PEGA

The future
of telecoms

5 ways that 5G, fiber, and agile
platforms will revolutionize
telecommunications in 5 years

Introduction

In the past two decades, the communications space has seen major changes regarding speed, network, and the way customers use network connectivity.

These changes have accelerated since the COVID-19 global pandemic, with a 98% increase in broadband traffic and major shifts in working patterns that will continue into the future.[1] As an example, 70% of customer service agents now want to work from home.[2] What may have been unimaginable a few years ago has quickly become a reality – and it's just the beginning.

The world is becoming more connected thanks to the adoption of mobile devices, the proliferation of the Internet of Things (IoT), and the increased ability to send large volumes of information from as far as Australia to Alaska in seconds. There is an increasing need to connect everyone, including those in remote and rural locations. And in some countries, governments are stepping in to ensure this happens. Fiber optic cables have helped pave the way for high-speed connectivity and can achieve speeds of up to terabits per second – not quite the speed of light but getting closer each day. So that means that more people are more connected than ever before, with growing numbers of devices connected both at home and in the workplace. And the speed at which humans and devices can connect and transfer information keeps increasing.

Other new innovations like satellite broadband are set to further extend global connectivity. This technology is being driven by organizations such as SpaceX and Blue Origin.

In mobile communication, the growth of 5G will accelerate and drive change even further. 3G emerged in 2002, 4G in 2009, and 5G started to become available in 2018. 4G is 500 times faster than its predecessor and 5G is 20 times faster again, while offering increased peak capacity and reduced latency.[3] For your customers, that means faster uploads and downloads – with the promise of greater bandwidth and more devices supported on the same network. But what does that mean for you as a communications service provider (CSP)? How will 5G and the need for high-speed connectivity change the way your business operates – and what your customers expect?

[1]   Dan O' Shea, "Pandemic drove upstream broadband traffic boom: Openvault," Fierce Telecom, April 1, 2021.

[2]   "Gartner Survey Reveals 70% of Customer Service Employees Want to Continue Working from Home After the Pandemic Ends," Gartner, February 17, 2021.

[3]   "What is the difference between 3G, 4G and 5G?," Verizon, November 18, 2019.

5 trends to look out for

We predict five major trends will change the way the communications industry works within the next five years. In order to grow revenue, achieve operational efficiency, and reduce costs, CSPs will:

1. **Go digital first**

2. **Personalize with real-time AI**

3. **Tackle technical complexity**

4. **Move beyond connectivity**

5. **Build platforms to simplify the operating model**

5G and greater connectivity will change how customers interact with each other and the world around them – but also how they interact with CSPs. **In a market where the only new customers to acquire already belong to your competition, the service providers that will survive and thrive in the 5G, high-speed world will be the ones constantly transforming and innovating. They'll be ready to meet the demands of today, for generations to come – even when 5G is old news.** And that means completely transforming CSP operations to be agile, efficient, and digital.

1 Go digital first

It's no secret that one of the biggest expenses for CSPs comes from contact center and retail storefront operations. Reinventing this operating model will be key to surviving and competing in a 5G, high-connectivity world. How? By going digital first. CSPs must strive for frictionless digital care experiences to drive down the cost to serve on more expensive channels. The goal would be to move 80% of interactions to digital. This shift will help meet increasing customer expectations for speedy, convenient service, while also helping providers manage costs.

The COVID-19 global pandemic accelerated this need further. Prior to the pandemic, this shift to a digital-first operating model was on the horizon – now, it's urgent. Retail stores are expensive and will continue to struggle globally due to public concern as well as new behaviors that many consumers adopted during the pandemic: relying more heavily on digital channels. In recent Pega research, we found that **68% of telecommunications business respondents agree that COVID-19 demonstrated that they must be digital-led.**[4] Furthermore, 45% of customers are more likely to use self-service channels than they were prior to the pandemic.

It's time to invest in these digital, self-service channels to save time for customers and ease the experience for service representatives as well. Driving 80% of interactions through digital channels means that agents can focus on the remaining 20% of customer inquiries that truly require a human touch – significantly helping to manage volume. With the right approach to digital service, one that includes intelligent guidance and knowledge management for agents, you can make it easier for agents to onboard, while providing them the flexibility of working from home without sacrificing consistency.

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4   "Resolution revolution: Customer service insights," Pega, 2021.

Personalize with real-time AI

(2)

Digital disruptors set the bar for customer expectations. For many CSPs, that's unfortunately quite a high bar to strive for. Why? Well, the industry average Net Promoter Score (NPS) of around 30 for Telecoms is the lowest of all industries. Other industries boast an average NPS over 70! And being a leader in NPS promises a great deal of benefits, such as customer satisfaction, loyalty, and likelihood of upgrading or adding on services.[5]

The bad news? The communications industry at large is lagging behind digital disruptors – the Facebooks, Amazons, Netflixes, and Googles of the world – in providing superior customer experiences. The good news? There's great opportunity to become an NPS leader. While Facebook is an outlier among these digital disruptors with a negative NPS, Amazon, Netflix, and Google all enjoy an NPS of between 50 and 70! On the current course, many CSPs will miss the opportunity. To chart a new course and pull ahead, CSPs must look to hyper-personalize all customer interactions.

Customer needs change and CSPs need real-time information to understand what is happening in the moment. Knowing whether to service, sell or nurture requires real-time visibility of the customer context. CSPs need to harvest real-time data sources - network events, web site visits, click-throughs, location and channel interaction information such as customer voice tone or time spent in the IVR system.

1. Commit to delivering personalized experiences across all channels.

2. Centralize all customer decisions in an AI-enabled "hub."

3. Deliver relevant, personalized messages and offers in each interaction.

4. Proactively predict and deliver service requests, retention offers, etc.

5. Deliver on the promise of personalization, while maintaining visibility on the business and customer side.

[5] https://customergauge.com/benchmarks/companies

3 Tackle technical complexity

As customer expectations and offerings increase, so too does technical complexity for many CSPs. From supporting a growing number of client engagement channels to navigating a complex matrix of siloed systems, many CSPs are feeling the challenge and looking to digital transformation as an opportunity to simplify and streamline technology and processes. Transformation is critical for surviving and thriving in the future of 5G and high-speed connectivity. It requires rethinking and re-tooling, fast – waiting three years will be too late.

Many CSPs have started to deploy greenfield, cloud-based OSS/BSS systems alongside their existing legacy systems. They are transforming by gradually moving applications into public, private, or hybrid cloud environments. Using this approach, existing OSS/BSS systems continue to ensure consistent customer experience, while the CSP simultaneously builds a new digital stack that can help reduce costs and enable a zero-touch future. However, the path to achieving this is challenging – as existing OSS/BSS ecosystems are surrounded by many other systems with deep-rooted and customized integrations.

To deliver market-leading customer experiences and radically improve operational efficiency at speed, CSPs need to decouple the fast from the slow. This requires a digital agility solution and an open digital architecture that will enable them to develop at the speed of the business and keep core systems on a steady, more long-term transformation plan.

Since the full transformation can take three years, this kind of digital solution can help deliver the personalization, automation, and agility customers expect today.

4 Move beyond connectivity

5G presents great opportunities, but also terrific demands. It provides CSPs with the opportunity to provide secure, high-quality connectivity across billions of devices. CSPs have the chance to support their customers in new ways – as homes and workplaces become smarter with the ever-expanding IoT and introduction of new technologies like autonomous vehicles. While the adoption of autonomous vehicles by everyday consumers is not likely to increase dramatically over the next five years, some of the places where autonomous vehicles will take off first – airports, ports, manufacturing sites, distribution warehouses, and the likes – will require enterprise support from CSPs to enable highly automated workplaces.

Increased speeds and bandwidth as well as low latency will unlock unprecedented user experiences across entertainment, gaming, e-sports, and more. Not to mention the alternative that it will provide to home broadband, increasing accessibility in both geographic and socioeconomic contexts.[6]

These opportunities are all hugely exciting – but realizing them will be a challenge for the entire industry. And at their current pace, many CSPs will miss them altogether. CSPs will have to move at 10X speed. They'll need greater agility, and they'll learn to fail fast. This means engaging the community with an "open innovation ecosystem." This ecosystem will be enabled by a platform of 5G, MEC (multi-access edge computing), and low-code analytics and automation. This platform will facilitate the creation of solutions powered by partnerships with academia, consultants, and industry experts. Partners that understand the problems can innovate and build solutions in just days. And CSPs that provide the easiest to use platforms to engage partners in building solutions will win.

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[6] John Legere, "New T-Mobile: Creating a True Alternative to Fixed Broadband," T-Mobile, March 7, 2019.

Build platforms to simplify the operating model

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The pace of change in communications is only going to continue increasing. 5G and high-speed connectivity usher in the need to shift to simpler business operations so the back office can keep up with customer expectations seen in the front office. Automation presents the opportunity to speed up many critical processes and enable employees to spend their time on higher value-add activities. This could include hundreds of processes, including customer and partner onboarding, credit and collections, human resources, contractor management, order processing, procurement, fault diagnostics, and so on. **With the added complexity required to support high-speed connectivity – including new technologies and potential future migrations to keep up – automation is key to managing costs and protecting profitability.**

Over the next five years, CSPs will need to transform to more agile environments. To keep up with competition posed by cloud-native providers, they must migrate to next-generation, high-speed services as well as upgrade legacy broadband networks and extend connectivity to rural areas. This means it's time to reskill workers in low-code application development. As high as 30% of frontline staff can be reskilled to help support simpler business operations, which will allow CSPs to meet the new demands created by 5G and high-speed connectivity – all without having to hire 30% more staff. 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.

Success for the next five years starts today

To survive and thrive over the next five years, CSPs must start radically transforming how they operate and engage with customers today. **On their current course, most providers will miss the opportunity to compete and succeed in the future of communications.** 5G and high-speed connectivity are changing the landscape for telecommunications – and this is just the beginning. Getting started in a couple of years will be too late. The time to start is now.

Unsure of where to begin? We can help.

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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.

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