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The cost of complexity for telecoms

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And how companies can reduce it



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Executive summary



The consequences of unnecessary complexity are notorious in virtually every industry, and in very few places is that truer than in telecommunications. It's a hugely complicated business under the best of circumstances, but the proliferation of products and services, sales channels, marketing campaigns, and networking and business processes, along with the IT systems needed to support it all, has become unsupportable for most operators. As a result, customer confusion rises and satisfaction declines, service offerings mount as their profitability declines, internal processes slow down, and the cost of doing everything goes up.

Lots of operators have tried to simplify their businesses, typically by starting with internal operations that will save them the most money. But that's the wrong approach. Rationalizing their most conspicuous customer-facing activities — product and service portfolios, marketing efforts, and sales channel strategy — fully in line with their strategic goals is the only way they can hope to successfully reduce complexity. Simplifying each successive layer provides a big head start in simplifying the next layer.

This report offers a framework for carrying out a complexity reduction program, beginning with those activities most visible to customers and continuing through to organizational design. Only by working from the outside in can operators hope to reap the benefits in savings and speed that reducing complexity can bring.

The case for simplification

The telecom business used to be relatively simple. The networks, and the operations that supported them, were complex, but the typical large, vertically integrated operator had only to manage voice-dominated landlines. And because the operators were for the most part incumbent monopolies, with little or no competition, marketing was simpler, too: There were just a few sales channels through which to sell a couple of different communication services to a narrow range of customer segments and needs. And those customers had essentially no bargaining power.

That's all changed. Nowadays, most operators have evolved through any number of mergers and acquisitions involving companies with their own products and systems, or they have progressively added new products and services with their own corresponding systems and platforms, some based on unique technologies. As a consequence, the variety of technologies, products, and services that operators need to manage has multiplied to include hundreds of tariff plans, promotions, devices, and value-added services.

To support it all, large operators run vast combinations of fixed, mobile, and hybrid networks, and the resulting level of technical and operational complexity is enormous. Even smaller, younger, purely mobile operators face ongoing challenges as the technology evolves at a rapid pace.

At the same time, the number of sales channels has grown to meet the needs of an increasingly diverse and demanding range of customers. The complexity of the business processes and information technology needed to manage it all has multiplied as legacy systems designed for earlier operating models are combined with new systems to cope with changing business models and consolidation in the telecom industry. Finally, competition is on the rise, as new software, over-the-top, and IT services players from outside the industry seek entry into the field.

This extreme degree of complexity leads to confusion and complaints on the part of customers as they try to understand and negotiate their

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operator's many offerings and systems, while customer service deteriorates. Operators struggle to manage the marketing and profitability of their multiple offerings, even as slow internal processes lengthen the time it takes to get new products into the market. And operations management becomes slower and more inefficient, increasing the cost of almost everything from IT and network operations to the development of new products and services.

Many telecom operators have made real efforts to simplify various aspects of their operations. Indeed, successful simplification can lead to significant cost reductions, greater flexibility, faster time-to-market, increased customer satisfaction, and leaner processes and organizations overall — benefits that are especially important when telecom markets are saturated and companies are looking for ways to boost revenues and profits.

Yet, all too many of these programs begin with the wrong emphasis, focusing primarily on internal mechanisms such as IT in hopes of reducing complexity from the inside out. Moreover, many complexity reduction programs are conducted by separate business units motivated by their own specific needs, outside the context of a global vision and usually without the support of top management. This approach misses the benefits of a holistic, integrated approach, since the overall impact of a company-wide approach is invariably larger than the sum of any number of stand-alone simplification initiatives.

Few companies take a truly strategic approach to simplification. How they settle on the proper mix of products and services, the right marketing campaigns, and the best commercial footprint must depend on the value proposition — or propositions — they want to make to customers. Very large, incumbent operators will likely need a fairly complex mix of the above elements, since they typically need to be all things to all people. Smaller operators, however, will need to be more targeted in their strategy, and their simplification efforts must be tied tightly to that strategy.

The only really successful way to reduce complexity is to work from the outside in — to think first in terms of the value proposition you want to offer your customers, and how they view and interact with your company, and then to proceed from there to simplify every aspect of the business.

Many complexity reduction programs are conducted by separate business units.

The simplification framework

In our experience, high levels of complexity typically originate in the activities that are most visible to customers and then grow inward from there, multiplying the effect of complexity at every stage of operations (*see Exhibit 1, next page*). Complex relations with an ever more diverse customer base require a large and ever-growing portfolio of products, services, and sales channels, while the list of suppliers keeps growing to keep up with the many service requirements. Inevitably, the processes, IT, and organizational structures needed to support, maintain, and monitor the resulting needs of the business become virtually unmanageable.

Our simplification framework begins by mapping the symptoms of complexity at every stage (*see Exhibit 2, page 9*). Once this exercise is complete, operators should follow a specific sequence, simplifying first the model of customer relations based on the operator's product and service portfolio, and the footprint of sales and customer care channels, and then moving on to each successive operational level. This framework offers several real benefits: First, the impact of the resulting clarity will quickly become apparent to customers; and second, as operators proceed through the framework, the benefits in terms of cost and customer satisfaction can be relatively easy to measure.

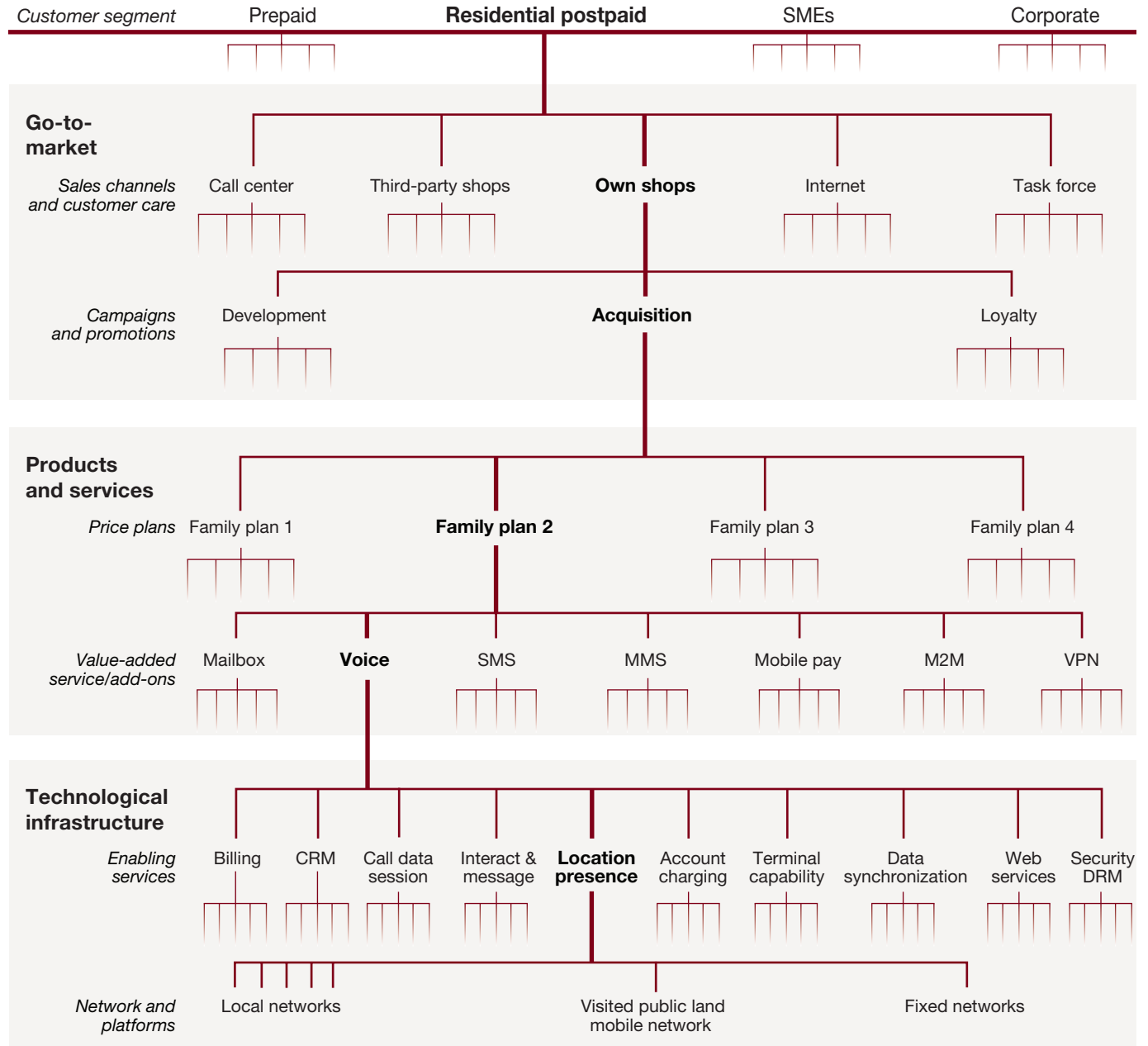
The product and service portfolio

The effect on operators of the rapid increase in products, services, and plans is unfortunate: increasingly complex systems needed to manage portfolios of both old and new products and services; confusion on the part of customers and the sales and customer care staff; ordering and billing errors; customer complaints and claims; the high cost of maintaining systems, platforms, and networks; slower time-to-market for new products and services; and the higher cost to train agents in sales and care channels.

Operators will need to take separate approaches to simplifying their new product and service portfolios and their legacy offerings.

Exhibit 1

Complexity in telecom operators is caused by the multiplier effect of each successive activity level: Example

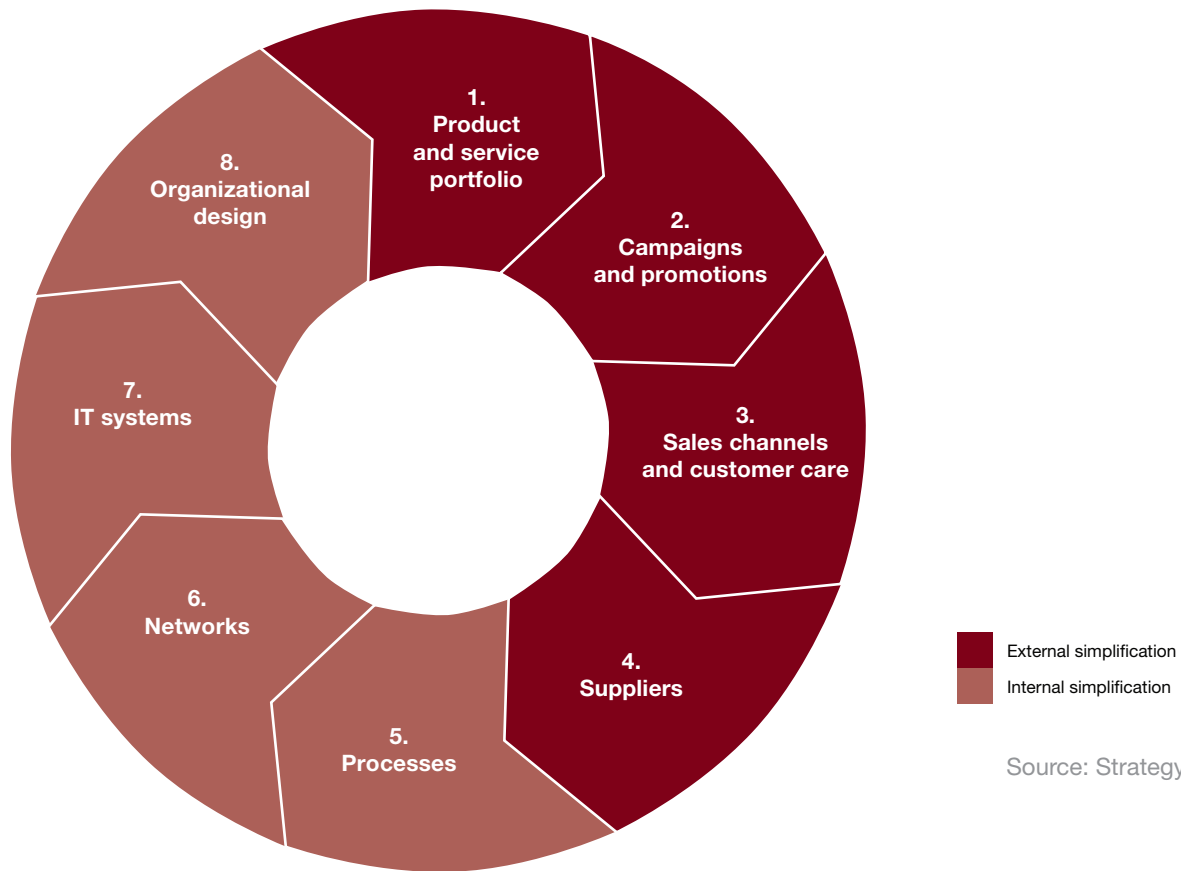


— Potential relations of each layer of the value proposition

Source: Strategy& analysis

Exhibit 2

A sequence for telecom simplification



New portfolios. Many operators struggle to make customers understand their complex voice and data offerings. Thus, simplifying their current portfolios will primarily benefit customers, by making the mix of offerings more transparent, easier to understand, and easier to update.

Simplifying their newest offerings requires that operators rethink their customer value proposition in the context of their strategic positioning versus their competitors, consumer and technological trends in their markets, their internal capabilities and client insights, the effect of different pricing strategies, and the impact on new customer acquisition and rates of customer churn.

Legacy portfolios. Rationalizing a portfolio of legacy and underused products and services will primarily benefit the internal operations of the company, as legacy portfolios typically generate significant internal complexity and inefficiencies, particularly when operators are also trying to update their value propositions, as well as their legacy portfolios to make them compatible with new products and services. Simplifying their legacy portfolios, however, has never been a common practice among operators — it involves a great deal of work and difficult decisions, and the results can have an unpredictable effect on customers — and most have failed when they’ve tried to do so.

To reduce or eliminate their legacy portfolios, operators should follow a four-step, cross-functional process:

1. *Analyze the extent and profitability of all existing offerings.* Compile and map all data regarding voice and data plans and products, including the customer base, revenues, percentage of churn, number of calls to customer service, as well as usage, revenues, and costs incurred in providing the services and platforms.
2. *Prepare a simplification proposal.* Using this analysis, the operator’s strategic direction, and agreed-on key performance indicators (KPIs), determine which offerings to keep and which to do away with.

The use of KPIs is crucial in overcoming any internal reluctance to simplify or eliminate products, services, or tariff plans. For specific products and services — platform-related services such as beepers and walkie-talkies, for example — a business case considering revenues and costs might be necessary. However, with families of similar products and services, building individual business cases for each is likely impossible. Instead, attacking each of those families as a group can be an effective way to reduce plans with few customers and little or no revenue. According to our experience, these groups can often comprise more than 80 percent of products and services, and thus a large proportion of the complexity involved in offering them.

3. *Coordinate the main stakeholders.* Make sure that all critical functions — marketing, sales, finance, systems, and IT — are engaged in the decision-making process.
4. *Develop a governance plan.* Agree on a single, shared decision for each plan, product, and service.

Criteria for the decision to keep, kill, or freeze each offering should include which customer segments are using each product or service, and how each decision will affect the channel strategy and marketing

programs the product is sold through. Together, these considerations will allow operators not just to begin the process of simplification but also to manage the customer base for value through increased retention and cross- and up-selling opportunities.

The process, however, will likely mean having to migrate some customers from an older plan to a new one, which can lead to resistance from some units within the organization that fear revenue erosion, regulatory consequences, or increasing customer churn. These risks can be mitigated, however, depending on how customers are migrated. The easiest approach, the plan-to-plan strategy, involves simply moving the customers in one plan to another one, but the risk of dissatisfaction and thus churn is high. A client-by-client strategy using advanced analytical models to determine which plan can best meet the needs of individual customers can help maintain customer revenues, and even increase them in the midterm.

Campaigns and promotions

Many large, incumbent operators have developed bad habits in their marketing efforts. As pricing pressure from new entrants rises, these operators typically turn to new campaigns and promotions to reposition their own pricing. Such efforts are usually ad hoc and limited in duration, and are initiated by individual business units, rather than through a centralized strategy. The resulting high volume of new campaigns and promotions floods the market, encouraging new customers to sign on solely on the basis of price. These new customers overwhelm the operator's billing systems and ultimately lead to mistakes in billing and a rise in customer claims. Worse, once the promotion expires, these new customers simply look elsewhere for the next good deal, forcing the operator to try to keep them through yet another promotion or retention offer.

The root cause of this vicious circle is twofold. First, as pricing offers multiply, marketers feel they must market all of them. Reducing the resulting multiplicity of campaigns requires operators to rethink and simplify their pricing strategy, rather than simply pushing out more and more campaigns to match each offer. The second problem lies in the incentive model at individual business units: Success is measured by the number of campaigns launched and the sales volume, and there is little or no effort made to control quantity or the indirect complexity and costs they generate on the operational side.

The key to simplification lies in understanding that campaigns and promotions are not themselves products, but rather just a means of boosting sales and retaining customers. Thus, they should be used for

Pricing promotions are usually ad hoc and limited in duration.

specific, short-term purposes connected to specific pricing offers, with specific value propositions in mind, and should end when those purposes have been fulfilled. Once that is understood, and the incentive structure is reconfigured to reflect the actual value each campaign and promotion is creating, a complete review of current campaigns should be undertaken to identify those that are underperforming or inactive, and stop them. Doing so will dramatically reduce the number of campaigns. That, in turn, will bring down the number of different offerings for customers and the resulting burden on billing and systems. And with the confusion caused by all those offers decreased, customer satisfaction will improve.

Sales channels and customer care

The process of simplifying the sales channels and the customer care center involves matching the changes being made to the product and service offerings to how they will be sold into the marketplace and then supported through customer care. Managing sales and customer care requires carefully balancing many closely interconnected parts.

Customer-facing drivers. All too many operators continue to depend on a commercial footprint designed to push as much product through physical stores as possible, even as they outsource many of those physical outlets. But as markets reach maturity, the amount of activity taking place in stores declines, and acquiring new customers — a primary goal of the physical channel — is no longer so critical. As a result, operators are being forced to adjust the relative volume of products and services they push through all their channels.

At the same time, these traditional channels, which typically specialize in selling specific stand-alone services, have not been effective in selling new offerings such as multi-device and convergent communications deals, and have been equally ineffective in providing customer care and advice in connection with these new services. Moreover, customers' consumption and purchasing habits are changing: In many cases and for many new products, users prefer to purchase through nonphysical channels such as traditional call centers and digital channels, which are becoming more and more central to every operator's commercial strategy.

That's why it's critical for operators to put customers at the center of their thinking about channel strategy, and to focus on the users' ever-changing needs. Doing so enables the operator to better integrate its product offerings with its various sales channels, and incorporate customer care into the process as well. The key is to consider the different capabilities inherent in each channel in terms of efficiency,

productivity, and profitability — not volume — and which channels are truly sustainable in the medium to long term. At the same time, operators must ensure that all sales channels offer the best possible customer experience, and fully share the data required to understand how profitable each customer is, to better understand which channels to use to market and sell to which customers. Adjusting the activities mix among channels must be accomplished through a coordinated, across-the-board transformation, since changes to one channel will invariably affect other channels as well.

Operational drivers. Day-to-day sales and care activities also have the potential to create a great deal of unnecessary complexity. Here, the factors include insufficient or confusing communication between channels, heterogeneous processes and systems, complicated commission structures, inconsistent information available at different points of contacts and channels, insufficient coordination between channels, and too many care modes. And as operational complexity grows, more and more people are needed to solve problems, the pace of bringing new products to market slows, and the IT support needed balloons.

Begin with a diagnosis of the problems to clarify which processes and systems are critical and need to be maintained. The diagnostic effort should include an analysis of the future commercial and business challenges that are likely to affect sales and care. Alternatives must be considered pragmatically, with thought given to such issues as feasibility, speed-to-market, and the potential impact of discontinuing older, less efficient processes and systems.

Streamlining a commission scheme, for instance, will affect the systems used to calculate remuneration and incentives. Similarly, making the same information available in all sales and care channels will have an immediate impact on the effectiveness of processes and systems.

Suppliers

Once operators have begun work on simplifying the critical customer-facing areas, they can turn their attention to outside suppliers. Many large operators must deal with hundreds of vendors in all areas of the company. Here, the simplification process involves analyzing the full range of suppliers along two critical dimensions.

The first is cost: Does each supplier deliver its service at a reasonable price in line with industry standards? Might other suppliers be able to provide the same service for less? The second is whether each supplier serves a truly strategic purpose. Those that do so, at a reasonable cost and level of service, should be kept, but those that don't should be

replaced. Finding the optimal mix of suppliers is always a balancing act: Maintaining just a few allows operators to benefit from economies of scale, but it puts them at risk of becoming too dependent on a few very powerful companies. The process of optimizing current suppliers, and assessing potential new ones, should be ongoing.

Processes and networks

Large telecom operators are, by their very nature, massively complex organizations that carry out their operations through hundreds of processes involving the business, support, operations, and networking, all of them backed up with any number of IT systems. And these numbers keep growing as operators add new products, services, and network assets and capabilities. Moreover, all these processes are likely to cross numerous business unit boundaries, from the product portfolio, marketing, and sales channels all the way to operational and back-office functions like finance and human resources. Their many interconnections vastly multiply the complexity of how operators do business. That's why it's critical to simplify from the outside in.

The simplification effort begins with the processes themselves. All processes must be mapped out to understand how they support product and service offerings, campaigns, sales channels, network activities, and other aspects of operations, and the particular pain points within each one, in order to set objectives for their transformation. When selecting processes for redesign and simplification, a prioritization strategy has to be applied. Some operators use the 80–20 rule, which involves concentrating first on the 20 percent of processes that support the vast majority of the company's activities, making them straightforward and robust, and automating as many of them as possible. The less important processes and exceptions — the other 80 percent — can be left for later, and evaluated on the basis of need versus cost or complexity. Another option is the eTOM framework, which proposes a standard structure, terminology, and classification scheme for business processes that can be used to simplify internal operations quickly, while allowing for a certain degree of process customization.

Simplifying network infrastructure follows the same rationale. Highly diversified networks are inefficient and costly in terms of purchasing, maintenance, and ensuring that the many systems needed are compatible and communicate seamlessly with one another. The IT involved can be a major roadblock in itself, since many infrastructure components require their own embedded controlling software and systems. Greater homogenization in network areas can bring significant efficiencies and economies of scale.

IT systems

After decades of implementing various systems, customizing them, and integrating them with others after sequential mergers or acquisitions, most operators own vast collections of IT systems so complex that they're often poorly understood and not easily monitored. At many operators, the simplification effort seems hopeless. But it is not impossible.

Operators must first gain a clear understanding of the purpose of every system, and the business processes it supports. This exercise will shed considerable light on the enormous complexity of their supporting IT, and reveal which ones are ripe for automation. Operators must then develop a strategy to decide which systems to maintain, modernize, replace, or discontinue.

Any such strategy, however, will likely fail if the operator has not already simplified its product portfolio, channel mix, and marketing efforts. And the examples are many. In a recent case, an operator tried to replace several legacy systems with a CRM system for its large corporate customers. As the operator migrated customers to the new system, however, it began making customizations to adapt the system to the needs of those customers and to the existing product and service portfolio, without realizing that the portfolio itself needed significant updating, or just how enormous the customization effort would be. Three years and millions of dollars later, the operator abandoned the new system entirely.

When simplifying their IT environments, operators should concentrate on deploying the minimum number of systems needed to support their operations. In many cases, this will mean using common systems to support multiple services rather than maintaining a service delivery chain for each service or product. Such IT transformations can be accomplished in several ways. Many operators prefer to replace current systems with a commercial off-the-shelf (COTS) system, configuring it to their needs, and migrating over the relevant processes.

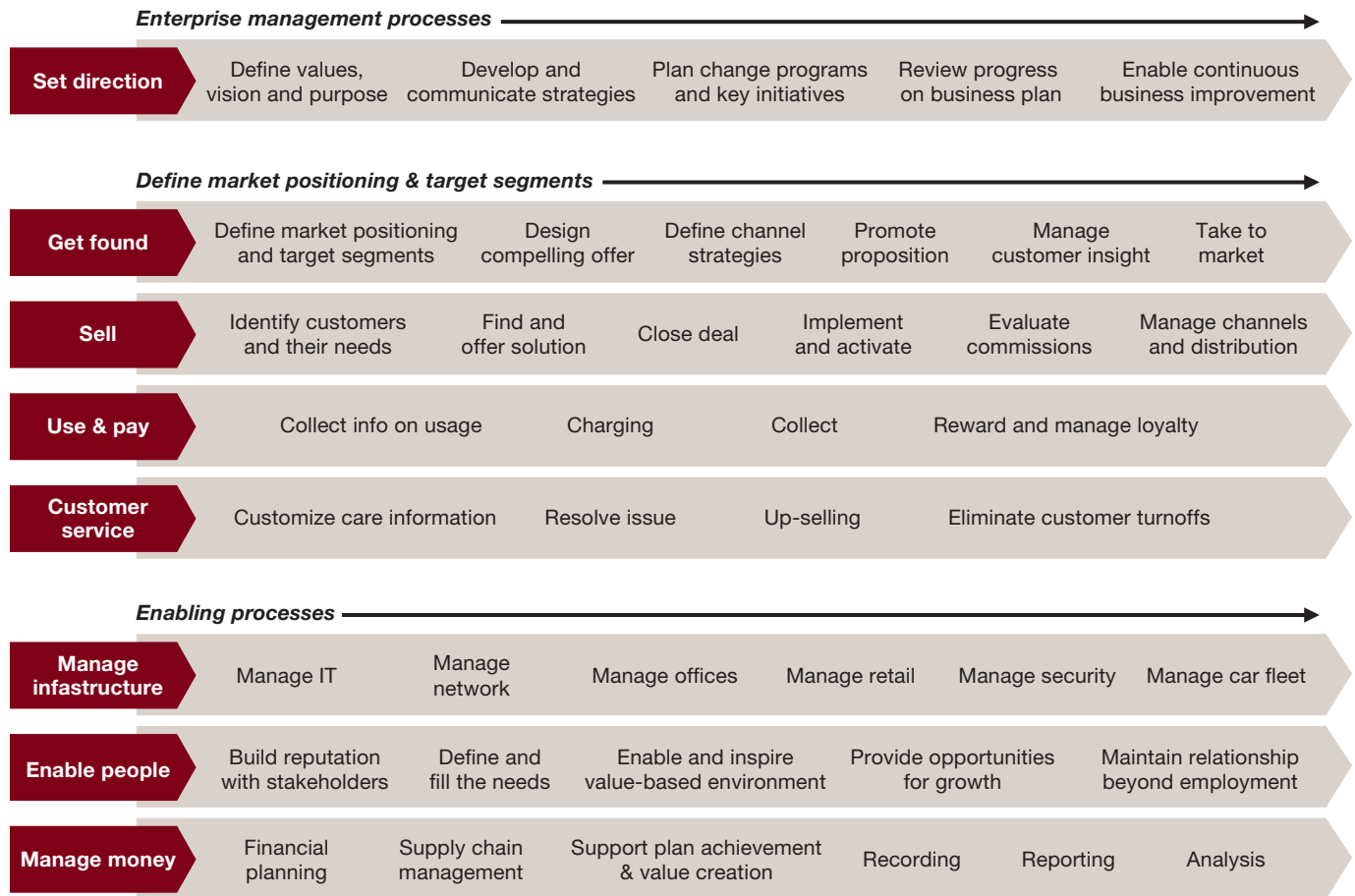
Such a transfer must be planned carefully to ensure that the old systems can be switched off without data loss. It is also important to bear in mind that processes need to be reviewed and adjusted in order to be supported by the COTS systems.

Alternatively, some operators may choose to design and develop an entirely new greenfield system, redefining and streamlining all processes as much as possible (*see Exhibit 3, next page*). Though this strategy offers the maximum degree of customization, it is very challenging and very risky. In either case, any large IT transformation must be carried out with the needs of the business always in mind.

The goal is to deploy the minimum number of IT systems needed.

Exhibit 3

The greenfield approach to IT transformation



Source: Strategy& analysis

Organizational design

Complex product portfolios, commercial footprints, and marketing efforts require similarly complex organizational designs, and the effort to simplify the former elements will create opportunities to rationalize the organization as well. These include rethinking the size and importance of various units and functions, and reassessing the supplier mix to determine whether some activities should be brought back in-house.

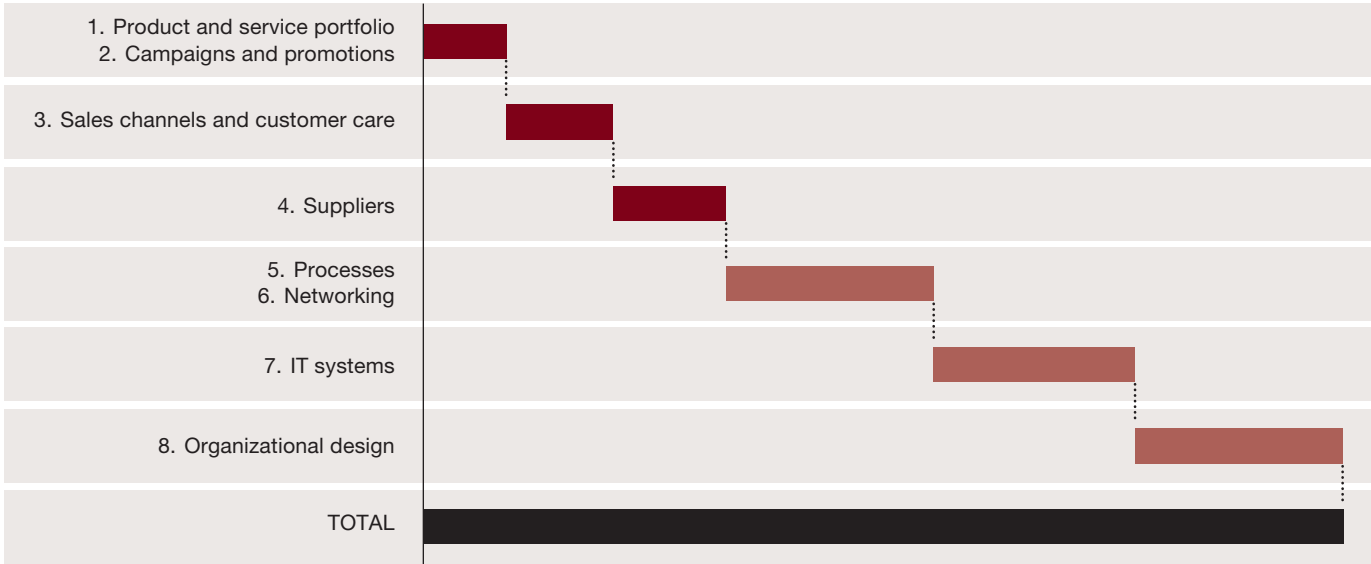
In all cases, the reorganization effort must be carried out in close collaboration with human resources, because most operators will need to adjust their mix of talent, skills, and capabilities as redundant processes are discontinued and other activities run more efficiently. In general, the more people involved in each process or decision, the greater the probability of unnecessary complexity and inefficiencies. At the same time, a key goal of simplification is to enable operators to spend more time and effort building the capabilities needed to succeed in a rapidly changing telecom environment. So it is likely that some employees will be able to expand their skills and expertise.

The inside-out approach

Among many top telecom executives, the temptation to begin the simplification process working from the inside out will likely be strong. That's because simplifying internal activities may seem easier than an extensive analysis of products and services and sales channels. Moreover, it may seem reasonable to expect greater gains in profitability by simplifying IT than by reducing the number of campaigns and promotions.

Such reasoning, however, is flawed. It assumes that the organization and IT can be simplified in a void, regardless of the company's day-to-day business activities, which actually take place in the more external areas like product and service portfolios, promotions, and sales channels. It may be true that the best opportunities to boost earnings lie in the simplification of internal processes, IT, and the organization itself. But these gains cannot be captured in a vacuum. On the contrary, the quest for greater earnings necessarily involves going first through the simplification of the external, customer-facing areas, which then serve as enablers of the rest of the process. Though the gains achieved by simplifying the product portfolio alone are not spectacular, the process must begin there, if the greater gains are to follow (*see Exhibit 4, next page*).

Exhibit 4
The economic impact of simplification increases at each successive stage



External simplification
Internal simplification

Source: Strategy& analysis

Conclusion

Achieving simplicity is by no means an easy task. The very idea of simplicity is relative, and the degree of change needed will inevitably cause stress in day-to-day activities, and create reluctance about doing what's necessary and uncertainty about the final results. A simplification switch will be successful only if top management shares the overarching vision, believes in its benefits, and is committed to the process.

Such a metamorphosis has never been more important: The entire telecom industry is transforming rapidly, and a new breed of aggressive and disruptive player is elbowing its way in. By simplifying and streamlining their operations, telecom companies can not only free up funds that can be invested in becoming more competitive, but also gain the agility and speed-to-market needed to move quickly in their quickly changing business environment.

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