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Introduction

Over the past decade, the telecommunications industry has found itself stuck in a tangle of discouraging paradoxes. Operators have developed innovative systems to deliver many of today's most popular communication types—messaging and video, among others—yet customers are flocking to digital over-the-top (OTT) players.

Moreover, the sheer amount of bandwidth that people use to communicate has never been higher, yet average revenue per user is falling.

In short, communication services providers (CSPs) have provided the infrastructure and connectivity that has powered the global digital revolution, yet telecom share of industry profits is in steady decline.

How did the CSP industry get here? In many ways it is the long-term success of the telecom sector that has made it so vulnerable to digital disruption. Size, diversity of product offerings, organizational structure—in the past, these were the factors that helped CSPs dominate; in the digital economy, they can be their Achilles heel

Fortunately, CSPs still possess valuable resources that are essential for long-term success in the digital economy. The question is how to marshal those resources in ways that will build customer loyalty and reverse the revenue slide.

This eBook will give you the information you need to understand the immense changes that are impacting the CSP industry. It also details four strategies to help create a superior customer experience, drive innovation, and escape the commoditization trap.



Facing the Facts: CSP Industry Revenues in Decline

For almost the past decade, any new telecom industry revenue forecast would pose one question: Not whether the numbers would be disappointing, but just how disappointing they would be.

Average revenue per user (ARPU) for CSPs has fallen in virtually every region worldwide.² Since 2012, operators have seen anywhere from a 13 to 36 percent drop in ARPU, depending on the region. Meanwhile, CSP share of industry profits is also in steady decline, falling from 58 percent in 2010 to an estimated 45 percent in 2018.³

Looking ahead, the picture does not get much brighter.

Through 2020 traditional telecom companies are predicted to see⁴:

- 0.7% growth for CSPs worldwide
- O.3% growth for North American CSPs
- **1.5%** decline for Western European CSPs
- 1.3% decline for Central and Eastern European CSPs

If CSPs continue on their current course, revenue stagnation and decline will be the unfortunate result. Thankfully, forecasts

are not set in stone; a different future is possible, but only if CSPs can identify the factors that have contributed to the downturn in their business

Over the next 10 years6:

- 63% increase in communication intensity
- 36% drop in spending on communication services

"Telecom operators have largely failed to launch and scale new business models. CSPs may have made large strides... but they have consistently lost out to new, nimbler digital businesses."

-THE WORLD ECONOMIC FORUM5



Three Key Factors Driving CSP Revenue Decline

Understanding how the CSP industry got to where it is today can help steer companies on a better path for the future. Today's CSPs find themselves caught in a negative cycle driven by three key factors.



Market Saturation

Introduced in the early 2000s, mobile broadband recently reached 100 percent penetration for the first time.⁷ In less than two decades, mobile broadband went from almost non-existent to nearly ubiquitous.

The adoption of mobile wireless is just as impressive. In 2017, mobile wireless penetration reached 85 percent in Europe, 84 percent in North America, and 67 percent in APAC.⁸

These examples underscore the dilemma that many telecoms now face: Operators are fighting one another for subscribers in oversaturated markets. With such high adoption rates, driving revenue through new customer acquisition is an increasingly difficult proposition.

"In [an] extreme scenario, increasing commoditization of [telecoms'] core offering could see margins drop to the levels of utility companies." —THE WORLD ECONOMIC FORUM¹⁰



Commoditization

Commoditization is something of a dirty word but it is an undeniable reality for CSPs. With markets at or very near saturation, it is very easy for customers to compare operators and switch to the one that offers the lowest price.

In fact, according to PricewaterhouseCoopers, the commoditization of telecom services has been increasing in virtually every national market. In the United States, "carriers increasingly compete through price-based tactics and aggressive marketing campaigns. As a result, prices are declining and ARPU spread is narrowing."

Once a product or service becomes commoditized, it can be notoriously hard—though not impossible—to differentiate and regain value.



3

Legacy Technology and Culture

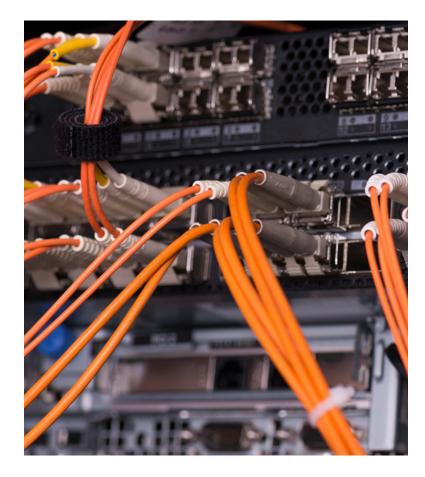
CSPs—particularly traditional telecom companies—are not well-known for their agility. Some of this can't be helped; operators are often large, complex organizations that have been in business for decades. In the digital economy, however, these factors can be a liability for CSPs.

In fact, when asked to name barriers to digital transformation success, 65 percent of telecom executives cited legacy IT systems, while just over half, 51 percent, said lack of digital expertise, and 33 percent said organizational silos.¹¹

As Alex Holt, Head of Telecoms at KPMG, says: "Traditional telcos will have to shake up their culture to remain relevant to consumers. They must create an environment where innovation drives strategy, not the demands of regulators and the time-frames of large engineering projects."¹²

"The largest bottleneck is in the mindset and the legacy IT systems. It is very important to overcome these quickly. You can create all the services and apps that you want, but if you're of disjointed infrastructure, you're not going to get very far." —MAURICIO RAMOS, CHIEF EXECUTIVE OFFICER, MILLICOM¹³

Over **65%** of new product initiatives have been delayed or forced to narrow the scope of their programs due to legacy billing systems.¹⁴





OTT and the Threat of Digital Disruption

All of these factors have left CSPs vulnerable to disruption from one of the biggest threats yet: companies that deliver media and communication services directly to consumers via the Internet and bypass telecom services providers completely.

These over-the-top (OTT) competitors are completely reshaping the telecommunications landscape. A few years ago, communications services from OTT players accounted for a small portion of CSP revenue. These numbers are predicted to skyrocket¹⁵:

Percent of Revenue Driven by OTT Companies

Today: ————	
9% Messaging ———	→ 60% Messaging
11% Fixed Voice ——	→ 50% Fixed Voice
2% Mobile Voice ——	→ 25% Mobile Voice

Taken as a whole, OTT is estimated to cost traditional telecom companies more than \$100 billion in lost revenue every year.¹⁷

These trends point to just how easily CSPs can be disrupted by threats that they can't readily predict. In fact, the telecommunications sector ranks number two on the list of top industries facing disruption from digital technologies, second only to media.¹⁸

To beat back the OTT threat, CSPs must focus on adding value to their offerings as well as going above and beyond to build customer loyalty.

75% of North Americans would consider replacing their current service provider with Google, Apple, or Facebook if they offered wireless connectivity.¹⁶





Doing Nothing About Digital Disruption Is Not an Option

Digital disruption is top of mind for the telecommunications industry. Seventy-four percent of CSPs report that disruptive competition is the top strategic challenge faced by their businesses.²⁰

However, just 23 percent of telecom companies feel "very prepared" for digital disruption. In fact, a majority of CSPs—62 percent—lack a digital strategy of any kind.²¹

The disconnect between talking about digital disruption and actually taking action to prevent it is creating a dangerous gap for CSPs. The temptation to do nothing is strong—and understandable. After all, even if telecom companies want to digitally transform their businesses, many simply don't know how to do so.

Today is different. Commoditization, OTT, and other factors are now having a noticeable impact across the telecom sector on everything from the bottom line to brand reputation. Here's what CSPs risk by not proactively addressing digital disruption:

Stagnating or declining revenue:

Without action, CSP industry revenue growth is predicted to hover below one percent globally, with actual declines in Europe and other regions.²²

Customer churn:

Customers switching to other providers is estimated to cost CSPs an average of \$65 million per month, per carrier in lost revenue.²³

Loss of market share to more digital-savvy companies:

Three-quarters of customers are willing to buy mobile services from digital-first companies such as Amazon, PayPal, or Netflix.²⁴





Four Strategies to Differentiate and Drive Digital Transformation

The key to success in the digital economy is digital transformation. For this reason, 82 percent of CSPs have identified digital transformation as a critical and immediate objective.²⁵

The question is no longer whether CSPs need to digitally transform, but how to do so in a way that drives revenue and competitive differentiation. Here are four strategies that CSPs can use to do just that.

"The digital transformation of telecommunications represents a \$2 trillion opportunity for industry and society... the value to the telecom industry could exceed \$1.2 trillion in cumulative operating profit from 2016 to 2025." —THE WORLD ECONOMIC FORUM²⁷

What Is Digital Transformation?

this: Digital transformation is "the continuous process by which enterprises adapt to or drive disruptive changes in their customers and markets by leveraging digital competencies to innovate new business models, products, and services."





Strategy One:

Focus on the SMB Opportunity

With few exceptions, OTT companies have been effective in taking market share away from CSPs in the consumer space— WhatsApp encroaching on messaging services, or Netflix taking the place of a cable operator, to name just two examples.

Business-to-business (B2B) applications are a different story. In general, OTT players have yet to try and enter this market, and CSPs have a huge head start both in terms of technology infrastructure and customer relationships.

There are two areas of opportunity in the B2B space that CSPs would be wise to target: small and medium-sized businesses (SMBs) and the industrial Internet of Things (IIoT). They may

SMBs and Cloud Services

- 73% are overwhelmed by their choices and need help buying
- 67% say having to go to multiple vendors for services is "a waste of time"
- 66% want to consolidate and purchase their services from one vendor⁵⁰

seem to be on opposite ends of the spectrum, but they are both promising areas where telecom companies still have space to differentiate.

SMBs Seeking Trusted Cloud Advisors

SMBs can have a reputation for being risk averse when it comes to new technology, but many are jumping headfirst into cloud. Almost every SMB in the United States has launched at least one cloud service, with market penetration reaching 94 percent by the end of 2017.46



Why have they been so eager? Cloud services are a natural fit for SMBs, which often don't have the time or money to invest in complex technology deployments or an IT staff to manage them. However, as the number of cloud services grows—there are more than 10,000 available today—SMBs are also feeling overwhelmed. In fact, almost three-quarters of SMBs, 73 percent, say that there are so many cloud applications on the market that they need help understanding their options.⁴⁷

SMBs also want a one-stop shop to buy all of their business services, including voice, Internet, and cloud software. Sixty-six percent of small companies are likely to consolidate and purchase their voice, Internet, and cloud services from one vendor. Even more promising, almost half of SMBs, 54 percent, would prefer to obtain their business services from a CSP.⁴⁸

CSPs should take note: Only one in five SMBs say they are satisfied and have everything they need from their cloud services. Clearly, there is ample opportunity for CSPs to step in and act as trusted cloud technology providers to their SMB customers.⁴⁹

Only 20 percent of SMBs say they have everything they need from their cloud services, creating an opportunity for CSPs to provide in-demand software with a superior customer experience.⁵¹



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Strategy Two:

Offer Innovative Digital Products and Services

Once an upstart solution, cloud now dominates the technology landscape and adoption shows no signs of slowing. Through 2019, users will spend nearly \$1 trillion on public cloud driven by healthy CAGR across every sector of cloud computing.

For example, SaaS will see an 18 percent CAGR through 2019, while IaaS will enjoy a 32 percent CAGR over the same period.⁴⁰

As cloud adoption grows, a larger portion of IT spend is being allocated to cloud services. By 2019, 80 percent of all IT budgets will be committed to cloud applications and solutions.⁴¹

More businesses are shifting their IT spending to business applications, such as Backupify, Box, FreshBooks, ProsperWorks, and other popular apps.

Here are the top SaaS application types deployed by percentage of businesses:⁴²

39% File sharing30% Online backup and storage30% Payroll and HR

30% Online accounting10% Virtual desktop (VDI)9% Support and help desk8% Online CRM

CSPs are ideally positioned to become cloud services providers of choice for their SMB business customers, and many telecom companies are bullish on their prospects for success. In a recent survey, almost a quarter of operators said that they expect digital services to account for more than 25 percent of total revenues by 2020.⁴³



Differentiating with Cloud Service Bundles

Cloud services offer almost unlimited options for bundling to target specific verticals or other customer groups. There are three main ways to bundle products, along with examples of each:

1 Bundling with core

Offering an office productivity application with business Internet service

2 Bundling multiple cloud applications

Offering an office productivity application with backup and security solutions.

3 Bundling applications with value-added services

Offering an office productivity application with white glove migration, onboarding, and training services.

With bundles, CSPs can create strong, unique value propositions for offerings that work to set them apart in saturated markets while defending against the threat of disruption.

Looking Beyond Cloud Services

Selling cloud services is just one way to enter an adjacent business—software sales—to drive revenues. Some telecom companies are casting an even wider net for new business opportunities.

Orange, the largest telecom operator in France, recently partnered with French insurer Groupama to launch Orange Bank. The mobile-only bank is expected to generate around €400 million in revenue in 2018, and reach 2 million customers over the next decade ⁴⁵

STRATEGY IN ACTION

Cloud Services Drive 500% Revenue Growth

The business division of a major North American CSP wanted to open a new revenue channel and differentiate its brand. The company started selling Microsoft Office 365 along with its traditional Internet and voice services

Over 12 months, the CSP gained*:

- 500% revenue growth
- 600 new SaaS customers per month
- 41% uptake for professional services (set up and migration)

*Results powered by the AppDirect platform.



STRATEGY IN ACTION

Cloud Services Bundling Saves \$1 Million

A large European CSP needed to find new ways to engage customers and drive revenue. The company began offering cloud services, including Microsoft Office 365, as well as onboarding services.

The CSP saw*:

- **100,000** Office 365 subscriptions, up from 30,000
- 50% of new subscription sales from existing customers
- **\$1 million** in savings from bundling services *Results powered by the AppDirect platform.

Sell Where Customers Want to Buy: Cloud Service Marketplaces

Cloud services can be purchased from a variety of sources: directly from software vendors, through value-added resellers, and more. However, 50 percent of business customers buy through online cloud marketplaces.⁴⁴



Improve the Customer Experience

Sixty-eight percent of senior CSP leaders cite customer experience management as their number one strategic priority.

And for good reason; historically, the telecom industry has done a poor job delivering satisfactory customer service. The proof? The CSP industry Net Promoter Score is just 31, placing it 14th out of 20 industries.²⁸

These low rankings need to change, and fast. Today's digitally savvy customers have higher expectations than ever before. They want high quality, seamless interactions across every channel and will jump to another provider if their expectations are not met. According to Accenture, 52 percent of consumers have switched brands in the past year due to poor service.²⁹

As the World Economic Forum succinctly put it: "Customers are beginning to judge the quality of the products or services they receive not only against competitors within that sector but also against the best customer service they have experienced in any industry." ³⁰

The telecom sector ranks 14th of out 20 industries in NPS.³¹

What Customers Want from CSPs:32

- 41% personalized products and services
- 35% flexibility: easy to do business with
- **29%** a customer first attitude
- 29% proactive offers for products/services that meet customer needs
- 24% more responsiveness to customer requests

Creating a Customer Experience that Stands Out

Customers want a best-in-class customer experience, but what can CSPs do to create one? Here are four elements that, if done well, can help telecom companies provide a digital-first experience that will make customers stay.

1

Contextualized interactions

Customers in both the business and consumer spaces crave personalized experiences that cater to their unique needs, such as dynamic product or content recommendations based on past purchases or browsing history. CSPs need to have the digital tools in place to follow customers across the lifecycle and make effective recommendations along the way.

Providing contextualized interactions can improve customer retention, with even a 0.5 to one percent reduction in churn generating additional operating profits of more than \$10 billion over the next decade.³³

2

Onboarding and training

Today's technology is built to be user friendly and largely self-service. However, customers still need help. One survey found that 83 percent of customers needed some degree of support while making an online purchase, a relatively easy task.³⁴

After a purchase is made, customers often need help setting up a new device or software service. This could be something as simple as a support phone call, or an ongoing series of training sessions giving customers tips on how to use their new technology.

3

The human element

Despite the emphasis on self-service, customers still want one-on-one help from trained customer support specialists. The majority, 61 percent, prefer to receive support over the phone. Email is a close second, with 60 percent of customers preferring this method of communication, while live chat is preferred by 57 percent of customers.³⁵



Of customers who switched providers due to poor customer service, 80% said they would have stayed if their issue had been solved during their first contact with customer support.³⁶



A seamless experience across channels and devices

CSP customers go from their smartphones, to their tablets, to their laptops, and back again without pause, and they expect a product experience that is seamless across all of these different devices and environments. For example, if customers start to research a product on the web, they should be able to switch to a provider's mobile app to finish the transaction.

Customers also demand payment and delivery options that are quick and easy. Services purchased on a tablet should be automatically provisioned and available across any device. Monthly invoices also need to be accurate and easy to pay.

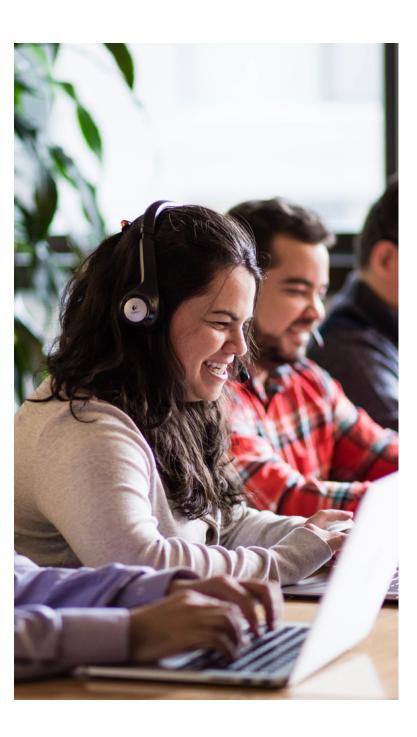


A better customer experience will result in happier customers, lowering churn and boosting revenue. So much so, in fact, that taken together these drivers are predicted to generate up to \$9 billion in new value over the next 10 years.³⁸

36% of North American customers would switch CSPs due to a billing issue.³⁷

"Customers are empowered by digital; they have new behaviour and new expectations that are pushing us to evolve. We have to be more reactive and more agile. We need to listen to what our customers expect and also track how our digital environment is evolving."

-BENEDICTE JAVELOT, CHIEF STRATEGY OFFICER, ORANGE³⁹



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Strategy Four:

Focus on the Industrial Internet of Things (IIoT) Opportunity

Today, the conversation around the Internet of Things (IIoT) is dominated by smart watches, fitness trackers, smart thermostats, and other consumer goods. However, there is tremendous potential for IoT in industrial applications.

In fact, manufacturing already dominates IoT network connections, with growth up 84 percent in 2017 alone. Moreover, the IIoT is forecast to add \$14 trillion of economic value to the global economy by 2030.⁵²

Operators are poised to play a critical role in providing the infrastructure and connectivity to power billions of IIoT sensors and cloud applications. The World Economic Forum estimates that increasing IIoT demands for bandwidth and data usage will be so great that it could generate \$65 billion for CSPs.⁵³

"Operators are ideally positioned to serve as the backbone of the complex data flow that links machine sensors to back-end services... and transportation supply-chain infrastructure to navigation, factory floors, social media, and logistics apps." —THE WORLD ECONOMIC FORUM⁵⁴

As we've seen, relying on connectivity alone can set operators on the path to commoditization. That's why CSPs should strongly consider differentiating their IIoT offerings with implementation, management, and other professional services.

The vast majority of companies need help deploying massive, complex hardware and software solutions across multiple sites, especially in the new age of IoT. It is predicted that these services will drive an additional \$75 billion for operators, more than the value of the bandwidth itself.⁵⁵



"The Internet of Things and industrial digitization have the potential to have as big an impact on people as the incarnation of the internet itself had, possibly even bigger than that." -KATHRIN BUVAC, CHIEF STRATEGY OFFICER, NOKIA⁵⁶

For some telecom companies, the factory floor may seem to be far outside of their comfort zones. However, IIoT holds immense promise for CSPs that are looking for innovative ways set themselves apart in the digital economy.







Conclusion

"In a continuously evolving ecosystem, operators that can get to market first with new service propositions will stand out from the crowd. It is not enough to follow the herd." -EY⁵⁷



For years, the CSP industry has heard that the sky is falling: Customers would leave, revenues would fall, tried-and-true business models would become obsolete. The dire warnings have finally caught up with telecom companies' bottom lines, and the threat of disruption has never been greater.

There is still time, however, for CSPs to chart a new course for their businesses and the industry as a whole. Improving the customer experience, offering innovative digital products and services, targeting the SMB and IIoT markets—CSPs enjoy numerous opportunities to differentiate their companies and escape the commoditization trap once and for all.

No Pressure Advice from CSP Cloud Technology Experts

The issues discussed in this eBook are just the beginning. AppDirect is a trusted advisor to leading CSPs around the world as they begin to explore their options or implement their strategies for digital transformation.





EBOOK

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About AppDirect



AppDirect provides the only end-to-end cloud commerce platform for succeeding in the digital economy. The AppDirect ecosystem connects channels, developers, and customers through its platform to simplify the digital supply chain by enabling the onboarding and sale of products with third-party services, for any channel, on any device, with support. Powering millions of cloud subscriptions worldwide, AppDirect helps organizations, including Jaguar Land Rover, Comcast, ADP, and Deutsche Telekom, connect their customers to the solutions they need to reach their full potential in the digital economy.

AppDirect is headquartered in San Francisco, California with offices around the globe and works across vertical industries, including software, manufacturing, value-added resellers, and financial services. J.P. Morgan, Foundry Group, iNovia Capital, StarVest Partners, Stingray Digital, and Mithril Capital Management have invested in AppDirect.

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