# Simplifying the toughest challenges in telecoms

How to work smarter and embrace change

Major changes are taking place in the communications industry regarding speed and the way customers use network connectivity. The effects of the COVID-19 global pandemic have accelerated these changes, resulting in a 98% increase[1] in broadband traffic and major shifts in working patterns. Thanks to the increasing adoption of mobile devices and Internet of Things (IoT) technologies, there is a growing need to connect more people, including those in rural and remote locations.

Communications Service Providers (CSPs) need to deploy high-speed fiber and 5G networks to enable this new high-speed connectivity. In mobile communications, the growth of 5G will accelerate and drive change even further. This new reality will have a major impact on CSPs over the next five years.

1 https://www.fiercetelecom.com/telecom/pandemic-drove-upstream-broadband-traffic-boom-openvault
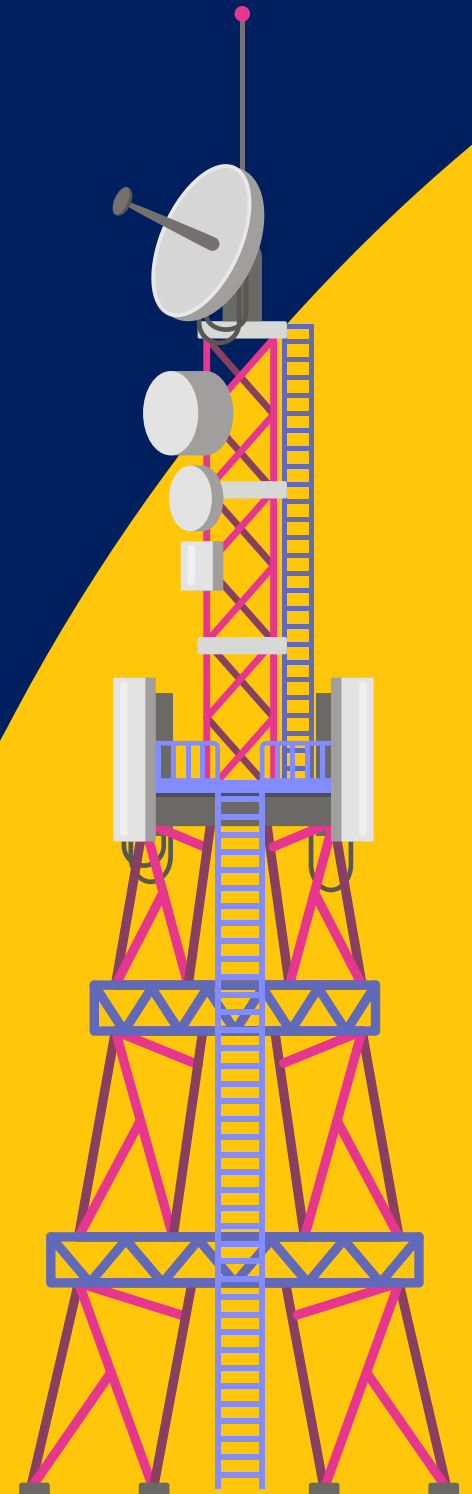
Preparing for tomorrow, today

Customer expectations are rising rapidly. In order to meet these expectations as well as grow revenue, achieve operational efficiency, and reduce costs, CSPs are having to make major changes. They are developing new digital channels and reducing dependency on expensive contact centers and retail operations. They are enabling AI-powered personalization of customer interactions to keep up with digital disruptors like Amazon, Netflix, and Google – and proactively delivering market-leading services and offers to improve their low Net Promoter Scores.

5G means CSPs can provide secure, high-quality connectivity and support their customers in new ways: from smart homes to IoT solutions in workplaces, autonomous vehicle technology, and unprecedented user experiences in gaming. But to deliver this, they need to move at 10X their current speed.

This pace of change in Telecoms is only going to increase. The need to roll out high-speed connectivity networks and services, expand channels, and radically improve customer engagement creates complexity for CSPs and demands radical simplification of business operations – so that the back office can keep up with customer expectations in the front office. That means completely transforming CSP operations to be agile, efficient, intelligent, and digital – to be prepared for whatever is next.

Build platforms to simplify the operating model with intelligent automation

Intelligent automation presents CSPs the opportunity to harness intelligence and speed up many critical workflows. By doing so, they can meet the increasing expectations of customers in the front office and other digital channels, deliver on personalization, and enable employees to spend their time on higher value-add activities. This includes hundreds of workflows, like order management, network rollout, service assurance, procurement, customer and partner onboarding, credit and collections, human resources, and contractor management.

In addition, CSPs have the added complexity required to support high-speed connectivity – including new technologies and potential future migrations to keep up. They must migrate to next-generation, high-speed services as well as upgrade legacy broadband networks a nd extend connectivity to rural areas. Workflow automation is key to managing costs and protecting profitability.

Intelligent automation doesn't have to lead to layoffs.

Gartner predicts that by 2025, **70% of new applications developed by enterprises will use low-code technologies** – up from less than 25% in 2020.[2]

Frontline staff can be reskilled in low-code application development to help support simpler business operations, which will allow CSPs to meet the new demands created by 5G and high-speed connectivity.

These new demands include supporting new products, services, and technologies, such as 5G, MEC, and Open RAN. These newly skilled staff can also help to remedy execution gaps; create scalable and repeatable applications, products, and services; connect and update legacy systems; and simplify already complex processes.

Digitize & transform

onboarding   **operations**   **exceptions**
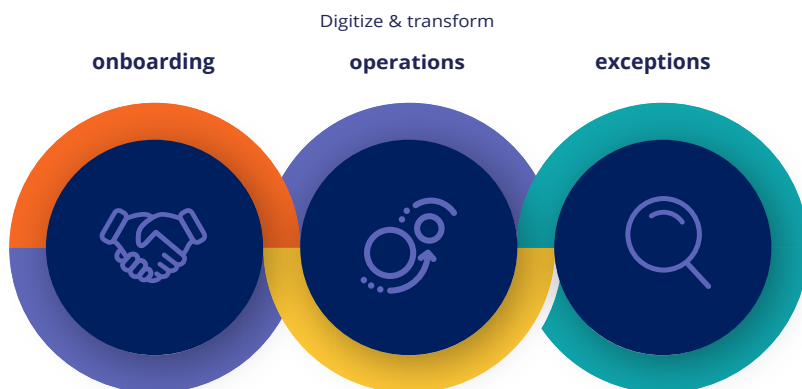
How Pega can help

Making the simplest change to vast operating and business support systems is hard enough. Digitizing complex, code-heavy workflows – all while staying ahead of competitors – is costly and time-consuming. Transformation is necessary to remain relevant and competitive. However, CSPs shouldn't have to choose between keeping the business running and preparing it for tomorrow. They need an agile way to turn intelligence into action, remove inefficiencies and bottlenecks, boost efficiency and productivity, and get more done with less, all while providing outstanding customer experiences and empowering employees to be more productive and at their best.

With intelligent automation, project timelines can become **4x faster** and a **return on investment of 598%** is achievable, according to Forrester's Total Economic Impact report[3].

Pega provides an integrated, end-to-end approach to automation of workflows in onboarding, operations, and exceptions by connecting front-end and back-end workflows to client experiences. Intelligent workflows anticipate and solve problems before they happen.

Using case management, AI-driven optimization, and low-code collaboration, workflows become rules-based and tied to outcomes. CSPs gain the power and visibility to make continuous improvements to workflows. Low-code development empowers CSPs to design and make dynamic changes and deliver meaningful results fast, all while enhancing collaboration between business users and IT. A modern architecture makes it easy to adapt to change, manage variations, and reuse shared workflows to roll out to new regions, functions, products, or channels, driving consistent outcomes everywhere. And by keeping development costs down, CSPs can spend more time keeping productivity up.

3 https://www.pega.com/forrester-tei-low-code
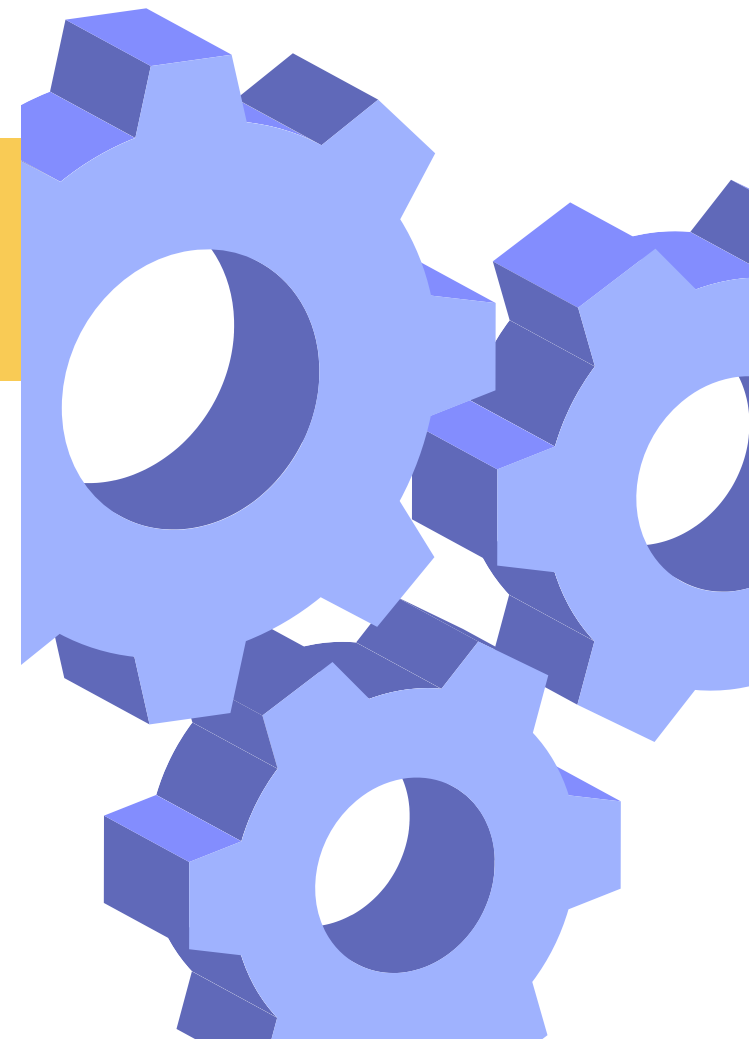
Align workflows to customer outcomes

When CSPs deploy tactical automations in isolation, the risk for breakages and bottlenecks increases. Intelligent automation connects desired outcomes to the organization's customers. Visibility and flexibility – in the form of incremental, short-phase automations – are woven directly into the digital fabric of operations. People and systems seamlessly work together to get results, ultimately reducing cost and complexity while strengthening competitive advantage.

With Pega, CSPs can create workflows once, quickly adapt, and make continuous improvements at scale for flawless operations.

Some of the most common operational journeys optimized by CSPs include:

- **Managing orders** – Reliance on siloed systems and manual tools and processes means that CSPs are failing to meet customer delivery expectations, which are a key driver of experience and satisfaction. Pega makes it simple to orchestrate and automate order workflows for communications products and services by connecting the front office, back office, partners, and customers in a unique omni-channel approach.

- **Managing network rollout** – By 2025, 51% of mobile connections in the U.S. will be on the latest 5G networks, which require 5x to 10x more cell tower infrastructure. With manual network planning processes, deployment is slow and costs are high. CSPs can automate workflows and eliminate touchpoints to ensure on-time delivery, keep costs low, and maximize margins. With Pega, CSPs can deliver end-to-end journeys, accelerating the number of homes and office buildings connected by fiber and mobile coverage.

- **Network service assurance** – With increasing dependency on broadband and 5G services in homes and businesses, demand for fast diagnosis and resolution of issues is high. Unfortunately, CSPs have operational challenges and struggle to respond when workflows are manual, often relying on third-party providers for customer connectivity and diagnostic data.

  CSPs can eliminate cost and complexity in fault diagnostics workflows. Accurate analysis of third-party data and workflow automation means fast resolution of issues and major reductions in expensive and unnecessary engineer visits.

- **Managing procurement** – Key operational workflows for procurement in CSPs are typically highly manual. The capacity for provision of a high-value service is limited and audit and control of supply chains is challenging. Rigid technology systems mean a lack of agility for transformation.

  With Pega, CSPs can simplify and automate workflows end-to-end, with case management providing control, visibility, and consistent outcomes. Procurement teams can become agile and empowered with rapid delivery and changes. Intelligent automation can be applied to processes for high-value interactions with significant business impact, such as end-to-end procurement, risk management, and stock control, resulting in cost reduction, capacity improvement, and fraud prevention.
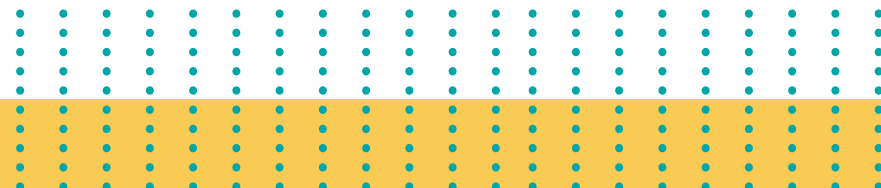
Who is getting it right?

Vodafone UK

Vodafone UK uses the Pega Platform™ to integrate existing IT systems across departments, such as finance, HR, procurement, supply chain, customer operations, network engineering, network operations, IT development, marketing, and enterprise sales. With Pega, Vodafone has achieved a 25% increase in speed and productivity in large ordering, billing, and business systems; automated workflows in debt collection processes led to a 50% increase in quality; and reduced communication time between internal departments and end customers from two days to 30 minutes.

Orange

Orange Business Services, a telecommunications company that services 220 countries, partnered with Pega to improve their order-to-customer implementation process through a service provisioning application they refer to as SALTO.

With Pega's dynamic case management, Orange improved customer communication by 30% and decreased fallout tasks by 50%. Leveraging Pega's intelligent routing and work automation, work is now routed to the most appropriate skilled worker 100% of the time, and rework has dropped by half. Furthermore, Orange used Pega to consolidate six antiquated provisioning systems, drastically reducing maintenance costs.

Google

Google sought to improve their end-to-end cycle time. Teams were struggling to navigate hundreds of websites, apps, and systems – forcing them to transfer the same information repeatedly, and creating an unsustainable process.

Google began Project Moose, a low-code workflow management solution implemented by Pega. Instead of giving engineers individual tickets, Google developed a user-defined rules engine to process tickets according to defined logic and then calculate the best assignment based on capability preferences. Google also layered in automation tools to make sure that the right teams are sent to the right place at the right time. This led to 80% of ticketing volume being fully automated, 10x improvement in ticket transaction cycle time, better data accuracy and system alignment for requests, and it freed up engineers to focus on more complex issues.

The time to act is now

The pace of change is accelerating in the communications industry – driven by new high-speed connectivity networks like fiber and 5G. CSPs are making radical changes to better engage with their customers and provide them with new and improved services enabled on these networks. However, this rapid change will create even more complexity for CSPs than they have today.

CSPs need to move 10x faster and build platforms to simplify their operating models. Only Pega's intelligent automation platform can enable CSPs to transform to meet these challenges.

Visit **www.pega.com/industries/communications/telecom-automation** to learn more.
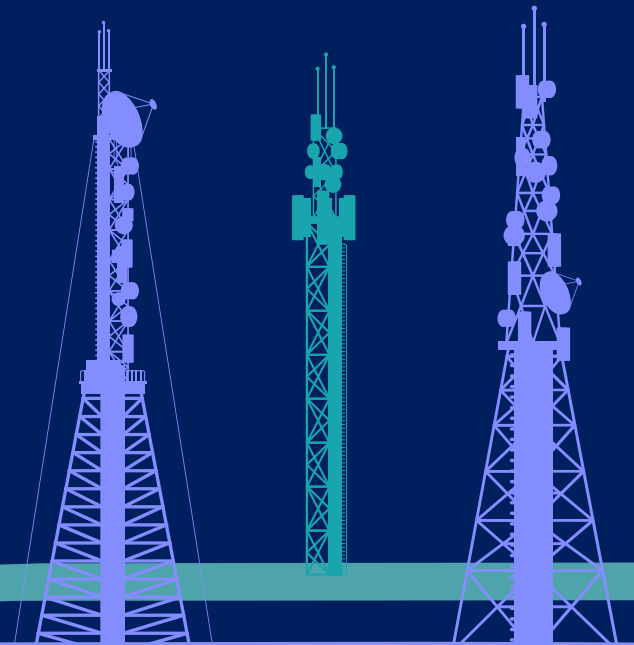
About Pegasystems

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, please visit us at **pega.com**