

**strategy&**

*Simplify, digitize,  
consolidate —  
or else*

**&**

**The new paradigm  
for telecoms**



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# *About the authors*

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# Executive summary



**The corporate world at large** is moving quickly to capture the benefits of digitization. Yet the telecommunications industry itself, while enabling its business customers to digitize their activities, has lagged in its efforts to move in the same direction. Struggling with outmoded IT systems, siloed organizational structures, and pre-digital corporate cultures, telecom operators have allowed faster competitors, notably the so-called over-the-top players, to gain the upper hand by offering better and wider-ranging services and more compelling customer experiences.

All is not lost — at least not yet. But if telecom operators are to catch up, they must first radically lower their total cost bases, simplify their product offerings, and devise better customer experiences. Then they must settle on their digital strategy and develop a much wider range of digital services for their customers, business and consumer alike. They will need to rethink the way they innovate to become much more agile and open to working with third parties. Finally, they need to engage more fully in the ongoing consolidation of their industry to generate scale, combine networks and infrastructures, and offer true fixed–mobile convergence, the basis of any effort to improve the customer experience and create the products and services their customers are now demanding.

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# *The doomsday scenario*

The past couple of decades have been good ones for the telecom industry. These have been times of sustained growth and increased efficiency, thanks to the rise of the Internet, the development of new technologies like fiber optics, the advent of faster and more connected computers and mobile devices, and the increasing demand from consumer and business customers for greater connectivity, more data, and faster services.

But the days of rapid innovation are over, and they're not coming back. Until recently, telecom operators grew primarily by providing the pipes through which all kinds of industries — entertainment, retailing, financial services, travel, and others — have begun to digitize and by fully saturating virtually every developed market with more phone and data subscriptions than there are people in that market.

Notably, however, the telecom industry itself hasn't been transformed to the same degree as the industries it has served. Weighed down by legacy IT systems, outmoded organizational structures, and corporate cultures that are simply not up to the demands of the digital paradigm — even as regulators continue to put pressure on retail prices — few telecom operators have been willing to set forth on the radical path they must take toward their own digital future. Those that have begun the journey are typically newer arrivals, mostly in developing markets, and therefore not burdened with the legacy costs of the major incumbents.

Instead, established telecom operators have allowed competitors, notably the so-called over-the-top (OTT) players — Netflix, Skype, Spotify, Instagram, Snapchat, and the like, which offer better customer experiences — to steal a march on them. The OTT players distribute their innovative services “on top” of the operators' networks for free, reducing expenses dramatically and investing the money they save in developing new innovative services, while leaving the operators with all the costs involved in maintaining their networks but little of the value to be captured. The result: Revenue growth and profitability over the past several years have stagnated, and for some operators, particularly

in Europe, they have declined. In short, “business as usual” has become a recipe for irrelevance, if not disaster.

Given the enormous and growing demand for all kinds of digital services, telecom operators do have a commercially attractive future, but only if they radically reinvent themselves for the age of digitization — building the right capabilities to reimagine the customer experience, rethink their operating model to radically reduce costs, and re-create their corporate cultures to instill the agile mind-set that will enable their digital transformation. And they must participate even more actively in the ongoing consolidation of their industry to generate scale, combine infrastructures, and bring about the true fixed–mobile convergence (FMC) that must form the basis of their efforts to improve the customer experience and create the products and services customers are now demanding.

Whether they can succeed in transforming themselves into true digital telecom companies will depend on their ability and willingness to devise a workable digital strategy, build or buy the capabilities needed to execute that strategy, and then carry it out fully.

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# *The status quo*

How dire is the situation for the global telecom industry? It varies. Developing markets continue to grow at a healthy clip. Telecom revenues in the Middle East and Africa, for example, grew at an annual rate of 6.7 percent from 2011 to 2015, and even North America boosted revenues by 1.1 percent annually during that period.<sup>1</sup> Europe, however, is struggling; revenues actually declined almost 1 percent a year over the same period.

Fully saturated markets, regulatory pressure on pricing, and intense competition from a large number of players are certainly playing a role in the stagnant growth of the telecom industry in Europe, but a larger and ultimately more important cause can be found in the slow pace at which operators there are digitizing. They have made some progress in digitizing certain areas of their operations that did not require radical rethinking of their proven business models. But for the most part, they have left untouched significant segments of their value chains — notably, customer interactions such as e-commerce — that would involve revamping their legacy, not to mention their entire business philosophies and cultures.<sup>2</sup>

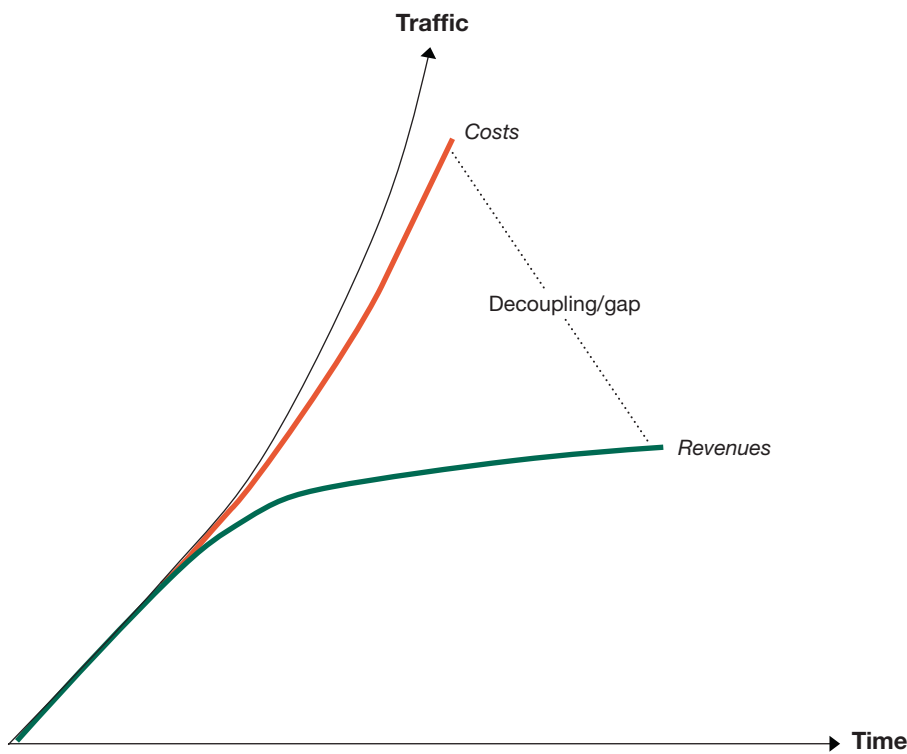
The results can be seen most painfully in the huge discrepancy between the value that the OTT firms have created and that of the traditional telecom operators. The combined market capitalization of the top OTT players, including Google, Facebook, and Apple (counting only Apple Music's contribution to its value), as well as such companies as WhatsApp, Netflix, and Skype, is currently around seven times their total 2014 revenues, whereas for the telecom industry, that multiple is less than two. Meanwhile, the global telecom industry invested some US\$354 billion<sup>3</sup> into maintaining, building, and upgrading its networks in 2014 — an enormous expense that the OTT companies do not have, except for the fiber-optic and wireless networks Google is building out in several U.S. markets.

The predicament the telecom companies face couldn't be more obvious. The demand for digital services, especially video, is only going to keep growing and pushing the amount of traffic traveling over their networks

ever higher. This in turn will rapidly drive up the operators' costs as they invest in new networking technologies while continuing to maintain their old, already outmoded networks — even as their revenues are leveling off. If this trend continues — if telecom companies don't make the effort to simplify their product lineups, digitize their networks and operations, and consolidate to gain scale and capabilities — the endgame will not be pretty (see *Exhibit 1*).

*Exhibit 1*

**Operators must reverse the rapidly growing gap between costs and revenues**



Source: Strategy& analysis



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# *Simplify*

Of course, there are really only two ways to reverse the trend: Either cut costs or increase revenues — or better yet, do both. Doing away with network neutrality regulations might reduce some of the financial distortion that operators currently face, and provide some boost to their revenues. But even if that were to happen, it wouldn't be sufficient to make up for the growing gap. Operators must radically lower their network costs by improving the efficiency of their networks, and their cost per megabyte of traffic, through investments in more cost-effective technologies such as software-defined and virtual networks and cloud-based technologies. And they must optimize their current revenue streams through new pricing and commercial models and develop new ones through innovation and by moving into adjacent markets.

Operators also need to shift their view of subscription business models as the most desirable option for their customer base. This perception will inevitably limit the scale that telecom operators can achieve compared with the OTTs, and might also limit their monetization options for new innovations. The Internet has redefined the economies of scale from a customer base, and operators will need to seek a larger scale either through consolidation or by delivering directly to customers the way OTT operators do.

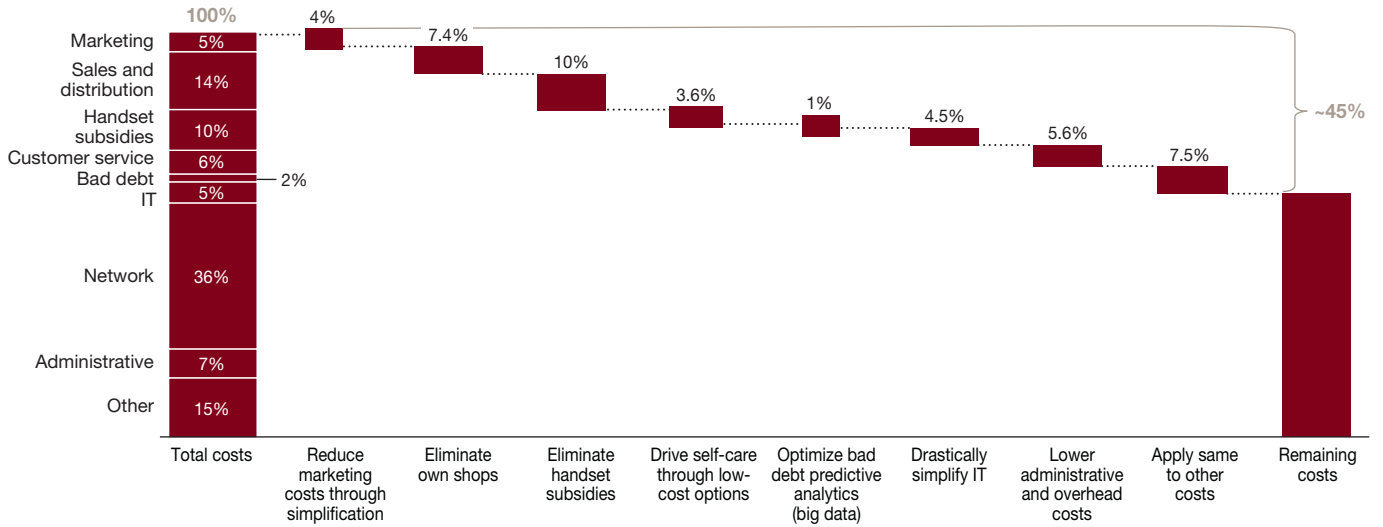
On the cost side of the equation, there are a few operators that have already succeeded in radically lowering their overall operating costs, and thus the cost per megabyte of their networks. *Exhibit 2, next page*, illustrates how one operator has radically lowered costs by focusing on interacting with customers digitally, and by radically simplifying its product portfolio. The sheer simplicity of its business model has endeared it to customers, who give it high marks for customer satisfaction.

Admittedly, this particular telecom company had a built-in advantage: It's a brand-new operator, so it never was saddled with the legacy systems, structures, and cultures so many incumbent players struggle with. Yet the example does show what's possible. Already, in fact, a number of operators have begun making moves in this direction, changing both their commercial models and how they interact with customers, while digitizing their internal operating model to become leaner and more agile.

Exhibit 2

Radical cost reduction is possible, as illustrated by one operator that has achieved 45 percent lower costs than the market average

Cost reduction through digital adaptation



Source: Strategy& analysis

Achieving true digital maturity, however, will be anything but simple. To get there, operators must first lay out their digital strategy, including a full description of the digital business model that will enable them to boost revenues through their new digital commercial model, to reimagine the customer journey from marketing to sales to customer care, and to restructure their cost base.

Then they must deliver on the plan, redirecting all operations toward the consumer, rethinking their product and services portfolio, and converting their underlying infrastructure to enable scalable, software-based services located in the cloud and run on top of a common Internet Protocol-based network. Some operators will likely decide to maintain or even expand their current portfolios. Others should consider radically reducing their offerings, and depend on their ability to gain market share by offering new digital excitement to customers, thus increasing revenues through higher average revenues per user and less churn.

Finally, they must work to overhaul their corporate culture, moving away from their traditional, hierarchical, heavily siloed cultures to a flatter, more agile culture that encourages cross-functional collaboration and rapid decision making. This step is critical, but in our experience it is also the most difficult, and the most commonly underestimated, task of all.

Every telecom company must move quickly to reduce its costs and to simplify its operations and product and services portfolios. Those that assume they can maintain the status quo, even for just a few more years as they contemplate their next steps, will be overtaken and left behind.

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# Digitize

Every operator willing to take the necessary steps can certainly participate — and succeed — in the digital future. It is by no means clear, however, that every telecom company can offer every imaginable digital service to all of its retail and business customers. So how should operators define their digital strategy? That depends on their answers to a key question: What can they realistically expect to achieve in becoming digital? We see three options being pursued today, depending on the operator's risk profile, its belief in its own capabilities, and the financial return model expected by its shareholders.

- **The network provider.** This choice involves running a network as efficiently as possible, using new technology such as IP and virtualized networks, while offering secure connectivity-related products and services such as voice and connectivity bundles across both fixed and mobile networks. Operators choosing this model could maintain their traditionally high EBITDA margins of 30 to 50 percent<sup>4</sup> provided they reduce their cost base dramatically as part of this relatively simple business model. Although the growth potential is limited, and the inevitable large reductions in head count will present a huge challenge, the many operators that do not believe they can develop new digital customer-facing capabilities are likely to move in this direction.
- **The digital enabler.** Like the network provider, this strategy is based on a smart network. Here, however, the goal is to turn that network into a “platform,” offering such services as localization, security, and authentication, and with clear interfaces and application programming interfaces on which companies in other verticals, including OTT providers, can build their own services. These other companies will share revenues with the operators, thus allowing them to participate in the growth of the digital economy. This model will likely produce somewhat lower margins of 30 to 40 percent,<sup>5</sup> but it offers the offsetting benefit of higher growth and greater value. The only question is how much.

- **The digital life provider.** Doubts about just how much value the digital enabler model could ultimately create are leading a few operators to try to become fully integrated digital life providers. Offering everything from network infrastructure to business enablement to a wide variety of innovative consumer-oriented digital services, this model has the potential to generate significantly higher growth potential and high margins — but only if the operators venturing in this direction can develop truly innovative, differentiating services that customers are willing to pay for, while keeping down the costs of creating such services.

This kind of full integration is very challenging, especially for a large-scale, infrastructure-heavy business. Most telecom companies don't have the strong innovation capabilities needed to evolve to this model, and are unlikely to be able to develop them. There are exceptions, of course, but virtually all of them are in Asia, where the business and regulatory environment is very different from that of the rest of the world, and the degree of connectivity is often considerably higher and faster.

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# Consolidate

The search for value and a successful digital way to play has led to a high level of M&A activity in the telecom industry. This is especially the case in Europe, where telecom markets are much more fragmented than in other developed economies. In Denmark, for example, four mobile operators serve a population of only 5.6 million people. Players are combining forces to generate scale benefits and thus lower costs, while creating additional synergies such as more efficient sourcing and other joint activities.

But the most important reason to consolidate is to put together the right set of capabilities needed to fully address the ever-growing customer demand for fully integrated digital services, by growing inorganically, if necessary, and by scaling up to generate the cash flow needed to carry out digital transformations. All too many operators continue to maintain separate fixed and mobile networks and the services built on them — a result of their historical evolution, which has also led them to maintain a technology-centric view of their operations and, indeed, their culture. That's no longer what customers are coming to expect, and only a fully fixed–mobile convergent operator will be able to deliver on their expectations.

The most forward-looking telecom companies, those that are finally taking a truly customer-centric approach to their operations, have come to understand that customers want four things. They want to be able to use the best network available at all times, which requires seamless switching between wired networks, nomadic networks such as Wi-Fi, and high-speed mobile connections such as LTE. They want their FMC networks and services to be set up automatically, because they really don't want to be bothered with the technology involved. They want quadruple-play services — fixed voice, broadband, mobile, and TV — and the ability to switch their consumption of media such as movies and music, and even OTT services, from network to network, and to have all their applications and data available to them on all devices at all times. And they want to be able to research and purchase items and get help when they need it, wherever they want it, in an easy and consistent way — whether in a store, online, or on the phone.

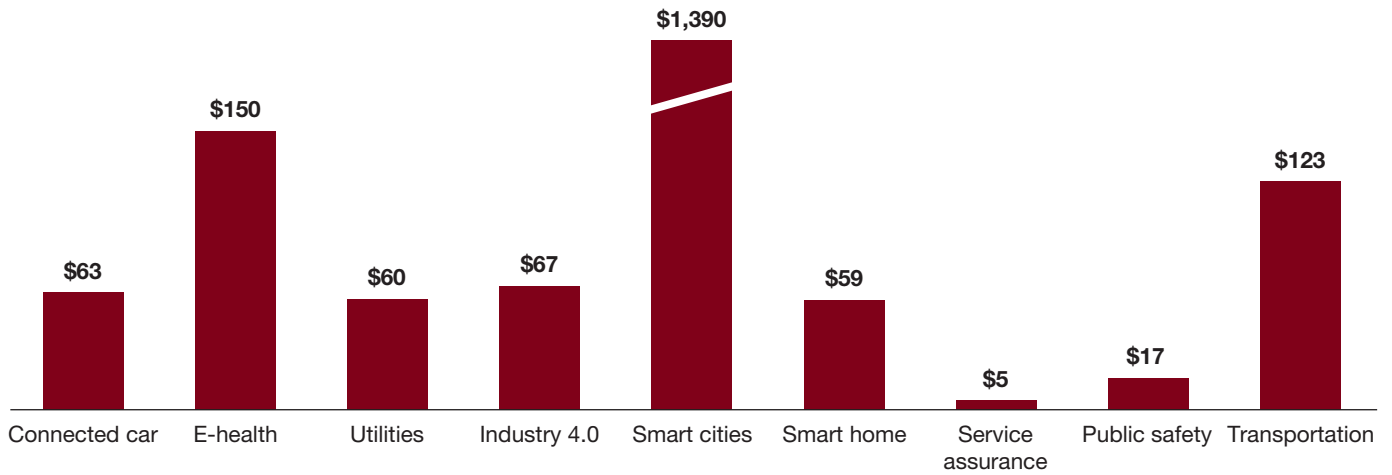
Telecom companies must approach their business clients with the same customer-centric mind-set. There is enormous value to be captured by operators that can figure out how to enable other industries in their own efforts to become digital, and to participate in the rapid growth of the Internet of Things. The connected-car market alone is expected to generate revenues of \$63 billion by 2020, and that's just a drop in the bucket compared with the smart cities market, which will likely be worth almost \$1.4 trillion by then (*see Exhibit 3, next page*). Already, all kinds of companies — Google, IBM, GE, and others — are staking out their territory in these markets. Unless telecom companies can figure out how to participate, and quickly build or buy the capabilities needed to do so, they'll be left behind.

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*Exhibit 3*

**Digitizing other verticals offers enormous market potential, a critical move for operators**

**Estimated size of selected global vertical growth markets in 2020 (US\$ billion)**



Source: IDC;  
Ovum; Technavio;  
MarketsandMarkets;  
GSMA; Grand View  
Research; Navigant  
Research; Mind Commerce;  
Strategy& analysis 2015



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# *The CEO's agenda*

What must CEOs do to plan and carry out the transformation required to meet the needs of the digital world? Here are five steps that leaders of all telecom operators should take to ensure that they stay relevant in this increasingly competitive environment:

1. Define your way to play on the basis of the three strategic archetypes — the network provider, the digital enabler, and the digital life provider. This will require a careful assessment of what you can realistically accomplish, given your present state and the risks involved in tackling each strategic play.
2. Given the strategy you choose, redefine your operating model with the objective of simplifying and radically reducing your cost structure. Carefully assess your current management capabilities and level of digital maturity to identify the best transformation path.
3. Understand what digital really means for your specific strategic play, and remember that no matter which strategy you choose, you will need to develop an approach to culture and people that will enable the transformation. You will need new capabilities and business processes throughout your organization — in HR, IT, finance, and elsewhere.
4. Develop customer-centricity and digital design thinking as key capabilities for any play beyond the network provider.
5. Participate in consolidation with four objectives, in addition to cutting costs: to gain national market share, to acquire fixed assets in FMC markets, to acquire the necessary digital capabilities, and to grow the customer base to extract the most value from your digital innovations.

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# Conclusion

We cannot overstate the size of the opportunity that digitization presents for operators, or the risk they run if they don't seize it now. Already, we are seeing telecom executives throwing their hands up and protesting that the transformation is too hard, their companies move too slowly, and they're too bound up in old legacy systems, old ways of doing business, and pre-digital corporate cultures. Transformation *is* hard, but executives who don't make the effort are dooming their companies to irrelevance at best and failure at worst. Operators that do make the effort stand a good chance of remaining central to the brave new world of digitization.

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# *Endnotes*

<sup>1</sup> “Disruptive Times in the ICT Industry,” Strategy&, Nov. 13, 2015. Compound annual growth 2011–15, slide 6. Source: Strategy& analysis

<sup>2</sup> “The 2015 telecom digital maturity survey: Preliminary results,” Nov. 2015, [strategyand.pwc.com/reports/2015-telecom-digital-maturity-survey](http://strategyand.pwc.com/reports/2015-telecom-digital-maturity-survey).

<sup>3</sup> “Disruptive Times in the ICT Industry.” Worldwide network infrastructure cost vs. Internet players’ revenues and value, slide 8. Source: OECD; Forbes; Infonetics; Strategy& analysis

<sup>4</sup> “Disruptive Times in the ICT Industry,” typical archetypes of “way to play” in digital services, slide 14. Source: Strategy& analysis

<sup>5</sup> “Disruptive Times in the ICT Industry,” slide 14.

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