

The background features several white squares of varying sizes and orientations, some overlapping. A thick red line starts from the left side, loops around the top and right, and then descends towards the bottom left, framing the central text.

TELECOM COMPANIES:
BUILDING
BLOCKS FOR THE DIGITAL
REVOLUTION

Greg Douglass
James Wildenburg



As the digital revolution unfolds, one industry in particular plays a pivotal role. Telecom companies provide the fundamental building blocks—access, interconnectivity and applications—enabling this digital revolution to take place.

Creating a solid, sound foundation for digitalization is key, with a potential US \$2 trillion at stake for the industry and society through 2025.

Telecom companies need to deliver essential infrastructure, applications and productivity improvements in many areas for global digitalization to realize its full potential. With 44 zettabytes forecast as annual data flow in 2020 (equivalent to 44 trillion gigabytes)¹—and no slowdown in sight—the time to begin transformation is now, starting with their own business model.

FOUR MAIN AREAS OF DIGITAL IMPACT FOR TELECOM COMPANIES

Accenture sees four main areas of digital impact for telecom companies over the next several years:

1 NETWORKS OF THE FUTURE

Virtualizing the current physical hardware layer promises to fundamentally change the basis of future service, by creating self-optimizing and secure zero-touch networks.



For instance, AT&T has emerged as a leading digital adopter, pioneering Software-Defined Networking (SDN) and Network Functions Virtualization (NFV). The company aims to cover and control up to 75 percent of its network using SDN and NFV technologies by 2020.² Its Domain 2.0 vision for its networks includes rich Application Programming Interfaces (APIs) that manage, control and consume services on demand and in real time, and common infrastructure that can be provisioned as data-center pods. This initiative will help create a blueprint for other global carriers to follow.

2 BEYOND THE PIPE

The increased digital transformation of consumers' lives and businesses presents the telecom industry with important opportunities to extend revenue streams beyond connectivity, through integrated internet of things (IoT) solutions, consumer and enterprise digital services, and reimagined models of digital communication leveraging advances in natural human interfaces and augmented reality/virtual reality.



Semiconductor specialist Qualcomm is already building interoperable Internet of Things (IoT) offerings across diverse sectors of its business. By developing advanced chipsets and modules to bring various IoT use cases to life, it is moving towards building a comprehensive, cross-sector suite of IoT solutions that help companies and users overcome some of the largest challenges around interoperability and integration. Qualcomm Life, for instance, is an end-to-end, open and device-agnostic healthcare platform that integrates healthcare devices, stores and communicates health information, and provides remote monitoring.³

WHAT IS AT STAKE FOR INDUSTRIES AT LARGE?

Accenture, in conjunction with the World Economic Forum, participates in the Digital Transformation Initiative (DTI), which has assessed how digitalization in 13 major industries is transforming business and society. This work has brought us into direct contact with more than 1,000+ executives, policy makers and experts, who uncovered some key themes to help make certain the value of digitalization is captured by both business and society. To date, DTI research has confirmed that **digitalization has immense potential: we estimate it could deliver approximately \$100 trillion in value to business and society over the next decade.**

A few examples of how telecom companies could play a significant role in fueling value not just for their own industry, but for others:

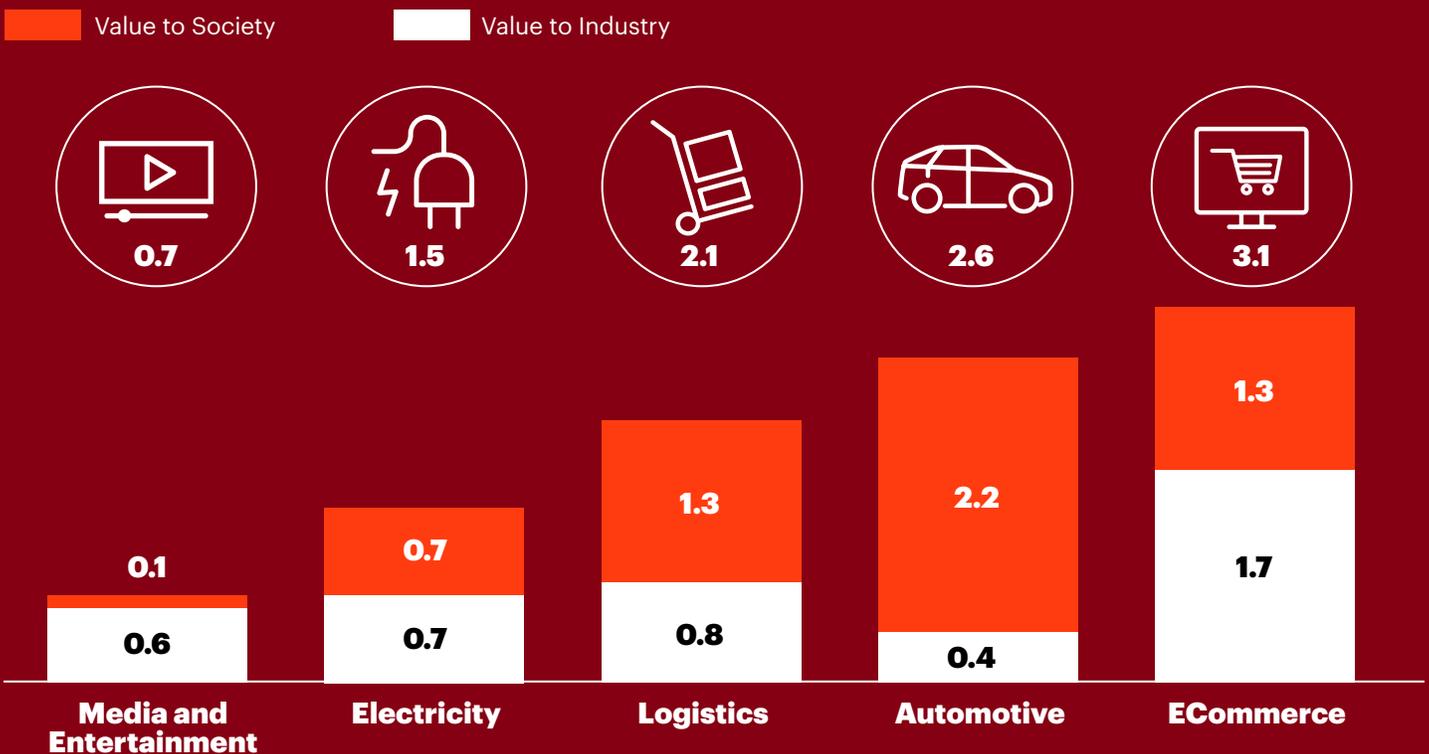
RETAIL. Broadband penetration will be essential to the growth of e-commerce, which could directly result in almost \$100 billion in value migration from offline to online retailers over the coming decade.

AUTOMOTIVE. Customized networks that make telematics and usage-based insurance a reality could save more than 120,000 lives by reducing traffic accidents (e.g., helping companies track unsafe fleet drivers).

ELECTRICITY. Telecom industry infrastructure will enable connected devices on the grid and in consumer homes to drive a potential \$170 billion in cumulative cost savings for consumers over the coming decade.

Figure 1: More than \$10 trillion of Value from Digitization in Five Key Industries over the Next Decade Depends on the Telecom Industry

Cumulative digital value at stake enabled for external industries and society, \$ Trillion, 2016-2025



Note: the values above reflect only the share of total industry and societal value directly enabled by telecom infrastructure and applications. Source: World Economic Forum/Accenture analysis

3 REDEFINING CUSTOMER ENGAGEMENT

To win the race for customer loyalty and mindshare, telecom industry players will need to increasingly deploy features and tools that deliver delightful digital experiences. This goal is especially important as customers now expect the high-quality digital experiences they receive in one industry to be matched by companies in other sectors.



A large UK-based mobile virtual network operator (MVNO), GiffGaff, has increased customer engagement by doing something that sounds counterintuitive, at first blush. The company completely eliminated its call-center-based customer service model. Instead, it developed an online community where its own members share and resolve queries. In doing so, the company not only saved a massive amount of money, but was also able to significantly drive up customer engagement. The company's transparency and customer centricity (it sends users a text message every month on how they can save money on their phone plans) has allowed it to surpass more than 160 other MVNOs in the country in size, to become the third largest.⁴ GiffGaff's innovations in this area show that customers are willing to shift to new models of customer service, a traditional pain-point for major operators, and still be delighted.

4 BRIDGING THE GAP ON INNOVATION

The need for rapid innovation, greater convergence and new services means that telecoms must fill capability gaps using new innovation models and revamped talent strategies for a digital workforce.



For example, Telecom Italia has launched the Joint Open Labs initiative, which creates collaborative research platforms between itself, academic institutions and external research laboratories. These platforms also incubate start-ups focusing on their areas of interest. Other "outside-in" models include Nokia's Open Innovation Challenge, which combines crowdsourcing and partnerships with digital companies.⁵

TELECOM INDUSTRY LEADERS AND POLICY MAKERS **HAVE THEIR WORK CUT OUT FOR THEM**

Digitalization brings exciting new potential to the industry and the world at large. But, laying the groundwork for a digital revolution can seem daunting. We see four imperatives for industry leaders and policy makers over the next several years that will help pave the way:



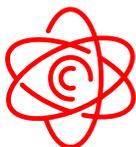
Network transformation will be necessary to enable new business models beyond the pipe and address changing customer expectations. Enabling new cross-industry business models in areas such as IoT will require flexible and agile networks that allow ubiquitous coverage of people and things, SDN functions and analytics, personal data protection and cyber-resilience, ultra-reliable low-latency communication, and enhanced mobile broadband.



New business models leveraging emerging technologies will require strong collaboration with vertical industries and internet platforms. Competitive advantage in digital services and IoT will be driven by the capability to collect and analyze large pools of data specific to vertical-market use cases, and to target value opportunities through customization of services and offerings.



Operating in the digital age requires corporate culture change along with new organizational structures. Creating a culture of innovation will be dependent on breaking through established organizational hierarchies and orthodoxies. This will be driven mainly by a change in governance, incentives, metrics and talent strategy.



Digitalization of the industry will require a transformation of existing policy and regulatory models. Transformational change in networks and business models should be accompanied by greater flexibility in regulation, especially on spectrum management, consistency across jurisdictions and fiscal policy.

DO NOT MISS OUT **A DIGITAL WINDFALL**

Thus far, the role that telecom operators have played in accelerating digital business and service models generally has not translated into new value for the operators themselves. Operators' share of the industry profit pool has declined from 58 percent in 2010 to 47 percent in 2015, and is forecast to drop to 45 percent in 2018.⁵

Companies that identify a model for effective vertical-market collaboration will have an advantage because they will be able to collect and analyze time-series data to identify value opportunities specific to each use case and target value capture through customization of services and offerings. Open collaboration with vertical markets and technology will be key to access and co-developing these offerings through two-sided markets.

In addition, telecom companies should define near-term action plans for the major areas of transformation expected. To learn more about these areas and suggested 100-day plans, check out the Accenture and World Economic Forum white paper: ["Digital Transformation Initiative: Telecommunications Industry."](#)

Pressure on traditional revenues means that it is increasingly important for operators to look at new digital business models to make sure that they share in the value from digital transformation. Digital brings the potential for a significant upswing in the years ahead, if telecom companies are willing to embrace the digital revolution.

CONTACT THE AUTHORS

Greg Douglass

Senior Managing Director – Accenture Strategy,
Communications, Media & Technology
gregory.k.douglass@accenture.com

James Wildenburg

Accenture Strategy, Communications,
Media & Technology, North America
james.wildenburg@accenture.com

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NOTES

¹ Digital Transformation Initiative: Telecommunications Industry white paper, Accenture in collaboration with the World Economic Forum. January, 2017.

² Ibid

³ Ibid

⁴ Ibid

⁵ Ibid

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Accenture is a leading global professional services company, providing a broad range of services and solutions in strategy, consulting, digital, technology and operations. Combining unmatched experience and specialized skills across more than 40 industries and all business functions—underpinned by the world’s largest delivery network—Accenture works at the intersection of business and technology to help clients improve their performance and create sustainable value for their stakeholders. With approximately 401,000 people serving clients in more than 120 countries, Accenture drives innovation to improve the way the world works and lives. Visit us at www.accenture.com.

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