

A low-angle, upward-looking photograph of the Tokyo Tower, showing its intricate red and white lattice structure against a clear blue sky. The tower's upper section, including the observation decks and the antenna at the top, is visible. Overlaid on the image are several concentric white circles that radiate from the center. Interspersed along these circles are twelve circular icons, each containing a white symbol representing various aspects of telecommunications and technology: a network of three nodes, a plus sign, a smartphone with a person icon, a bar chart with an upward arrow, a smartphone with a dollar sign, a car with a Wi-Fi symbol, a person with a crown, a globe, a padlock, a Wi-Fi signal, a target, and a directional arrow.

jābian  
consulting

TELECOMMUNICATIONS  
INSIGHTS





## Ring! Ring!

**The sound of an old telephone ringing is rarely heard these days. However, in the Internet era, the number of ways people have to “reach out and touch someone” has exploded, and humanity is far more connected than could have been imagined even 20 years ago.**

The science fiction of the 1960s is now an everyday reality. Students graduating from high school this year never knew a time when they couldn’t search the web or had to be tethered to a wired phone.

At the center of this revolution, the telecommunications industry has been transformed into a new thing. We at Jabian thought the time was right to share some of our insights into this ever-changing economic engine. To create our insights, we drew on the vast telecommunications experience of our seasoned professionals to get a sense of how the marketplace is evolving and how ongoing innovation potentially holds both significant value and risk for the future.

In addition, we conducted a survey from a large cross-section of telecom professionals and end-users alike to get a sense of how telecommunications is being understood, managed, invested in, and used. We looked for trends and themes that would provide industry leaders with insight into the current direction and future path of the industry. Our efforts identified some very interesting results.

Spend a few minutes with our report; we’re sure you’ll find some interesting insights. And even if the ring sounds different these days, when the future calls, you’ll be prepared to answer.



# A New World of Telecommunications ... Our View

As shown in our Industry Trend Framework to the right, we organized our perspectives into twelve trends grouped into four domains.

### Buyers' Power

We start with this domain because it is the one most likely to have the greatest impact on the economics of this industry for the coming decade. Those who can take advantage and enable it will be winners.

### Market Dynamics

These five trends within the ever-changing scope of "telecommunications" define table-stakes requirements for all participants.

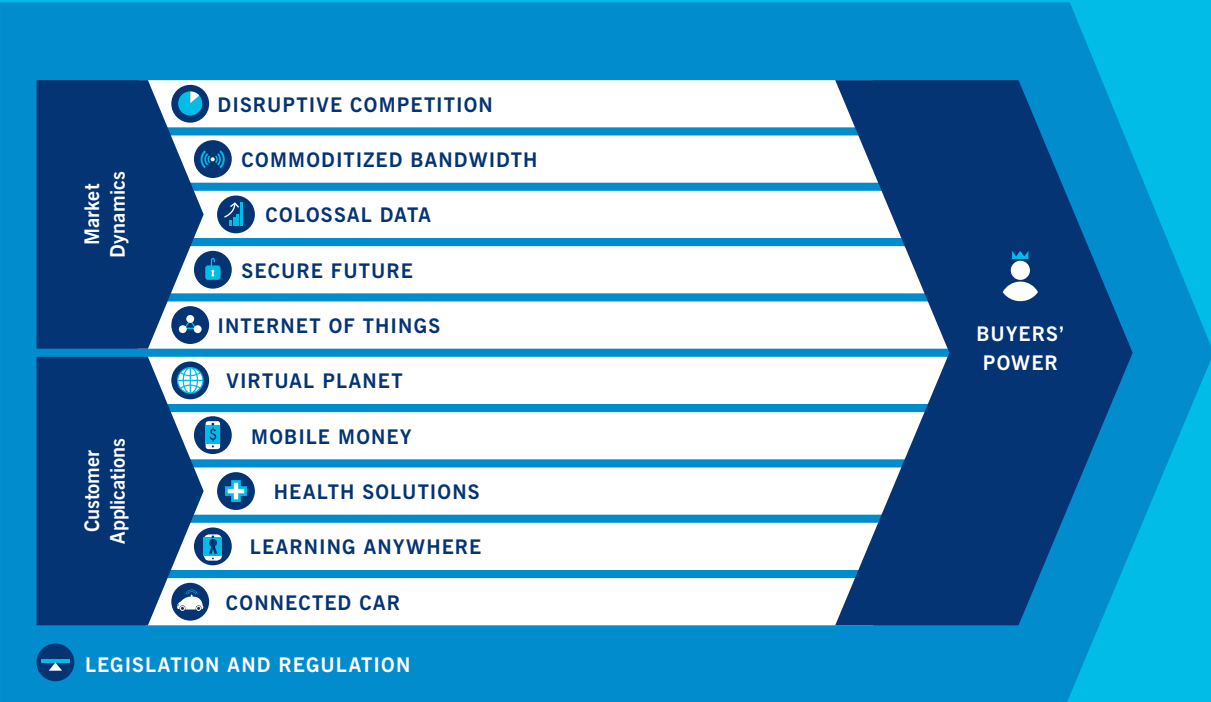
### Customer Applications

Innovation is the fuel for the telecommunications engine. These five trends highlight the major avenues where innovation is changing how we live, and new models for business success.

### Legislation and Regulation

The first eleven trends must be viewed in the context of this ever-present influence. Often viewed as a throttle on growth, there is a need for a safe and level playing field for all participants.

# Jabian's Industry Trend Framework



INDUSTRY TRENDS AND IMPACTS				
1	4-5	8-9	12-13	18-20
Introduction	Buyers' Power	Secure Future	Mobile Money	Survey Results
	Disruptive Competition	Legislation and Regulation	Health Solutions	
2	6-7	10-11	14-15	21
Our Framework	Commoditized Bandwidth	Internet of Things	Learning Anywhere	Conclusion
	Coossal Data	Virtual Planet	Connected Car	

Each trend affects the industry at multiple levels. These icons indicate which levels are predominantly affected.

Consumer

Network/  
Service  
Provider

Content

Devices/  
Technology





## Buyers' Power



Times have changed from when service providers offered customers a limited set of products to buy/subscribe. In 20 years, technical innovation has boomeranged to give buyers more power to influence ... everything.

### PREDOMINANT IMPACTS



The power of the Internet has given customers the ability to make decisions previously unavailable to them, decisions that significantly affect providers. The obvious example of “cord cutting” that started with the landline telephone has expanded to include cable television services. This power of choice is all younger consumers have ever known, which is part of the reason they so heavily leverage on-demand technology. And their parents have started to follow suit. As a result, service providers will have increasing difficulty sustaining customers through traditional services when alternative modes of delivery meet customer needs at a lower cost.

An increase in streaming and on-demand services relies on both wired and cellular networks. Because of the emphasis on cost and the increase in demand, service providers will need to focus on quality and competitive costs to gain and retain customers. Quality concerns will increase the importance of network performance analysis to monitor and optimize capacity. Service providers will also continue to face the question of what to do with “legacy” products. Until these services can be decommissioned, the emphasis will be on addressing operations and supporting costs through lowest cost-to-serve models.

Increased customer demand for à la carte services will also require service providers to evaluate product bundles. As a result, partnerships between service providers and content providers will continue to be an active area. Content considerations are further complicated by the fact that new sources of content, such as Netflix’s “House of Cards,” were developed in a direct-to-consumer model. In all cases, the move to deliver content on second screens and mobile devices will continue to drive R&D investment to create products that meet the growing need for convenience and mobility.

34%

of telecom professionals indicated they would cancel their carrier-provided cable/TV service if forced to stop using a service or device.

Capabilities related to customer intimacy and data analytics will become increasingly important to anticipate and deliver the preferences of the customer and to tap into emerging market opportunities. Operational efficiency and network management will remain critical, and joint venture collaborations will also emerge as a key factor as pressure mounts to assemble the right bundles that meet customer demand.



## Disruptive Competition



Well-established companies with solid reputations are expanding into the telecommunications industry. This is driving competitive reaction from existing players and fostering new partnerships as industry players move to position themselves amid a fluid landscape.

### PREDOMINANT IMPACTS



Rapid changes and new technology, along with competitive opportunity, have drawn new players into the industry. As new competitors enter the industry, customer loyalty will continue to be challenged. Customers looking to experience and be part of the coolest trends will lead some service providers to make plays to change customer perception.

Google, as is well known, recently entered the competitive landscape and created a drive for faster speeds. Service providers have a new, serious competitor bringing an established reputation from other business practices into their new venture. Google has shown a willingness to engage in the effort to establish additional physical networks — and to bring attention to that investment — while partnering with existing providers to complete the path.

Over the years, as seen in Comcast’s purchase of NBC Universal, the gap between content and service provider has closed. Other pairings between content and service providers will likely occur, bringing additional change and competitive dynamics to the industry, all in an effort to meet customer demands.

In a related vein, the evolution of device functionality continues to accelerate with impressive features such as video and audio translation, medical device capabilities, and ever-increasing processing speeds. In this landscape, new partnerships will emerge where investment in device capability is coupled with customer access to provide previously unforeseen partnerships and services. In 2007, Apple and AT&T demonstrated this trend when they introduced the first iPhone.

More broadly, service providers will engage in joint venture-like agreements to fulfill product needs. The competitive landscape will continue to evolve as service providers seek differentiating factors and elements to “complete” their offerings in new markets.

58%

of telecom professionals surveyed indicated their company’s brand reputation was performing “very well” or “exceptionally well.” In comparison, they rated competitors 44 percent for the same question.

The competitive mosaic will require companies to partner in a myriad of ways. This will place a premium on a range of skills from strategic planning to negotiations to the complex program management required to deliver solutions that leverage a bundling of products and services from multiple service providers.





THE TREND AND IMPACT

THE DETAILS

THE BOTTOM LINE

# Commoditized Bandwidth



While some customers are content with a reliable 3MB connection, 1GB download speed for residential and business customers is already here. With increased network demand, broad availability of 10GB, 40GB, and 100GB services are inevitable. Ultimately, sufficient bandwidth will become a commodity expectation that powers new content and services.

## PREDOMINANT IMPACTS



The availability of 1GB+ speeds in select markets enables customers to surf, stream, and download on multiple devices at the same time without performance degradation. Many service providers are upgrading their networks to compete on speed. As a result, customers should benefit from competitive price points at both the high and low ends.

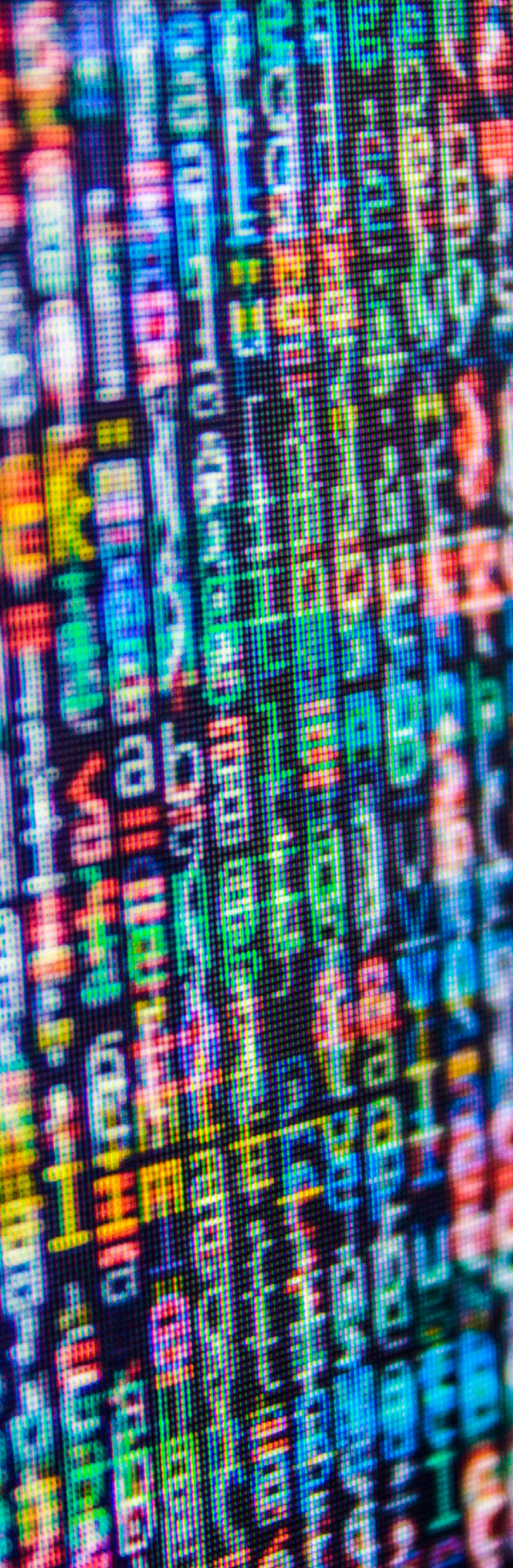
Higher speeds will place an even greater emphasis on network performance and monitoring, and on service providers' ability to leverage existing dark fiber, to time capital investment decisions, and to optimize deployment schedules.

Richer/heavier content begets demand for greater network bandwidth that encourages demand for richer/heavier content ... creating an ongoing cycle. Higher speeds enable customers to reach and consume content differently, on different devices, and in different locations. Business applications that use greater bandwidth (for example, telepresence, telemedicine, cloud data backup) will become more pervasive as well, leveraging faster speeds and adding pressure for even more bandwidth.

With faster speeds spreading across the United States, there will come a point in many geographies where bandwidth ceases to be a differentiator. Customers will subscribe to the product that meets their needs, rendering bandwidth an expectation rather than a bargaining point. (Anyone remember the days when PCs were priced and sold primarily on the basis of CPU speed?) Also, as evidenced in our survey results (see page 18), consumers aren't willing to pay substantially more for significant speed improvements. The resulting pressure on efficient operations will also lead to an emphasis on economies of scale. This will, in turn, lead service providers to continue looking for opportunities to merge or combine operations in order to deliver at scale.

**35%** of telecom professionals and 37 percent of consumers would only pay up to 10 percent more for 1GB speeds, while 7 percent of each would pay 50% more.

As bandwidth becomes more of a table-stakes consideration, service and equipment providers will have to leverage R&D capabilities to develop and deploy future-generation networking technologies. Price pressures will reward companies with the most efficient operational capabilities, including network management, fault tolerance, and load balancing. In addition, service providers must develop other means of competitive differentiation in order to stay relevant.



THE TREND AND IMPACT

THE DETAILS

THE BOTTOM LINE

# Colossal Data



The benefits of Big Data have recently gained a lot of attention. But as bandwidth grows and a variety of applications emerge to share and use ever-increasing information, the resulting explosion in volume will transform Big Data into Colossal Data.

## PREDOMINANT IMPACTS



Big Data has proven useful to companies who are able to use their sources of data to gain insights that fuel commercial opportunity. As the volume of available data grows and the source of data widens, there will be a need to creatively identify insights and to partner with owners of potentially related data to build and act on those insights. Those insights could come as hypotheses out of innovation/brainstorming sessions or through automated means that identify correlations to be investigated. But finding them within and across different organizations is a key capability.

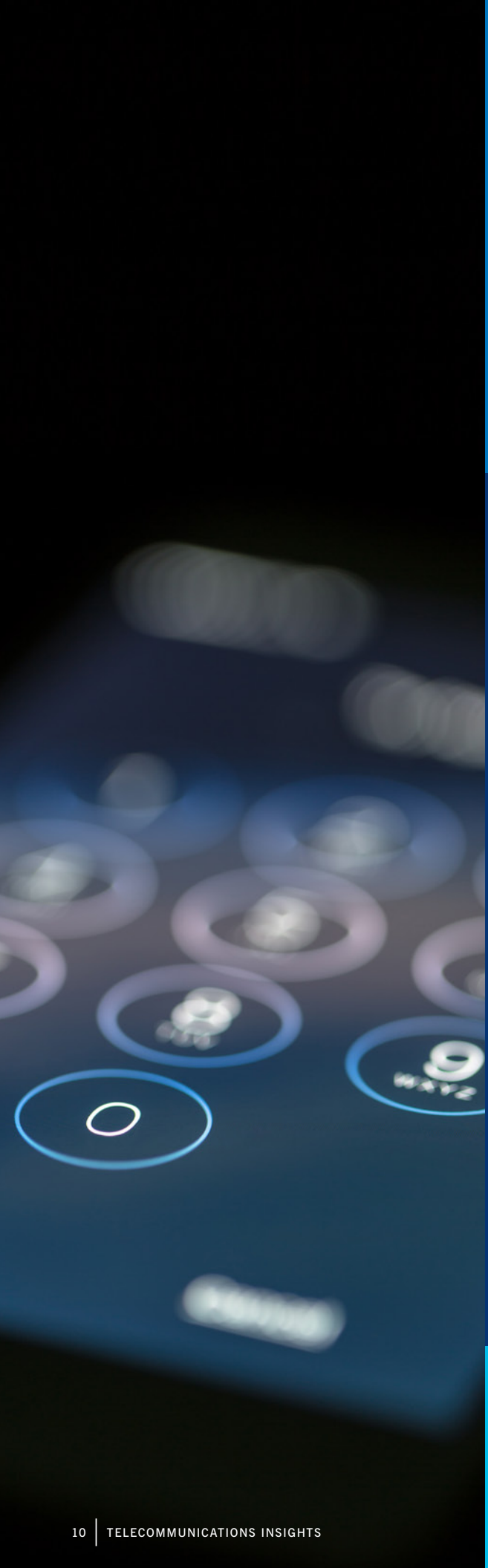
Colossal Data will also require data owners to ensure they have a mature data management capability that can effectively handle the full data lifecycle. Since much of the data will come from new and disparate sources, capabilities related to data quality and standards will be even more important. The volume and varied sources of data will create additional vulnerabilities, making data security an important area for attention as well.

Colossal Data will expand on Big Data to yield even more powerful insights about consumer and human behavior. These insights will provide opportunities for organizations that can quickly find and act on the needles in the ever-growing haystack.

**22%** of telecom professionals believe their companies effectively use data analytics across business functions.

Colossal Data will reward companies that can manage data and quickly take a mature data analytics capability to the next level, partnering with related organizations to find insights and quickly act on them for a competitive advantage across a data value chain. The ability to effectively refine and adapt new strategies will enable companies to separate from those that just drown in excess data.





# Secure Future



As digitization disrupts industries and more information is stored in the cloud, the volume of sensitive data at risk of exposure will continue to grow exponentially. Overcoming security threats will fall to every player in the ecosystem, including network, device, and application levels of security.

## PREDOMINANT IMPACTS



As the volume of digital information continues its exponential growth, organizations and individuals alike must stay increasingly vigilant to ensure a secure future. Hackers' success at breaching data stores of all varieties is becoming all too commonplace, and the personal careers of both business and IT leaders can be forever damaged. Such breaches can also result in significant loss of consumer confidence and shareholder value. The only answer for organizations is to raise overall security capabilities, investing in both human and technological defenses.

Given that a new breach is making headlines almost every week, consumers are rightfully becoming more concerned about information security (see survey results on page 18). While newer security technologies are becoming more widely adopted (e.g., Apple TouchID, IPv6), consumers will ultimately have to become more aware of their own behaviors to ensure ultimate success.

Service providers will need to raise their game on both physical and logical security across all platforms and transactions to ensure integrity. Additionally, providers will start to educate customers on security practices to reduce the likelihood of potential breaches across a multitude of new vulnerability points. It is also very likely that new federal legislation will require service providers to store particular information for security and safety reasons. Debates are already underway regarding mobile device encryption, debates that pit the need for personal security/privacy against the need for law enforcement to investigate criminal activity.

The vast majority of security breaches target data at rest (stored) vs. data in transit. As such, virtually every organization that houses sensitive data has an increased burden of responsibility. Providers of all varieties will have to adopt and institutionalize a security mindset and invest in appropriate human and technological defenses to ensure confidential data remains secure. Everyone in the ecosystem ... equipment manufacturers, device manufacturers, service providers, content providers, and consumers ... will have to do their parts to ensure the health of the economy that depends so heavily on this industry.

## Security threats were the #1 most important trend consumers felt would have an impact on their lives.

For a truly secure future, the array of service providers will need to lock down data stores and provide end-to-end security. Companies that can provide that assurance with proactive detection algorithms, while helping consumers effectively play their parts, will gain a leg up as a result.



# Legislation and Regulation



Government organizations will continue to regulate and legislate to drive toward their vision of equality. As a result, industry players and consumers will be affected as regulators strive to keep up with a dynamic and complex market.

## PREDOMINANT IMPACTS



Just as the 1996 Telecommunications Act set the stage for today's U.S. regulatory environment, net neutrality is now redefining it for the future. The FCC recently passed a proposal to reclassify data service as a utility under Title II of the Communications Act. This reclassification applied to both ISPs and mobile carriers. As expected, consumer advocacy groups and content providers cheered the ruling, but most major service providers are critical, turning to the judicial system for relief.

Near-term customer impact from the decision is likely to be minimal, yet the longer-term view is much cloudier. This is largely a battle between content providers and the service providers that carry the content. Under the ruling, service providers cannot block, throttle, or prioritize traffic via commercial agreements, which, of course, benefits small startups and larger players such as Google, Apple, and Netflix. Service providers argue that they need the ability to manage their networks to avoid congestion for the benefit of all customers, and that charging content providers according to usage fulfills that objective.

Depending on how this ultimately unfolds, consumers could see higher pricing models for services. Tax implications of the ruling are still unclear. It is likely some states may use the ruling to levy fees under existing telecom regulations, which would raise customers' Internet service rates.

Ultimately, regulators and legislators will struggle to keep up with the accelerating rate of change in the industry and to address trends related to security, data, and competitive dynamics. As a result, pursuit of a level playing field might ebb and flow, but it will continue to affect the industry in the future.

## Depending on how legislation unfolds, consumers could see higher pricing models for services.

Regulation will struggle to keep up with accelerating change and innovation in the industry, but will undoubtedly remain a factor as it influences significant capital investment decisions. Industry players will continue to need the requisite legal, lobbying, and PR capabilities to effectively participate and influence outcomes. Strategic planning abilities and effective risk calculation will also be key to navigating this trend.





THE TREND AND IMPACT

THE DETAILS

THE BOTTOM LINE

# Internet of Things



Everyday items are gaining access to the network in order to send and receive data through “smart” devices. This trend exposes the telecommunications industry to an explosion of possibilities that will transform how we work and live.

## PREDOMINANT IMPACTS



By connecting everyday products to the network, the Internet of Things empowers consumers to make data-based decisions, such as when to reorder groceries and other household items or when to schedule maintenance on an appliance. For example, Amazon Dash enables customers to reorder supplies with the touch of a button. The Internet of Things also has huge implications for businesses, which could dramatically collapse their supply chains based on intelligent inventory. In both cases, the key will be preventing the customer from becoming overwhelmed by the available data and enabling the change in behavior needed to operate successfully in this new environment.

The demand for increased bandwidth will be paramount for service providers as the number of networked items grows exponentially. Analytics and data management will be prevalent with the introduction of these new products into the network. As with other trends, security should be a top concern to prevent unauthorized access to usage and payment data. Introducing new products and devices to the Internet opens the door to new content to process the available data and drive the emergence of Colossal Data. Companies enabling this functionality must be cautious not to short-change security in order to launch first. Security considerations go hand-in-hand with the need to establish communications standards as devices from different industries come online. Enabling devices that cross industries will lead to difficult decisions to establish standards. Consumers may face incremental fees as their connected devices carry additional data on their service providers’ networks.

To paraphrase Marshall McLuhan, with the Internet of Things, “The device IS the message.” Telecommunication-enabled devices are expanding beyond the “normal” phone, TV, and tablet devices common today. Non-telecommunications companies are entering the market to integrate an unlimited range of products and devices — and give them intelligence.

Everyday items are gaining access to the network in order to send and receive data through ‘smart’ devices.

The Internet of Things will increase network traffic with more data. That trend reinforces the imperative to increase bandwidth, as discussed elsewhere. But it also offers great opportunity for companies that can quickly ramp up their analysis of the resulting data and act on the insights they gain.



THE TREND AND IMPACT

THE DETAILS

THE BOTTOM LINE



# Virtual Planet

The ubiquitous network, coupled with advances in virtual reality technology, will unleash the pros and cons of virtually connecting to anything or anyone — real or imagined.

## PREDOMINANT IMPACTS



Long the domain of science fiction, the technology to virtually connect humans to each other and to real or imaginary scenarios is becoming a reality. As a result, the trend of the “Virtual Planet” will accelerate. People will be able to connect with each other in ways that will further blur the line between reality and imagination.

Applications in health care, education, communication, architecture, and entertainment have already emerged and will become more sophisticated and influential. This will bring benefits in areas as broad as geopolitics, time-to-competence, and traffic congestion. Any activity that benefits from virtual interaction will be a candidate for applications. But our new Virtual Planet could also bring disruptive changes to social norms and, ironically, lead to greater social isolation and disassociative behavior for some who choose virtual connectedness over reality. Additionally, as physical national borders become irrelevant to interaction, legal issues must be addressed. For example, if surgeons can perform robotically from other countries, do they need to be licensed in both their own countries and the patients’?

The Virtual Planet offers opportunities for providers of both content and connectivity. The demand for bandwidth and specialized hardware, coupled with the interconnected nature of applications, will create opportunities for partnerships that leverage context-sensitive data to deliver goods and services previously unimagined.

People will be able to connect with each other in ways that will further blur the lines between reality and imagination.

The coming Virtual Planet will require companies to emphasize effective research and development to innovation. Companies with nimble cultures and an ability to quickly forge collaborative partnerships across a value chain, while creating intuitive solutions, will succeed in the fast-changing landscape on the horizon.





THE TREND AND IMPACT

THE DETAILS

THE BOTTOM LINE

## Mobile Money



Mobile platforms have enabled various financial tools for customers. From payments made with a mobile device to banking and investing, customers have convenient access to mobile money management tools, providing previously unknown flexibility and speed. Businesses are enabled to operate virtually anywhere at any time.

### PREDOMINANT IMPACTS



The convenience of finance-on-the-go enables customers to have more control and flexibility. For example, the ability to pay for a product on the go and have a receipt sent directly to an email address can help customers regain control of their time and allows easy access to the corresponding transaction record. Assuming security is upheld, the feedback on the ease of payment through this avenue has been positive. On-demand investment management and depositing checks with a mobile app are two additional functions that make customers' lives simpler and more efficient.

As the conduit to the financial transaction (payment, stock trade, deposit, etc.), the service provider must also have a far-reaching network. For example, numerous small businesses have started in Africa, in part due to mobile payment functionality. By providing affordable service and an innovative means for collecting payment, Africans are seeing opportunities to pull themselves out of poverty.

Service providers must focus on security to gain and maintain customers' trust. Security measures span simple validation, such as a PIN, to fingerprints, or even more complex eye validation. In addition, many companies are implementing 2FA (two factor authentication) measures for added protection. Ultimately, these security measures will be the concern of financial institutions, device manufacturers, network providers, and the customer.

Users can enable Mobile Money through an application with basic smartphone specifications (e.g., camera, the ability to download applications). Some Mobile Money solutions require an attachment to their mobile device (e.g., Square and Intuit GoPayment). As customer reluctance fades and devices evolve, Mobile Money capabilities will grow and emerge as the standard way to transact business.

**If customers were forced to use only one device, the mobile phone was rated their No. 1 choice.**

The great promise of Mobile Money brings with it an enormous emphasis on data and transactional security. The growing capability will open up creative opportunities for products and services in new markets, but will also require speed and agility to frame and deliver these capabilities in an evolving market. Current methods of payment by credit cards are easy and work nearly 100 percent of the time. New solutions will face this expectation as table stakes for adoption.



THE TREND AND IMPACT

THE DETAILS

THE BOTTOM LINE

## Health Solutions



The convergence of the untenable cost of health care and an aging/ailing U.S. population is driving new players into the health care space. Communications companies are powering this movement through increased reliability of devices, higher network speeds, and additional services.

### PREDOMINANT IMPACTS



Our aging and ailing population is driving an increased need to manage the costs of health care delivery. This trend, along with increased consumerization and advancing technology, will drive care delivery to more affordable places — including the home. Patients will leverage wearables, medical devices, and virtual solutions for anything from primary care visits to management of chronic conditions.

Because these new telemedicine solutions make use of video and image files, they will require large and reliable bandwidth from service providers. Given the confidential nature of medical information being passed through the network, service providers will also need to address HIPAA-compliant data security for transmission of data, as well as at the device level. In time, more advanced solutions will leverage data analytics to proactively recommend health care interventions.

Many companies will continue to enter the health care market through health care platforms or a bundling of devices, platforms, and applications. For solutions to succeed in this space, they will need to meet the diverse needs of patients, providers, and payers, while effectively lowering cost. In addition to these tall demands, successful solutions will need to be more patient-centric and effectively address adoption barriers that typically come with medical applications and new technology. Collectively, these requirements will demand a broad set of business skills among participants in order to deliver useful and profitable solutions.

**Patients will leverage wearables, medical devices, and virtual solutions for anything from primary care visits to management of chronic conditions.**

Successful health solutions will require the involvement of payers and a variety of hardware and service providers, resulting in an emphasis on joint venture and complex program management skills. Given the confidential nature of the data and the volume of it that is required, companies will also need to emphasize security and adequate bandwidth. They'll also have to overcome the tendency of customers to resist change as they confront this new technology.





# Learning Anywhere



Learning Anywhere is the concept of leveraging telecommunications to provide instruction outside of formal classroom walls or fixed times. It provides the learner with the convenience of receiving an education at any time and in any place.

## PREDOMINANT IMPACTS



The Internet opened the door to Learning Anywhere at any time many years ago. Today, learning happens everywhere, all the time, because information is available everywhere, all the time.

Learning Anywhere enables learners to achieve life goals and position themselves for career progression advancement in a more convenient setting. This includes synchronous or asynchronous activities that support a diverse range of activities, from homeschooling to corporate training to Massive Online Open Courses (MOOCs) to entire degree programs. In all settings, Learning Anywhere leverages telecommunications technology to overcome time and/or distance barriers to enable learning centered on the learner as the customer.

As with other technology trends, this avenue of learning continues to evolve. Service providers will need to provide greater download speeds as course content continues to mature to leverage recorded and live interactive video. Additionally, corporations are interested in interactive environments that may require partnering with content providers to create a more comprehensive environment for students. This content will continue to come from an array of sources, including e-learning vendors, curriculum specialists like Khan Academy, and accredited universities.

As streaming bandwidth and virtual reality technologies continue to advance, the power of the content will continue to improve, and the breadth of content will also advance.

25%

of post-secondary students are enrolled in distance education according to the U.S. Department of Education.

Many of the broader effects for Learning Anywhere will be societal, as instructors and learners both develop the skills necessary to succeed in a virtual learning environment. Content and service providers that can help usher in that change effectively will be rewarded, and educational institutions that don't adapt will increasingly struggle.



# Connected Car



As transportation technology continues to evolve, our cars are increasingly being connected to the Internet and becoming rolling smart devices.

## PREDOMINANT IMPACTS



The Connected Car starts with driver convenience by enhancing capabilities such as in-car entertainment, smarter navigation, and automated payment options. Broader capabilities will emerge for vehicle-to-vehicle and vehicle-to-infrastructure communication, which will, in turn, provide greater safety and traffic management abilities. In our lifetime, we could interact with self-driving cars (autonomous vehicles), resulting in fewer car crashes, significantly reduced gridlock, and fewer auto-related fatalities. The impact of the autonomous vehicle will ultimately lead to shared autonomous vehicles. This will take 15 or more years, but economic analysis shows that this trend will continue to grow, while the number of privately owned, human-driven vehicles will decrease. This will drastically shift the automotive industry from car manufacturing to servicing and even city/infrastructure planning.

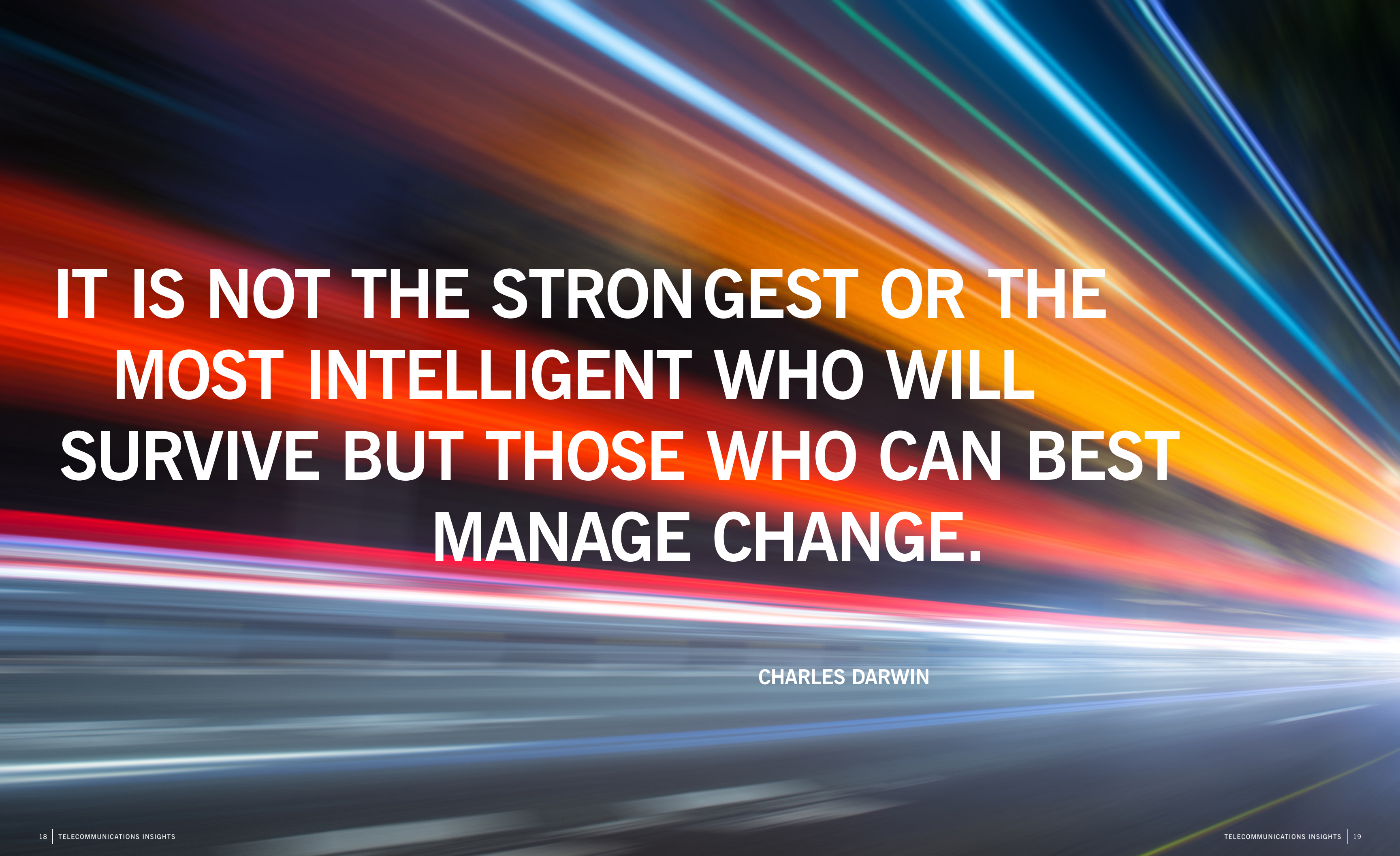
As a rolling Internet of Things, the Connected Car will bring with it greater customer engagement opportunities for providers, along with the associated demands on bandwidth, privacy, and security. The car essentially becomes an extension of the home, providing customers ease of access to data. This will be particularly true for financial and health-related applications that leverage in-car telematics. Standardized protocols, defined privacy standards, and higher security are absolutely necessary to move Connected Car technology forward.

For additional information on the Connected Car, see Jabian's Automotive Insights and survey results at [jabian.com/automotive](http://jabian.com/automotive).

Both telecom professionals and consumers say the next step of advancement to the driverless vehicle will be more than five years from now.

These advancements for the Connected Car depend on connecting automobiles to secure, widely available, and fast telematics services. The manufacturer that can couple these services with a truly autonomous vehicle will have a significant competitive advantage.





**IT IS NOT THE STRONGEST OR THE  
MOST INTELLIGENT WHO WILL  
SURVIVE BUT THOSE WHO CAN BEST  
MANAGE CHANGE.**

CHARLES DARWIN



# The telecommunications industry is vast.

Over the past two decades, this industry has been transformed into something that its founding fathers would barely recognize ... yet it remains one of the most fundamental and critical components of the global economy.

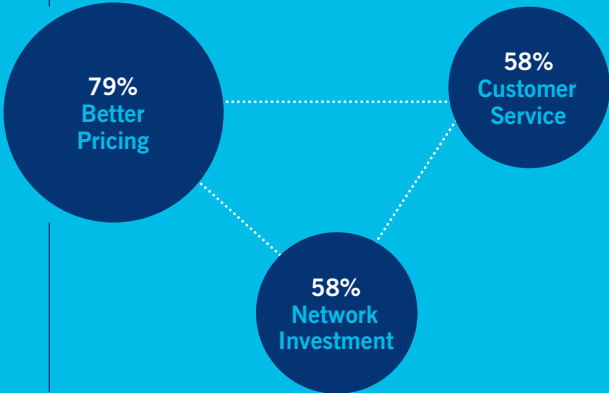
Jabian surveyed groups of consumers and telecom professionals, seeking to gather perspectives on the industry, competition, current trends, and hot topics. Our goal was to understand how the ever-changing dynamics (and definition) of the telecommunications marketplace are affecting consumer behavior and telecom professionals' decision-making. Here is what we learned.

Consumers agreed companies should spend the least amount of time on bundled options.

The top three telecom trends consumers say will most affect their lives:

- 1 DIGITAL/CYBER SECURITY
- 2 A LA CARTE OPTIONS INSTEAD OF BUNDLED DEALS
- 3 INCREASED DEMAND FOR STREAMING SERVICE

Not surprisingly, when asked for the top three areas where their telecom companies should invest the time and resources, consumers said:



Telecom industry professionals rank the top three areas where they should focus time and resources:



- 54% Customer Service
- 33% IT services and support
- 13% Research and development

Telecom professionals say these are their company's highest priorities:



- 52% Customer Service
- 27% Growth opportunities/M&A
- 12% Operations
- 9% New product/service development



CORD CUTTING

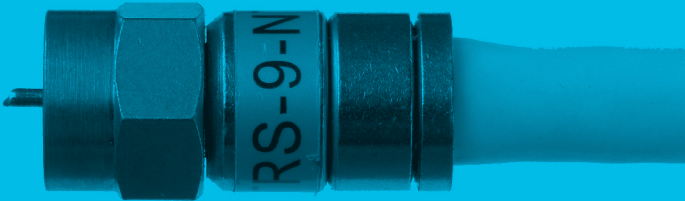


SMART/CONNECTED DEVICES



NEW COMPETITORS

The top three trends that will affect telecom industry professionals.

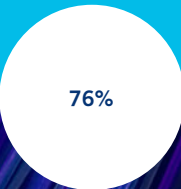


Telecom industry professionals say these areas drive their company's competitive advantage:

When asked to rank their competitors on the same scale, telecom industry professionals ranked their competitors this way:

CUSTOMER SERVICE	1	VALUE TO CUSTOMERS
INNOVATION	2	CUSTOMER SERVICE
BRAND/REPUTATION	3	QUALITY OF SERVICE
PRICE	4	INNOVATION
QUALITY OF SERVICE	5	BRAND/REPUTATION
VALUE TO CUSTOMERS	6	PRICE

When asked to define "what is telecommunications to you," respondents said the following:



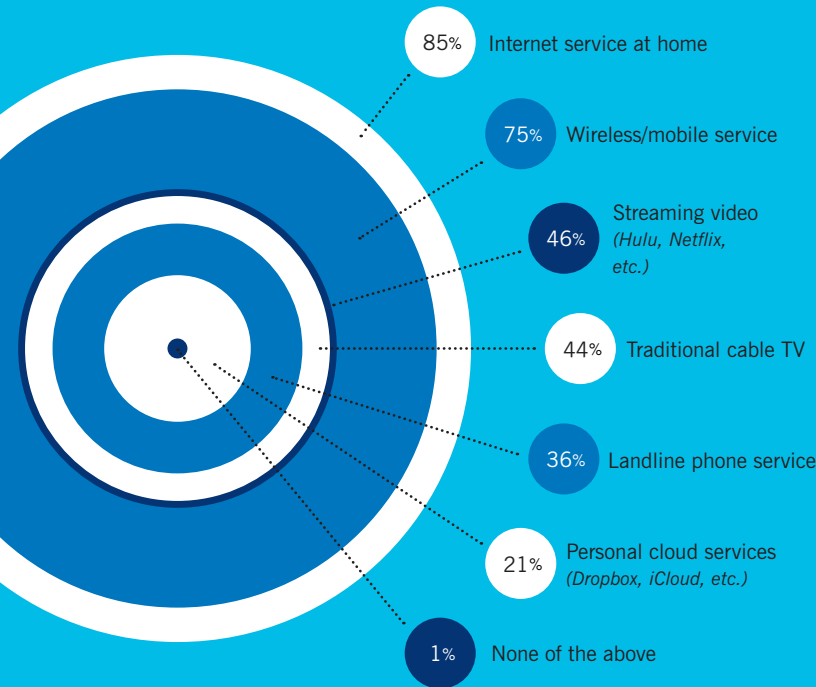




If they could add connectivity to one product or service in their lives through telecom technology, consumers would choose:

- 31% Home Security
- 25% Automobile
- 17% Health care products/services
- 14% Retail/shopping experience
- 11% Kitchen appliances
- 2% Other

Consumers subscribe to the following services:

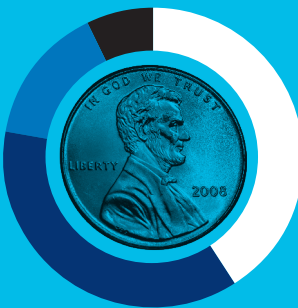
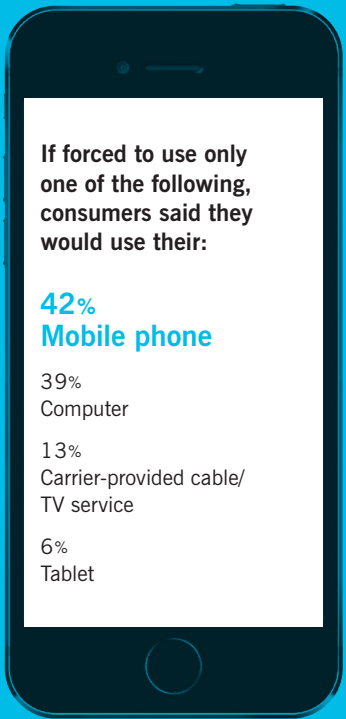


Asked to rank attributes of their current telecom provider, consumers ranked them the following way:

- 1 BRAND/REPUTATION
- 2 QUALITY OF SERVICE
- 3 INNOVATION
- 4 VALUE TO CUSTOMERS
- 5 PRICE
- 6 CUSTOMER SERVICE

If forced to stop using one of the following, consumers said they would cut:

- 42% Tablet
- 32% Carrier-provided cable/TV service
- 10% Computer
- 9% Mobile phone
- 7% Automobile



When it comes to upgrading to faster 1G+ speeds, consumers would:

- 41% Not pay more
- 37% Pay a 10% premium
- 15% Pay a 25% premium
- 7% Pay more than a 50% premium

# The future is coming fast.

The advent of nearly ubiquitous online connectivity has fueled a transformation of consumer choice and power. The pace and scale of that change have been substantial and will only accelerate as our use of this connectivity grows exponentially. This future will indeed be challenging, but full of opportunity and promise for those ready for it.



### **About Jabian's Telecommunications Experience**

Jabian Consulting provides strategic consulting services to leading companies operating throughout the telecommunications ecosystem. Drawing on their many years working in the industry, members within the Telecommunications Group at Jabian deliver solutions to drive growth and increase profitability.

### **About Jabian**

Jabian Consulting is a strategic management and technology consulting firm with an integrated approach to creating and implementing strategies, enhancing business processes, developing human capital, and better aligning technology—ultimately helping clients become more competitive and profitable. Jabian blends functional expertise, industry knowledge, and senior experience to think strategically and act practically. It's a Strategy that Works.®

For more information, visit [www.jabian.com](http://www.jabian.com).

