

Why it's time to embrace digital process automation

Accelerate digital transformation
today and tomorrow

A PEGA
WHITEPAPER



Build
for
Change[®]

Contents

- 3 Introduction
- 4 The state of automation and operational excellence
- 4 From inflated expectations to the trough of disillusionment
- 6 Introducing digital process automation
- 7 Three well-intentioned mistakes on the path to digital automation
- 9 A new path for success: From task-centric to outcome-centric
- 13 Digital process automation with Pega
- 14 Conclusion

Introduction

As organizations chase the promise of digital transformation, many are realizing that these efforts must go beyond skin deep. Transformation demands more than just embracing new channels or showcasing new technologies. Organizations must transform processes – the ways in which customers are served, promises are fulfilled, and operations run. A recent Forrester study found that within two years the primary driver of process improvement projects won't be cost reduction – it will be accelerating digital transformation.¹

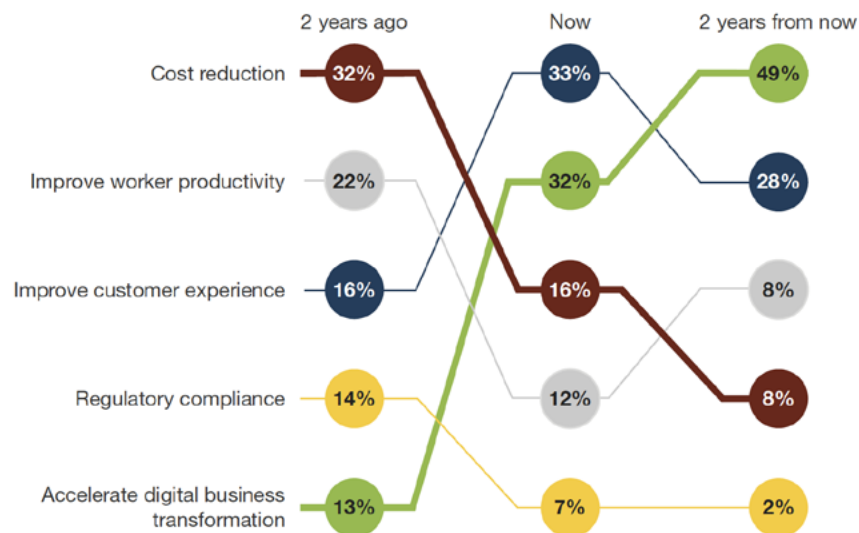


Figure 1: More and more executives are viewing process as central to digital transformation

The hype around robotic process automation (RPA), AI, and intelligent automation can make digital transformation feel more like digital chaos. Business and IT leaders must navigate a shifting world of buzzwords and vendors to deliver real value. Trying to solve every process and automation problem with RPA alone leads to failures and creates new silos. And while the promise of these technologies is exciting, technology itself will never replace the hard work of transformation – getting organizational alignment across silos, learning to think end to end and from a customer-first perspective, and building competencies around Agile development and design thinking.

Today's automation challenges demand more than just buzzword technologies. Enterprises must combine the promise of emerging technologies, like AI and RPA, with business process management (BPM) and case management, which have been proven to deliver results at scale. They must embrace Agile methods and design thinking while leveraging low-code approaches to bring business and IT together. And automation efforts must not be viewed merely through the lens of cost reduction, but more as a vital part of designing and deploying the streamlined experiences that customers and employees demand. This is the true goal of digital process automation.

¹ Koplowitz, R, "The Growing Importance of Process to Digital Transformation," May, 2018. Accessed from <https://www.forrester.com/report/The+Growing+Importance+Of+Process+To+Digital+Transformation/-/E-RES143158>

The state of automation and operational excellence

Software has always been about delivering efficiency to processes. From spreadsheets and word processing, to workflow and document management, to business process management, software has enabled business to drive productivity and keep costs down.

Digital transformation demands going beyond questions of efficiency, to designing the business – and your software – around changing customer expectations. Organizations are planning for – or have already started – running more and more process-centric applications, adopting Agile methodologies and tools, and incorporating smart technologies like AI and RPA. However, integrating all these new tools and technologies with existing legacy systems, multiple internal and external data sources, and third-party apps is challenging. And it's causing transformations to take longer than expected.

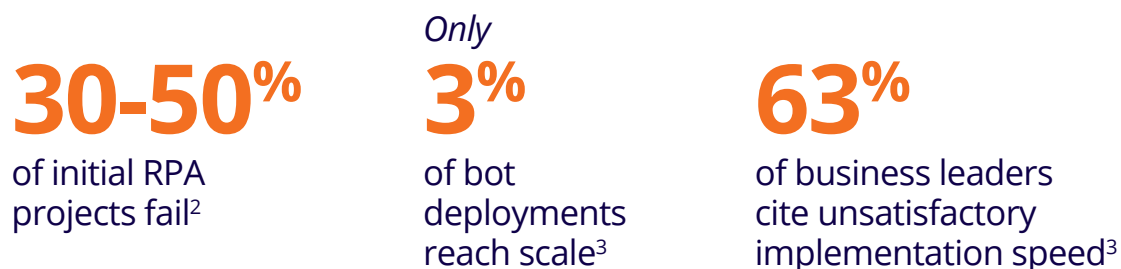
From inflated expectations to the trough of disillusionment

RPA: How much have you actually automated?

Just a few years ago, most process transformation efforts were delivered with business process management (BPM) technology. Due to the siloed nature of many organizations, this approach required cross-silo coordination and expensive integrations. Too often, BPM projects got mired in analysis paralysis, with too much time spent documenting and analyzing existing processes, rather than designing the new approach.

The emergence of tactical, quick-win technologies, such as RPA, provided relief. Suddenly, every process issue looked like it could be fixed with automation. Today, many organizations are looking to RPA as the cure-all for their automation needs. Touted as quick to install and non-invasive by nature, RPA has become a pet project of many business stakeholders who are frustrated with IT's ability to support the speed of transformation.

In the last few years, however, the dust from early-stage RPA deployments has begun to settle, and some harsh truths about broadly applying RPA to broken processes have emerged:



² Lamberton, C. (2017, June). Get ready for Robotic Process Automation. <https://www.ey.com/gl/en/industries/financial-services/fso-insights-get-ready-for-robotic-process-automation> Lamberton, C, "Get Ready for Robotic Process

³ Wright, D, "Deloitte Global RPA Survey," 2018. Accessed from <https://www2.deloitte.com/bg/en/pages/technology/articles/deloitte-global-rpa-survey-2018.html>

Although RPA can have a place in nearly every automation strategy, the challenge is to deploy appropriately. When attempting to transform through RPA alone, it is apparent that there are use cases the technology is not fit for: processes that contain complicated rule-based decisions, cut across multiple systems, or orchestrate both humans and automation to get work done.

Focusing solely on RPA can perpetuate legacy system problems that go unaddressed, leaving customer experiences without the streamlined processes needed to support them. If operational processes are siloed and slowed by bottlenecks, an army of robots performing repetitive functions won't fix the problems inherent in flawed processes.

In short, RPA allows for the automation of existing processes, but, on its own, fails to address the transformational need to redesign processes for the digital world.

What can AI actually do?

Despite existing for many years, artificial intelligence (AI) is back at the top of the tech hype cycle, creating both confusion and potential. In the past decade, the door has opened to its practical application, a change fueled by the new abundance of data to power decisions, expanded cloud computing power, and ever-increasing customer expectations.

AI can only deliver on its promise when leaders have a clear understanding of how to use it to engage customers to drive optimized interactions. This requires an honest appraisal of current engagement models, including personalization of marketing treatments, empowering sales with insights, guiding support agents with intelligence, and more.

Adding to the disillusionment are many vendors, clamoring for attention, using AI as a buzzword. Unfortunately, not all have a proven track record using it to deliver meaningful outcomes at scale. Some may even be a marketing veneer covering a stack of acquired and disparate software. Organizations must look behind the branding and demand tangible proof points and evidence of AI driving specific outcomes.

Process still matters

Process is at a crossroads. Many organizations see the value of end-to-end digital transformation, but they still think traditional BPM systems are too expensive, too complicated, and too focused on a limited number of applications that don't really touch customers.

Despite these challenges, successful BPM projects have delivered thousands of applications, streamlining work and accountability. These apps allow organizations to track information and use that data to improve performance by revamping, replacing, or removing what wasn't working.

Introducing digital process automation

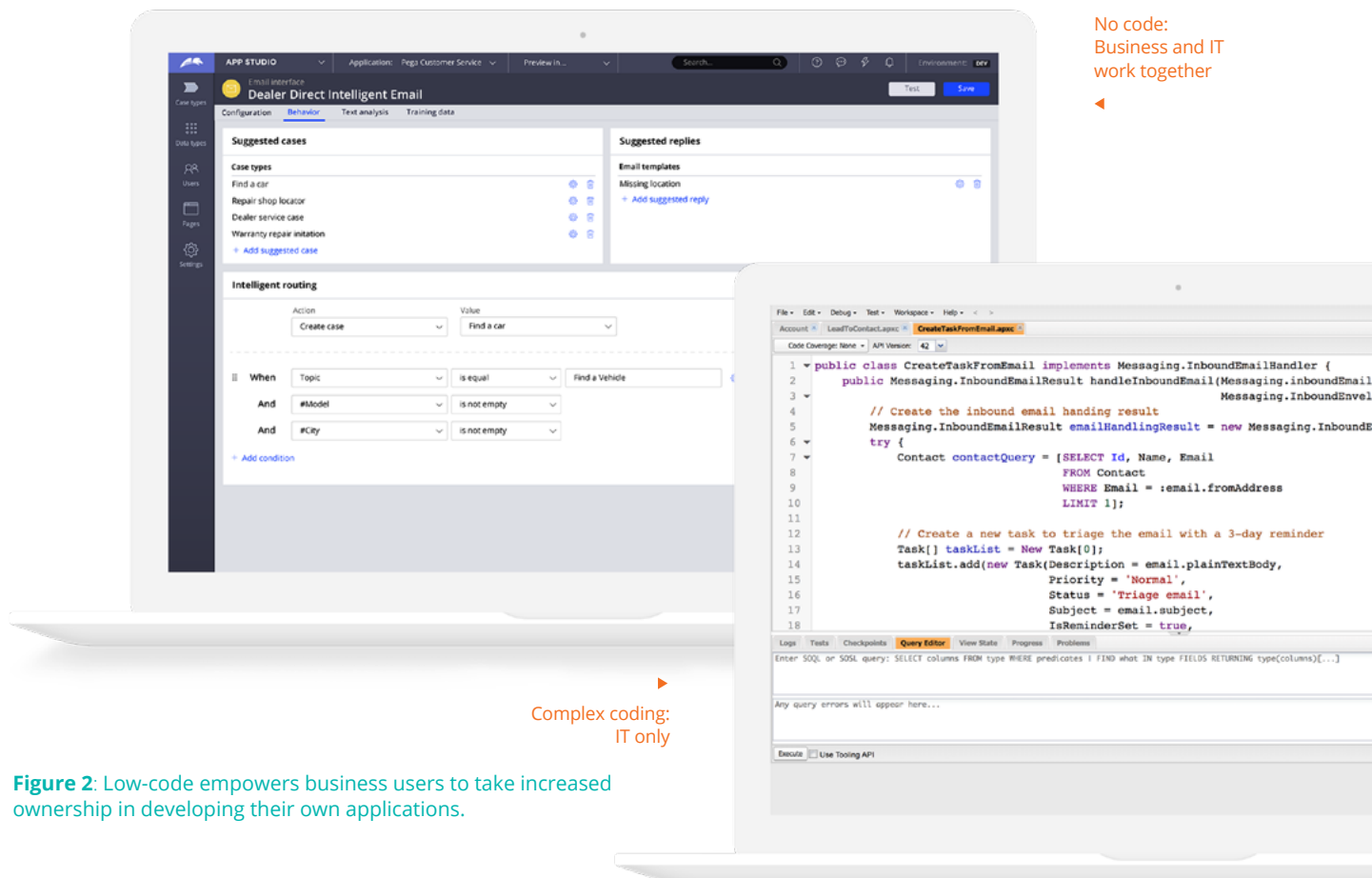
Digital process automation (DPA) goes beyond traditional BPM, allowing organizations to take a truly end-to-end approach to transformation. DPA is about using intelligence and design thinking to streamline processes - and create better experiences - for your employees and customers.

Unlike BPM and robotics, which are standalone technologies that automate existing processes, DPA unifies technology to enable organization-wide digital transformation. It can orchestrate complex processes across a variety of systems and resources, including the development and maintenance of the apps that power internal processes. DPA breaks down silos, improves customer-centricity, adds agility to legacy technology, and provides end-to-end automation to support the needs of customers and employees.

DPA's support of digital front-end processes and back-end operations requires a holistic approach to automation: thinking about all of your organization's processes and how they interconnect to deliver outcomes.

Rise of the citizen developer

The growing need to rapidly digitize and automate processes, along with a burgeoning demand for application development, has created a crisis within countless IT organizations. This is further complicated by the growing need for data scientists to manage and drive value from AI technologies. This shortage of skilled developers and engineers has been a major driver for change.



No code:
Business and IT
work together

Complex coding:
IT only

Figure 2: Low-code empowers business users to take increased ownership in developing their own applications.

Low-code application development platforms help bridge an organization's skilled developer shortage gap. These platforms are quicker and less expensive to customize in house, and don't require armies of programmers. They give non-programmers the ability to visually build out application specifications, empowering the "citizen developers" within an organization, like business people and marketers, to work collaboratively with IT to design and modify operation-specific applications.

Three well-intentioned mistakes on the path to digital automation

The software industry has a history of promising momentous change and then failing to deliver. Too often, organizations focus on a new approach – implementing a bot, deploying AI – that may solve a tactical need, but misses the mark on long-term transformation.

We've found that organizations often make three common mistakes when pursuing digital process automation and transformation:

Mistake one: Automating the channel, not the journey

Chatbots, intelligent assistants, text messaging, web self-service, email, call centers – there are so many channels, and the list keeps growing. The pressure to be present has led organizations to focus automation efforts on specific channels, instead of thinking about customer journeys. This leads to standalone development teams building unique logic into each specific channel, isolating intelligence, and creating disconnected processes and silos.

When logic is hard-coded into each channel, experiences are inconsistent and incoherent. The organization wastes development dollars building duplicate systems, further frustrating customers. When focusing only on creating apps that automate individual channels, it's impossible to provide the seamless experiences organizations – and customers – need.

Mistake two: Automating tasks, not processes

Deploying standalone bots may deliver results, but they won't transform business. This is because standalone bots are harder to deploy than many people think: between managing exceptions that can arise in any process and manually updating business logic, it's easy for bots to break and to lose efficiency. Moreover, focusing on isolated tasks means that the majority of automation's benefits are left on the table. And building ROI based purely on staff reductions doesn't often pan out. Many organizations don't realize that it's easier to automate 10 percent of 100 people's work than to automate 100 percent of 10 people's work – until they're knee-deep in a failing project.

Task-centric bots create fragmentation – a common problem across automation projects. In a 2018 APQC study⁴, 26.6 percent of respondents cite “moving from a function-based to process-thinking culture” as a top challenge. Task-centricity ignores the reason most processes exist: to deliver a meaningful outcome. Customers make contact because they want something – to buy a new product, to open an account, to fix an issue – and those outcomes often live in a tangled nest of systems and silos. Automating individual tasks means losing sight of the desired outcome – and unintentionally imposing issues on customers.

Mistake three: Allowing siloed automation, not end-to-end automation

Perhaps the most impactful mistake is automating processes and tasks within silos, not redesigning processes to streamline experiences from end-to-end. Organizations tend not to connect the transformation of front-end engagement back through systems and processes that deliver outcomes. Discrete bot implementations don't map customer journeys or create end-to-end experiences: they only speed the execution of a specific task. This creates a gap between experiences and promises offered to customers and the ability to efficiently deliver.

Automation plays an important role in digital transformation, but needs to operate as part of a larger, connected ecosystem. By isolating the focus into building digital channel experiences or driving operational cost reductions with task-based automation, organizations fail to completely realize the advantages they seek from digital transformation.

Without end-to-end automation, silos will grow, widening the gap between dozens of front-end channels and back-end processes and data. This fractured architecture is wildly expensive, and sometimes impossible to modify and scale, creating a cycle of “rip and replace” whenever new technology is implemented. As McKinsey put it in a report on the risks of RPA: “Taking an end-to-end view of the outcome...is better than applying a robotic Band-Aid to a particular pain point.”⁵ Automations should fit seamlessly into your business processes and systems, and you should be able to swap robotic automations for APIs as they become available and viable.

⁴ APQC, “Process and Performance Management,” February, 2018. Accessed from <https://www.apqc.org/knowledge-base/download/416920/>

⁵ Edlich, A. and Sohoni, V., “Burned by the bots: Why robotic automation is stumbling,” May, 2017. Accessed from <https://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/digital-blog/burned-by-the-bots-why-robotic-automation-is-stumbling>

A new path for success: From task-centric to outcome-centric

While traditional BPM and RPA projects are incremental steps in the right direction, delivering true digital transformation demands more. DPA delivers the technology and methodology needed to redesign processes to support the needs of customers and employees in a digital world. To accelerate and realize success with DPA, it's necessary to rethink the processes around the outcomes customers seek and the experiences they demand, and then integrate the tasks and automations needed to design and deliver those journeys.

“We're able to accelerate at least getting that first version out, and we can do it very quickly. It's a very visual and collaborative process.”

-Scott Nelson,
Technology Director
Manheim

DPA goes end to end

It's crucial to think end to end about service processes, designing journeys that get customers outcomes they want in a way that's easy for them and efficient for the business. And digital process automation is end-to-end automation. While it leverages robotics to automate tasks as needed, it operates in the context of end-to-end processes. This essentially means applying design thinking to your process. Design thinking starts with the impact of process on customer and employee experiences and uses rapid prototypes and testing to rebuild those experiences. When applied to automation, this means moving beyond using bots to speed up a process step involving a manual task, and instead means reimagining the process from start to finish, with the outcome at the heart of its design.

Working together, end-to-end automation and robotics can orchestrate work anywhere, anytime, while context is maintained. And when application changes occur, or an API becomes available to replace a bot, it can accommodate these changes without breaking the process.

No matter the process, or particular mix of robotic and human work, it is crucial to be able to deploy and get results quickly. The ability to design applications without code is critical. By empowering business and IT to work together in an objective-driven, no-code environment, reimagined processes can quickly be brought to life.

Many vendors claim to deliver end-to-end automation but are missing critical elements. So, don't be fooled – ticking off the basic check-boxes of DPA is not enough. And not only do you need to make sure all the elements of DPA are present, but they also need to live on a single, unified platform – so they don't require time-consuming integrations.

The digital process automation checklist

A comprehensive DPA strategy includes the following components:

✔ Case management	✔ Text analytics
✔ Workflow	✔ Self-service platforms
✔ Process modeling	✔ Consumer-grade ease of use
✔ Business rules	✔ Application integrations
✔ Robotic automation	✔ Agile low-code development
✔ Document support	✔ Guardrails and governance
✔ AI-powered decisions	✔ Design thinking

DPA starts with case management

At every level, the goals of DPA are tied to outcomes. But how is progress against outcomes visualized and tracked at every step? Enter case management.

A “case” is a piece of work to be done that represents a specific outcome, like a customer inquiry that must be resolved or a new account to be opened. Case management uses a visual metaphor to lay out the steps needed to accomplish a piece of work tied to a business outcome, with logical stages mapped to high-level milestones. Not only does this allow for visualization of all intermediate steps needed to reach the end goal, but it also allows for reuse, as processes are broken down into modular pieces. With all steps documented, rules and exceptions captured, and reuse enabled, workers avoid the guesswork in building and rebuilding processes.



Figure 3: A case is a way of capturing a meaningful outcome, and easily documenting the stages of the journey

Businesspeople define a case by laying out its stages or milestones in a simple visual designer. Users can then add steps to each stage, building the framework for processes and establishing a common language without getting buried in detail. The case becomes a canvas on which business and IT can collaborate.

DPA turns AI into operational intelligence

Operational intelligence efforts should be focused on what's actually working or not working within processes and workflows. What can AI really mean for operations? Before embarking upon an AI strategy in operations, step away from the hype and go back to the basics.

First, evaluate your business rules and processes. How do you turn these into operational actions? What can you identify without AI? Do you need another tool to locate bottlenecks, evaluate their impact, and determine root cause? Is work allocated correctly regarding time and workers, both humans and bots? In many cases – especially for processes tied to customer experiences – rather than discovering the current process, it's better to redesign the process from the customer experience perspective you hope to deliver.

DPA works across existing systems

There's immense pressure to deliver new experiences on the front end while maintaining back-end systems that store data and transactions that are core to your business. Today, the average organization uses 1,181 cloud apps across the entirety of its functions,⁶ so integrating new systems can be troublesome, difficult, and time-consuming. The "rip and replace" approach, which completely supplants legacy systems, is expensive, risky, and takes years for return on investment. Building point solutions on top of legacy systems to solve short-term problems only creates more silos. This approach might yield short-term results, but as new technologies are leveraged, this translates to more patch solutions – which are neither strategic nor adaptable.

DPA helps organizations avoid these tradeoffs by seamlessly connecting front-end experiences to back-end legacy systems. This technology allows you to "wrap and renew" legacy systems with an open, extensible layer that improves business outcomes immediately.

The goal is to provide industry-leading functional capabilities for real-time decisions and end-to-end automation, while ensuring interoperability and open extensibility.

DPA accelerates productivity with low code

Organizations are looking for ways to innovate, break down silos and reduce costs – and low-code helps them do all of those. Building an app, whether it's simple or complex, shouldn't be a struggle. A visual design approach empowers Agile development and collaboration between business and IT to drive proven results.

With low code, business users and IT staff work together on requirements, then rapidly build and deploy business rules, processes, and offers.

⁶ Netskope, "Netskope Report Reveals User-Led HR, Marketing, and Collaboration Applications are Most-Used, Despite Pending GDPR." February, 2018. Accessed from <https://www.netskope.com/press-releases/netskope-reportreveals-user-led-hr-marketing-collaboration-applications-used-despite-pending-gdpr>

Business stakeholders are able to provide feedback and requirements on Agile artifacts directly in a project management tool. Bringing the business closer to the development process eliminates shadow IT and empowers development teams to ensure innovation and scale take place in a compliant fashion.

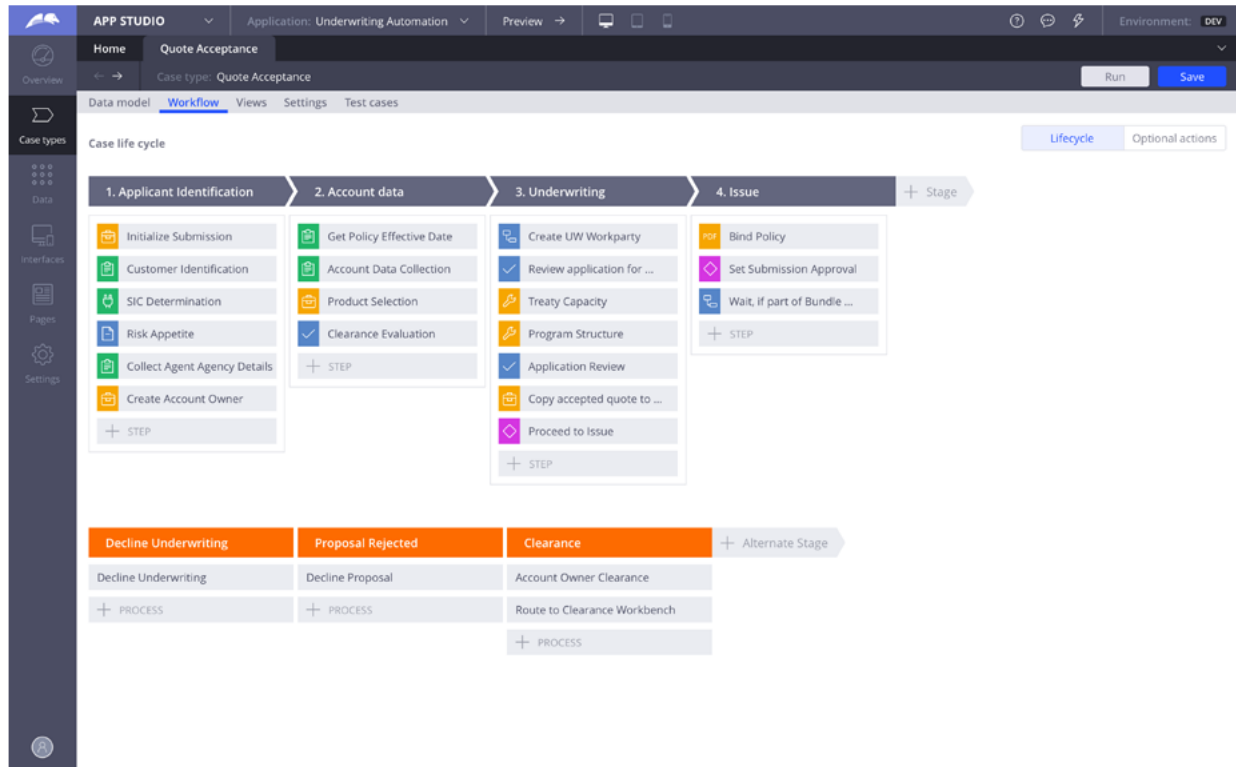


Figure 4: Use visual models and Agile methods to build apps that are always up to date and easy to change.

Low code empowers your staff to take increased ownership of the development and maintenance of their own applications – all while freeing up your skilled developers to focus on higher-value work, rather than chasing down requirements. Now, developers at any level can quickly design elegant, future-proof, and powerful applications using pre-configured and reusable building blocks.

DPA with Pega

Pega combines industry-leading DPA technology with proven Agile and design thinking methodologies to help organizations successfully reduce costs, increase speed to market, and embark on the ongoing journey of digital transformation. This approach brings together business and IT leaders to identify key challenges and define the right problems to tackle first, before more expensive investments are made.

Pega's technology helps break down deliverables into short, actionable, and attainable sprints – creating an Agile process for user experience design and development. Visual tooling – not just low code, but truly no code – empowers business and IT to design software together without the hassle of requirements docs or spec sheets that never stay in sync. Everything – business goals, processes, UI, integrations, security – is captured directly in Pega's visual models.

Pega also opens many possibilities for process redesign, employing bots, APIs, and humans when necessary, orchestrating perfect handoff as they work together. By having humans and bots collaborate, the human side of experience delivery is kept intact, while gaining the efficiencies and cost savings of bots.

How do you really deliver the promise of digital transformation? Get started quickly with Pega's approach, which allows you to begin optimizing your top customer journey decisions and processes in as little as 30 days. This enables you to rapidly see value from transforming customer service experience and operations without the risk of massive desktop replacements or building siloed channel systems.

Conclusion

Achieving digital transformation is not just about automation or process management – it's about outcome-driven processes, automated end to end, that drive value for both customers and businesses. Digital process automation allows you to deliver the frictionless experiences your customers demand, with the efficiency you need.

Start your digital transformation journey today. Find an outcome. Streamline the process. Make it better and deliver value to your customers, fast, with digital process automation.

[Learn more](#) about digital process automation with Pega.

**Ready to
get started?**

Experience the power of the Pega Platform firsthand with a **30-day free trial**.



We are Pegasystems, the leader in software for customer engagement and operational excellence. Our adaptive, cloud-architected software – built on the unified Pega Platform™ – empowers people to rapidly deploy and easily change applications to meet strategic business needs. Over our 35-year history, we've delivered award-winning capabilities in CRM and digital process automation (DPA), powered by advanced artificial intelligence and robotic automation, to help the world's leading brands achieve breakthrough business results.

For more information, please visit us at www.pega.com