and the ability to rapidly build and deploy applications, using the platform's built-in case management framework. The Pega Government Platform can also be easily integrated with other systems and extended to other use cases in the future.

The CCMS provides a reliable, centralized repository for complaints data and reduces the manual effort needed to collect complaints data for reporting and analysis. The CCMS can also allow the user to capture additional information, such as complaint sub-categories at both the complaint and issue levels, and identify trends for proactive management.

## A RAPID IMPLEMENTATION AND A BLUEPRINT FOR THE FUTURE

Using Pega's agile methodology, the department was able to turn the project around in just four months. CCMS provides a modern, easy-to-use system for managing complaints that can be expanded in the future.

### KEY FACTS

- Implemented in four months
- Created a reliable, centralized repository for all customer complaints
- More effective and efficient complaints management, processes, and capabilities
- Improved reporting and analysis for better decision-making
- Alignment with current Australian standards for complaint management







Administ



# State of California Franchise Tax Board

## OVERVIEW

The State of California (CA) Franchise Tax Board (FTB) is the second largest tax agency in the U.S. and the fifth largest economy in the world, processing more than 16 million personal income tax returns and 1 million business tax returns annually. The agency provides services and information to help taxpayers file accurate and timely state tax returns and pay the proper amount owed.

With personal income tax supplying the majority of the state's revenue for citizen services, the CA FTB needed to close a tax gap between what citizens owed and what they voluntarily paid in their returns. Key to achieving this goal was the ability to quickly validate statewide tax returns against the complex and changing tax code. To accomplish this, the CA FTB chose Pega as the core technology to accurately validate the state's tax returns. The Pega application is part of the Enterprise Data to Revenue (EDR) project initiative, addressing enterprise operations and system modernization.

**Our tax modernization resulted in efficiencies, many new citizen service options, and additional revenue in just phase one of the project. The Pega case management solution played an important role in our modernization success.**

### JOHN SULENTA

FORMER CHIEF INFORMATION OFFICER  
CALIFORNIA FRANCHISE TAX BOARD

## State of California improves customer service, generates \$3.7 billion for citizen services

To improve the customer experience and reduce costs, the State of California Franchise Tax Board initiated the Enterprise Data to Revenue (EDR) project. The Pega Government Platform™ was selected to be part of EDR, first to automate paper correspondence processing and then as the platform used to process personal income tax returns, handling as many as 960,000 returns per day. Between 2011 and 2016, EDR generated more than \$3.7 billion in additional state revenue and an additional \$1 billion annually – all because of the improved processes and automation.

Additionally, EDR provides secure self-service options for taxpayers, validates returns, and automates and standardizes manual processes. Taxpayers can even choose from correspondence delivery options, such as email, phone, text message, or secure chat, allowing them to receive faster responses to questions – and quicker tax refunds. EDR delivers greater transparency and control as well, as taxpayers can view their filed returns, payments and withholding, correspondence, and accounting details all in one place.

The application also enables the CA FTB to intelligently automate the tax return process for any possible scenario, leading to faster resolutions on both tax refunds for citizens and payments to the state. For example, the system enables the agency to more easily recognize and handle abnormal filing situations, such as identification of potential fraud or if a taxpayer owes previous back taxes.

**Through our modernization effort, we've adopted Pega as our current case management standard for both tax and nontax applications.**

### BRYAN RAU

DIRECTOR OF ENTERPRISE DEVELOPMENT BUREAU,  
CALIFORNIA FRANCHISE TAX BOARD

## IMPROVING EMPLOYEE PRODUCTIVITY, REDUCING INTERNAL COSTS

To save employee time spent on avoidable tax return errors, the CA FTB implemented an accuracy validation system using Pega. Approximately 20% of inaccurate tax returns are a result of taxpayers failing to pay taxes, incorrect tax forms, and other exceptions. The CA FTB's goal was to reduce the number of exceptions, automatically validate rules, and educate taxpayers on how to process taxes more accurately and efficiently. With the new capabilities, tax returns are analyzed and validated automatically, reducing processing costs and improving employee productivity. Prior to Pega, validation was a manual process.





### FROM PAPER-BASED TO DIGITAL

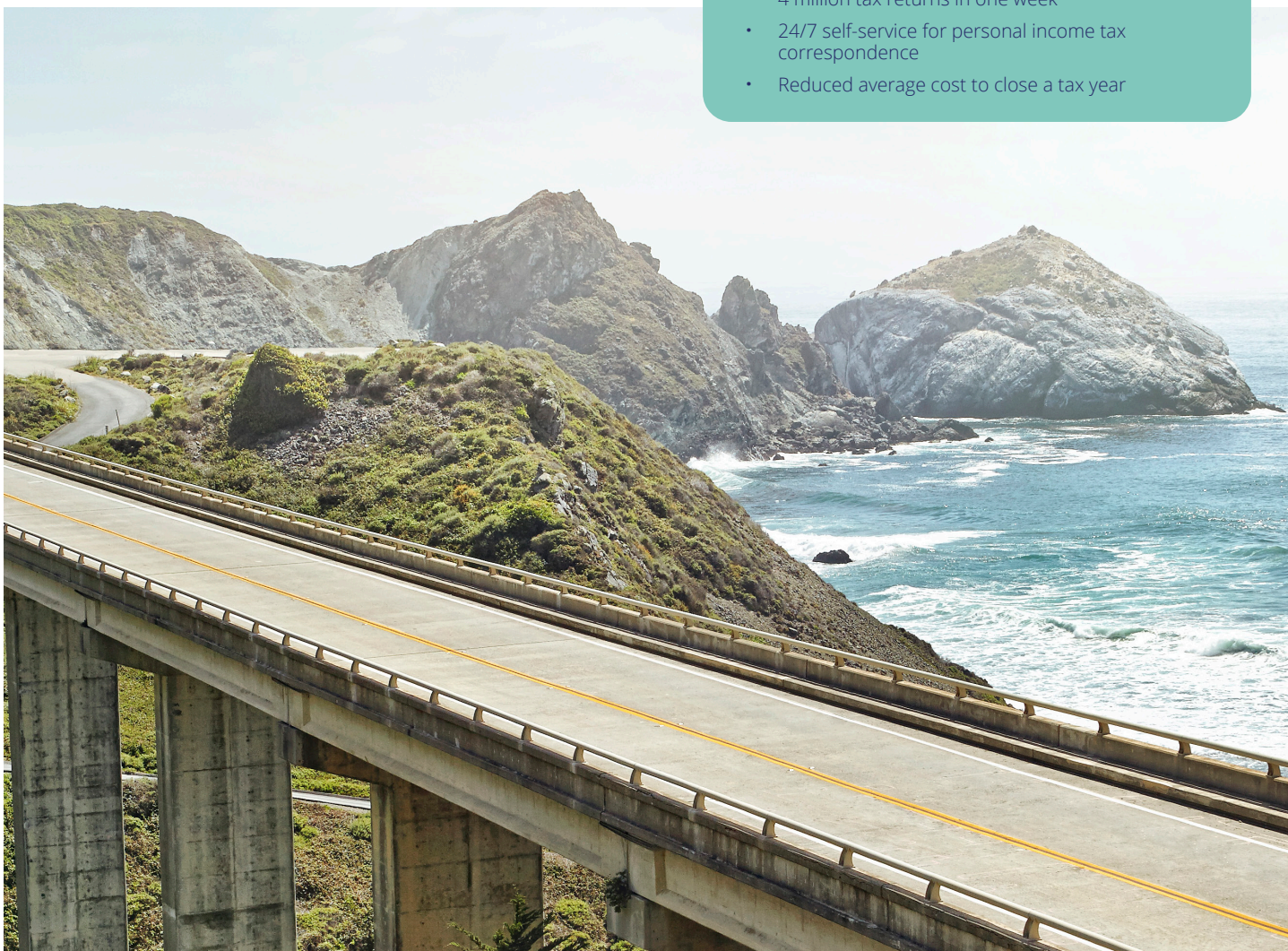
Nearly eliminating inefficient paper-based processes, EDR automates the processing of approximately 1 million digital and paper-based tax returns. Once documents are scanned, an application on the Pega Platform™ identifies the type of correspondence and automatically routes it to the appropriate person or department, allowing for more efficient case assignment and processing of work. Previously, the CA FTB used a storage room with large volumes of paper documents that were manually sorted into various categories.

### MORE MODERNIZATION AHEAD

In the second phase of its Tax Systems Modernization effort, the CA FTB plans to build on the successes of EDR. The focus is to build upon enterprise process improvements, increase services for taxpayers, and increase revenue for State of California citizen services. Phase two will bring all business systems into one single case management system, retiring legacy systems. This includes audit, collections, and filing enforcement systems. FTB will also continue to centralize data, automate manual processes, improve communications, and provide access to important knowledge and insights for the benefit of California taxpayers and the state.

#### KEY FACTS

- \$3.7 billion generated in revenue for the State
- 16 million tax returns processed in one month
- 24,000 tax returns processed in an hour
- Up to 960,000 tax returns processed per day at peak time
- 4 million tax returns in one week
- 24/7 self-service for personal income tax correspondence
- Reduced average cost to close a tax year





# State of Maine

## OVERVIEW

The State of Maine serves 1.3 million residents that rely on services from the state's 14 government agencies, which employ more than 13,000 workers. The agencies offer a variety of citizen services, including transportation, unemployment benefits, health and human services, licensure and more. To further enhance its citizen-centric services, Maine partnered with Pega. With the resulting IT transformation that includes a plan to consolidate disparate IT systems statewide, Maine has already experienced value by improving efficiency and citizen satisfaction.

## State of Maine plans for the future: Boost productivity and transform citizen services

To transform citizen services and improve employee productivity, the State of Maine has implemented a robust cloud solution on a unified IT platform across multiple lines of business. As a result, the state is experiencing a 90% increase in development productivity and 10% improved efficiency at the outset of the program. The solutions, deployed on Pega Cloud®, are part of a business plan that will help the state reduce numerous operational silos and deploy more efficient, transparent, and agile processes among its 14 government agencies.

## IMPROVED PRODUCTIVITY AND ACCURACY

Maine is eliminating paper-based citizen-service processes that often require employees to physically move papers from desk to desk. By digitizing key IT systems and processes, the state is improving productivity, cutting costs, and reducing opportunities for manual mistakes.

## ELIMINATE DUPLICATION, SIMPLIFY CUSTOMER EXPERIENCE

Maine's goal is to reduce costs and duplication by taking an inventory of all processes throughout the state and distilling them into a common process foundation that can be reused across its 14 agencies. By reusing components and developing applications only once, Maine will be able to create a consistent look and feel throughout all agencies, providing a more seamless citizen experience. The state will also be able to eliminate the extra development effort and reduce the cost of creating duplicate processes and applications.

## AGILE, AUTOMATED AGENCIES

The state also plans to use the new, agile, automated system to allow rapid application development tailored to each agency's specific needs. To make accessing government services easier for citizens, Maine aims to eventually converge its systems into a consistent user interface requiring one user name, one user password, and one data set for any government service. This means that citizens will increasingly have a consistent experience across government services.

## REDUCE PROCESS TIME FROM MONTHS TO HOURS

Maine has found that some processes that once required 40 days to complete can now be completed in four hours, increasing agency staff productivity and greatly improving citizen satisfaction. The goal is to have the same efficiency and productivity across all processes with each agency transformation.

### KEY FACTS

- Improved work efficiency from 40 days to four hours
- Increased initial development productivity up to 90%
- Reduced time-to-market project from years to hours
- Reduced system set-up time from months to hours







# Texas County & District Retirement System

## OVERVIEW

The Texas County & District Retirement System (TCDRS) helps more than 330,000 Texas employees plan for their future by providing retirement, disability, and survivor benefits. TCDRS has grown into a \$37 billion dollar trust and partners with more than 800 counties and governmental districts. TCDRS helps these counties and districts compete with the private sector to hire and retain talented staff by providing competitive retirement benefits at affordable rates. The agency serves a wide range of people, from young professionals just entering the workforce to retirees, offering a variety of services and guidance to help Texans with their retirement planning. TCDRS strives to always improve and enhance its customer experience. To support these efforts, TCDRS keeps Pega at the core of its technology.

**Pega CRM's speed, efficiency and new call wrap-up feature have saved TCDRS Member Services Representatives a lot of time on routine processes, which really slowed us down previously. With the new estimator tool, we're able to quickly run multiple estimate scenarios for members, provide side-by-side comparisons and even post them to the member's online account, where the member can access them immediately. This is really helpful when you are counseling a member and want them to see the estimate while you are explaining it to them.**

**CATHERINE SORAHAN**

TCDRS MEMBER SERVICES MANAGER

## Eliminating legacy systems, improving system architecture, and delivering a better customer experience

To support its goal of reducing paper forms and giving members more self-service options, TCDRS used the Pega application and website API integrations to enable members to do more online, including applying for their benefits and utilizing the agency's plan customizer. The transformation began in 2012, when the agency first implemented the Pega Platform™ to replace and consolidate their legacy pension system. TCDRS recently expanded Pega's use as the unified platform through implementation of Pega Customer Service™ and by streamlining additional legacy systems.

Many member requests can now be submitted online via the TCDRS website and processed automatically through internal Pega workflows. Employers, meanwhile, can run their own benefit studies in seconds to help them weigh important plan decisions that impact workforce needs and budget. TCDRS was able to eliminate multiple costly systems using Pega, allowing the agency to reuse components and processes agency-wide. Thanks to agile development, TCDRS has been able to digitize and deploy common, transparent processes.

## OPTIMIZING STAFF EFFICIENCY AND CUSTOMER EXPERIENCE WITH NEW FEATURES AND STREAMLINED WORKFLOWS

Today, TCDRS is adding new and improved features to keep up with changing customer expectations to optimize processes and to reduce the time needed to deploy new projects.

The first step was to update their existing Pega solution to the latest version of Pega Infinity™. This has allowed TCDRS to take advantage of various upgrades to achieve better performance, improve work management, strengthen security, and enhance services for customers.

Next, TCDRS took steps to provide a more efficient and seamless customer experience by implementing the Pega Customer Service (CRM) platform. The new system and improved system architecture have provided significant performance improvements, including giving staff 40% faster access to member data and making it 78% faster to execute simple account updates. The new CRM system also gives the call center additional tools to support customers, like 67% faster benefit estimates to support customers' retirement planning.

Instead of using multiple applications and spreadsheets or pulling information from emails and instant messages, staff members now have all the data and tools they need in one place. The application tracks all customer activities and interactions, delivering a 360-degree view of the customer.

Customers no longer have to repeat themselves with every interaction. The TCDRS phone system is integrated, so staff get a notification from within the CRM when a call comes in.





## Rapid implementation and fruitful collaboration between IT and business teams

TCDRS, and its implementation partner Evonsys, were able to roll out the new CRM system in lightning-fast time: just eight months from ideation to deployment – a process that might have taken other organizations years to implement. Thanks to the agile development process, the IT team was able to show demo builds to business teams along the way and collect real-time feedback, then iterate as needed to ensure that the application would fit the day-to-day needs of staff.

## Using work prioritization features to optimize turnaround time for customers

TCDRS is in the process of promoting even greater user productivity, timeliness of processing, and customer satisfaction with the Get Next Work feature within Pega. This feature allows the CRM to select the next assignment for each staff member based on urgency, productivity, processing timeliness, and customer expectation. By knowing the best, most appropriate assignment to work on next, staff can prioritize their time wisely to deliver the best customer experience.

### KEY FACTS

- 330,000+ Members
- 800+ county and district employers
- Dramatically expanded online access and features for members and eliminated five costly legacy systems
- Implemented new CRM in 8 months
- Reduced customer wait times, streamlined processes, and enabled members and employers to make more informed benefit decisions
- Achieved significant performance improvements, including:
  - 40% faster to access member data
  - 67% faster to run benefit estimates
  - 78% faster to perform simple account updates





# Vermont Office of Professional Regulation

## OVERVIEW

The Vermont Office of Professional Regulation's (OPR) mission is to protect the public through effective professional licensing and enforcement. To do this, the OPR supports and administers 60,000 licenses each year, including over 200 license types, for 50 different professions in the State of Vermont, ranging from architects to physicians to tattoo artists.

For nearly ten years, the OPR was using a commercial, off-the-shelf application to manage their licensing and enforcement activities. During this time, the pace of regulatory change and the growth in new licensing responsibilities accelerated. This – together with the cost and difficulty of adapting the hard-coded, legacy application – made it nearly impossible for the OPR to keep up.

The OPR realized it needed a new, modern, cloud-based platform that could easily adapt to a changing business environment. After extensive research and evaluation, the OPR determined that Pega was the only product that would meet its needs.

**Pega has helped us achieve our goal of creating a state licensing system that delivers unprecedented service to the citizens of Vermont, while driving productivity gains and process improvement.**

**JIM CONDOS**

VERMONT SECRETARY OF STATE

## Automating, streamlining, and transforming every process.

Now with its processes 100% online, the OPR has successfully designed and implemented its Next Generation Licensing Platform (NGLP), which has automated and streamlined the full spectrum of OPR workflows, from license administration and renewals to regulatory compliance and enforcement.

The previous solution was limited in its ability to automate the hundreds of work processes the OPR staff used, and as a result a significant amount of work was done manually. It was slow, inefficient, and cumbersome for staff and citizens alike. The new solution completely transformed the way the OPR works.

- Processes that previously used snail mail or face-to-face meetings now happen online.
- Advanced self-service and case management capabilities expedite the licensing and approval process.
- An improved central database gives employees visibility into historical context and status of licensed professionals to ensure that licensees are providing the best service to citizens.
- Employees can log in and work on cases from anywhere, giving them greater worksite flexibility.
- A mobile version of the application is planned, which will allow applicants and employees more flexibility.

## THE FREEDOM TO MAKE CHANGES WITH SPEED AND FOCUS

One of the key benefits for the OPR is the way Pega enables the agency to make changes, updates, and enhancements to the application as needed, whether for regulatory or operational reasons. If a workflow isn't working for the staff who use it, it can be put into the enhancement queue and addressed. In one recent example, the OPR decided to redesign the enforcement module of the NGLP. Process owners worked with the IT team to modify the application to give employees the option to link, clone, or relate separate complaints from citizens about licensed professionals. This new flexibility allows staff to investigate complaints more efficiently.





#### **USING NEW DATA INSIGHTS TO OPTIMIZE STAFFING AND EARN PUBLIC TRUST**

With the new solution, the OPR has insight into metrics and data they didn't previously, such as time to process different types of applications or complaints, number of complaints received for a given profession or individual, most common complaints, etc. This improves operational efficiency, allowing supervisors to adjust and rebalance staff workloads as needed, based on real-time metrics. The availability of data also helps the customer experience and public advocacy: the OPR now provides applicants with estimated turnaround times and demonstrates the agency's efficiency to taxpayers.

The statistics have been impressive: When a new profession category, Notaries Public, was recently added, the OPR's nine staff were able to onboard and process almost 13,000 applicants in just six weeks. On another occasion, the agency had to rapidly license 3,000 nurses on an emergency basis. The average time to process a nursing application was just 45 minutes.

# Pega for Government Customer Engagement

The most intelligent, agile, and complete customer engagement solution

## A PEGA DATA SHEET

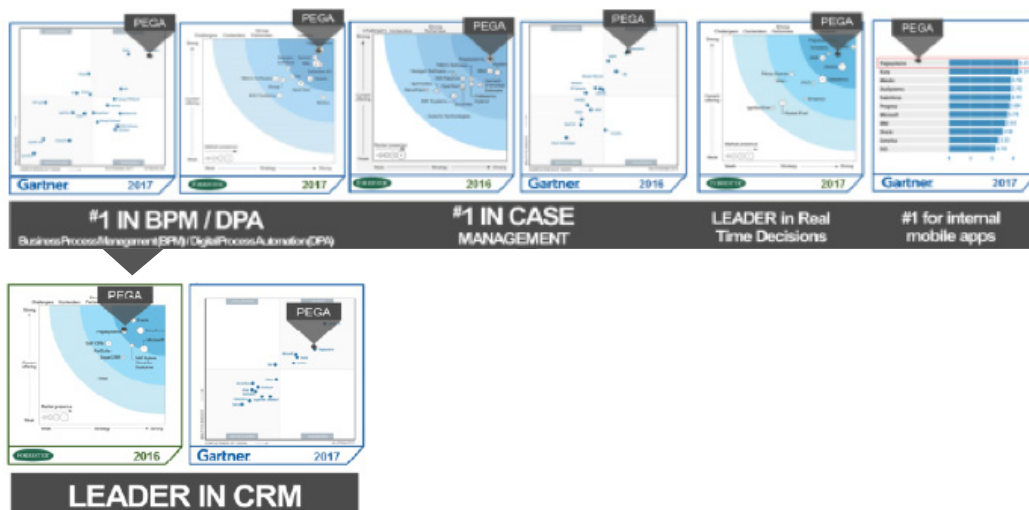
### Intelligent. Transparent. Customer-centric.

Pega helps the largest, most complex government organizations around the world achieve policy objectives and improve citizen lives. Our industry-leading strategic applications and unified platform seamlessly connect government enterprises to their constituents, in real time and across channels.

Most importantly, Pega allows organizations to efficiently and cost-effectively adapt software to meet today's rapidly changing requirements. Through a configurable, unified platform, Pega's Government Customer Engagement solution provides unparalleled agility and:

- Intelligence and relevance to every constituent interaction, with powerful knowledge and proactive outreach to keep constituents informed.
- On-premise or cloud deployment, with robust mobile and social engagement capabilities. Pega is completely portable and ready anytime, anywhere, for both constituents and government field workers.
- Visibility, accountability, and control, through rich analytics and reporting, providing public sector leadership with relevant, actionable, and real-time information.
- Operation optimization, through the automation of processes, dramatically improving performance and cost efficiencies.
- Integration with existing systems, allowing for transformation at a pace that makes sense for your government organization.

We are number one in case management, mobile application development, business process management, real-time decision management, and digital process automation. **No other vendor can make that claim.** Our unified product is considered a leader in these categories, as well as: cross channel campaign management, sales force automation, CRM customer service and support, and enterprise CRM suites. What makes Pega unique is the fact that we provide all of our capabilities on a single, unified platform.



### CHALLENGE

Constituents and government employees expect service to be fast, easy, and right the first time – regardless of channel. Most government organizations, however, find it challenging to evolve systems or train staff fast enough to maximize value. These organizations are hindered in their modernization efforts by the cost of maintaining legacy systems across multiple silos, reduced budgets, risk avoidance, and political dissonance.

### SOLUTION

Governments across the world leverage Pega's Customer Engagement solution to modernize legacy applications, streamline processes, and meet ever-evolving constituent expectations. Customers applaud Pega's ability to bring fast time-to-value, extremely rapid deployment, efficient reuse, and sharing of enterprise-level processes. With real-time decisioning powered by AI, agencies are improving the government experience through guided personalized next best actions using any preferred channel.





## Capabilities for seamless customer journeys

Pega's Government Customer Engagement solution provides a rich set of capabilities designed to enhance the customer experience, improve user productivity, and increase customer satisfaction. Our solution is flexible and designed to be tailored to meet the specific needs of your organization. Key capabilities include:

- **Omni-channel interactions:** Pega delivers a consistent user experience across any channel, such as desktop, mobile, chat, interactive voice response (IVR), phone, and social media. Channels are managed through model-based design, which enables you to design your application once and have it reflected on any channel or user interface.
- **Pega Intelligent Virtual Assistant™:** Pega's AI-powered virtual assistant leverages natural language processing (NLP) and text analytics to deliver personalized, intelligent engagement for self-service interactions. Every conversation, action, and contextual detail is captured and the data can be fed back into Pega's machine learning algorithms, to provide both supervised and unsupervised learning models. These improve NLP and better predict next best actions when servicing future customers with similar requirements. Further, sentiment analysis and real-time analytics enable continuous optimization.
- **Pega Social Engagement for Customer Service:** Monitor social channels to analyze constituent sentiment and respond proactively.
- **Pega Chat™:** Chat allows customer service representatives to interact with customers from your website, by engaging in a text conversation to address one or more questions. No plug-ins or downloads are required to use Pega Chat.
- **Pega Web Mashup:** Embed Pega capabilities within your existing self-service experience. Pega Web Mashup allows you to deliver a consistent customer experience and enables you to make updates to the process in a single location, without making process changes in multiple places.
- **Pega Co-Browse™:** Two or more parties can securely share the same web page with just a single click.
- **Pega Knowledge™:** Manage the complete content lifecycle, from creation to publication, to recommend relevant, timely information based on a constituent's web interactions and employees' activities.
- **Pega Robotic Automation™:** Optimize the way employees work by easily simplifying, automating, and integrating the technologies and processes on the desktop to get more work done, faster.
- **Composite view:** Consolidate relevant customer information from your legacy systems, interaction data, and customer service requests into a composite view of the customer relationship. Customer composites provide relevant account detail, interaction history across channels, open and recent customer service requests, and display it dynamically based on the customer context and current situation. Guided, intent-driven processing: Intent-driven processing guides users through every customer interaction, reducing training time and ensuring service consistency. Service processes can be specialized to the customer and circumstance, enabling personalized service for customers, but without compromising efficiency.
- **Pega Call™:** Connect the constituent management solution with telephony systems for a seamless experience.

# Pega Government Platform

Innovative legacy modernization: Low risk. No code.

A PEGA GOVERNMENT DATA SHEET



## Achievable modernization with flexibility, innovation, and control

### WHAT IS PEGA GOVERNMENT PLATFORM™ (PGP)?

PGP is a no-code solution, allowing business and IT users to collaboratively build applications together with model-based design, ensuring the final solution meets end-user needs.

PGP uses a layered architecture that captures the complexity of your organization, allowing you to reuse common assets resulting in tremendous cost savings, while still allowing you to specialize. Only Pega provides this patented, reusable architecture, called the Situational Layer Cake.

PGP empowers agencies to:

- Improve quality and efficiency.
- Reduce risk.
- Break down organizational silos.
- Better serve citizens.
- Empower your agency to keep pace in a world of rapid change.

Traditionally, agencies and systems integrators have had two choices for modernizing government operations:

1. Custom development: Applications that are costly and time-consuming to develop and maintain. Once these custom or government-off-the shelf (GOTS) applications are actually delivered, the functionality is obsolete or does not meet business requirements.
2. Commercial, off-the-shelf (COTS): Applications that can be inflexible and inadequate, forcing government organizations to spend more for customizations that require additional delivery time and then drive up the cost of future operations and maintenance.

But now there is a more cost efficient, innovative modernization option. Pega offers a distinctly superior solution for transforming operations, consistently ranked by analysts like Gartner<sup>1</sup> and The Forrester Wave™<sup>2</sup> as a leader.

With our proven Pega Government Platform, you can model and deploy highly automated applications in a fraction of the time and cost of custom development. Plus, you're in full control of the application at all times. No need to depend on vendors or IT every time a programming modification is needed. So when policies and requirements change, you can truly be agile and respond quickly and stay up-to-date.

### CHALLENGE

Government agencies struggle to modernize legacy systems while rapidly delivering citizen-focused services. As stewards of taxpayer dollars, these organizations are challenged with the need to be innovative and modernize, while simultaneously responding to ongoing policy changes.

### SOLUTION

The agile, secure, unified Pega Government Platform™ (PGP) solution gives agencies a tool for transformation without having to “rip and replace” existing systems. With PGP, you can realistically phase-in your modernization strategy with minimal impact to your operations.



### LOW RISK, COST-EFFECTIVE, PRACTICAL MODERNIZATION

PGP supports today's legacy modernization initiatives by enabling low-risk wrap and renew options, allowing you to phase-out old code or systems in a timeframe that is realistic, mitigates risk, and improves business outcomes immediately.

### CONTINUOUS INNOVATION

Align development projects with your agency mission from start to finish, using model-driven application development that facilitates business and IT collaboration. Pega enables your organization the flexibility required to manage its own business policies and objectives without being trapped with inflexible tools or programming languages.

### REAP THE BENEFITS OF AN AGILE APPROACH

Keep operations running without interruption, while continuously modernizing, thanks to Pega's intelligent, adaptive technology, which empowers application delivery in quick, iterative sprints.

### DEVELOPER FRIENDLY, GOVERNMENT READY, AND FASTER TIME TO VALUE

- PGP offers your developers invaluable, easy-to-use tools to innovate, including a government-oriented data model, case types, portals, dashboards, building block accelerators, and processes that can be easily consumed through Pega Express.
- PGP, coupled with Pega Express, is a powerful capability which provides an assembly style of tools to build government applications quickly. It provides developers an easy way to build models, mock up processes, and drag-and-drop capabilities based on your business needs.
- These capabilities and solution frameworks, built for public sector customers, can help your organization accelerate solution delivery, improving overall total cost of ownership.

### ACCESSIBILITY AND COMPLIANCE

- Pega collaborates with partners, like the Carroll Center for the Blind, to ensure PGP applications are capable of meeting international accessibility standards.
- Pega is committed to providing products that allow customers to design, build, and run secure applications. It also provides a broad range of security capabilities to prevent malicious use of, and access to, an application.
- Pega is continually engaged with independent external security consultants to evaluate the Pega® Platform for security vulnerabilities, and diligently works to help government organizations meet global privacy and data regulations.

### CONNECTED END-TO-END ON ANY DEVICE

- PGP offers your organization the ability to seamlessly connect your front-end, customer facing technologies to your back-end legacy systems – modeling just once and deploying on channels of your choice with responsive design.
- Pre-built wizards use web services that require no configuration for quick integration with existing systems.

### CLOUD-CHOICE SOLUTION

- PGP allows you to select which architecture works for you – on premise, full-cloud on any infrastructure, or hybrid.

In today's environment, government organizations must future-proof technology and embrace innovation. In times of great change, you need low risk. Meet your mission more efficiently by modernizing and building for change with Pega Government Platform.

#### ACCORDING TO A THIRD PARTY STUDY, COMPARED TO JAVA, PEGA IS:

- 40 times faster at mobile development.
- 8 times faster at analysis and design.
- 8 times faster at introducing change.<sup>3</sup>

1. Gartner Critical Capabilities for Mobile App Development Platforms 2017; Gartner Magic Quadrant for BPM-Platform-Based Case Management Frameworks 2016; Gartner Magic Quadrant for Intelligent Business Process Management Suites 2016; Gartner Magic Quadrant for the CRM Customer Engagement Center 2017; Gartner Critical Capabilities for BPM-Platform-Based Case Management Frameworks 2016.

2. The Forrester Wave™: Digital Process Automation Software, Q3 2017; Real-Time Interaction Management, Q2 2017; The Forrester Wave™: CRM Suites For Enterprise Organizations, Q4 2016; The Forrester Wave™: Cross-Channel Campaign Management, Q2 2016; The Forrester Wave™: Customer Service Solutions For Enterprise Organizations, Q4 2015.

3. <https://www.pega.com/faster>

## A Market Leader

### Gartner®

- Mobile App Development Platforms (MADP)<sup>1</sup>
- Enterprise Low-Code Application Platforms<sup>2</sup>
- Critical Capabilities for Mobile App Development Platforms<sup>3</sup>
- BPM-Platform-Based Case Management Frameworks<sup>4</sup>
- Intelligent Business Process Management Suites<sup>5</sup>
- CRM Customer Engagement Center<sup>6</sup>
- Critical Capabilities for BPM-Platform-Based Case Management Frameworks<sup>7</sup>
- Critical Capabilities for Intelligent Business Process Management Suites<sup>8</sup>
- Critical Capabilities for the CRM Customer Engagement Center<sup>9</sup>
- Multichannel Marketing Hubs<sup>10</sup>
- Robotic Process Automation<sup>11</sup>
- Critical Capabilities for Enterprise Low-Code Application Platforms<sup>12</sup>
- Sales Force Automation<sup>13</sup>

### FORRESTER®

- Digital Process Automation Software<sup>14</sup>
- Real-Time Interaction Management<sup>15</sup>
- CRM Suites For Enterprise Organizations<sup>16</sup>
- Cross-Channel Campaign Management<sup>17</sup>
- Customer Services Solutions for Enterprise Organizations<sup>18</sup>
- Cloud-Based Dynamic Case Management<sup>19</sup>
- Digital Decisioning Platforms<sup>20</sup>

### Pega Experience:

- 321% ROI with 12-month payback period
- 75% development cost savings
- 75% improved end-user productivity
- 50% reduced time-to-market

## Pega Certifications & Compliance

ISO 27001



FDA CFR Title 21 Part 11



For more information, visit the Pega Trust Center on [pega.com](http://pega.com)

Start your digital transformation journey with Pega

VISIT [PEGA.COM/INDUSTRIES/GOVERNMENT](http://PEGA.COM/INDUSTRIES/GOVERNMENT) FOR MORE INFORMATION AND CLIENT SUCCESS STORIES.

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<sup>1</sup> Gartner Magic Quadrant for Mobile App Development Platforms (MADP) 2018

<sup>2</sup> Gartner Magic Quadrant for Enterprise Low-Code Application Platforms 2019

<sup>3</sup> Gartner Critical Capabilities for Mobile App Development Platforms 2018

<sup>4</sup> Gartner Magic Quadrant for BPM-Platform-Based Case Management Frameworks 2016

<sup>5</sup> Gartner Magic Quadrant for Intelligent Business Process Management Suites 2019

<sup>6</sup> Gartner Magic Quadrant for the CRM Customer Engagement Center 2018

<sup>7</sup> Gartner Critical Capabilities for BPM-Platform-Based Case Management Frameworks 2016

<sup>8</sup> Gartner Magic Quadrant for Critical Capabilities for Intelligent Business Process Management Suites 2018

<sup>9</sup> Critical Capabilities for the CRM Customer Engagement Center 2018

<sup>10</sup> Gartner Magic Quadrant for Multichannel Marketing Hubs 2018

<sup>11</sup> Gartner Magic Quadrant for Robotic Process Automation Software

<sup>12</sup> Gartner Critical Capabilities for Enterprise Low-Code Application Platforms

<sup>13</sup> Gartner Magic Quadrant for Sales Force Automation

<sup>14</sup> The Forrester Wave™: Digital Process Automation Software, Q3 2017

<sup>15</sup> The Forrester Wave™: Real-Time Interaction Management, Q1 2019

<sup>16</sup> The Forrester Wave™: CRM Suites For Enterprise Organizations, Q4 2016

<sup>17</sup> The Forrester Wave™: Cross-Channel Campaign Management, Q2 2016

<sup>18</sup> The Forrester Wave™: Customer Service Solutions For Enterprise Organizations, Q4 2015

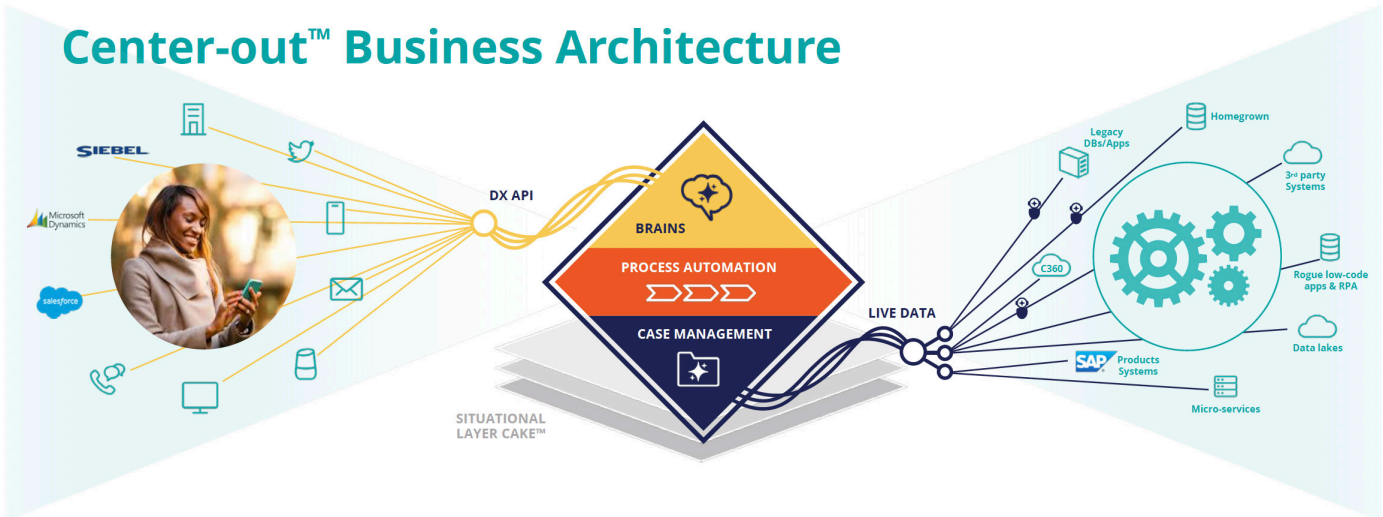
<sup>19</sup> The Forrester Wave™: Cloud-Based Dynamic Case Management 2018

<sup>20</sup> The Forrester Wave™: Digital Decisioning Platforms, Q4 2018



# Pega Infinity

Revolutionary software that unifies customer engagement and digital process automation



**BRAINS**

Augmented Intelligence that works across channels and processes

**PROCESS AUTOMATION**

End-to-end automation for each customer Microjourney

**CASE MANAGEMENT**

Wraps your processes, logic, data, and intelligence with context

**DX API**

Provide consistent omni-channel experiences

**LIVE DATA**

Insulate users and customers from back-end complexity

**SITUATIONAL LAYER CAKE**

Layers manage variation, reduce complexity, and enable reuse



## About Pegasystems

Pega delivers innovative software that crushes business complexity. From maximizing customer lifetime value to streamlining service to boosting efficiency, we help the world's leading brands solve problems fast and transform for tomorrow. Pega clients make better decisions and get work done with real-time AI and intelligent automation. And, since 1983, we've built our scalable architecture and low-code platform to stay ahead of rapid change. Our solutions save people time, so our clients' employees and customers can get back to what matters most.

For more information on Pegasystems (NASDAQ: PEGA), please visit us at [www.pegacom/government](http://www.pegacom/government)

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