The Future Communications Service Provider

High performance. Delivered.

A Blueprint for Relevance in the Converged Digital World

Authors: Sumit Banerjee, Tom Loozen, Matt Fanno and Abhinav Saksena
# Table of Contents

**Executive Summary**  
Part I: Major Trends Redefining the Communications Industry  
The Communications Industry at a Crossroads  
1. The Perfect Storm: Colliding Pressure Systems of Revenue and Cost  
2. The “100 Percent Data” Environment: A Major Threat to Differentiation  
3. The New Face of Competition: The Rise of the Superplatforms  
4. The Digital Customer: Always in the Channel  
5. Required to Capture Value: Move Beyond the Core  
6. Government: Roiling the Waters with New Opportunities and Requirements  
7. Out of Footprint: Consolidation and Globalization  

Part II: Fundamental Transformation Is Critical to Success  
A Vision for Transformation in the Converged Digital World  
1. The Network of the Future: Collaborative, Evolved, Converged  
2. The New CSP Business Model: Integrated Digital Services Provider  
3. Approach to Digital Customer Engagement: Social, Segmented, Seamless  
4. New Service Focus: Invade Adjacent Markets  
5. Key to Human Capital: Attracting the Right Mix of Leaders and Innovators  

Part III: Questions for Consideration  
Endnotes
Executive Summary

The “business as usual” story for communications service providers (CSPs) is challenging compared with many other industry segments, at least in the eyes of investors. CSPs are lagging many industries in both current performance and future positioning. Over the past 10 years, the industry underperformed the S&P 500 Index every year. And yet in some markets, prospects for the CSP industry have never been better.

The industry is at a crossroads. Like companies in most industries, CSPs are facing a new landscape of competitive challenges and opportunities, thanks in large part to the phenomenon of convergence and the changing digital landscape.

For many years, CSPs have been dealing with network and service convergence within their own industry. The new wave of change, however, is far broader. It is a global marketplace dynamic in which industries are overlapping and colliding, value chains are being redefined, and players are being brought together as both competitors and collaborators across traditional boundaries of industry and technology.

This paper will start by examining the current landscape—in particular, a number of the major trends that are causing dramatic changes in our industry. These trends are disrupting established value chains and business models, while at the same time offering non-traditional growth prospects and new opportunities that may not have been accessible just a few short years ago.

Major Trends Redefining the Communications Industry

1. The Perfect Storm: Colliding Pressure Systems of Revenue and Cost
   CSPs are facing colliding economic headwinds that are accelerating a divergence between revenue and cost.

2. The “100 Percent Data” Environment: A Major Threat to Differentiation
   Customers want faster access and richer services, but justifying ROI remains a challenge.

3. The New Face of Competition: The Rise of the Superplatforms
   The next wave of CSP competition will look very different from the last one.

4. The Digital Customer: Always in the Channel
   Tomorrow’s opportunities for CSPs will be in making sense of the new digital customer.

5. Required to Capture Value: Move Beyond the Core
   Winning in new services will require CSPs to up their innovation game and find their ecosystem roles.

6. Government: Roiling the Waters with New Opportunities and Requirements
   Government policies will focus on both increasing and restricting competition, depending on country priorities.

7. Out of Footprint: Consolidation and Globalization
   Size will matter, and the future of the communications industry may well be out of footprint.
Next we will look at five key dimensions of a CSP’s business and offer a transformation blueprint for CSPs to remain relevant in the converged digital world.

Finally, we will conclude with some thoughts on the transformation journey of CSPs. At one end of the spectrum will be a “utility pipe” model, with focus on infrastructure and extreme efficiency and only limited effort needed in order to move across the value chain. At the other end will be a “virtual pipe” model that foregoes physical network ownership and operation and focuses instead on leveraging customer relationships as “marketing-only” companies. And in the center is evolution into a “smart pipe” model, creating platforms for innovation, new business models and managed solutions. While the path may take different turns, what’s important is that CSPs take action—now—to decide their strategic intent and the steps needed to get them there. The stakes are high—and so are the consequences of inaction.
Part I: Major Trends Redefining the Communications Industry
The Communications Industry at a Crossroads

We believe there are a number of trends that are causing dramatic change in the communications industry—disrupting established value chains and business models while also offering non-traditional growth prospects and new opportunities that may not have been accessible even a few years ago. This paper will focus on seven major trends we believe will have significant impact on CSPs.

Major Trends: Redefining the Communications Industry

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The Perfect Storm: Colliding Pressure Systems of Revenue and Cost</td>
</tr>
<tr>
<td>2</td>
<td>The &quot;100 Percent Data&quot; Environment: A Major Threat to Differentiation</td>
</tr>
<tr>
<td>3</td>
<td>The New Face of Competition: The Rise of the Superplatforms</td>
</tr>
<tr>
<td>4</td>
<td>The Digital Customer: Always in the Channel</td>
</tr>
<tr>
<td>5</td>
<td>Required to Capture Value: Move Beyond the Core</td>
</tr>
<tr>
<td>6</td>
<td>Government: Roiling the Waters with New Opportunities and Requirements</td>
</tr>
<tr>
<td>7</td>
<td>Out of Footprint: Consolidation and Globalization</td>
</tr>
</tbody>
</table>
1. The Perfect Storm: 
Colliding Pressure Systems of Revenue and Cost

For CSPs, colliding economic headwinds are accelerating a divergence between revenue and cost, as shown in Figure 1.

Competitive Pricing Pressure, 
Even in Growth Markets

Regional CSP revenue forecasts show signs of stagnation over the next three years. Despite overall revenue growth, mobile voice ARPU is expected to decline across all regions through 2016, with overall declines since 2012 ranging from 13 percent to 36 percent. In many markets, mobile data revenue has proven insufficient to make up for the decline of legacy services such as voice and SMS, which are being rapidly supplanted by OTT applications that can generate 50 percent to 90 percent less revenue for CSPs (e.g., WhatsApp versus SMS revenue or the many flavors of VoIP). To exacerbate the challenge, saturation is increasing competitive pricing pressure, even in many growth markets. Fixed-line prospects may be similarly constrained by cord cutters and shavers, especially for services facing increased OTT competition, such as voice and video. Headroom remains in some markets, where consumption is growing and network utilization is up, but competitive parity among CSPs, along with availability of free-to-consumer alternatives, continues to increase pressure on pricing and top-line growth.

Escalating Costs, with Diminished Pass-through Potential

While revenue growth remains challenged, mobile data consumption is expected to grow at more than 66 percent annually over the next five years, accelerating demand for network investments. By some estimates, the network investments needed to keep pace with demand could top $2 trillion over the next decade. While new technologies such as cloud and digital offer some cost savings, they are insufficient to cope with the pace and magnitude of escalating costs. AT&T, for example, is spending more than $8 billion on 4G LTE deployment, despite minimal pricing changes versus 3G. Non-network cost increases are putting pressure on bottom lines as well. In the U.S., for example, programming costs for CSPs with video distribution lines of business have grown by up to 32 percent over the past four years. Due to intense competition, only about half of this increase has been passed on to customers. As cost pressure mounts, CSPs will be forced to consider all aspects of their spending with a critical eye, including spending on the networks themselves.

Ask yourself: How do you minimize the reduction in legacy revenue and optimize the returns?
2. The “100 Percent Data” Environment: A Major Threat to Differentiation

Customers want faster access and richer services, but justifying ROI remains a challenge.

From CSP to Broadband Pure-Play

As once “proprietary network” services migrate to IP, CSPs face the inevitable transition to becoming broadband pure-plays. Migration of their own services, combined with growing OTT competition, will diminish the differentiation of traditional multi-service bundles, apart from mere price discounting, and will put broadband squarely at the center of these bundles. As the focus on broadband intensifies, CSPs will find themselves under increasing pressure to compete based on two undesirable and contradictory factors: a race to the bottom on price and a race to the top on throughput. And outside “shocks” to the system, such as Google’s gigabit fiber-to-the-home deployments in the U.S., while limited today, will only serve to accelerate the race. The open question is whether CSPs can justify the investment required to satisfy the growing need to accommodate data, particularly in the face of competition from OTTs that are leveraging this new technology more innovatively than CSPs.

Potential Disintermediation by Over-the-Top Providers

Disintermediation is often discussed in the context of OTT services displacing CSP-provided offerings. But the broader threat extends to disintermediation of the entire relationship between the customer and the CSP. A recent Accenture survey of more than 20,000 customers across both mature and growth markets revealed that the majority of customers would look to their mobile device/OS manufacturer as the preferred provider of mobile communications services, with an almost equally large percentage being indifferent to the type of provider. In fact, CSPs ranked a somewhat distant third, especially in growth markets.7

Relatively expensive, metered mobile data service is expected to drive smartphone and tablet users to offload 46 percent of their total traffic onto Wi-Fi by 2017, up from 33 percent in 20128—in many cases to networks beyond the control of the mobile operator. And integrated device providers such as Amazon are already pursuing models that eliminate the need for the customer to choose, or even to know, which network enables his or her device—such as bundling in wholesaled multi-network data service across multiple CSPs and geographies. And when emerging technologies such as “soft SIMs” and software-defined radios are taken into account, the ability of customers to move between network providers multiplies. While 100 percent data provides opportunities for CSPs to become more efficient, the impacts of alternate connectivity, such as “unmanaged” offload and wholesale models, also open the door to disintermediation.

Ask yourself: What is the right investment level in infrastructure based on your forecasted ROIC (return on invested capital)?
The next wave of competition will be very different from the last one.

Vertical Integration Turns Giants into Superplatforms

Yesterday’s technology giants are evolving into tomorrow’s vertically integrated superplatforms—encompassing CSP-agnostic devices, communication and entertainment services, direct-to-consumer channels, and extensible cloud platforms that support rapid innovation. This evolution is having a profound effect on CSPs, especially in mature markets, cannibalizing paid services and setting new expectations for pricing, user experience and customer support. Consider devices such as Amazon’s Kindle Fire, Google’s Nexus tablet and Apple’s iPad Mini. Using over-the-top alternatives, these devices can replicate most CSP-provided services for a fraction of the cost. OTT messaging and video calling apps have already secured a combined 2 billion users today.9 In other words, what were once discrete products are now merely features of superplatforms. And we are still early in the game. As CSPs look to develop non-traditional revenue streams, these superplatforms, and the OTT innovators they enable, are the new faces of competition, exploiting new multi-sided business models and dramatically limiting the pricing power of CSPs.

Massive Scale Enables Free Riders to Compete, Despite Low ARPU

The scale and network effects achievable by superplatforms are far greater than what any individual footprint-constrained CSP is likely to achieve. Infrastructure investments are also far lower than what is required for CSPs to build fixed- or radio-access networks, and the business model divergence couldn’t be wider. Several factors allow superplatforms to compete with far lower cost structures and ARPU expectations than CSPs can, including operation as “free riders” on the network investments of CSPs and fundamentally different per-user economics, as the majority of CSP-competing use cases are offered free-to-consumer. Google, for example, generates only about $3 to $4 per month per user in revenue, according to our estimates.10 Meanwhile, the capabilities and economics fostered by superplatforms are not limited to their internal use alone, as the ability of third-party OTT innovators to build upon superplatforms amplifies their pace and disruptive potential. With their legacy cost structures and ARPU expectations, CSPs will face huge challenges in trying to create both compelling experiences and competitive economics.

Ask yourself: How will you partner and yet compete with superplatforms in order to benefit from scale efficiencies and pursue new opportunities?
4. The Digital Customer: Always in the Channel

Tomorrow’s opportunities will depend on understanding and engaging a new breed of customer.

CSPs today are catering to the needs of an increasingly diverse group of digital customers who demand the best experience at the best price, anywhere, anytime. The digital customer places increased importance on the personalized journey, evolving from a linear purchase path to one that is much more dynamic. Evaluation, not purchase, is the new focal point, and digital customers are continuously in the channel.

Understanding the Digital Customer

The digital customer is developing ever more complex needs and expectations for CSPs, becoming:

More Empowered.

Customers are demanding that their unique requirements be met and are increasingly willing to explore self-service and multi-channel options to get what they need, when they need it.

More Diverse.

Customers are representing a broad set of use cases across and within markets, which is broadening further as consumer technology increasingly pervades the workplace.

More Interactive.

Customers are engaging in online dialogues and sharing opinions, and feel empowered to create their own content for personal use or for the benefit of broader audiences.

More Mobile.

Customers expect to be able to purchase and consume content and services anytime, anywhere.

Serving the Digital Customer

Digital customers utilize various ways to interact and expect an integrated treatment. CSPs are reacting to these needs and have started transforming into more customer-centric and integrated organizations. But the pace of change may not be enough to keep up with competition. Some of the critical capabilities needed across the enterprise are a common view of the customer, the ability to leverage multiple channels, and integrating systems and supporting infrastructure. In addition, the purchase and usage decisions of the digital customer have an impact that is broader than personal consumption alone. According to research conducted by Accenture’s Institute for High Performance, approximately 10 percent to 20 percent of consumers in developed markets frequently use their own devices and applications for work purposes—and that percentage nearly doubles for consumers in growth markets.¹¹ This trend dramatically expands the relevance that CSPs must achieve in serving the digital customer.

Ask yourself: Are you effectively engaging the digital customer in order to become his or her provider of choice?
5. Required to Capture Value: Move Beyond the Core

Winning in new services will require CSPs to up their innovation game and take on new ecosystem roles.

Moving into New Verticals Requires Making Many Small Bets

CSPs will be increasingly expected to provide services designed “from the ground up” in order to support multiple devices and adjacent businesses. They will be forced to make many small bets in non-core areas, leverage smaller disruptors and innovators, and frequently test and adapt plans based on what “sticks.” They will also face the challenge of optimizing the experience across networks, reducing complexity and cost for the customer.

CSPs are already deploying a wide array of solutions in areas such as M2M, mobility and cloud—but so far, outcomes have been limited. Broadband proliferation, especially mobile broadband, is also opening the door to a wide range of adjacent vertical opportunities for CSPs—in healthcare, payments, security, education and other areas—but again, with limited success.

Connected Devices Mean Bigger Scale but Smaller Economics

By 2020, there will be an estimated 50 billion active connected devices—more than five times the number today, and close to seven per person worldwide. The connected device explosion presents a dual opportunity and challenge for CSPs. Exponentially increasing complexity creates an opportunity for CSPs to play a new role, offering device and service management solutions to both consumers and enterprises. But connecting a large number of diverse devices is also a daunting and costly proposition. And it is a proposition that will demand marginal economics (think micro transactions) that is far different from the economics of high-priced data plans. By 2017, for example, M2M nodes may represent 17 percent of all global mobile connections, but each node will consume only about 6 percent of the data of a smartphone or tablet. Expectations of significant incremental ARPU per device are probably unrealistic.

So while small vertical bets and incremental revenue from connected devices are clearly growth opportunities, two things are becoming increasingly clear: (1) any single area is unlikely to make up for the legacy revenue shortfall; and (2) to capture meaningful value, CSPs will need to learn to innovate broadly. Across all these areas—converged products, cloud and adjacent verticals—CSPs will need to become far less insular and far more active participants in a wide array of ecosystems. The open questions then become whether CSPs can execute in a way that provides viable economics and whether specific opportunities “move the needle” enough to be worth the effort.

Ask yourself: What is the right portfolio of services that you should offer and the business model to achieve that—build, buy or partner?
6. Government: Roiling the Waters with New Opportunities and Requirements

Policies will both increase and restrict access and competition.

Increased Scrutiny Is Coming for Broadband and Video

Governments around the world are increasingly viewing CSPs as “network utilities” and have introduced new policies designed to foster competition, expand access and reduce prices. Similarly, the emergence of OTT and mobile video alternatives has resulted in increased scrutiny of video distribution, especially in North America. In 2012, for example, Canadian regulators mandated that CSPs provide a la carte video subscriptions.14 It is also important not to lose sight of countries that see CSPs as strategic assets, as evidenced, for example, by monopolies in countries such as Ethiopia.

Over the next few years, we expect to see several key topics of discussion between regulators and CSPs:

- For fixed networks: how access will be granted to operators
- For mobile networks: where additional spectrum will come from
- For OTT players: how to regulate them given the disruptive nature of many OTT services

Subsidized Opportunities but Newly Enabled Competitors

The next few years will be critical for CSPs globally as they navigate the complex web of next-generation network policies—some providing subsidized opportunities to improve services and capital efficiency, and others taking those opportunities away by enabling new and non-traditional competition. Government-funded or public-private broadband networks, promising equal access to providers, are being deployed in many countries, including Australia, Sweden, Singapore, Malaysia and Lithuania. Australia’s National Broadband Network (NBN), for example, will provide a wholesale-only, fiber-to-the-premises network covering 93 percent of the population by 2021. While the cost of NBN would be prohibitive for any single CSP, it “levels the playing field” between incumbents and new providers.

Equally, there will be pressure on governments to manage the wireless spectrum inventory even more efficiently (e.g., the 700 MHz D-block in the U.S.). As spectrum shortages loom, increasing availability and reducing encumbrances on the spectrum are areas seeing increasing regulatory activity.

Ask yourself: What are the future threats to and opportunities for your business from continued regulation and government strategies?
7. Out of Footprint: Consolidation and Globalization

Size will matter, and the future may well be “out of footprint.”

With Global Consolidation, There’s a Battle of the Groups

As CSPs come up against their regulatory and footprint limitations, they are pursuing growth through international service offerings and alliances. Today, nearly one-third of mobile subscriptions are served by only five mobile network operators.15 Brands such as Telefónica and Bharti Airtel operate across 20 or more countries. We view this as a “battle of the groups,” as many operators have aggressively expanded their footprints globally with group-shared models and strong regional brands. The impetus for this development is coming not just from the traditional direction—from developed to emerging markets—but also, increasingly, from emerging markets to emerging markets. Consolidation seems to be continuing in developed markets as well, with T-Mobile USA merging with Metro PCS and Softbank merging with Sprint-Nextel. We believe that ultimately there will be approximately 10 mega-CSPs. If yesterday’s strength of scale came from global agreements and buying consortiums, tomorrow’s may well come from sheer size.

Hyper-growth Markets Pose New Stresses

Several “hyper-growth” markets are outpacing the others, as shown in Figure 2. By 2016, the fastest-growing markets will add nearly 1 billion new mobile connections and account for 56 percent of all mobile connections worldwide. While these hyper-growth markets will be the global driver, they also pose challenges that go beyond cross-border execution and cultural conflicts. CSPs will need to transform themselves into leaner, more industrialized companies. Additionally, in some hyper-growth markets that are dominated by ARPU of less than $10, CSPs will struggle to develop business cases for advanced network technologies or capabilities, such as LTE, that have come to underpin service differentiation in Western markets. As a result, global players will face not only variable returns but also the need to manage different strategies and goals across their domestic and foreign operations.

Ask yourself: How is global consolidation impacting your business? Is there an opportunity to get upside from the explosive growth in hyper-growth markets?
By 2016, the fastest-growing markets will add nearly 1 billion new mobile connections and account for 56 percent of all mobile connections worldwide.

Figure 2. Hyper-growth Markets: Anticipated New Mobile Users, 2012–2017

Source: Ovum, Mobile Regional and Country Forecast: 2012-17 (August 2012); Accenture analysis.

*Middle East value excludes Qatar and Kuwait
Part II: Fundamental Transformation Is Critical to Success
A Vision for Transformation in the Converged Digital World

These seven major trends are fundamentally changing the communications industry by accelerating legacy business model erosion, disrupting established value chains, and both creating and challenging new growth prospects. However, today's communications networks, which enable massive global economic value, are not going away any time soon—and neither are the companies that provide them. CSPs continue to retain and expand valuable and difficult-to-replicate assets, including a last-mile data network, a broad subscriber base, strong brand recognition and affinity, and expansive distribution channels.

With the immediate survival of CSPs as a category all but assured, it is still worth examining the question of whether there is a sustainable model for CSPs in today's world—a world where an increasing share of value creation is based not on the size of communication pipes or the volume of flow but on what is contained within the bits that innovators put through those pipes.

We believe that the answer is yes, but the model for success entails a fundamental transformation in how CSPs operate their businesses in five key dimensions:

1. **The Network of the Future: Collaborative, Evolved, Converged**
   - Lay the foundation through collaborative optimization
   - Increase network intelligence to enable converged experiences
   - Evolve networks from dumb pipes to smart pipes

2. **The New CSP Business Model: Integrated Digital Services Provider**
   - Transform legacy services from siloed products to integrated experiences
   - Reprice future services from ARPU to ARPA
   - Build a new era of partnerships with OTTs and developers

3. **Approach to Digital Customer Engagement: Social, Segmented, Seamless**
   - Have a clear digital strategy
   - Engage the #Customer
   - Deliver the seamless omni-channel experience

4. **New Service Focus: Invade Adjacent Markets**
   - Create a services supermarket
   - Establish Big Data as the new currency of growth
   - Prepare for the three phases of CSPs' cloud journey

5. **Key to Human Capital: Attracting the Right Mix of Leaders and Innovators**
   - To innovate in digital services, acquire digital talent
   - Rally legacy service leaders to pursue a new core
   - Cultivate a new cadre of innovators
1. The Network of the Future: Collaborative, Evolved, Converged

• Lay the foundation through collaborative optimization
• Increase network intelligence to enable converged experiences
• Evolve networks from dumb pipes to smart pipes

1.1 Lay the foundation through collaborative optimization

A recent Accenture survey of CSP executives confirms that their primary network focus over the next three to five years will be in new network builds (LTE and FTTx). But as prospects wane for revenue growth from data access and as CSPs increasingly look to new services to drive growth, the competitive spotlight will shift to superplatforms and OTT innovators. Simply put, CSPs need to stop thinking about networks as discrete islands. In a converged digital world, after all, that’s no longer how they are being used. Cognizant of this trend, many CSPs are beginning to reevaluate the differentiation of proprietary network ownership and to explore models for driving greater build and operating efficiency.

Network sharing, especially in Europe and developing markets, is being driven aggressively by CSPs as they forsake sole ownership in favor of efficiency. Estimates suggest that network sharing offers the potential for a reduction of 20 percent to 40 percent in run rate costs. Nearly two-thirds of CSPs surveyed preferred shared multiple networks to a single national network as a means to retain quality and competitive control and avoid restrictive public-private partnerships. Commercial alliances have been the preferred model to date, versus full joint ventures, although there are now two JV network-sharing examples in the U.K. In some cases, CSPs are also engaging in out-of-footprint extensions that piece together non-overlapping networks to expand the customer value proposition without overbuilding. In the U.S., for example, an alliance of cable operators is enabling seamless Wi-Fi roaming across their regional footprints.

Network operations outsourcing is also being undertaken in some markets around the world. In a recent Accenture survey, 67 percent of CSP executive respondents saw value in transformation via outsourcing, with 27 percent choosing it as the preferred method. Network operations and deployment are viewed as the greatest areas of benefit but still as requiring strong in-house controls. Estimates suggest potential network operations cost reductions of 20 percent to 50 percent from outsourcing non-differentiated activities. CSPs pursuing this option are taking a “virtual pipe” path, focusing on differentiation through marketing and customer service.

Optimizing across fixed and mobile networks is also increasingly critical, as CSPs need to proactively solve for “last 100 feet” efficiency or risk disintermediation. While quality of service and convenience are important, they often appear to be less important for many consumers than the perceived cost of data consumption. Wi-Fi is already expected to constitute more than 46 percent of mobile data in 2017.
and there are early indications that Wi-Fi’s share may be expanding further as some operators move from unlimited plans to metered shared data. Fixed-access CSPs with regional fiber or HFC networks are best positioned to expand their roles by providing cost-effective Wi-Fi deployments via high-traffic outdoor and venue hotspots or “opening up” managed in-home hotspots with an operator-wide SSID. Wi-Fi can also serve as a “bolt on” differentiator for fixed-access CSPs’ own out-of-home services (e.g., video) as they seek to bundle access with content and thereby strengthen their value proposition versus pure-play OTT services. Likewise, to secure favorable rates and differentiate their offload capability versus competitors, mobile CSPs should formalize strategies for offload through Wi-Fi hotspots and investments in the Wi-Fi deployments of fixed-access allies.

1.2 Increase network intelligence to enable converged experiences

It’s not all about network efficiency. CSPs should also consider emerging capabilities to enable differentiated converged product experiences, such as multi-screen video and communications. In a recent Accenture survey of CSP executives, 80 percent of respondents agreed that managing service quality is more important than ever but also one of their biggest challenges. Not only can these capabilities improve network efficiency, mitigating the need for capacity upgrades, but they also can enable multi-sided business model opportunities by addressing the needs of third-party content providers and consumers. Real-time transcoding plus mobile-optimized content distribution for video, for example, could help maintain quality, minimize traffic, reduce consumer data cost and reduce content provider CDN tonnage. This combination of benefits can position the CSP as the optimal choice for providing these services to content providers, thereby opening a new potential B2B revenue stream and potentially differentiating the CSP as a distributor for owned and third-party content and services.

Other opportunities for CSPs to evaluate include:

- Real-time analytics for service quality and customer experience management
- Differentiated service management (i.e., investing in the ability to move away from CSPs’ traditional “five nines” of quality to new measures such as customer experience at peak download)
- Incentivized “off-peak” delivery and predictive preload, using customer and network insight to shift non-time-sensitive traffic to periods of excess capacity or to alternate networks

1.3 Evolve networks from dumb pipes to smart pipes

Network pipes do not ensure profitability. Accenture has conducted research covering almost 100 companies across the communications industry value chain. Over the period of 2008 to 2011, the ROIC of content owners increased, on average, by 36.2 percent; meanwhile, the ROIC of cable and wireline network operators decreased by 4.2 percent, that of wireless operators decreased by 12.8 percent, and that of device and network equipment providers decreased by 30.6 percent. Fiber and Ethernet investments in support of LTE deployments globally have had a massive impact on shareholder returns, and operators still struggle to monetize those investments.

Given the amount of legacy infrastructure remaining in CSPs’ operations, most pipes in the world today remain “dumb.” Meanwhile, most CSPs agree that they have less than 50 percent data accuracy in their physical and logical network inventories. The communications industry excels at building new technologies but is woefully behind in decommissioning the old; in fact, most CSPs still like to sell it! While the perpetuation of the old continues, it is challenging to migrate to smart pipes, most of which are available today but are not well integrated, coordinated or presented to customers effectively.

To address this issue, CSPs can take a two-pronged approach:

- **Work to address the legacy network elements** that slow down this transition, up to fully outsourcing legacy operations to a network equipment provider or a systems integrator
- **Accelerate the integration of fixed and mobile access** using open APIs for others to access CSPs’ networks; improving the intelligence of the network infrastructure itself, such as quality of service (QoS) and quality of experience (QoE); and building display elements and resource allocation controls

By engaging in collaborative optimization, leveraging network intelligence and evolving dumb pipes into smart ones, CSPs can pragmatically lay a foundation for a profitable and sustainable converged network—one that can support internal and externally procured services that customers will continue to demand over time.
2. The New CSP Business Model: Integrated Digital Services Provider

- Transform legacy services from siloed products to integrated experiences
- Reprice future services from ARPU to ARPA
- Build a new era of partnerships with OTTs and developers

The CSPs of the future will need to be very different from those of today. We believe that as consumers become increasingly more connected, they will begin to realize that their experiences are highly fragmented by the artificial demarcations created by CSPs. They will notice the relevance of OTT players that have the ability to offer services and experiences on any connected devices, without having to worry about location and technology infrastructure. This could eventually relegate CSPs to being just a commodity network infrastructure. To combat this problem, CSPs must leverage their cross-platform, cross-device and cross-service involvement to transform themselves into integrated digital service providers (IDSPs).

2.1 Transform legacy services from siloed products to integrated experiences

Underpinning CSPs’ potential for transformation is the opportunity to “reimagine” their legacy businesses as horizontal experiences for the digital era. IDSPs will need to shift away from selling vertical services (voice, connectivity and services) to selling horizontal services, such as communications, entertainment and control. This will require CSPs to transform on several fronts—from being able to provide networks inside the house and away to rethinking how to charge for their services. This process is already under way in more mature telecom markets like the U.S., where joint ventures between traditional competitors and multichannel video programming distributors are aimed at building offerings that seamlessly transcend the artificial boundaries of home and away.

We believe that in the short run many of the ecosystem players will individually attempt to solve the issue of blurring demarcations for their respective services, thus creating even more fragmentation and complexity for the consumer. As an example, many of today’s leading television channels offer an OTT app that enables consumers to watch their content live over mobile devices and, in some cases, even for free. While this trend is a positive development for consumers looking for a homogenous experience irrespective of their locations and devices, it also confronts them with significant fragmentation. Consumers now need to install multiple applications on multiple devices and, in many instances, go through multiple different authentications, from buying the app to potentially validating a subscription.

In the near term, CSPs have an inherent advantage in continuing to be the aggregator, distributor and owner of the customer relationship at scale. Horizontal services, powered by integrated digital service providers, will offer consumers one consistent, native user experience inside the house or away, on devices of their choice, and with a pricing model that makes having multiple subscriptions redundant. Likewise, for SMBs, CSPs can act as an office of the future and offer digital, Oracle, SAP and other infrastructure- and cloud-based services.
2.2 Reprice future services from ARPU to ARPA

IDSPs need to rework how they charge consumers in a world of horizontal services, where consumers want the same service on multiple connected devices and in multiple locations, over potentially multiple different networks. This will require IDSPs to move away from charging for a service on a per-device basis to holistically looking at the consumer's overall usage and charging based on that.

Certain CSPs have already started experimenting with this type of model. Both AT&T and Verizon in the U.S. now offer a shared voice and data plan, which allows their respective subscribers to add multiple connected devices to their accounts, and then pay for a bucket of aggregated use among all those devices. The focus in the future will need to be on helping consumers consolidate their spend on communication and entertainment services and on growing profitably by gaining greater share of an otherwise highly fragmented consumer wallet.

IDSPs will need to treat customers more at an account/household level versus the traditional per-device/user level, measuring ARPA versus ARPU. This is a critical area of differentiation for IDSPs versus OTT players, which don't control the consumer pricing model in the last 100 feet and thus essentially depend on the consumer's ability to proactively manage the cost of interacting with their services. As an example, Netflix charges consumers a fixed monthly subscription fee for its streaming service. On its end, Netflix has enabled service on a plethora of connected devices, ranging from 4G mobile devices to gaming consoles, and also put in place infrastructure that optimizes QoS for its streaming service based on the type of device and the network speed. What Netflix doesn't control are what network the consumer is using and how much or little he or she is paying for it; instead, Netflix is reliant on the consumer to proactively manage that expense.

In a world of data caps and expensive overages, the fear of the unknown (cost of streaming) will always curtail how consumers interact with such OTT services. IDSPs sit at the intersection of what consumers are attempting to stream and their latest account/rate plan information. This makes IDSPs much better positioned to solve this dilemma for consumers by bringing in the transparency they need when interacting with high-bandwidth-consuming services. IDSPs can leverage this unique position in the value chain to differentiate their value proposition from that of OTT players.

2.3 Build a new era of partnerships with OTTs and developers

IDSPs also need to team rather than solely compete with OTTs and the developer community. OTT players are tough competitors—their small size, disruptive business models (including free service) and deep focus on a particular use case make them hard to beat. Yet they create innovative new services that in turn drive network traffic, which is good for IDSPs. In a situation like this, IDSPs will need to answer the question of which sector they are ultimately competing against. They will have the choice of pursuing every OTT player or selectively embracing them in a fight against other IDSPs to gain new subscribers.

For IDSPs, embracing and deeply integrating OTT experiences and new standards, such as 4k video, as part of their offerings can result in highly differentiated use cases for consumers and bring instant credibility. By integrating high-usage OTT services, an IDSP could offer its customers proactive alerts that warn them of potential overages or intelligently reroute the stream over an open Wi-Fi connection if one is detected—use cases that OTT players cannot deliver on their own. Of course, IDSPs will need to continue competing against certain OTT players that directly threaten their existing revenue streams.

While some CSPs have attempted to engage the OTT and developer communities, they have been less than successful, given the complex business and operational processes that they have attempted. Meanwhile, ecosystems provided by the emerging superplatforms, including Amazon, Apple and Google, have dictated the pace of innovation. They also have eclipsed the CSPs in new product delivery by effectively tapping into an expansive network of independent developers to add value to their base products and services.

IDSPs of the future can avoid these traps in many different ways, including:

- **Simpler business relationships**—that is, simplify terms and conditions in line with platform providers. While some restrictions are due to regulatory issues (such as privacy, law enforcement and emergency services), IDSPs must actively redefine what is allowable so they are not disadvantaged in the marketplace. CSPs will also need to be more active in B2B2C value chains, an area in which they have not traditionally excelled.

- **Alignment with digital business models**—IDSPs need to quantify the overall value realized by teaming with the developer community versus trying to monetize every interaction. For example, attempts to monetize each API call have forced developers to use on-device GPS, versus network LBS, for location capabilities.

- **Willingness to open up core capabilities**—CSPs must allow the community “under the hood” of their networks and supporting capabilities—a significant departure not only from “walled garden” application models but also from traditionally very closed network and customer operations.

- **Address the question of scale**—CSPs must achieve scale that is relevant to the developer community, as many superplatforms already have. This scale goes beyond just sharing APIs and includes activities such as developer outreach, developer management and program compensation refinement.

Successful execution will allow IDSPs to more creatively package and monetize their own services while also solving for innovation.
3. Approach to Digital Customer Engagement: Social, Segmented, Seamless

- Have a clear digital strategy
- Engage the #Customer
- Deliver the seamless omni-channel experience

Just like the expectation of “free” content and services, new engagement and experience expectations are being increasingly defined by the new digital customer (see Part I, The Communications Industry at a Crossroads). And a digital customer is not a single customer: he or she is a different customer when going to work, coming back home, during the holidays or seeking a job. CSPs must take these cues to redefine service levels and economics.

3.1 Have a clear digital strategy

CSPs need to harness the power of new technologies in order to fundamentally transform themselves, address changes in customer expectations and compete with the new generation of digital providers. There are several dimensions to be considered by CSPs in order to drive the required business outcomes via digital:

- **Customer**: enabling the customer to drive digital, such as using analytics at the core of the architecture for profiling
- **Channels**: using digital first as an integration strategy in order to create a personalized customer experience across channels (web, social, retail)
- **Products**: differentiating via product and price, such as individualized offerings based on microsegmentation
- **Operations**: creating digital value across and beyond business, such as simplification and lean agenda, cross-business integration, and core service focus
- **Technology**: seeing elasticity and connectivity as a paradigm, such as with a digital platform to manage new capabilities and enable real-time and convergent billing

- **Allies**: developing a digital ecosystem for seamless delivery; such as third party leverage of owned infrastructure in order to increase CSP asset utilization

This framework, depicted in Figure 3, provides a robust structure in order to identify digital capabilities across each dimension to both identify gaps and leverage integration opportunities where they exist.

3.2 Engage the #Customer

In a world of hyperconnected customers, long gone are the days when CSPs were the only ones with loud voices. Today consumers proactively leave comments and like and dislike products and services, and do so in large, highly visible social network settings that have the potential of making or breaking a company. In recent years, companies across all industries have come under fire from consumers on topics ranging from poor products and customer service to outright disapproval of their...
marketing messages. And in most cases, the companies learned that failing to engage customers proactively in a social media setting can significantly damage their brands and finances.

Many prominent companies from various industries are leveraging social media platforms in order to learn more about individual customers, test new product ideas and keep a communication channel open. CSPs likewise need to lay out an integrated social media strategy regarding how to engage existing and new potential customers in a meaningful and mutually beneficial dialogue. CSPs in North America are leading the way with a marked increase in the use of numerous social media channels in order to engage customers to provide constructive feedback, which in turn has helped them make significant improvements in customer service and customer engagement.

CSPs have different tiers of customers and should sell to and serve them differently based on value and needs. In India, for example, when seeking to win or renew services, mobile device stores catering to premium customers send a representative to the customer’s home with a selection of high-end devices. The seller thus avoids wasting the customer’s time by making him or her come into the store while also building a more personal relationship. On the other end of the spectrum, low-value customers could be served through direct ordering and shipment of devices to the customer’s home, thus avoiding the high costs of physical retail. Segmenting properly, however, requires knowing the new digital customer.

3.3 Deliver the seamless omni-channel experience

As their product and service portfolios expand and competition from non-traditional entrants intensifies, CSPs must rapidly evolve into omni-channel businesses. This means not only expanding channel reach to engage customers where they are but also providing consistent and seamless experiences across every channel.

The omni-channel experience puts the customer in the driver’s seat by enabling interactions and transactions across all business channels interchangeably. It also relies on developing personalized marketing strategies and providing a superior experience that educates and engages the customer.

CSPs should take strides to engage in the customer’s ecosystem, to become the flexible and convenient channel of choice, and to understand the customer’s unique needs and expectations in order to influence their decision making. In an age of ubiquitous connectivity, customers no longer enter a channel—they are continuously in the channel. As such, they are constantly exposed to reassessing their choices and have the ability to more easily evaluate brand promise versus delivery and how well a service meets their needs. Different segments of customers will develop distinct behaviors, moving at their own speeds and along different pathways through the always-on omni-channel experience.
To deliver this omni-channel experience, as shown in Figure 4, CSPs need to transform their operations to become “seamless” across three dimensions of customer interaction and enablement:

- **Experience** must be seamless across call centers, stores, online, mobile, and social and other emerging channels

- **Operations** must be seamless in terms of selling to, servicing and billing customers by integrating business processes, organization structures and shared incentives across channels

- **Platforms** must be seamless as new disruptive technologies such as mobile, social, cloud, Big Data, etc., come into play

The move toward seamlessness will pressure traditional, siloed CSP organizational structures, requiring a more integrated organization with a common view of the customer and integrated supporting capabilities.

The omni-channel experience puts the customer in the driver's seat.
4. New Service Focus: Invade Adjacent Markets

- Create a services supermarket
- Establish Big Data as the new currency of growth
- Prepare for the three phases of CSPs’ cloud journey

While CSPs will always be under pressure to maintain revenue and profitability targets for core/legacy services, they will also need to find new ways of growing revenue. Much of the growth will come from noncore/new businesses such as “small m” (for mobile) services, Big Data and cloud. However, they also will need to take several steps. As discussed later in this document, these steps include potentially setting up a new LoB, incentivizing innovation and collaboration more effectively throughout the organization, reskilling their workforces from selling communications products and services to selling business-sensitive solutions, and developing more sophisticated pricing models in order to enable them to bundle legacy and new services.

4.1 Create a services supermarket

As data connectivity and increasingly powerful devices become more accessible globally, opportunities exist for CSPs to build services supermarkets that participate in (or disrupt) adjacent value pools. These businesses range from “small m” (for mobile) solutions (such as mHealthcare, mEducation, mPayments and connected car) to consumer clouds, location-based data services and financial services. This opportunity is particularly important for CSPs in emerging markets. Their brand awareness and customer reach exceed that of many other industries, but they may also be struggling to create revenue cases that support 4G network builds in low-ARPU situations that are dominated by voice and pre-paid services.

As the services supermarket, CSPs can play three potential roles that define sources of differentiation and value capture:

- **Reseller**—Own and third-party-branded services bundled or sold individually (e.g., a rebranded credit card from a third-party bank via a CSP retail network).
- **Enhancer**—Use assets to improve the product and create differentiation (e.g., use CSP data to improve credit scoring for credit cards sold by the CSP).
- **Inventor**—Develop new services (e.g., obtain a banking license and create and sell new credit products). For example, in Kenya, Safaricom launched a nationwide mobile banking service called M-PESA, which allows Kenyans to transfer money via SMS. The service does not require users to have bank accounts, an important aspect in a country like Kenya, where many people do not have such accounts.

The challenge, however, will be in the execution, not in the idea. No single new initiative will generate revenues comparable to or as fast as legacy businesses in the short term; hence, these businesses will need to be part of a broader array of non-core services where they can coexist and operate as solutions providers. These businesses need the flexibility to operate independently and make decisions at a start-up-like pace in order to foster creativity and better align with the respective industries they are serving.
For CSPs to effectively monetize Big Data, however, they must endure several behavioral shifts.

**Bridge the data divide** across siloed business units, networks and services. As many operators have kept their wireline and wireless businesses completely separated, this could be a major shift. But sharing such comprehensive information across bundled and unbundled services allows CSPs to better understand their customer bases and would be invaluable to advertisers and content owners.

**Focus on data quality and speed**, not just volume, as a large quantity of raw data alone is not enough to unlock the potential of Big Data. Developing scalable data management and mediation capabilities to compile and cleanse data is another way in order to protect customer data and make aggregate use of the data when approaching teaming partners. It is equally crucial to have an improving rate of response, as going forward it will be about matching the velocity of data to the pace at which the CSP's business processes need to act on it.

The types of flexibility required will include locating in cities that are the most relevant for the new industry to facilitate cross-pollination of ideas, relationship building and new talent acquisition from that industry. CSPs will also need to create new operating structures that confirm ongoing strategic alignment with and enduring operational links to the "mother ship"—allowing new ventures to leverage the core assets of the company without being bogged down by legacy processes.

**4.2 Establish Big Data as the new currency of growth**

As analytics engines and the use of data become more clear and effective, the opportunities to use Big Data as a currency for transactional business are increasing. And relevance is expanding as new mobile business models such as mHealth and mobile advertising depend on Big Data to unleash their full economic potential.

**What's your data worth?**

CSPs hoping to drive Big Data-fueled growth need to understand what kinds of data exist in the organization and which tier of information value they aspire to provide.

The potential value and profitability of an information services business depends in large part on the condition of the data a CSP owns. We use the Accenture Information Value Pyramid (see Figure 5) to illustrate various services strategies. The pyramid has three levels: raw data, insights and transactions. Moving up the pyramid creates larger revenue opportunities but also increases execution complexity and risk.

The "raw data" base of the pyramid features less differentiated, and thus less valuable, data exchange. Moving up to "insights" requires more effort and strategic differentiation but also generates more revenue than simply selling raw data. At this level, the CSP also retains all source data, which better protects the model from replication. Finally, at the "transactions" level, CSPs enable better execution of end-to-end processes, and could help improve point-of-sale retail transactions, marketing campaign rollouts or fraud detection. In some cases, data may be so unique or applicable to another industry that it inspires a new business venture, such as Precision Market Insights from Verizon.
Use the data first for internal operations before using it with teaming partners. A good proving ground for establishing capabilities is focusing on how to use this data to improve internal operations. This can be done as a pilot in a unit with a small group of people tasked with improving some part of a business function with the company’s data. The results could help to drive revenue through segmentation and personalization and/or drive greater efficiency through cost and operating model transformations. Internal results will provide key insights into how this data can be used externally.

4.3 Prepare for the three phases of CSPs’ cloud journey

Cloud offers CSPs opportunities both internally and externally. However, many CSPs continue to face major hurdles in seeking to exploit cloud’s potential to the fullest. Internally, CSPs have the potential to leverage cloud to deliver higher-quality, more flexible and more scalable IT services at lower cost. However, they tend to have multiple diverse legacy systems that have been built up over many years of acquisitions and “work-arounds,” which are often custom developed and not closely integrated, meaning they do not lend themselves easily to cloud migration. Externally, CSPs have the opportunity to deliver a new range of sophisticated, cloud-based everything-as-a-service offerings for customers, leveraging their own security and scale while acting either as first-party cloud service providers and/or as resellers or “brokers” of third-party cloud solutions.

The competitive pressures for CSPs will also vary by geography. In the U.S., the dominance of existing cloud players means CSPs need to work out how to reinvent themselves in order to compete. In Europe, regional and national data protection regulations, which often require data to be held within specified geographical borders, mean that CSPs are more sheltered from outside competition. But they will still need to differentiate themselves in order to build large customer bases and revenues. And in Asia Pacific, most CSPs have made limited headway.

Consider how to play in the cloud

CSPs’ journey to become cloud service providers consists of three phases—each one opening up new opportunities but also demanding higher investment in capabilities, service development, and customer sales and management.

Phase 1: We believe most CSPs will start their migration by harvesting capabilities with “low-hanging fruit.” These offerings include services such as hosting on demand, SaaS enablement, storage-on-demand and information services that are already growing on the Internet.

Phase 2: Here, CSPs should expand the portfolio of services established in Phase 1 without having to make major changes to their current operating models. Entertainment-oriented services such as video-on-demand and contextual services such as location are well positioned to become cloud delivered. CSPs can also leverage their existing market positioning in managed security services; unified communications-as-a-service, where they can strengthen their market presence across messaging, VoIP and PBX; and wholesale capacity, where CSPs can leverage their global IP backbone and private MPLS networks to offer processing capacity-as-a-service to both cloud service vendors and enterprises for select verticals, such as retail, banking, utilities and health. Many of the locally/nationally based CSPs will join this phase.

Phase 3: The final stage in CSPs’ cloud evolution is one in which they must make significant adjustments to their business models. Customer offerings here will include billing-as-a-service, with CSPs leveraging their experience in offering billing solutions and potentially going to market in collaborative alliances with specialist billing providers; acting as a cloud services broker or intermediary between end users and third-party cloud providers, leveraging their experience in delivering multiple services and enabling end users to switch between cloud vendors without worrying about the operational aspects; and platform-as-a-service (PaaS), offering platforms that help customers build applications that improve their productivity and reduce costs. Indeed, the rise of mobile apps is already pushing CSPs toward PaaS. The services in Phase 3 require CSPs to gain significant experience in cloud service provisioning before launch, but will deliver rewards by differentiating their offerings.

CSPs' journey to become cloud service providers consists of three phases—each one opening up new opportunities but also demanding higher investment in capabilities, service development, and customer sales and management.
5. Key to Human Capital: Attracting the Right Mix of Leaders and Innovators

CSPs are battling across industries for the best talent in these disciplines while competing with superplatforms and over-the-top providers in other spaces. Success will depend on their ability to attract, enable and retain the right talent, which will often require fundamental changes to corporate cultures, HR approaches and policies, and the way ideas are sourced and utilized.

5.1 To innovate in digital services, acquire digital talent

As CSPs move into new areas of growth, they will need to engage new types of talent, particularly digital talent, and consider new policies that challenge their existing employee value propositions and organizational cultures. Traditionally, CSPs have had strong engineering-based cultures and are rightly proud of the success those cultures have helped them deliver. Yet while CSPs are highly interested in being innovative, their current cultures aren’t aligned with attracting digital talent.

The average employee working at Silicon Valley’s leading technology companies is only 33 years old, has only seven years of experience and has only been with his or her employer for 2.5 years. If CSPs plan on competing, they need to acquire, empower and retain top talent from this highly selective and highly mobile pool. This means a dramatic shift in CSPs’ employer brand reputations and employee value propositions as well as in their metrics-based cultures and seniority-driven promotion programs and hierarchies. Google, for example, increased maternity leave from three to five months and changed it from partial to full pay. When it did so, its attrition rate for postpartum women fell from double the company average to below average.

Even if CSPs do not try to compete for the very best digital talent, being a next-tier employer will still require changes. CSPs will also need to retrain their current employee bases and adapt their compensation programs to fit their new workforces and what is expected from them—offering additional bonuses or incentives, for example, for top developers to deliver innovative applications within aggressive time lines. Google, again as an example, provided spontaneous and identically sized bonuses to all employees after a particularly successful year.
And as CSPs target inorganic growth and seek to launch new areas of business, how well they retain key talent and provide packages attractive to non-traditional workforces is critical to the long-term viability of those ventures. Again taking Google as an example, many of the most successful services were acquired innovations that continue to be led by much of the original teams. At times, companies may be required to add a chief medical officer, chief retail officer and other such CXOs within their own vertical organizations to support “small m” businesses. In order to execute on this challenge, some companies are going as far as to set up subsidiaries in innovation hotbeds such as Silicon Valley with completely different operating structures, styles and objectives in order to attract talent that can help incubate new lines of business and build relationships in the digital ecosystem.

5.2 Rally legacy service leaders to pursue a new core

While new skill sets will be critical, CSPs need to be careful not to ignore the available talent and talent challenges in their legacy businesses. As the business transforms, it will become increasingly clear which groups have the highest growth potential. Top talent will typically self-select to these areas, and while the company needs to actively identify, incentivize and redeploy these leaders, it is a careful balancing act. This activity could also result in a talent drain within the legacy business, which would lead to accelerated decline, disorder and significant morale problems.

In many geographies, this issue will be further exacerbated by social legislation that makes workforce reductions, especially for high-tenure employees, too expensive to be practical. The end result could be a “frozen middle” of high-cost, low-productivity employees that will further erode already declining areas of the business. CSPs will need to find ways to transition existing leaders in their businesses while creating the dynamism that ensures that legacy areas remain viable, profitable and undisrupted by the broader changes occurring within the organization.

To address both new and existing talent challenges, a critical activity for CSPs will be to lay out their visions of how today’s “fringe” businesses will become tomorrow’s core—and communicate that vision to their workforces and to the broader marketplace. Until that vision is effectively communicated and steps are taken to prove a real commitment to executing on that vision, top recruits—and even top internal talent—will be increasingly drawn toward competing employers that have presented clear visions and are taking highly visible steps to execute on those visions.

5.3 Cultivate a new cadre of innovators

Today’s tech giants and digital service providers treat innovation as an open, collaborative, highly iterative and failure-prone process—harnessing inputs and rapid feedback and adjustment from a variety of internal and external sources. In stark contrast, many CSPs have highly rigid, linear and siloed processes by which ideas are slowly filtered up through the hierarchy or “decreed down” from senior management. The result is often lengthy planning and development cycles, an emphasis on incremental versus breakthrough thinking, and missed alignment with customer needs, as customers are involved far too late in process.

CSPs need to establish an innovation agenda and nail down where and where not to play. Equally important, they need to align their operating models, internally and externally, to maximize the chance of success. Many of these spaces are already contested by more-agile new entrants and CSPs are playing catch-up. They need a strong venture arm driven by core business objectives and core business backing. Right now, they are designed, at best, to be successful in making acquisitions, not to act like venture capitalists.

CSPs need to upgrade their innovation processes, from how ideas are sourced to how they are filtered and tested to how they are brought to market and scaled. The current emphasis of recruitment, training and incentives is often on functional skills rather than on innovative ability. This can lead to unproductive behavior that hinders true breakthrough innovation. To realize the full potential of their talent, CSPs must empower all levels of leadership to identify and collaboratively test ideas. There is limited capacity for new pursuits within any company, and organizational friction must be sufficiently reduced to allow for rapid testing and decision making, with a goal of continued investment in winners and dispassionate removal of failures.

Employ an agile product lifecycle

The legacy approach to product concept, development and management, and to IT systems, must be overhauled to keep up with allies and new competitors in new industries. CSP planning, development and release cycles, often measured in quarters or at least months, are a far cry from those of digital enterprises, which may have new products or major feature upgrades to market in a matter of weeks. There needs to be a willingness to rapidly develop concepts, “fail fast” and adjust. This is in contrast to the lengthy and serialized planning, analysis, requirements development, build, test and deployment activities entrenched in many CSPs. A leading Internet television network extensively uses A/B testing with groups of customers in everything from developing personalization algorithms to improving usability of the service across a wide range of devices. Rather than engaging in the “guesswork” of lengthy planning cycles, this approach is intended to definitively prove whether the experience is better by monitoring metrics such as sign-up rates, retention and usage behavior. Only demonstrably better experiences are rolled out to the entire customer base. Google’s Gmail, as an example, now the most widely used web-based email provider, was in beta status for more than five years before being upgraded in 2009. These and other variations of agile engineering practices can help accelerate time-to-market and adaptability as customer needs continuously evolve.
Part III: Questions for Consideration
The seven major trends discussed in this paper are fundamentally changing the communications industry—disrupting established value chains, accelerating the erosion of legacy business models, and posing both challenges and opportunities for new growth prospects. And while the overall change is easy to understand, key questions remain unanswered. How do you minimize the reduction in legacy revenue while optimizing returns? What is the right infrastructure strategy and investment level? How will you team and yet compete with superplatforms? How do you engage with the digital customer? What is the right portfolio of services that you should offer and the right business model to achieve that? What opportunities are afforded by government strategies, and what challenges are posed by changes in regulation? How is global consolidation impacting your business? How do you go after hyper-growth markets?

While CSPs continue to retain and expand valuable and difficult-to-replicate assets, there is a need to focus on fundamental transformation that will span nearly every aspect of the business—network, business model, digital customer, product and new services, and human capital—in order to maintain relevance and differentiation.

Determining a CSP’s strategic intent is as crucial as the potential spectrum of transformation is broad. At one end of the spectrum will be a “utility pipe” model, with focus on infrastructure and extreme efficiency and only limited effort needed in order to move across the value chain. At the other end will be a “virtual pipe” model that foregoes physical network ownership and operation and focuses instead on leveraging customer relationships as “marketing-only” companies. And at the center is evolution into a “smart pipe” model, creating platforms for innovation, new business models and managed solutions.

While the “end state” may vary for CSPs—depending on size, legacy position, geography and other factors—the stakes could not be higher. For CSPs in mature markets, success holds the promise of a new growth trajectory and earnings more typical of information services companies. For CSPs in growth markets, which can take this cue to shortcut their evolutionary paths, success may mean the difference between creating a viable business case for next-generation network deployments, and thus riding a future wave of consumption growth, or falling into irrelevance before the onslaught of innovative disruptors.
Endnotes

2. Accenture analysis.
19. Ibid.
20. Ibid.
Contact Us
To find out more about how Accenture can help your communications industry business make the most of its opportunities, please visit us at www.accenture.com/communications.

About the Authors
Sumit Banerjee is the global Communications Industry practice lead for Accenture Management Consulting. He can be reached at s.banerjee@accenture.com.

Tom Loozen is the global Communications Industry practice lead. He can be reached at tom.loozen@accenture.com.

Matt Fanno is a senior manager within Accenture’s Communications, Media and Technology Strategy practice, specializing in digital content and services. He can be reached at matthew.s.fanno@accenture.com.

Abhinav Saksena is a senior manager within Accenture’s Communications, Media and Technology Strategy practice, specializing in growth and innovation. He can be reached at abhinav.saksena@accenture.com.

Key Contributors
We gratefully acknowledge the contributions of many of our colleagues and team members who helped make this paper possible: Ed Bac, Matthew Ball, Tom Barden, Paul Bulterman, Michael Chapman, David Gartside, Eddie Gonzalez, John Hanson, Tom Loozen, Robin Murdoch, Dan O’Brien, Kathleen O’Reilly, Fernando Usera and Jonathan Wright.

About Accenture Communications Industry Group
Accenture’s Communications industry practice serves leading communications service providers in an increasingly evolving and dynamic competitive environment. Accenture helps Communications industry clients face the challenges to connect with the digital consumer, increase revenues, develop and launch innovative products and services quickly and optimize network performance while reducing costs. The combination of our consulting, technology and outsourcing experience, paired with our deep industry knowledge, helps us verify that we bring the right solutions and resources to enable our clients to unlock profitable growth, improve operations and achieve high performance. Follow @AccentureComms or visit www.accenture.com/communications.

About Accenture
We are one of the world’s leading organizations providing management consulting, technology and outsourcing services, with more than 323,000 employees; offices and operations in more than 200 cities in 56 countries; and net revenues of $30.0 billion for fiscal 2014.

Our four growth platforms—Accenture Strategy, Accenture Digital, Accenture Technology, Accenture Operations—are the innovation engines through which we build world-class skills and capabilities; develop knowledge capital; and create, acquire and manage key assets central to the development of integrated services and solutions for our clients.