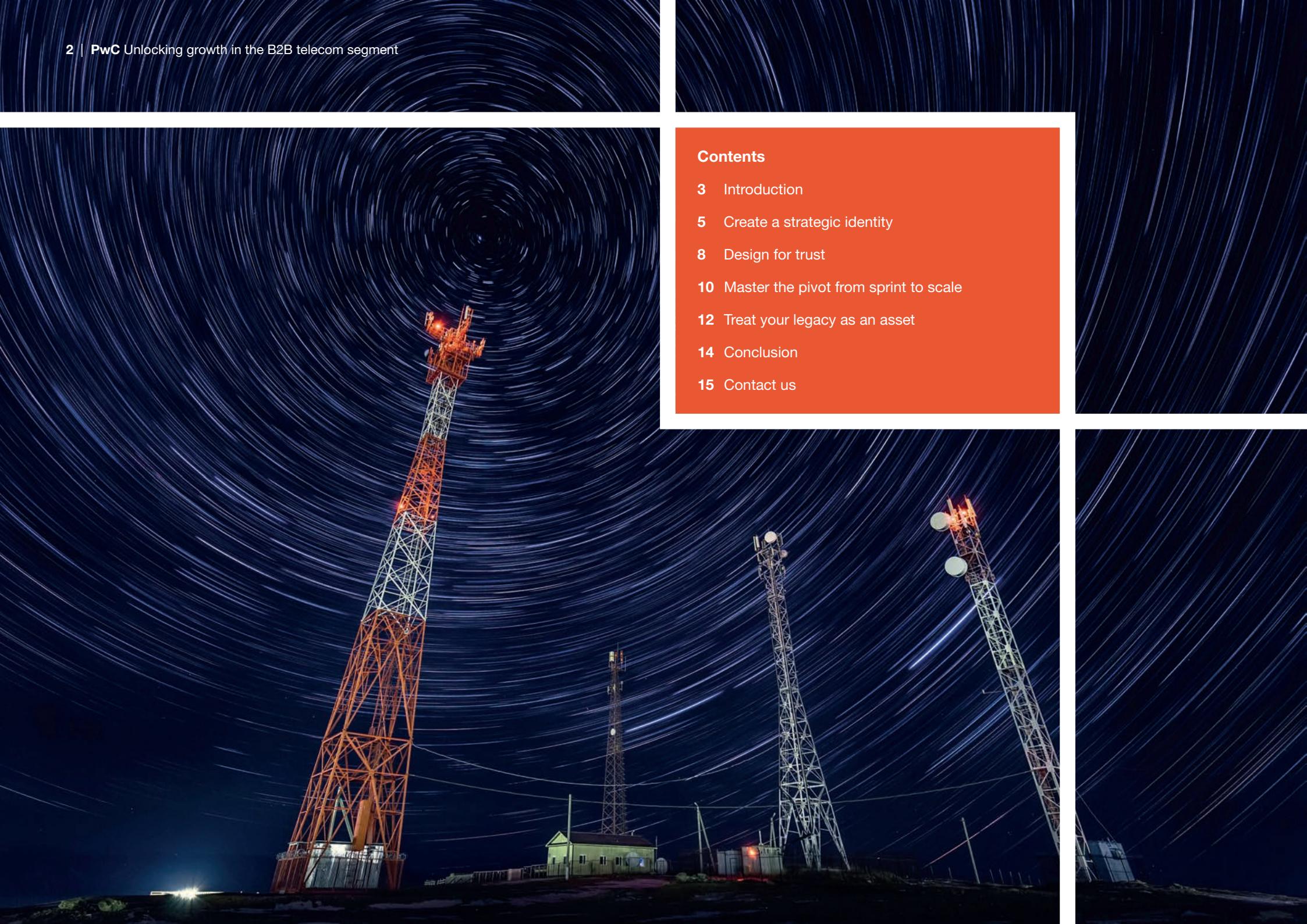


Unlocking growth in the B2B telecom segment

Four basic building blocks to help transform the sector



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Contents

- 3** Introduction
- 5** Create a strategic identity
- 8** Design for trust
- 10** Master the pivot from sprint to scale
- 12** Treat your legacy as an asset
- 14** Conclusion
- 15** Contact us

Introduction

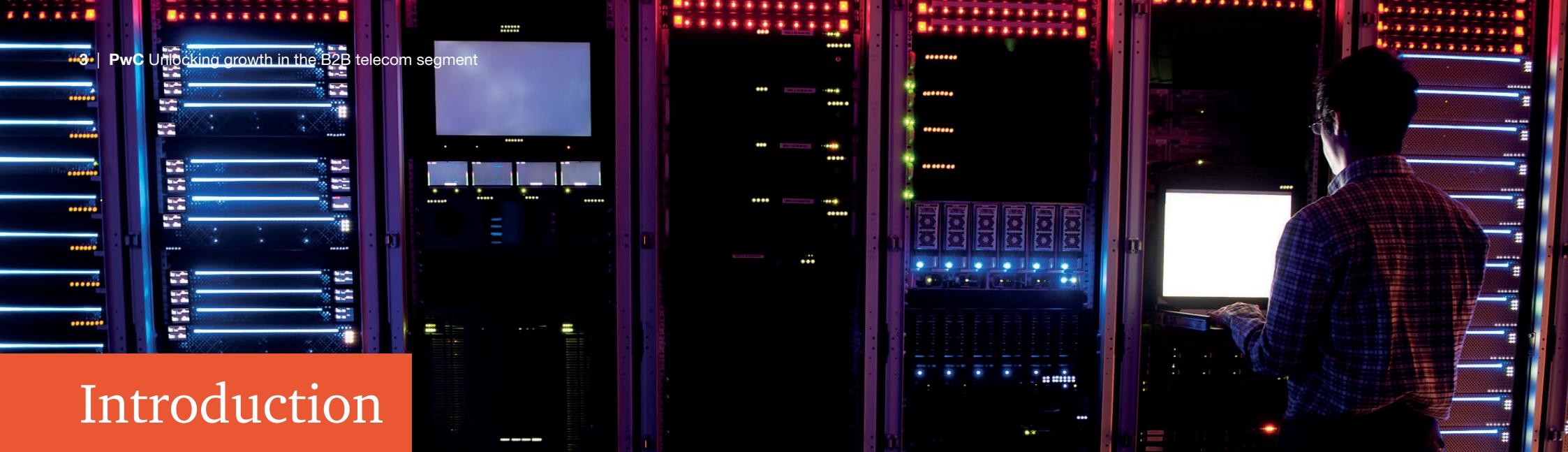
When leaders of telecom companies think about change, they often focus on business-to-business (B2B) offerings: their critically important enterprise-level voice and data communications services.

Revenues across the B2B segment of the telecom industry are slowly declining. The needs and desires of buyers are not being fulfilled. Sensing opportunities for disintermediation and disruption, new competitors are circling, with capabilities that many telcos can't easily match. It's no wonder that transformation has risen to the top of the agenda for telecom CEOs and boards.

In the past five years, telecom operators have recorded an average compound annual growth rate of -0.4% for their B2B activity. The industry's cash cows are in decline. These include legacy wireline offerings, such as multiprotocol label switching, plain old telephone service and digital subscriber line services. The catch rates on newer internet-based products have not been high enough to pick up the slack. Moreover, the complexity of the industry's legacy technology, business and operations support systems has stymied efforts to both reduce costs and bring innovations to market.

Buyers of B2B telecom services are also frustrated with what they perceive as a lack of responsiveness within the industry — a condition that has resulted in a high level of customer churn. Their dissatisfaction is exacerbated by a demographic changing of the guard: more and more buyers have service expectations set by a lifetime of dealing with digitally native consumer companies such as Amazon and Netflix. They expect service requests and delivery to be fulfilled on demand, and they don't want to do business with telcos that can't meet their expectations.

The new competitors, attracted by this combination of industry sluggishness and customer unrest, fall into two broad categories. The first includes companies such as Cisco, Juniper and Brocade; they seek to establish direct relationships with enterprise customers. They expect to do this by building a broad base of customers in the B2B market and selling services that overlap with telcos' offerings, such as software-based VPNs and firewalls. The second group of competitors, which includes companies such as Amazon and Masergy, is seeking to disrupt the industry in a more fundamental way, less bound to established offerings. These companies are leveraging their agility and digital savvy to create new kinds of customer-centric solutions, test them with early adopters and bring them to market at an unprecedented pace — a pace that telcos struggle to match.



Telecom operators know they have advantages, particularly in their networks and long-established relationships with enterprise customers. They know that to better serve existing customers, win over new ones, reverse declining revenues and stymie competitors, they will need a major shift in their capabilities and outward-facing identity. This requires transformation. But knowing the effort and investment involved in transformations, and the high rates of failure, how can telecom leaders improve the odds for success?

In 2018, PwC convened a group of our most knowledgeable transformation practitioners to uncover the factors that make these initiatives work well in practice. We studied successful examples and articulated the elements common to them — and tested the findings in follow-up research and discussions with other experts, inside and outside PwC, and with clients. We found that four building blocks are essential to every major change effort:

- **Create a strategic identity.** Articulate a single desirable future for your enterprise and focus all your efforts on achieving it.
- **Design for trust.** Develop ways to attract and deserve the commitment of everyone related to your enterprise — particularly customers and employees.
- **Master the pivot from sprint to scale.** Test new practices in an intensive, experimental, startup-style manner. Pick the approaches that work, and rapidly implement them throughout the larger system.
- **Treat your legacy as an asset.** Save the best of your past, divest the rest for advantage and use the income to fund the future.

In this report, and in others for different sectors, we will explore these four building blocks from an industry perspective. While telecom companies vary in their culture, circumstance and history, they generally have some practices and background in common. Being aware of these can help you shape your transformation for success.



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Create a strategic identity

Every telecom operator will need to create its own defining vision of what it can and should become in the future. This unique strategic identity should stretch the organisation's aspirations and explicitly name the challenges it faces. It should be tailored to take advantage of the operator's most distinctive capabilities and cultural traits. And it should be inclusive, too — involving and energising the entire company.

In particular, the primary goal of telecom transformation should be a fundamental shift in how an operator engages and empowers its customers. This shift unlocks value for customers, meeting and exceeding their service expectations to generate growth.

Many telecom leaders will find it necessary to stretch their aspirations for B2B services — in other words, to leap into new ways of defining and

delivering their offerings. One concept that can help is the concept of 'bionic' companies: companies that rapidly expand because they know how to generate and deploy the three forms of capital that power the success of technology companies such as Amazon, Apple and Uber. Although many such companies are consumer-facing, the principles can, and in fact must, be applied to the B2B space. These forms of capital simply didn't exist before the advent of digital infrastructure, data systems and artificial intelligence. They are:

- **Network capital**, accrued through your ability to build and grow platforms that attract customers and a wide variety of partners.
- **Behaviour capital**, accrued through your ability to use data to track and understand various types of behaviours.
- **Cognitive capital**, accrued by translating knowledge into AI-powered, automated routines that raise the scale and scope of what your company can do and what it can deliver to customers.

We call companies that successfully deploy these new forms of capital bionic because they fuse technology, human skill and intelligence, and a clear sense of purpose.

The phenomenal growth rates of bionic companies stem from their ability not just to operate more efficiently, but also to generate demand. For instance, when new app-based ride-hailing companies appeared in San Francisco in the mid-2010s, the size of the local taxi market was US\$100m. The companies didn't just compete with taxis. They expanded the market for hailed rides; today it is US\$300m. They accomplished this by revolutionising the customer experience.

What might the deployment of these new forms of capital look like in a telco? For one thing, it would enable operators to undertake a clean-slate reimagining of cumbersome and costly processes. Take ordering, for example (see Exhibit 1). For years, telcos have been trying to simplify the complicated ordering process, without much success. This process, with its many steps, demands a great deal of time and resources from both the telco and the customer, as depicted in the 'before' scenario in Exhibit 1. However, network capital in the form of platforms that bring together the offerings of telcos and their business partners can now allow customers to serve themselves — how and when they like, as shown in the 'after' scenario. Behaviour capital in the form of customer data provides telcos with the fuel needed to run analytics engines capable of surfacing insights into customer needs and desires. And cognitive capital in the form of algorithms enables operators to transform insights into automated routines that enhance customer engagement. The result, if this capital is wielded effectively, could be the replacement of the ordering function itself — one of the largest cost centres in telecom firms — with a process that is event-based and entirely driven by the customer.

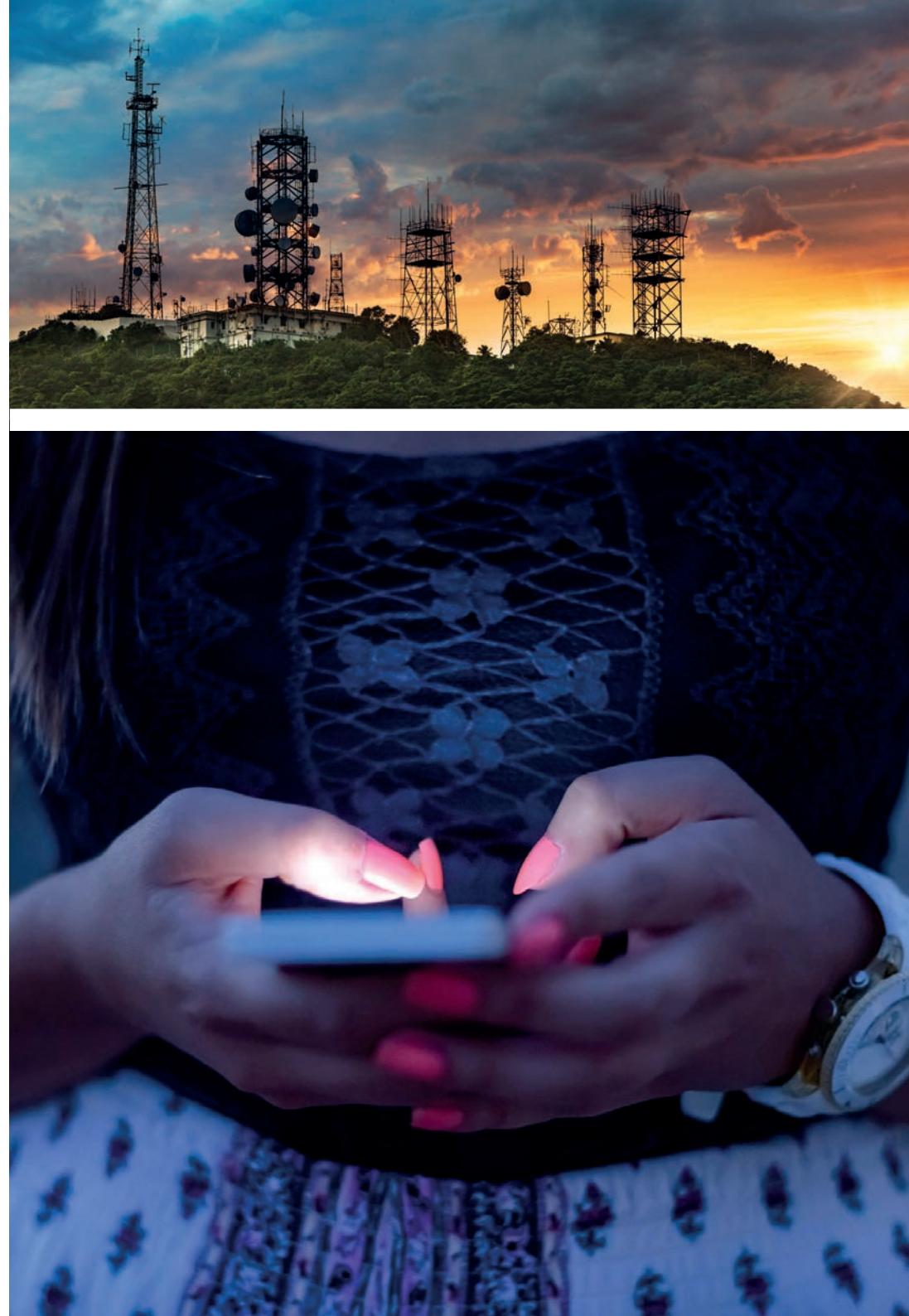
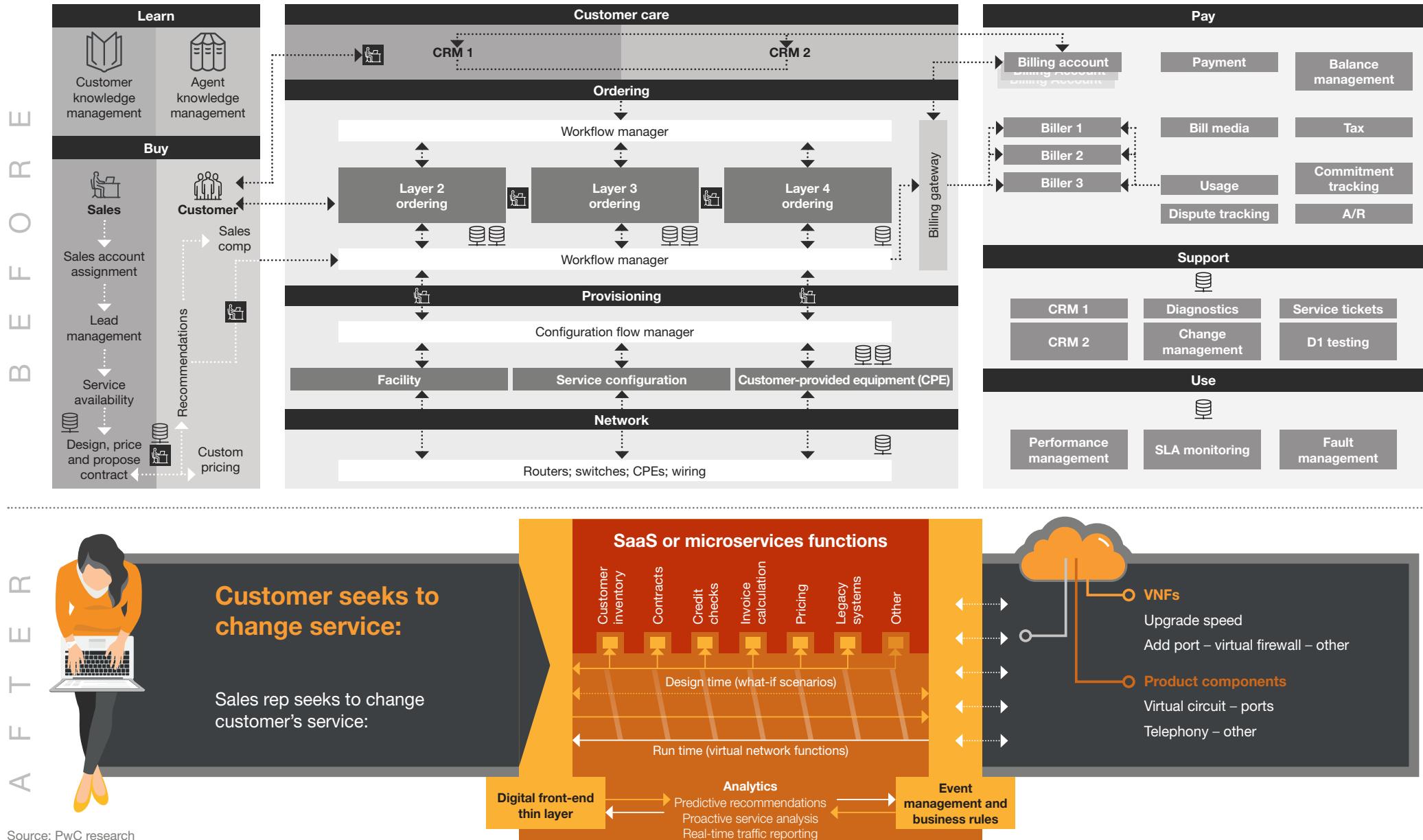


Exhibit 1: Moving toward simplicity

Deploying new forms of capital will allow telcos to reimagine the cumbersome and costly ordering process. Customers currently have to navigate a maze of options (before), but pain points can be reduced for both customer and company (after).



Design for trust

Trust lies at the heart of successful transformation. Leaders need to trust that employees can change and grow into new roles. Managers and employees need to be convinced that the hard, sometimes painful, work they will be called upon to do will pay off in a better future. And customers, whose experience has often gotten short shrift in B2B telecom, need to believe that the transformation will yield a better experience.

Telecom companies need to design around the customer to create a better experience. They need to embody the trust that they seek to earn in the quality of that experience — and devote the resources and attention needed to deliver on it and make it profitable. Some of the ways in which telecom firms can achieve this include:

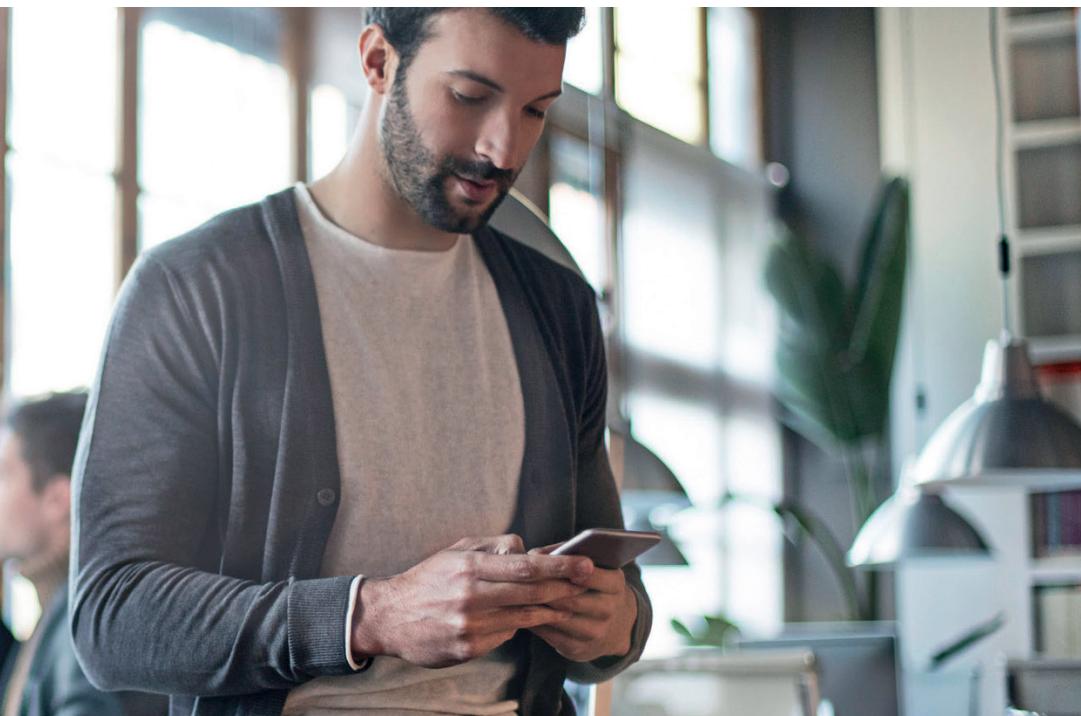
- **Persona-based engagement:** To move beyond the current one-size-fits-all approach to service delivery, operators can customise the user experience by identifying user personas and delivering customised experiences targeted to them. Streaming services, such as Netflix

and Pandora, develop and use user personas to recommend movies and music to their subscribers. By creating persona-driven customer experiences, telcos can deliver better experiences to user groups within customer companies. For example, operators can tailor the experience of an engineer charged with monitoring the network and differentiate it from the experience delivered to a procurement manager who is buying services. One customer, two different users, two differentiated experiences.

- **Proactive product recommendations:** In today's B2B markets, customers bear the onus for understanding their telecom needs and searching out the right products and services to fulfill them. But operators instead should consider proactively providing their customers with recommendations, like Amazon does for its customers. Telcos can achieve this by using their knowledge of their customers' network configurations to deliver timely, relevant recommendations. For example, if there is potential security threat to a network, a telco could alert its customers and recommend a solution.



- **'Freemium' models:** 'Try-before-you-buy' offers are commonplace in the consumer space — witness Spotify, Stitch Fix and Mailchimp. Most providers of cloud-based software, from consumer apps to HR management services, also use them to lower the risks and hurdles for new customers. Telecom operators should consider offering free trials, too. For example, in a software-defined network (SDN) that enables real-time provisioning, a customer could be given access to new services for 30 days without the need for a truck roll (i.e., dispatching a technician in a truck) and other upfront engineering costs. Near the end of the trial period, the customer could be provided with a simple, seamless purchase option.
- **Smart contracting:** Telecom customers routinely identify cumbersome contracting processes as a key driver of low net promoter scores and nonrenewals, both of which contribute to the industry's high churn rates. In the consumer space, companies mask the contracting experience by embedding it in the buying process and reducing it to a simple 'Click here to accept terms and conditions' checkbox. Telcos can emulate this with streamlined smart contracts for initial purchases and auto-renewal notifications with preprogrammed dates and pricing. For even greater effect, they can adopt module-based contracting — creating clause modules (as well as clause alternatives) that significantly reduce the time and effort needed to create and alter contracts.



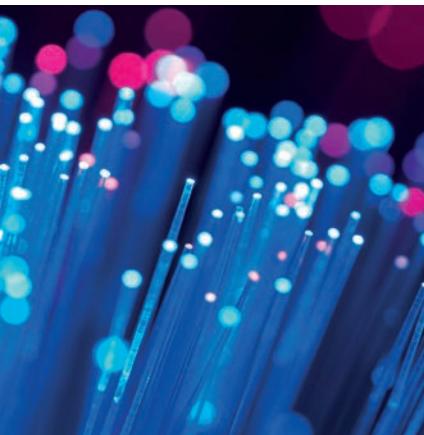


Master the pivot from sprint to scale

The leaders of successful transformations give new ideas the time and space to incubate. But they also understand that there comes a time when neglecting to bring these ideas to scale will cause their transformative power to wither on the vine. In other words, successful transformations combine the speed and agility of a startup with comprehensive full-scale execution.

In the telecom industry, where service cannot be interrupted, successful transformation involves a continual series of small innovations, each building on the concepts that worked before. Telecom leaders can meet this dictate in the following ways:

- **A greenfield organisation:** One of the biggest obstacles in telecom transformation is the difficulties and costs inherent to turning on a dime. A new, more agile operating model should include a separate greenfield organisation that is not connected to the rest of the organisation. This greenfield organisation should operate as an in-house incubator to pilot new innovations and change initiatives. Once proven, telcos can begin porting select elements of the legacy business into the greenfield — in effect, standing up a new business unhindered by the inefficiencies of the past.
- **A venture capital funding model:** Many promising telecom innovations never see the light of day because they get either buried under the more pressing priorities or shuffled aside by bigger innovation initiatives that suck up R&D's resources. Instead, telcos should consider adopting a VC-like model that makes small investments in more ideas, entails less risk and allows flawed ideas



to fail fast. In this model, restructured investment committees would provide the seed funding needed to get ideas to the proof-of-concept stage, quickly review the results, and release incremental funding to take viable projects to the next level.

- **Modular solutions:** Currently, most telcos design solutions in silos. This allows them to optimise the cost and value of the solution itself, but it wreaks havoc on solution portfolios. Solutions end up looking like jigsaw puzzle pieces, and fitting them together frustrates customers and adds costs back into the system. Instead, telcos should be designing modular solutions that are more like Lego bricks. Modular solutions ensure interoperability and their components are reusable, which allows them to be used in future solutions and results in lower development costs and faster innovation cycles.

The goal for telecom firms in the B2B space should be a technology architecture that supports an agile, adaptable operating model at scale. That means replacing complex and cost-laden BSS/OSS (business support system/operations support system) architecture with an SDN/NFV (software-defined network/network functions virtualisation) architecture.

An SDN/NFV backbone provides the capacity for automation and virtualisation needed to customise and streamline the customer experience, simplify management and delivery, and reduce operating costs — at scale. Unlike the traditional workflow processing model, it brings technology and business functions together in a shared, event-driven environment, while offering customers greater control over their networks. This is an ambitious leap that not only would solve many of the challenges that B2B customers face, but also would radically alter the operating model and cost structure of operators. It would enable:



- **What-if scenario simulators:** These simulators would clarify the risk-reward ratios of changes for customers in a virtual environment. For example, using such a simulator, an engineer seeking to protect a network from a newly discovered security threat could model the impact of an upgraded firewall on the network's performance prior to implementation. By enabling customers to see the expected impacts of a change prior to purchase, operators would generate business and build customer loyalty while lowering sales costs.
- **Proactive trouble management:** Currently, trouble management in the B2B telecom market is a reactive process. When an issue arises, the customer calls it in, a trouble ticket is issued, a tech is assigned and, after multiple follow-ups (and sometimes escalations), the issue is resolved. With the help of the new architecture, telcos could consider following the lead of GE and its jet engine business, which is using IoT and analytics to anticipate and prevent downtime — and to sell run time as a service. Operators could achieve this by connecting to their customers' networks and acting in advance of trouble. Such a service would create a far superior customer experience, enhancing customer lock-in and providing the behaviour capitol needed to continuously improve service levels, while lowering service costs.
- **Self-service:** Telcos that empower customers to serve themselves will be able to reduce and reassign their current sales and support resources. Ideally, this would result in a new digital engagement model in which even a 'universal rep' who is able to serve all a customer's needs wouldn't be needed. In such a model, employees would step in only in the case of unusual customer needs.



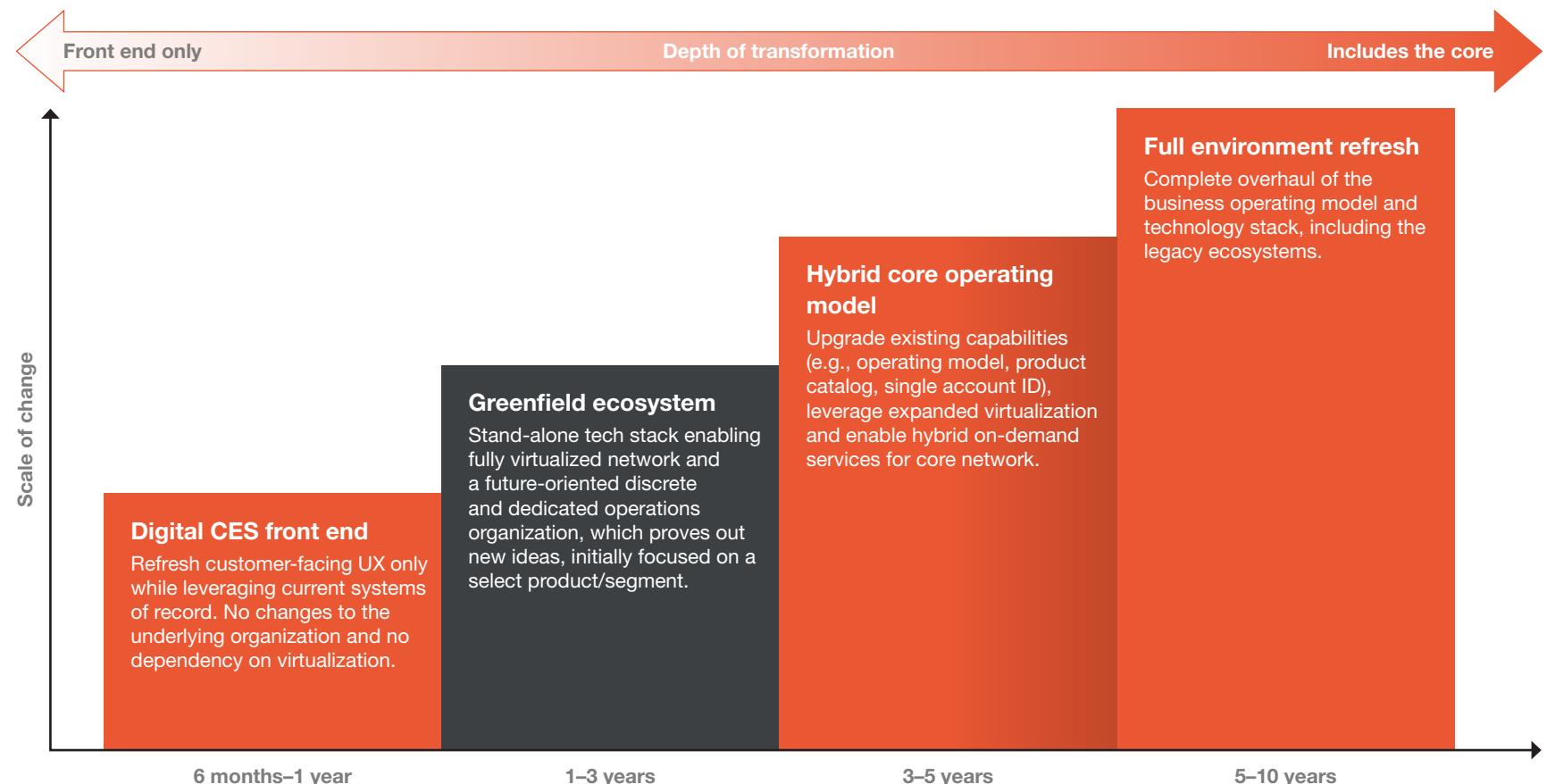
Treat your legacy as an asset

Given the many benefits, some telecom operators are already unwinding their BSS/OSS architecture and investing in SDN/NFV technologies. But the transition from hardware-based on-premises solutions to software-based cloud solutions should not be undertaken without due diligence and full consideration of how to make the most of the value of your organisational legacy — the services, processes, practices, brands and even subsidiary enterprises that define a telco's current identity and operating model.

The prevailing operating model in the telecom industry is now more than 100 years old, and it's been patched so often that weight of the patches themselves are driving up the cost basis of many telcos and frustrating employees. It is an anchor that weighs down telcos in the marketplace, annoying their customers and conferring a significant competitive advantage to digitally native players that are coming to market with operating models that offer customers a customised experience. But unwinding it is not a simple matter.

Telcos can follow a variety of different implementation approaches, each of which features its own costs, risks and scale impacts. These range from low-cost, but low-value, front-end redesigns that do not address the underlying structure of the business to high-value, but high-cost, overhauls of the entire business.

Exhibit 2: Transformation options for telecoms



Source: PwC research

Generally speaking, we find that pursuing the transformation to SDN/NFV in a greenfield environment — that is, a stand-alone business unit that offers a limited set of products to a specific customer segment — is the best approach. This offers telecom operators a relatively low-cost, low-risk sandbox for ideation and experimentation. Then, with proof of concept in hand, they can develop a hybrid system — one that features

new SDN/NFV technologies and an integration layer that allows them to be connected to legacy applications. This enables the ordering and provision of both legacy and new products through a single experience, while also providing a platform for an incremental approach to the full-scale shift to SDN/NFV applications and infrastructure (see Exhibit 2).

Conclusion

Achieving successful transformation for telecom companies is a challenging undertaking for any operator. But conditions within the B2B segment of the industry suggest that for many operators, transformation is not only inevitable, but increasingly urgent.

Declining market share, outsized cost structures and undifferentiated customer experiences are the reality faced by telcos. Unless these pain points are addressed, telcos' path toward irrelevancy will accelerate. Companies cannot allow the difficulty of transformation to dissuade them from taking the measures necessary to move forward and capture their share of the market.

The benefits of transformation are considerable. In terms of cost reduction, the transformed operator will capture significant savings in IT total cost of ownership through application decomposition, sales/support costs through customer self-service, back-office overhead from smart pricing and contracts, and organisation head count because of real-time provisioning. In terms of revenue, the transformed operator will enjoy shorter time-to-market with new products and services, increased cross-selling and upselling through recommendation engines, and reduced customer churn due to streamlined contract renewals and an enhanced experience.

Indeed, transformation will enable operators to leverage their legacy assets — their customer relationships and networks — in ways that they can't today. The leaner, more agile and customer-centric telecom operator will be fit for growth in the difficult B2B landscape.

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