

Telcos at a Crossroads

A perspective on the future of the telecommunications industry



After decades of remarkable growth, the European telecommunications industry faces an uncertain future. With increasingly saturated markets, a host of disruptive technologies and tougher regulations, the incumbents in both wireline and mobile markets are being attacked from all sides. The “new kids on the block” are gaining ground in incumbents’ home markets and are exploring and exploiting every opportunity the market offers. In response, the incumbents are entering into new business areas, expanding internationally beyond their home markets and searching for new sources of revenue. In the process, they are creating a complex, competitive environment.

The telecommunications industry is in the midst of accelerating changes that will test incumbents’ ability to maintain their size and market strength. Together with Vodafone, the 20 independent incumbent operators and their international subsidiaries currently dominate the €288 billion EU-25 communications market.¹ On average, incumbents command a solid revenue market share with 70 percent of fixed-line communications and 37 percent of mobile communications in their respective home markets. They invest more than €28 billion annually and employ nearly 1 million individuals. However, beneath these numbers lies an uncertain environment for long-established companies. Incumbents find their positions increasingly threatened and assailed by alternative operators—with incumbents often playing the attacker role outside their home

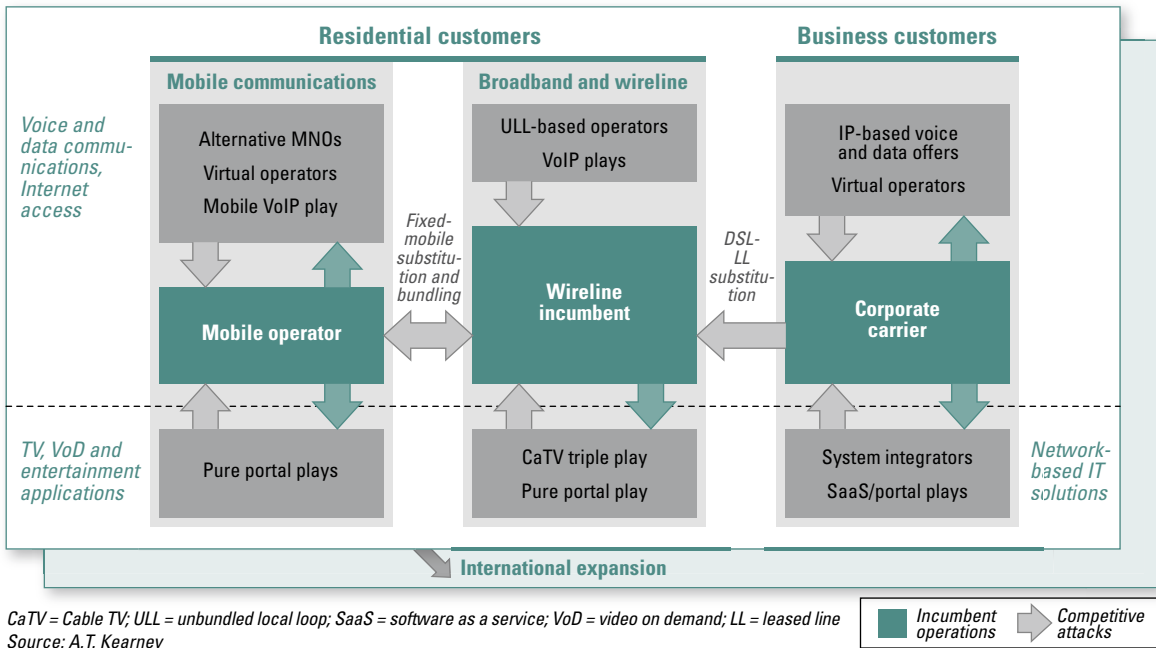
markets through their own international subsidiaries (*see figure 1 on page 2*). At the same time, incumbents are less flexible to respond due to workers’ councils, regulations and legacy operations, which put them under even more pressure. Although the market is still growing in terms of volume and services, competition has caused price levels to fall dramatically over the past two years. Incumbents’ share of the home market in fixed-line communications has dropped 13 percent on average since 2002. In mobile communications, their home market share has fallen 4 percent since 2001.

Given the incumbents’ various battlegrounds, internal restructuring needs and the complexity of the situation overall, their sense of direction is understandably adrift when considering the future. Yet, in our experience, incumbents could

¹ *European Commission; European Information Technology Observatory 2007.*

Figure 1

Telcos are attacked from various sides and expand into new areas



adopt several approaches to turn the challenges of this complex system to competitive advantage. With this in mind, we developed eight hypotheses on the future of the industry (see figure 2).

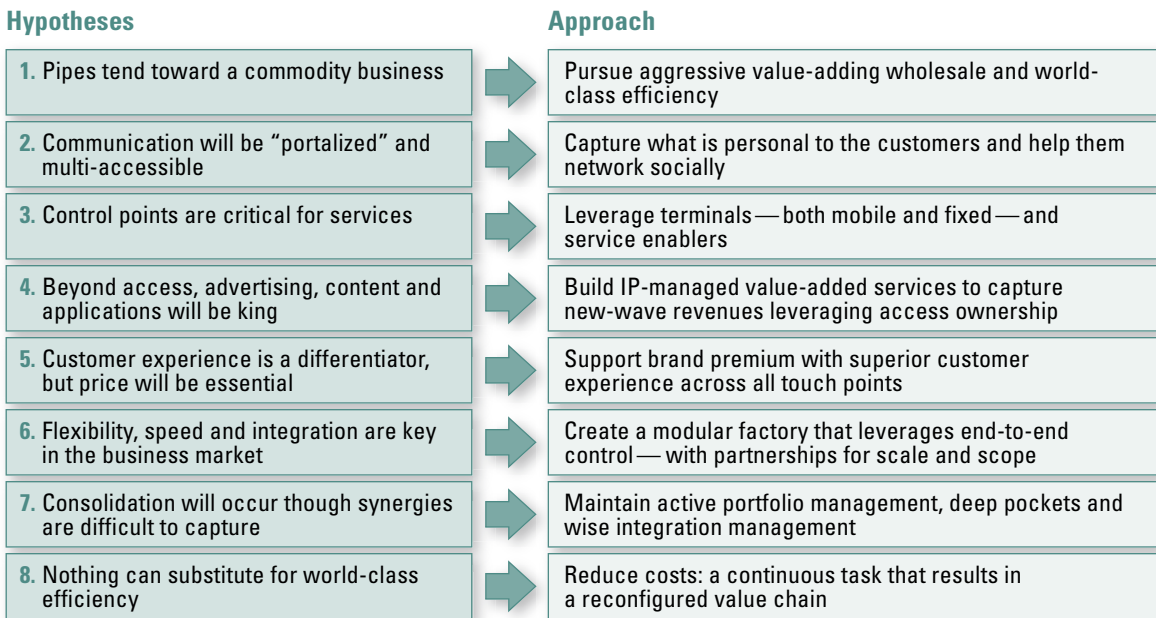
Pipes Tend toward a Commodity Business

The infrastructure industry is fast becoming a utility business. While services and infrastructure were closely linked in the old days of the public switched telecommunications networks (PSTN), the IP revolution has severed these connections. Companies increasingly provide services such as voice communications separately from the infrastructure, which in many cases serves as nothing more than a bit pipe, like a utility company power line.

This is generally not bad news for the incumbent carriers, considering the high market valuation of traditional utilities: These companies are valued at four to nine times earnings before interest and taxes (EBIT) and can generate a tremendous amount of cash. The problem is that competition is attracted by telecom operators' impressive 28 percent industry average margin and 30 percent-plus return on capital. Additionally, IP technology has lowered the barriers for entry, and Europe's regulatory bodies have created an environment in which many markets have multiple parallel infrastructures. In Germany alone, the regulatory environment has produced up to three parallel fixed-line access infrastructures and seven parallel broadband network infrastructures

Figure 2

Eight hypotheses on the future of the industry and how incumbents can regain competitive advantage



Source: A.T. Kearney

(which primarily use the copper infrastructure of Deutsche Telekom) in each geographical area. This does not include the four mobile networks (partly less than four in terms of infrastructure due to network sharing) that are also upgrading to high-speed bandwidth with universal mobile telecommunications systems (UMTS) and high-speed download packet access (HSDPA), or the buildup of new worldwide interoperability for microwave access (WiMAX) networks (see figure 3 on page 4).

Once the market reaches saturation, overcapacity and low variable costs will lead to a tough price war followed by a vicious cycle of infrastructure upgrades. The result will be an industry endgame characterized by further consolidation.

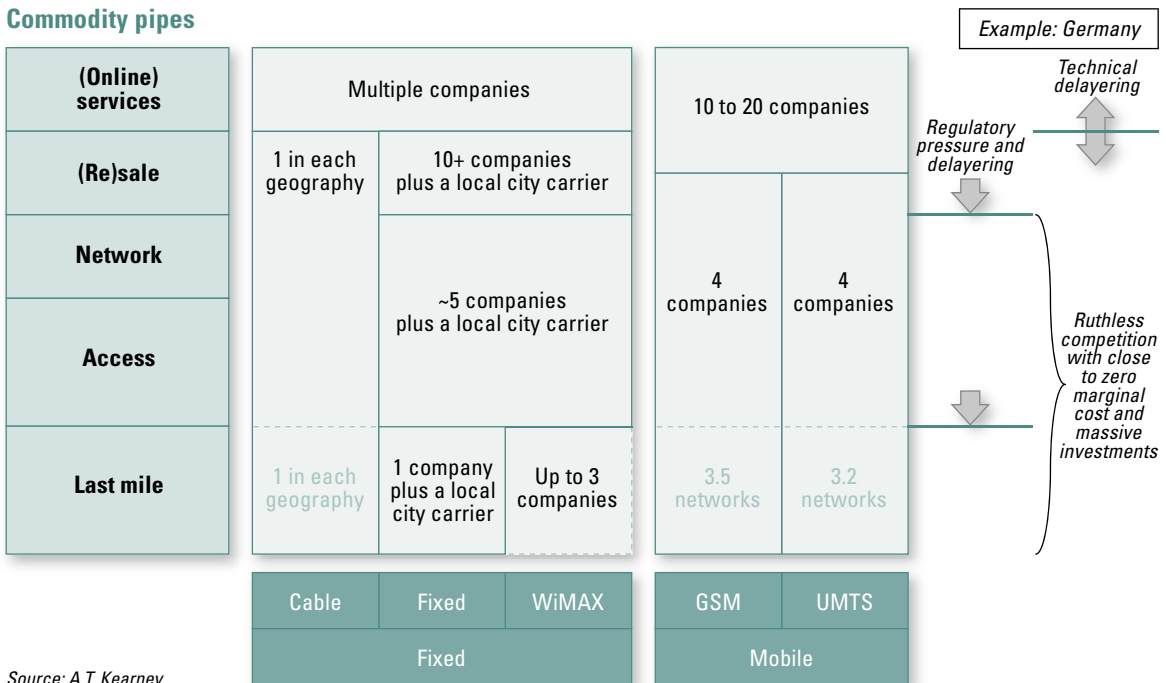
For example, the cutthroat battles in mobile markets triggered by tele.ring in Austria, Telfort in the Netherlands and e-Plus in Germany provide a first glimpse of fiercer battles to come, not only in mobile but especially in fixed networks. The first consolidation efforts in fixed networks are already occurring in France and Spain. In the end, only two or three mobile and fixed infrastructure companies will survive in each market, and their existence will depend on efficiency and the ability to cope with razor-thin margins.

As in any capital-intensive business, incumbents have a vested interest in reducing the buildup of parallel competitive infrastructures to a minimum. Ironically, this can be accomplished by making further infrastructure investments,

Figure 3

Parallel infrastructures in Europe will lead to a cycle of upgrades ending in consolidation

Commodity pipes



Source: A.T. Kearney

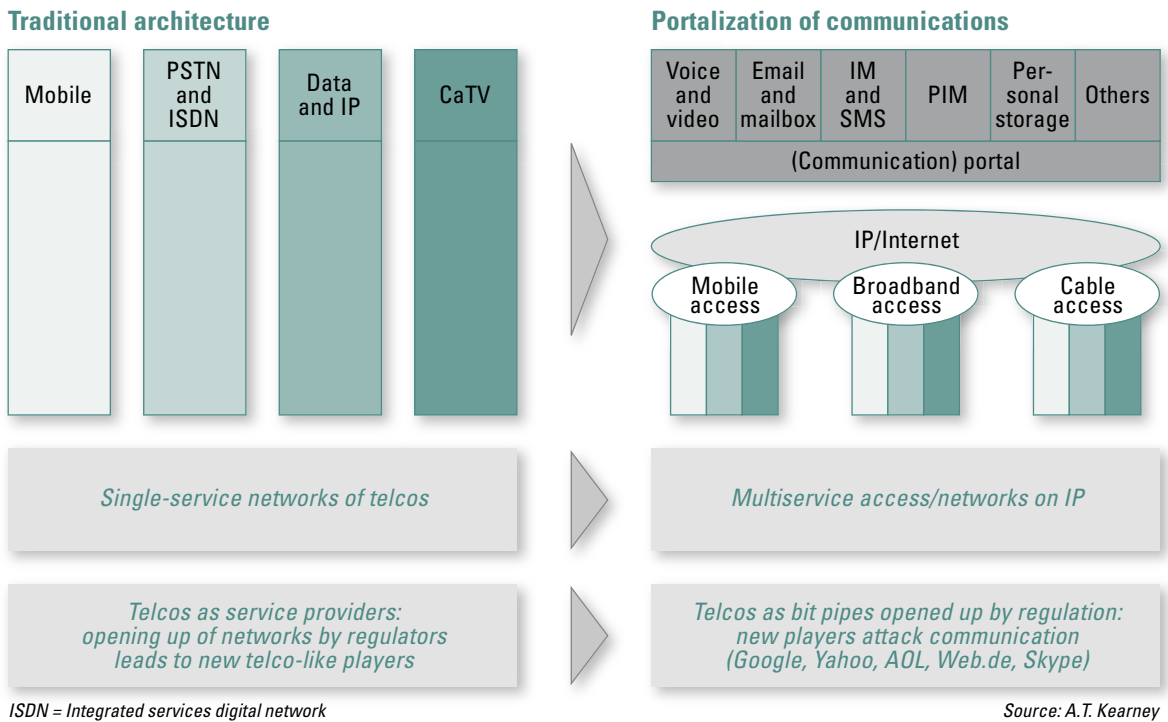
such as fiber to the curb (FTTC) and fiber to the home (FTTH), to differentiate a company from other carriers. By following an aggressive wholesale strategy, and providing value-added wholesale services such as Internet protocol television (IPTV) infrastructures and quality of service (QoS) guarantees, incumbents can then try to lure as many Internet service providers (ISPs) and resellers as possible onto their networks. In addition, established mobile companies can also share networks not only for sites and towers but also for equipment. The deal between Orange UK and Vodafone UK is the first in a series of such agreements. Whether regulators will understand the changing market and permit such

alliances remains to be seen—right now, most would be against it.

Communication Will Be “Portalized” and Multi-accessible

Customers increasingly connect to multiple communication services. Wireline voice calls, mobile voice calls, short message service (SMS), email, instant messaging (IM) and other technologies allow them to use and respond to different communication channels. With IP technology, these services are freed from the infrastructure and devices they were originally linked to and can now be integrated into one service offering. Eventually, new personal communication portals will evolve and

Figure 4
Communication will be “portalized” and multi-accessible



make different modes of communication available to an individual across multiple access types.

These new portals will consolidate personal communication channels (voice, video, messaging), associated information such as mailboxes and personal information (contacts, calendar, tasks), and personal content including music, videos, photos, links and really simple syndication (RSS) feeds. Unlike other general content, all of these services can be personalized. The customer is most likely to use just one of these portals and stick with it. Community effects, such as implicit social networking through contacts stored in an online address book such as Plaxo or OpenBC/Xing, or collaborative filtering through shared

personal bookmark lists, such as del.icio.us or Mr. Wong, will further enhance the personal portal’s stickiness, even though these portals are a means not an end (see figure 4).

Because incumbents still dominate voice services, the principal means for personal communication, they possess a key asset for entering into the market for personal portals. Mobile operators owned by incumbents are well suited to this. They have full information about each member of their subscribers’ personal communication communities—the people an individual calls regularly or occasionally—all stored in the handset address book and operators’ databases. Furthermore, mobile operators can identify and bill an individual.

Mobile operators need to transfer these assets to the online world and enhance them with other services, such as email and online storage for messages and music purchased over the Internet. The O2 Communication Center operates along precisely these lines, allowing a mobile subscriber to synchronize content on a mobile device with an online service that can also be accessed through the Internet from any other device.

Incumbents are in a good position to capture their share of advertising revenues if they mine their data cleverly and create an environment that allows highly personalized advertising.

Currently, incumbents, especially mobile operators, have a window of opportunity to occupy the personal portal space, since almost no major portal company is up to speed with this development—although AOL and Skype are getting close to it. While AOL can build on its large IM community and offers email, VoIP and other community features in its portfolio, Skype is constantly enhancing its VoIP service with new communication features and has

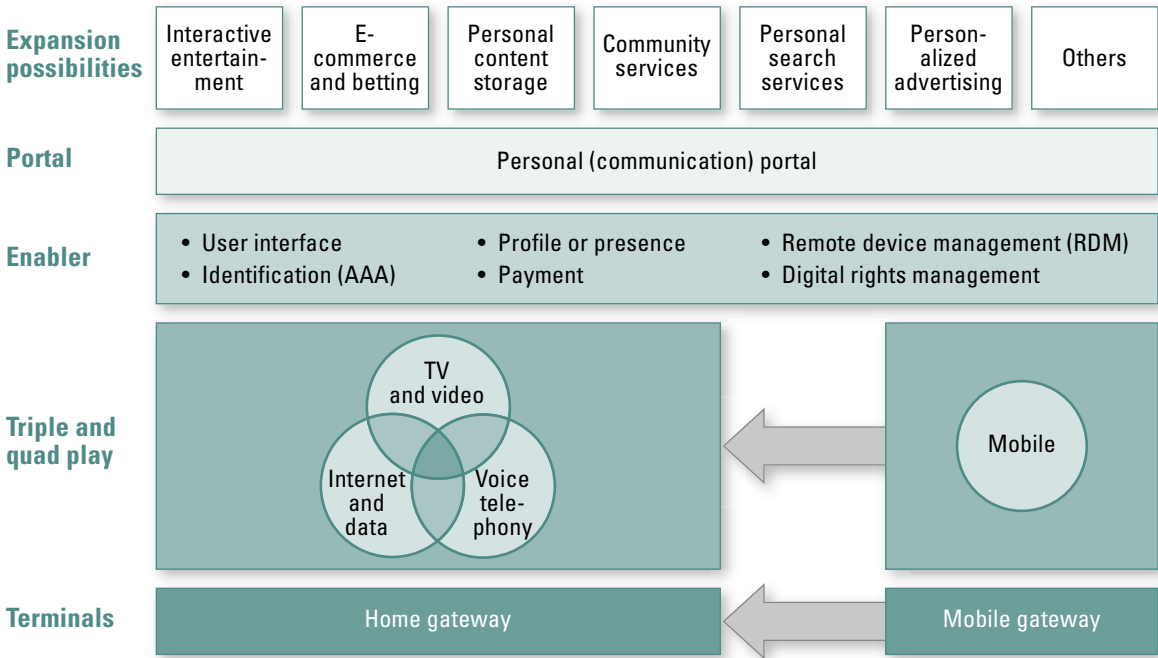
just begun to challenge U.S. mobile operators to open up mobile communication to VoIP as well. While incumbents still have a hold on customers, they need to cultivate the voice communication relationship as the mother of all communities. Incumbents should use it as a starting point for entering the personal portal space and expanding into more services that revolve around social networking, from automatic address updates based on their white pages business to marketplaces and virtual world communities.

Critics might say that personal communication portals are still in the experimental phase and far from a mass phenomenon. That is all the more reason for incumbents to prepare for these portals. In the meantime, clever voice pricing can be used to skim the market to the extent possible and strengthen existing communication communities. Examples include the Sunrise family tariff or personal flat rates to favorite friends such as myFaves from T-Mobile USA. But once skimming has been accomplished and the price has reached bottom and leveled out, incumbents have an alternative because they will have leveraged their assets. This situation is better than chasing after portal players.

Control Points Are Critical for Services

Traditional utilities such as power-generating companies have little influence over how customers use the commodity they provide. They do not generate revenues from the benefit that a refrigerator, for example, produces for the customer. They do not even sell these products. The interface, such as a power plug, is standardized, preventing the utility from leveraging its position and expanding up the value chain.

Figure 5
Telcos have an entry point with IPTV and triple play



Source: A.T. Kearney

Are telecommunications companies in the same situation with IP?

A traditional utility market deals only with the receiving end. A telecommunications company, on the other hand, functions as a middleman either between customers or between a service provider and a customer. An operator has control points at which it can influence how customers use the service provided over its infrastructure. Some control points, such as quality of service (QoS), are network-related; others, such as presence and authentication, are subscriber-related. Still others are service- and terminal-related and include user interface, linkage to online services, remote device management and the management

of digital rights. Once the operator occupies these control points, it can influence service usage by the customers and direct them to its own revenue-generating services (see figure 5).

The best example is in IPTV, where operators such as Telefónica, France Télécom and Deutsche Telekom leverage the special quality of service features of their networks and capabilities connected with the set-top box, including device authentication, backward integration, remote device management and digital rights management, to provide levels of service that can hardly be matched by pure Internet companies. Even though operators still have a hard time competing with established channels of TV distribution—

cable, satellite and terrestrial—they have found a way to reestablish a vertical business model that connects services with infrastructure. In addition, IPTV operators enter the customer's living room, which—unlike the PC—allows them to be more than just a bit pipe and a portal. The living room is unexploited terrain. On the PC, an operator's online services and portal go head to head against established portal companies such as Google, Yahoo and AOL on the basis of the level playing field that browser and operating systems provide. However, in the living room, an operator can control what is on TV once it has persuaded the customer to abandon his or her traditional TV signal provider and subscribe to IPTV. This control point offers further service opportunities beyond the personal portal, which the operator can explore on its own or with partners.

However, other competitors are not just standing on the sidelines. Companies such as Microsoft, Sony, Nokia and Apple, in particular, are busy occupying these control points, leveraging their strong hold on the terminals business. Microsoft's Xbox was a master stroke, as it catapults Microsoft into the living room, backward integrates into Xbox Live, one of the world's largest online gaming communities, and converts into a media server with remote application updates and digital rights management. Microsoft recently expanded the services of the Xbox by VoIP, IM and VoD, thereby reducing operators to mere bit pipes. In addition to its dominance of the PC, now reinforced by Microsoft Vista, and its Xbox presence in the living room, Microsoft is engaging in online services through the Microsoft Network (MSN), conducting trials of enabling services such as Windows Live ID and establishing itself on mobile phones with Microsoft Windows Mobile. In addition, Microsoft has become part of almost every incumbent's IPTV installation worldwide.

If operators want to stay in the game, they need to move quickly, build up the enablers and develop a clear terminal strategy. Partners will be needed for this approach, since incumbents do not have the required skills. However, operators must ensure that they will influence the control points.

This is particularly true for a control point that has been neglected by many operators until now: the user interface (UI). For the mobile phone, PC and television set, the UI is the main point of contact between a user and the provider's services. Almost all operators leave the UI to the terminal manufacturer, although there are exceptions such as Vodafone live! and myFaves from T-Mobile USA. As the customer gains familiarity with the UI, acquaintance with the manufacturer naturally follows. The best examples are the UI for Nokia's mobile phones in the late 1990s, which led to Nokia's strong growth in market share, and the UI for Microsoft Windows and Office, which is one of the reasons why Microsoft dominates the market. In addition to investing in terminals and enablers, companies should integrate their UI backward with other revenue-generating services and make them consistent across all wireline and mobile terminals to avoid the bit pipe scenario.

Beyond Access, Advertising, Content and Applications Will Be King

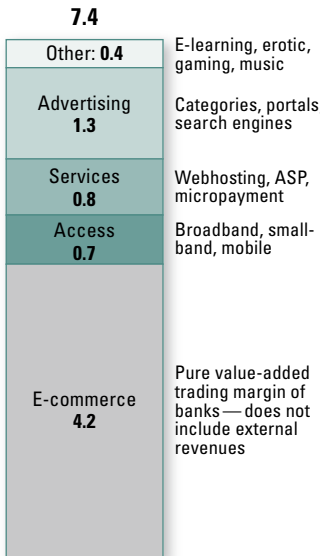
Between ever-declining prices for traditional cash cows such as voice and Internet access and the for-free mentality of online services, questions arise about the source of future revenues.

Driven by massive competition from broadband and VoIP, revenues from standard modes of communication such as voice, video and messaging will decline rapidly over time and eventually flatten out entirely. Through intelligent pricing and rebalancing toward access, companies can

Figure 6

Future revenue sources include advertising, content, application reselling and rental

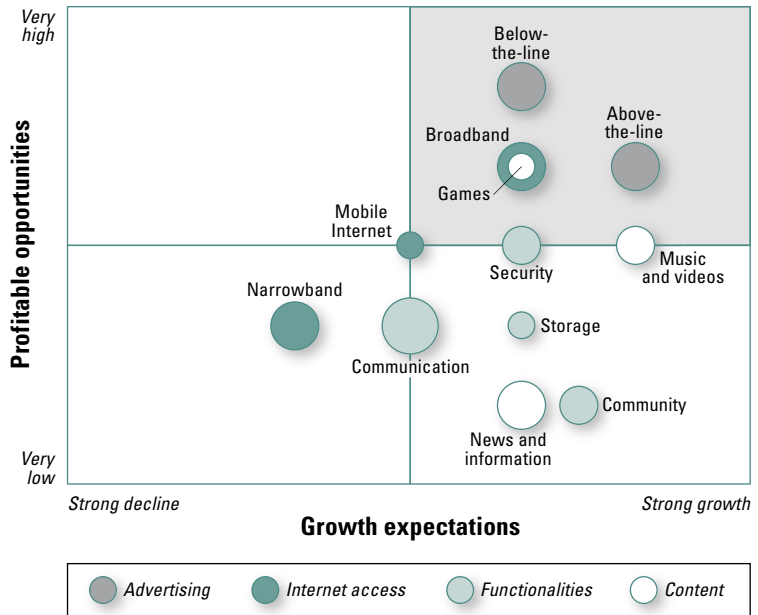
Internet value creation



2005 Internet value creation (€ billion), Germany

Sources: A.T. Kearney, OVK, EITO, IDC, Forrester Research

ISP growth opportunities



Note: Size of bubble equals usage with respect to overall user

mitigate this decline and skim the market. In the long run, however, simple voice communication will no longer be the cash cow of old. This shift will take longer on the mobile side than on the fixed network, but the results are likely to be the same. However, (broadband) access revenues for fixed and mobile communication will continue to be a major source of incumbents' income. How high these revenues will climb and the percentage of wholesale and resale shares will depend on the regulatory environment and the wholesale strategy employed (see hypothesis 1 earlier).

Do other revenue sources exist? An analysis of the Internet market shows that, besides e-commerce and access, advertising accounts for

the largest piece of the pie and is expected to continue to do so. Advertising rules both the offline and online media worlds, and increasing amounts of advertising dollars are being put online. With IPTV and triple play, in particular, many online advertising fundamentals are also finding their way into traditional TV advertising, altering the market completely (see figure 6).

With personal portals and occupied control points such as UI and authentication, incumbents will be in a good position to capture their share of advertising revenue if they mine their data cleverly to create highly personalized advertising. Because advertising dollars are currently moving away from horizontal portals to more segment-specific

vertical portals, personal portals are a likely destination. Unlike Google, incumbents do not need to become advertising brokers, but they do need to exploit their own and others' assets to enhance the value of advertising space.

Other revenue sources are within incumbents' reach, such as security, which is closely connected to access, or online sales and rental of video, music and games, which many incumbents offer and which can be integrated backward into personal

Customer Energy is especially evident in the online world, where customers contribute their time and intellect to achieve benefits that can be directed to the operator's own advantage.

portals and terminals. On the other hand, playing fields such as news and information are available in abundance, particularly with the Web 2.0 wave, and are unlikely to generate massive revenues. Recent research by TNS Infratest showed that even free news offered by ISPs only reaches about 26 percent of their customers.² Consequently, incumbents should close down their editorial areas and instead make it possible for subscribers to put together their own feeds in a personal

portal. The personal portal itself is not a major revenue source: Its main purpose is to create customer stickiness and secure access to revenue.

In the future, advertising, content and application reselling, and rental are likely to become the main sources of revenue beyond simple access fees. Despite the growth of these new revenue sources, however, in the end they are unlikely to compensate for revenue lost from the traditional cash cows. Operators have to nurture and transform their cash cows as much as possible, since these are the backbone of the business. A.T. Kearney's cross-industry research on consistently value-growing companies also shows that a full 87 percent of growth is driven by mastering internal growth resources and organization and that 85 percent of growth lies within existing strategies and markets. The roots of the business should not be forgotten, even though, going forward, efficiency and flexibility—which are essential for surviving in the online market—will be the key requirements for operators.

Customer Experience Is a Differentiator, but Price Will Be Decisive

Incumbents often do not and cannot act as market price leaders, because of regulatory surveillance and incumbents' strong market share and above-market average cost position. Instead, they try to command a premium market price based on reliability, quality and service. These are the key promises of incumbents' brands, which they invest in substantially to maintain.

² See the presentation by Mr. Wieland, "Konvergenz aus Kundensicht," delivered on February 28, 2007 at the Münchner Kreis conference "Infrastructure and Services—The End of a Connection?" at www.muenchner-kreis.de.

According to research conducted by A.T. Kearney, an operator is right to focus on its brand, which is a key driver for establishing and maintaining a price premium. However, for the most part, customers take for granted a brand's attributes, such as reliability, quality and service, and expect these benefits from any utility provider. Customer expectations of incumbents are even higher than for those of alternative competitors. A customer expects basic services to function; one example is the ability to transfer a fixed-line connection to a new residence. Unfortunately, as a result of legacy structures and internal resistance, incumbents often fail to deliver on these brand promises for most customer touch points. If incumbents venture into areas beyond access—for example, into the living room with IPTV—the customer's world becomes even more complex. Failure to deliver on these new services further alienates the customer, especially when it comes to traditional TV services, where cable and satellite offer a quality experience.

To maintain a premium brand, an incumbent needs to reevaluate the customer's experience at all touch points, from advertising to contract cancellation, and align it with the brand's promises. The correct functioning of basic processes is a hygiene factor: A customer expects a correct and timely answer when contacting the call center and to be served expediently and competently when entering the store. If the brand delivers its promises consistently across all touch points, a customer will be willing to pay more, especially in a world where technology is increasingly complex.

The need to improve customer experience continuously puts pressure on an operator's abil-

ity to maintain a healthy cost-to-serve balance. However, operators can turn these pressures into an advantage by increasing customer participation and creativity on their own behalf. The phenomenon of *customer energy* is evident in many industries, particularly in the online world.³ Here customers participate in value chains and contribute their time and intellect to achieve individual benefits such as convenience (Amazon.com), recognition from others (Ciao), self-expression (MySpace), cost advantages (Expedia, the online travel agency) or independence (online banking). Ring tones are a simple example of customers' becoming engaged and customizing a service to suit their personal needs and preferences. Ring tones make the operator happy and give customers themselves a superior experience. There are many other opportunities not yet being exploited that can direct customer energy to the operator's benefit.

Flexibility, Speed and Integration Are Crucial in the Business Market

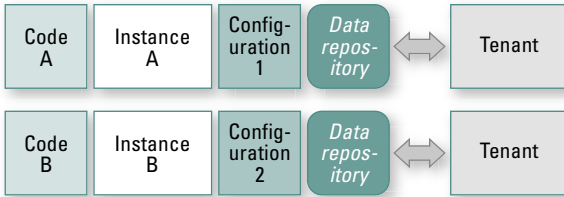
Unlike the consumer market, the separation of services and infrastructure is essentially a reality in the business market. Companies still manage applications and many voice services on their own, leaving the operator in the role of a bit pipe, albeit with high demands in terms of coverage, quality and reliability. However, this situation is changing rapidly as companies focus on their core business, invest in IT and telecommunications to drive productivity, and outsource and offshore all noncore activities to achieve more cost efficiencies. As competition in the infrastructure business gets tougher, telcos are venturing up the value chain—for example, into the business of providing solutions.

³ *Customer Energy is defined as the sum of all (non-monetary) contributions a mass customer is offering at the interface toward his suppliers to increase the individual benefits—he may even become supplier himself. See also Customer Energy: Wie Unternehmen lernen, die Macht des Kunden für sich zu nutzen, Martin Sonnenschein, Harald Zapp, Axel Freyberg, Gabler Verlag Wiesbaden 2006 and www.customer-energy.com.*

Figure 7

Providing software as a service is the next wave of offerings for small and medium-sized companies¹

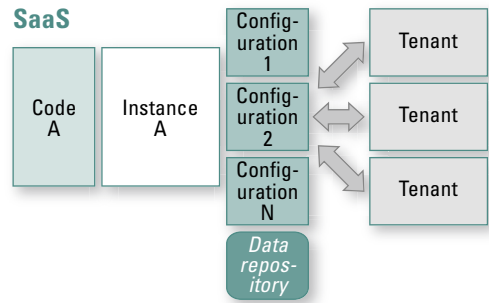
Traditional hosting



One instance, one tenant

- ⊖ Decentralized software and hardware maintenance
- ⊖ Separate deployment and integration due to individual code changes
- ⊖ Individual upgrading
- ⊕ Customization to specific customer needs

SaaS



One instance, multiple tenants

- ⊕ Automated upgrade across clients
- ⊖ Security issues due to centralized data hosting
- ⊖ Customization limited to configuration
- ⊕ Extremely low operational costs thanks to "pure" one-to-many model and extensive configuration possibilities per tenant

¹Software as a service (SaaS) offers standard business application software as a remotely accessed, network-centric, scalable service. It uses an easily configurable one-to-many platform with transaction-, time- or subscription-based pricing. Source: A.T. Kearney

However, because of the specific demands of each client, whether a small company or large enterprise, many operators in business markets struggle to move beyond communication. Driven by the fear of losing market share, incumbents often try to fulfill all customer demands. This generates tremendous complexity in production, resulting in slow reaction times, high failure rates and high costs. Operators should instead take a modular approach to production and their range of products and services. Outside the scope of big system integrators, larger market segments can only be served efficiently if the production solution consists of plug-and-play modules, and if a customer's nonstandard requests and requirements are served in exchange for appropriate remuneration. The upcoming migration toward an all-IP environment in the business segment provides a

window of opportunity for accomplishing this transition and for changing the current mindset. It requires strong management and a complete overhaul of sales force incentive systems.

IT and telecommunications are increasingly linked in the business market overall. Reliability becomes the key as mission-critical processes depend on fault-free performance. In principle, an incumbent operating in the business market has an opportunity to position its services as the end-to-end provider for select corporate customers, ensuring reliability of services and ability to adapt the service to individual customer needs (for example, computing on demand). However, few incumbents have the necessary IT scale. T-Systems is probably the largest in terms of IT, but globally it is still a subscale player. Partnering with larger IT service providers will be the best

way forward to serve pure IT services such as system integration or desktop management, while incumbents should focus on network-related IT services such as hosting communication services (for example, voice, email, telepresence), ensuring security, providing dynamic infrastructure services, and managing complex networked environments. Competing with large IT service providers head to head is only an option in select segments, such as those that require a large communications component.

What's essential for the corporate segment is not necessarily essential for small- to medium-sized customer segments. With this market segment requiring individualized but cost-efficient solutions, operators can leverage their full network-centric, transaction-oriented business model to provide these services. Software as a service (SaaS) is a key business area for incumbents to investigate, as it offers a highly standardized approach to the business segment and leverages all of an incumbent's capabilities, from telecommunications and hosting to transaction-based pricing (*see figure 7*).

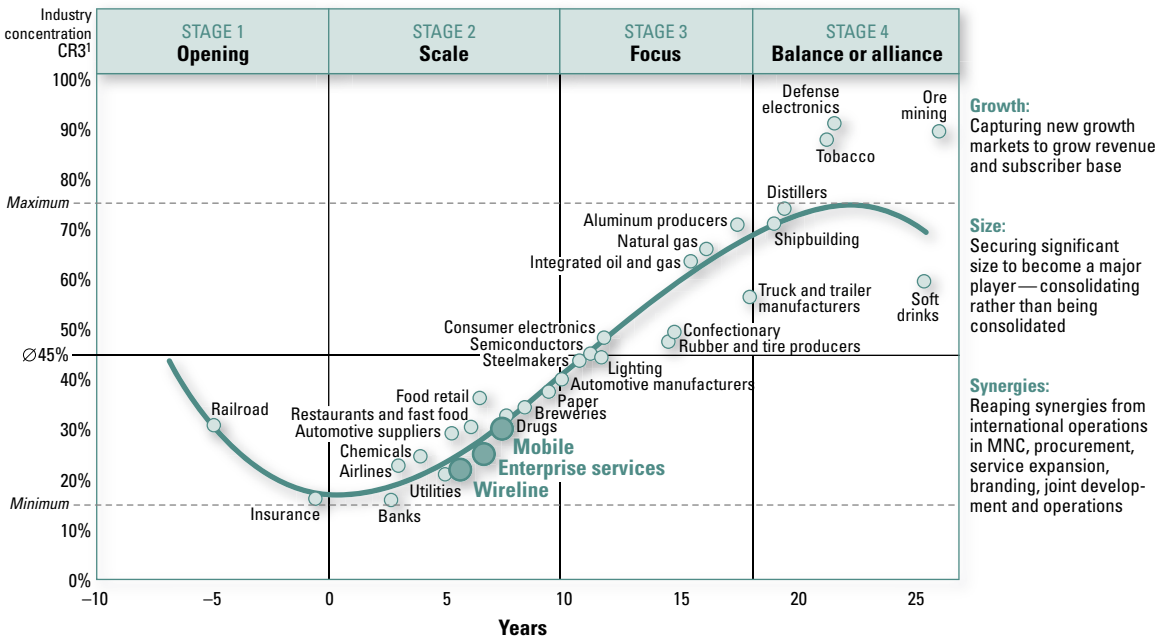
With SaaS, incumbents can revive the old application service provider (ASP) model by partnering with a new breed of software vendors and offering standard software packages as a service to small and medium-sized companies. As a result of the Internet boom and companies' increasing external connectivity, companies are far more inclined to take advantage of such services than they used to be. Growth rates of 20 percent and more can be expected over the next eight to 10 years. Of course, selling SaaS instead of products and solutions will require new business skills, particularly in sales. However, this is an excellent opportunity for an incumbent to expand beyond the simple connectivity business and leverage its principal assets to address the key roadblocks

identified by companies in recent surveys—namely, security, quality of service and single point of contact. Again, timing is of the highest importance, as software companies such as SAP and Microsoft have already claimed the field and are moving ahead.

Consolidation Will Occur Though Cross-Border Synergies Are Difficult to Capture

Cross-border industry consolidation was on the agenda around the turn of the millennium, creating large mobile operator groups such as Vodafone, Orange, T-Mobile, Telefónica Móviles and mobilkom Austria. In addition, all major incumbents in the wireline sector created cross-border shareholdings and international beachheads. However, time has shown that the synergies achieved through international consolidation are still limited and difficult to capture. While the distributed production nature of the telecommunications industry constrains consolidation benefits, our experience working with multiple operators indicates that difficulties are mainly driven by organizational and governance models unprepared to support stronger levels of integration. Another cause is high industry margins, which, unlike other industries such as automobile, alleviate the need for synergies as a survival weapon. Investors have been disappointed by the levels of synergy, even though they enjoyed the revenue growth produced by the increased footprint. Operators such as Vodafone and H3G have invented clever and cash-efficient approaches for reaping the few cross-border synergies that exist and locking in other interesting operators through franchising, partnering and licensing agreements. Vodafone's 32 partner networks already add an additional 124 million subscribers (43 percent top up) to the 291 million-strong customer base of Vodafone, which

Figure 8
Consolidation will occur though synergies are difficult to capture



¹CR3 = Market share of the three largest companies of the total market based on the Value-Building Growth database (29,000 companies)
Sources: Value-Building Growth database; A.T. Kearney analysis

it serves through 25 subsidiaries, affiliates and joint ventures.⁴ What's more, Vodafone deliberately exited shareholdings in which it failed to achieve a majority, such as Proximus or Swisscom Mobile, and turned them into partner networks. This freed up cash and maintained synergies and the brand footprint.

Despite limited synergies, industry consolidation is likely to pick up again. As their core markets reach saturation, operators will begin looking for new growth opportunities in China, India, the Middle East and Africa. While Asia

(excluding China and India) is likely to experience an annual growth rate in mobile subscribers of 7 percent through 2010 (compared to 3 percent in Western Europe), these four regions will grow at levels of around 14 to 16 percent, collectively adding almost 700 million new subscribers to the mobile community from 2006.⁵ Given the increasing search for growth in the world's mature regions, the mergers and acquisitions market has become a seller's market that requires deep pockets to enter the game and capture growth through acquisition (see figure 8).

⁴ Subscribers based on EMC Wireless; for numbers and status of networks, see Vodafone corporate website's "Global Footprint" page, www.vodafone.com/start/investor_relations/vodafone_at_a_glance/where_we_are.html; numbers exclude 311 million subscribers from investment in China Mobile classified as "investment" by Vodafone.

⁵ Ovum.

Consolidations within established markets will also become increasingly likely as operators strive for size to defend against raids or takeovers by peers. Whether this strategy will generate value remains to be seen. Companies can reap synergies from increased consolidation, but this will require a rigorous program. Consolidating now, while companies are revamping their organizations, networks and IT systems to shift into IP and next generation networks (NGNs), would offer the right time for capturing many synergies; however, only a few firms are pursuing this so far, given the complexity and internal battles that come with consolidation.

Nothing Can Substitute for World-Class Efficiency

Despite all the strategic opportunities out there—personal portals, control points, new revenue sources, customer experience, business market opportunities and consolidation—the fact remains that the principal cash cow is slowly degrading and competition for infrastructure will be cutthroat. Only the most efficient and flexible operators will survive.

Mobile operators have begun the continuous quest for efficiency, although they are still in a somewhat friendlier environment (without VoIP delayering) compared to the fixed-line operators. Nevertheless, they also face increasing market saturation. Over 80 mobile operators in Europe, Asia, Africa and North America have participated in A.T. Kearney's Global Cost Benchmarking over the last five years, with many participating every year (more than 60 in 2006), to identify new areas for improvement and cost reduction and to follow the never-ending path toward operational excellence.⁶ On average, mobile operators have pushed down the average cost per customer by 23 per-

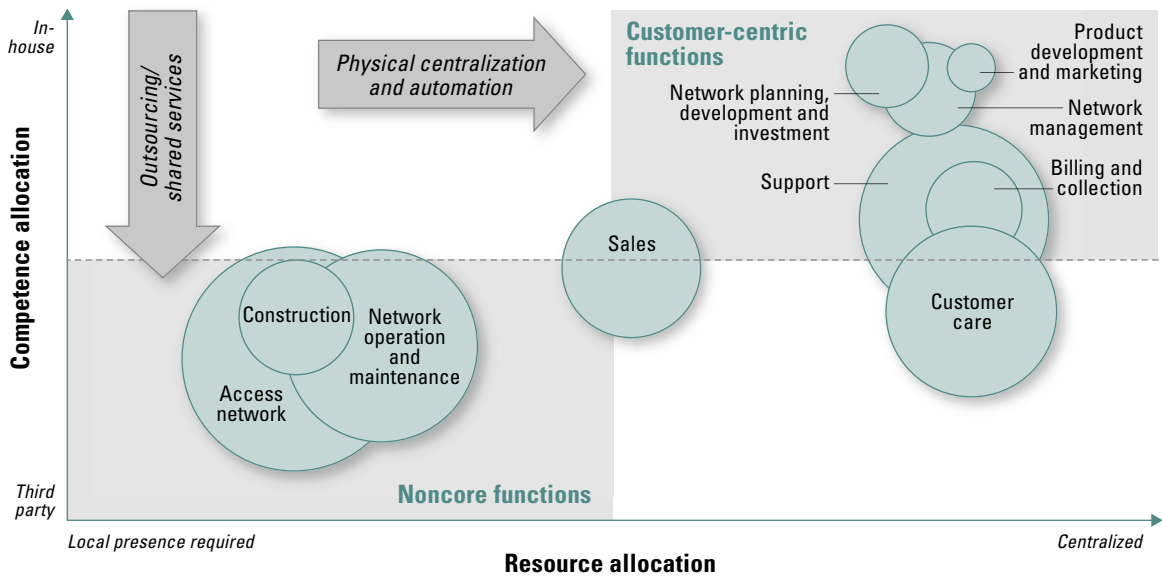
cent during the last five years (2002-2006), but given competitive and regulatory pressure, that is unlikely to be the end. To keep the focus on cost, several operators have included A.T. Kearney benchmarking as part of their annual planning cycle (*see figure 9 on page 16*).

Fixed-line carriers have also initiated the next wave of cost reductions. After conducting simple headcount discussions about achieving world-class efficiency, the fixed-line operators are entering a period of major transformation, migrating toward NGNs, completely transforming their IT legacy systems to automate processes, consolidating sales and service organizations by integrating them with their mobile arms, centralizing and offshoring support activities and revisiting the extent of outsourcing. The core functions of a carrier will be fundamentally redefined: Areas that were previously core, such as network provisioning or maintenance, will increasingly be outsourced in the search for scale or to break internal barriers. Some carriers are even going for the next level and considering a global delivery model that uses offshoring, which was previously unknown in the telco industry. Recent projects for fixed-line operators have shown, for example, that in the network area up to 50 percent of desk tasks could be offshored. These transformations will take a long time and will change the incumbents fundamentally. There is still much to be done. As the approximately 100 chief corporate officers (CxOs) of major operators, media companies and equipment suppliers put it at A.T. Kearney's Eighth European Telecom Conference in Berlin in 2006, "The quest for efficiency is here to stay." More than 52 percent of the CxOs expect that the industry is in a downward cost spiral and that EBIDTA will decrease by 5 percent within the next three years; only 24 percent expect stable margins.

⁶ *The Global Cost Benchmarking is the extended version of the European Cost Benchmarking for Mobile Operators which originally started off in 2002 in Europe.*

Figure 9

As markets saturate, nothing will compensate for world-class efficiency



Source: A.T. Kearney

Note: Size of bubble according to employee capacity and costs of typical operator

A Journey Worth Taking

The telecommunications industry stands at a crossroads. Many current battles are far from over, but one thing is increasingly clear: The industry left the comfort zone long ago.

Incumbents need to move quickly to avoid a pure bit pipe scenario and losing everything to the new kids on the block by exploring their assets and strategic levers and striving for efficiency. However, it is also up to governments, regulators and unions to understand the scenario in which the industry finds itself. If no one moves, the bit pipe scenario will dominate and online competitors will succeed. Given their asset base,

incumbents are likely to survive, but only after a long and bloody battle with the alternative carriers, and experience revenues and EBITDA margins significantly below today's levels. Customers might enjoy the low prices, but little money will be left to provide a competitive infrastructure and a push for innovation.

With incumbents pulling all the levers, the threat of parallel infrastructures and the resulting price battle cannot be avoided. Only appropriate regulatory decisions can avert that scenario. However, the impact on revenue and profitability can be significantly eased. It will be a long journey with many risks, but it is a journey worth taking.

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A.T. Kearney, Inc.
Marketing & Communications
222 West Adams Street
Chicago, Illinois 60606 U.S.A.
1 312 648 0111
email: insight@atkearney.com
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