

Industry Views

Communications Review*

A journal for telecom, cable, satellite, and Internet executives

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Sustainability



*connectedthinking

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Communications Review

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Mobile telephony is at the center of convergence: a potentially huge revenue stream as consumers become increasingly untethered. Entertainment and communications companies, racing to deliver a more personalized mobile user experience, need to consider the operational, technical, and financial issues that come with the challenges of delivering new content and services.

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Telefónica is one of the world's largest communications providers. Amid all the changes in the industry over the past few decades, the company has managed to grow market share and revenues where others have faltered. Julio Linares, Telefónica's general manager for coordination, business development, and synergies, shares his thoughts on the company's success as well as opportunities that lie ahead.

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Il est généralement admis que la responsabilité sociétale des entreprises (RSE) n'est pas une lubie de la direction mais plutôt un élément clé de toute activité sur le marché à l'heure actuelle. Le programme de la RSE présente des risques réels pour de nombreux aspects de la performance d'une entreprise et la réputation globale de celle-ci. Les fournisseurs de télécommunications doivent continuer à être à la pointe en matière de RSE pour en retirer le maximum d'avantages pour leur entreprise et leurs parties prenantes.

par Mel Wilson

18 Une combinaison gagnante

La téléphonie mobile se trouve au centre de la convergence : elle représente une source potentielle de revenus considérables en raison de l'expansion de la clientèle du marché sans fil (*untethered*). Les entreprises de télécommunications et de divertissement qui sont en concurrence pour fournir une offre plus personnalisée aux utilisateurs de mobiles, doivent prendre en considération les questions opérationnelles, techniques et financières soulevées par les défis accompagnant la fourniture de nouveaux contenus et services.

par Kenny Fraser, Michael Kelley et Adam Kennedy

24 Une approche différente

Comme un nombre croissant d'opérateurs recherchent des possibilités de convergence, ils doivent traiter les questions fondamentales concernant leurs objectifs stratégiques à long terme, l'identification de leur cœur de métier et la base sur laquelle leur activité devrait être valorisée. Chacun des trois domaines principaux : clients, services et coûts, comporte des aspects de comptabilité et d'information financière sur lesquels la convergence a une incidence directe.

par Paul Barkus, Fernand Izeboud et Pierre-Alain Sur

30 Attirer les talents appropriés

Dans la mesure où les opérateurs de télécommunications évoluent dans des métiers basés sur la technologie, ce n'est pas seulement leur modèle d'entreprise qui doit changer. De nos jours, le marché exige également d'adopter une nouvelle approche de gestion des talents dans l'ensemble du secteur. Les investissements en matière de personnel représentent une opportunité unique pour les entreprises de télécommunications de générer de belles performances financières au cours de la prochaine décennie.

par Mark Abbs et Steve Couch

Perspectives

38 Didier Lombard, France Telecom

En 2005, Didier Lombard, Président-Directeur Général de France Télécom, a initié un plan de transformation pour permettre un développement accéléré du groupe en tant qu'opérateur intégré. M. Lombard donne son point de vue sur la concurrence, la réglementation et le caractère essentiel de la qualité du contenu et du service à la croissance future et la pérennité dans un environnement convergent.

42 Alex Arena, PCCW

PCCW est le plus important fournisseur de services de télécommunications à Hong Kong et l'un des principaux acteurs en Asie en matière de technologies de l'information et des télécommunications. Alex Arena, directeur exécutif (*executive director*) et directeur financier (*CFO*) du groupe, décrit la manière dont l'orientation de l'entreprise vers les compétences clés (contenu, applications et transactions) contribue à transformer cet opérateur historique dans un marché hautement concurrentiel.

46 Julio Linares, Telefónica

Telefónica est l'un des plus importants opérateurs de télécommunications au monde. A la suite de tous les changements intervenus dans le secteur au cours des dernières décennies, l'entreprise a réussi à accroître sa part de marché et son chiffre d'affaires, tandis que d'autres ont connu un certain affaiblissement. Julio Linares, directeur (*general manager*) de la coordination, du développement commercial et des synergies au sein de Telefónica, partage sa vision du succès de l'entreprise ainsi que des opportunités à venir.

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La responsabilidad social corporativa (RSC) ya no es una moda pasajera, sino forma una parte significativa del negocio en el mercado actual. Además, determina el desarrollo del negocio de las compañías e influye en su reputación. Los proveedores de telecomunicaciones deben adelantarse en la RSC para así aportar beneficios tanto para su propio negocio como para sus grupos de interés.

por Mel Wilson

18 Mezcla ganadora

La telefonía móvil está en el centro de la convergencia, ya que aumenta el número de consumidores que no se comprometen y esto puede proponer unos mayores ingresos. Compañías de medios y telecomunicaciones que compiten por ofrecer un uso de móvil más personalizado, necesitan tener en cuenta los aspectos operativos, técnicos y financieros para poder cumplir el reto de presentar nuevo contenido y servicios.

por Kenny Fraser, Michael Kelley y Adam Kennedy

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Un creciente número de operadores buscan oportunidades de convergencia y abordan preguntas acerca de sus objetivos estratégicos, su principal negocio, y la valoración de éste. Los tres pilares—consumidores, servicios y costes—están directamente afectados por la convergencia en lo que a cuentas e informes se refiere.

por Paul Barkus, Fernand Izeboud y Pierre-Alain Sur

30 Atraer el talento

A raíz que los operadores de telecomunicaciones se extiendan a negocios basados en tecnología, no sólo deberán cambiar su modelo de negocio, sino gestionar e invertir en el talento. Para las compañías de telecomunicaciones será una oportunidad única para liderar el entorno financiero de la próxima década.

por Mark Abbs y Steve Couch

Perspectivas

38 Didier Lombard, France Telecom

En 2005, Didier Lombard, Presidente y Consejero Delegado de France Telecom, lanzó un plan de cambio con el fin de llegar a ser un operador integrado. Lombard detalla su punto de vista sobre la competitividad, regulación y puntualiza que la calidad de contenido y servicio son cruciales para el crecimiento y la sostenibilidad en un entorno convergente.

42 Alex Arena, PCCW

PCCW es el mayor proveedor de telecomunicaciones de Hong Kong y uno de los líderes asiáticos en tecnologías de información y telecomunicaciones. Arena, director ejecutivo y CFO del grupo, especifica su compañía afronta las competencias claves— contenido, aplicaciones y transacciones—para hacer el mercado más competitivo.

46 Julio Linares, Telefónica

Telefónica es uno de los mayores proveedores de telecomunicaciones. Pese a todos los cambios que ha sufrido el sector durante los pasados años, la compañía ha aumentado su cuota de mercado e incrementado ingresos, cuando otros han flaqueado. Julio Linares, Director General de Coordinación, Desarrollo de Negocio y Sinergias del grupo Telefónica, comparte el éxito de su empresa y puntualiza las oportunidades.

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Mittlerweile herrscht nahezu Einigkeit: Corporate Social Responsibility ist keine Modeerscheinung des Managements, sondern ein wichtiges Standbein im derzeitigen Marktumfeld. Der nachlässige Umgang mit Corporate Social Responsibility-Themen ist ein Risiko für die Leistungsfähigkeit und Reputation von Unternehmen. Aus diesem Grund müssen sich Kommunikationsunternehmen zum Wohl ihres Geschäfts und ihrer Stakeholder um die Einhaltung sozialer Standards bemühen.

von Mel Wilson

18 Ein gutes Team

Der Mobilfunk steht im Mittelpunkt der Konvergenz: Aufgrund der zunehmenden Mobilität der Konsumenten rechnet die Branche mit einem riesigen Umsatzschub. Im Wettbewerb um das Angebot des "ultimativen" Konsumerlebnisses sollten Telekommunikations- und Medienunternehmen die operativen, technischen und finanziellen Aspekte, die die Bereitstellung neuer Inhalte und Dienste mit sich bringt, nicht außer Acht lassen.

von Kenny Fraser, Michael Kelley und Adam Kennedy

24 Eine andere Sicht

Das Angebot konvergenter Dienste und Inhalte gewinnt zunehmend an Attraktivität. In diesem Zusammenhang dürfen Unternehmen ihre langfristigen strategischen Ziele, den Kern ihres Geschäftsmodells und die Grundlage der Bewertung ihres Geschäfts nicht aus den Augen verlieren. Denn die Rechnungslegung und Berichterstattung der drei Hauptbereiche Kunden, Dienste und Kosten werden direkt von Konvergenz beeinflusst.

von Paul Barkus, Fernand Izeboud und Pierre-Alain Sur

30 Gewinnung der richtigen Mitarbeiter

Mit der zunehmenden Technologieorientierung ändert sich nicht nur das Geschäftsmodell von Kommunikationsunternehmen. Das derzeitige Marktumfeld erfordert auch den richtigen Umgang mit qualifiziertem Personal. In der Förderung von Mitarbeitern liegt eine einzigartige Chance für Kommunikationsunternehmen, ihre finanzielle Leistungsfähigkeit in der Zukunft zu steigern.

von Mark Abbs und Steve Couch

Perspektiven

38 Didier Lombard, France Telecom

Im Jahr 2005 leitete Didier Lombard, Chairman und CEO von France Telecom, Maßnahmen ein, um den Transformationsprozess des Konzerns zu einem integrierten Dienstleister zu beschleunigen. Herr Lombard teilt mit uns seine Ansichten über den Wettbewerb, die Regulierung und Bedeutung der Qualität von Inhalten und Diensten für künftiges Wachstum und nachhaltige Entwicklung in einem konvergenten Marktumfeld.

42 Alex Arena, PCCW

PCCW ist das größte Telekommunikationsunternehmen in Hong Kong und einer der führenden asiatischen Firmen im Technologie- und Kommunikationssektor überhaupt. Alex Arena, Executive Director und CFO, zeigt uns, wie sich der Incumbent durch die Konzentration auf seine Kernkompetenzen Inhalte, Anwendungen und Transaktionen erfolgreich im stark umkämpften Markt behaupten kann.

46 Julio Linares, Telefónica

Telefónica zählt zu den größten Telekommunikationsunternehmen weltweit. Trotz der stetigen Veränderungen in den vergangenen Jahren konnte die Gesellschaft—im Gegensatz zu zahlreichen anderen Unternehmen—ihren Marktanteil und ihre Umsätze steigern. Julio Linares, Telefónicas Geschäftsführer für Koordination, Business Development und Synergien schildert uns die Erfolgsgeschichte des Unternehmens und die anstehenden Herausforderungen.



Message from the Editor

Today, sustainability issues are all around us. Whether we look at the debate over global warming, the need for environmental monitoring and compliance, the growing focus on human rights across the world, or simply the urge to give something back to society at large, sustainability and corporate responsibility clearly are rising on the corporate agenda as never before. Closely linked to those issues is the sustainability of companies' underlying business models. Without that, all the other aspects of sustainability become merely academic.

The topic of sustainability is especially relevant to today's communications industry, as convergence finally turns from hype into hard commercial fact. The direct result is the kind of upsurge in innovation, disruption, and excitement that many of us have seen before. Back in the late 1990s, industry deregulation triggered a wave of start-up entrants with innovative business models. Some of them are still around—but others have vanished. Why? They simply were not sustainable as businesses over the long term.

Today's revolution lies in the convergence of services, platforms, and technologies. Once again, old business models and

relationships are changing and new ones emerging. Companies are venturing outside their comfort zones, expanding into new spaces through innovative alliances or traditional M&A. As in the late 1990s, questions are arising over what is needed to sustain growth in the years to come, and to ensure that companies are still around to live through the next revolutionary phase in five, ten, or twenty years' time.

The theme of sustainability pervades this issue of *Communications Review*. The first article, "Investing in the Future," written by Mel Wilson, tackles the issues head-on by examining what corporate social responsibility (CSR) means for today's operators. As he points out, while the direct social and environmental impacts of industries such as oil and gas are relatively clear-cut, they are less immediately evident in the communications industry. But by highlighting industry dynamics and focusing on real-world examples, our author draws out key areas where communications operators need to focus and describes six key challenges for making CSR a reality. Finally, he looks forward to the risk areas that communications companies should keep their eye on for the future.

In the second article, "A Winning Combination," authors Kenny Fraser, Michael Kelley, and Adam Kennedy look at sustainability from a different angle. They examine the business models emerging around mobile content, and assess the challenges and attributes involved in ensuring that those models remain sustainable into the future. The authors investigate what's at stake in the converging industries as mobile devices become more sophisticated and consumer experiences more personalized, how to share costs and revenues, and challenges such as "off-deck" content—where consumers can tie up mobile operators' valuable bandwidth watching content that pays no royalties. Their analysis leads to several recommendations for those seeking to make the most of the mobile content opportunity.

The third piece in the issue approaches sustainability from a reporting perspective—looking at how convergent companies need to revisit the way they report their financial and nonfinancial performance. In "A Different View," Paul Barkus, Fernand Izeboud, and Pierre-Alain Sur discuss three primary areas in which convergence affects a communications

operator's reporting: consumers, services, and costs. To adapt its reporting successfully across each area, the operator should ask itself questions about what its reporting issues are today, what issues convergence will bring in the future, and what steps management should be considering now to be fully prepared. The authors' view is that operators need to think about the impact on reported numbers now as they formulate their convergence strategies.

In the fourth article, "Attracting the Right Talent," we turn to one of the key determinants of any company's sustainability and long-term viability: its ability to harness and nurture its people's full potential. Authors Mark Abbs and Steve Couch point out that as communications operators migrate toward becoming technology-based businesses, it is not just their business models that have to change, but also their approach to managing and growing talent across the business. The key is to focus on four areas: making human capital management a real priority, identifying and acquiring the right quality of talent, making the most of the talent already in the business, and tapping into global markets to access talent.

Finally, in our Perspectives interviews, we talk to three incumbent operators about how they are working to sustain their businesses in an evolving market.

First we speak to Didier Lombard, chairman and CEO of France Telecom, a company that has moved beyond triple- or quadruple-play strategies and is setting its sights on providing customers simultaneous access to a panoply of multimedia services—while getting back to basics to make things easier for the customer. Then Alex Arena, an executive director and CFO of Hong Kong-based PCCW, tells how his company has sustained its success while evolving from a telephone incumbent to a market-leading innovator in areas that include pay-TV and mobile. As he points out, the key for PCCW is to look at every offering from the consumer's perspective. Finally, we sit down with Julio Linares, general manager for coordination, business development, and synergies at Telefónica, the world's third-largest operator by customer numbers. Julio describes how this major incumbent is staying competitive and continuing to grow by tailoring its approach to the unique circumstances in each country.

For a communications company to be able to embrace sustainability in a CSR sense, it must first be sustainable in a commercial sense. In other words, all the good intentions in the world will come to nothing if a company's business model does not deliver the goods. In this issue of *Communications Review*, this is the message that comes through to me loud and clear. However, equally as important as the messages we send out are those we get back from you, the reader. Please feel free to share your comments with me at paul.g.rees@uk.pwc.com or at [44] 20 7213 4644.



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Partner
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Investing in the Future

Today, corporate social responsibility (CSR) is a term we hear all the time—and no business can afford to ignore its responsibilities to society as a whole. In essence, CSR is about a company recognizing the needs of its stakeholders in the broadest sense, understanding the risks and opportunities those needs create, and responding to the needs publicly and consistently. In practice, companies must identify and work to improve their impact on the environment, their people, the marketplace, and the wider community. But while in some industries—such as oil and gas, automotive—CSR’s direct social and environmental impact is relatively clear, it is less self-evident to companies in the communications industry. What should communications providers be focusing on to stay ahead of the game in the CSR space? And how can they reap the optimal benefits for their business and stakeholders?

by Mel Wilson

The banner of corporate social responsibility (CSR) encompasses many goals. Ensuring good corporate governance, providing safe and nondiscriminatory workplaces, managing environmental impact, and monitoring labor conditions in suppliers and business partners across the world are just a few of the goals on the list. While CSR is not a new concept, rising interest in it—especially in how companies can manage their effect on the environment—has been apparent in the past year both in business literature and in boardrooms. Many factors are driving the interest, including advancing globalization, rising awareness of global warming, and the continued drip-feed of scandals about employment standards in emerging markets.

But will this heightened interest in CSR last? The answer is almost certainly yes. Amid the ongoing debate about CSR and the wider concept of sustainability, virtually everyone now agrees on one thing: CSR is not a management fad but rather a key part of doing business in today's marketplace, which increasingly is underpinned by a growing body of regulation. Pressure to address CSR comes from a number of directions, ranging from capital market regulators to non-governmental organizations (NGOs) and the media, from investors to employees, and from suppliers to customers. With the most valuable asset of any consumer-facing company now reckoned to be its reputation and perceived value among consumers, the downside of a major CSR lapse is often incalculable.

This importance reflects a clear shift that has occurred in recent years. Stakeholders, from employees to customers to concerned citizens, are looking for reassurance that companies, especially large transnational companies, are acting as good corporate citizens wherever they operate. This expectation has led companies to extend beyond their traditional focus on monitoring and reporting their financial performance to cover their environmental and social impacts as well—the so-called “triple bottom line.”

At the same time, most companies now recognize that CSR issues are not just

soft or “feel-good” factors that are nice to have. On the contrary, the CSR agenda presents genuine risks to many areas of corporate performance, including regulatory compliance, market share growth and retention, employee and customer satisfaction, and cost management, as well as a company's overall reputation.

CSR in action

That is the broad thrust of the shift that has occurred in the CSR space. But what does it mean in practice for communications operators? A real-world example of CSR in action is TELUS, a wireline and wireless service provider that is the second largest communications operator in Canada, with revenues of just over CA\$8.6 billion (about US\$7.5 billion) in 2006. TELUS has actively embraced CSR, making it part of its corporate DNA, and for the past six years has issued an annual CSR report covering its social, economic, and environmental performance.

Joe Pach, director of Risk Management-Environment for TELUS, manages the preparation of the report with input from areas across the business. Asked how TELUS defines CSR in its business, Mr. Pach replied: “It's a triple-bottom-line approach [focused on environmental, social, and economic impacts]. Corporate social responsibility is how we will achieve long-term sustainable growth. If we are going to be around for future generations and improve shareholder wealth, we need to look after more than the finances. We need to earn the right to operate. We have a presence in a lot of different communities—and CSR is one of the mechanisms through which we try to earn the right to operate in these communities.”

As this comment shows, TELUS regards sound CSR as crucial to its business in the long term. This view is echoed by a growing number of players in the industry worldwide.

In comparison to some other sectors, the telecommunications industry has been relatively proactive in embracing CSR. A recent report by Canadian Business for Social Responsibility (CBSR) stated that—although some challenges remain—the global high-tech sector, including telecommunications, is a leader in CSR performance. That leadership is seen in

the high rankings of high-tech and communications companies in “best places to work” listings, the large percentage of companies issuing annual CSR/sustainability reports, and the visible support of high-tech companies for public policies that encourage or require companies to improve their CSR performance.

Industry drivers

So, why have communications operators put themselves at the forefront of CSR? There are a number of reasons. For one, the industry is relatively young, with many socially conscious employees. For another, unlike industries such as mining and petroleum, communications historically has had relatively minor effects on the physical environment, and therefore does not attract the same degree of critical media attention.

In this fast-paced, competitive industry, every differentiating factor, including CSR performance, can affect customer attraction and retention, the outcome of license bids and price paid, access to capital, and the view of investors. These factors have all contributed to pushing CSR performance higher on the industry's corporate agenda.

TELUS' Joe Pach described why his company decided to become a CSR pioneer by launching a CSR report in 2000, when most companies had barely considered the idea. “CSR reporting is important for several reasons,” he said. “There's a very clear link between CSR and our future-friendly brand. We don't do this as a branding exercise. It is one of the main tools we use to publicly disclose our CSR performance and to demonstrate how we are living our future-friendly brand. Furthermore, TELUS is committed to becoming Canada's premier corporate citizen. The CSR report is an excellent tool for communicating our progress towards this goal.”

He added that the CSR report helps to fulfill a need for transparent nonfinancial information among both the public and investors. “We are also aware of the need for fair and accurate public disclosure,” commented Mr. Pach. “Our annual report delivers in terms of financials, and through our CSR report we have the

opportunity to highlight our environmental and social performance. Reporting accurately and fairly on the good and bad of the three elements of CSR is part of what makes a well-managed company. I think the investment community recognizes there's a positive impact on shareholder value for this type of reporting, so we want to satisfy those desires in the investment community as well." Other companies are using their CSR reports to drive the development, measurement, and disclosure of the wider economic impact of the companies' activities.

Where to focus

However, despite dedicating significant corporate interest and attention to the issues involved, companies at all stages of the CSR journey know that meeting the expectations of stakeholders is not easy. By definition, the stakeholders interested in companies' CSR profiles and efforts are not a homogeneous group. Instead, they represent a vast range of needs and perspectives, and sometimes competing views. All of these need to be taken into account—since any stakeholders who feel their interests are being ignored will not be slow to complain.

As an illustration of the range of issues involved, CCSR identified five key CSR challenges for the communications industry:

1. Achieve diversity in management (such as attracting and promoting more women to senior management positions).
2. Practice environmental management (especially managing end-of-life electronics, or "e-waste").
3. Follow sound labor practices (for example, concerning child labor and working conditions in developing countries).
4. Minimize the "digital divide" between the haves and the have-nots.
5. Address the use of the Internet for nuisance or objectionable purposes (such as spam, online gambling, and pornography).

Other issues include the health effects of mobile phones' electromagnetic field and the (positive) effects of communications technology in reducing travel and therefore greenhouse gas emissions.

This list is difficult for any communications company to manage—especially as some of the challenges are beyond its direct control. However, by working with relevant stakeholders, such as regulators, user communities, and watchdog groups, companies can address all the challenges. For example, some communications companies have formed "community panels" made up of community leaders and company representatives. These panels serve as a discussion forum, thereby helping the companies better appreciate the sustainability issues within the communities where they operate. Similarly, proactively meeting and interacting with local regulators and residents can help strengthen relationships. Strong relationships can be especially advantageous if the company experiences a serious environmental or health and safety incident.

Growing momentum

Around the world, increasing numbers of communications operators and service providers are addressing these and other CSR issues. In its 2006 CSR report, British Telecom (BT) commented: "Our strategy is to maintain our current momentum in CSR and to focus our efforts on the three biggest challenges: the need for sustainable economic growth; the need for wider inclusion of all sections of society; the need to tackle climate change."

Similarly, the United Kingdom-based mobile operator Vodafone stated in its 2005–06 corporate responsibility report that it had recently developed a five-year corporate responsibility strategy with the following priorities:

- Maintain high ethical standards.
- Understand and respond to the company's stakeholders' priorities.
- Ensure that operating standards are consistent across the company.
- Deliver on its promises in three key areas: responsibility to customers, reuse and recycling of mobile phones, and energy and climate change.
- Capture the potential of mobile to bring socioeconomic value through access to communications.

Other leading communications operators around the world, including Bell Canada, AT&T, Deutsche Telekom, and France Telecom, also report on their CSR policies and performance. All these companies face similar challenges, and all of them have acknowledged that their business success is tied, in part, to how well they can manage these challenges.

TELUS' Joe Pach agrees that increasing numbers of communications companies are taking CSR seriously, but he feels there is farther to go and the focus of stakeholders' demands is continuing to evolve. "From a global perspective, there's an increased expectation that companies manage their supply chain carefully," commented Mr. Pach. "External stakeholders are looking for us to pay more attention, both upstream and downstream, to our supply chain. We need to look at our materials and ensure that they are appropriately resourced and that once the life cycle of our materials ends, we are appropriately reusing, recycling, or separating parts for disposal. Our stakeholders are expecting us to take a leadership role in that regard."

Other companies are looking at wider value chain impacts, such as how communications solutions in business-to-business relationships can play a role in reducing carbon footprint or improving the work/life balance.

An agenda driven from the top

PricewaterhouseCoopers has long recognized the potential business risks posed by poor CSR performance, and has been helping clients in the communications industry to improve their CSR management and reporting for many years. Our experience and research have confirmed time and again that real integrity starts at the top of the organization.

When PwC's Global Sustainable Business Solutions group held its third annual global summit in Barcelona, Spain, one executive commented: "Management obviously is the key. Without good management the basic condition for sustainability is not met. Failure is plugged into the system from the beginning." Another added: "Good management won't necessarily get you a reputation because there are so many extraneous factors. But to posit

a situation where you don't have good management—it's very, very hard to think that you're going to sustain a reputation. Good management is the only thing that will sustain and build your reputation over time.”

It is no coincidence that virtually all the companies at the forefront of CSR have strong and focused leadership. In most cases the CEO, CFO, or chairman is almost evangelical about CSR, setting the tone and culture for the entire organization. Sometimes these companies have come to CSR through a “baptism of fire,” having had the CSR message pushed home by a major challenge to their reputation, such as a high-profile media or NGO campaign.

Six key challenges to making CSR a reality

But even for companies whose management is totally committed to CSR, the path is not easy. PwC has identified six key roadblocks that most companies—both in the communications industry and elsewhere—face on their way to effective CSR performance reporting (see *Figure 1*).

The first challenge is to agree on what CSR means to the organization. The stock definition of “being accountable for your impact on all relevant stakeholders, and being committed to behaving fairly and responsibly” is a good place to start. But who are your stakeholders? Some, such as employees and customers, are obvious. But what about local communities? Special interest groups? Which ones really count? How do you know what they expect from you? The best practice, of course, is to ask them. But that requires effort, coordination, and the prospect of massively raising expectations.

Once you have started a process of engaging with stakeholders, you cannot turn it off again. They expect to hear what you have done to address their concerns. Nevertheless, many companies find talking to stakeholders an invaluable way of framing and developing their CSR strategies. Take for example workplace diversity. What does a diverse workplace look like? By talking with employees, one can get an understanding of how they

envision a diverse workforce. They may also have suggestions for achieving it.

The second challenge is to decide who is responsible for CSR. Because CSR encompasses everything an organization does, everybody is to some extent responsible. Many companies have appointed CSR managers and formed board-level CSR committees to tackle the issue. In companies with no specialist function, ownership of CSR can rest with the public relations, investor relations, community affairs, environmental, health and safety, company secretary, or even the chairman's office. However, a clear trend is that the finance and audit community is becoming increasingly involved in setting and tracking nonfinancial metrics, bringing greater rigor to traditionally “soft” areas of company performance.

With ownership in place, the next step is to establish a tangible business case for action and get buy-in from the executive leadership—the third challenge. This has become easier in recent years, as CSR has become recognized as being merely part of doing good business, reflecting the additional value derived from sound governance, transparent reporting, and satisfied employees and customers.

So, with executive support, a budget, and some resources in place, the fourth challenge is to make it happen. Two elements are involved. The first has to do with putting the processes in place: introducing the governance arrangements, policies, procedures, targets, performance indicators, controls, and reporting. The critical effort, though, lies in the second element: changing hearts and minds, behaviors, and attitudes. Any organization has its own embedded culture and way of working, and many incumbent communications operators may find that their histories create obstacles to such change. This is why buy-in and consistent, positive leadership from the top are so important.

The enthusiasm that inevitably surrounds new initiatives will help the CSR program initially. However, once the business has set up the board committee, determined the strategy, written the newsletter, and published the first report, the next challenge is to sustain the momentum and build on the progress to date. This means hard-wiring

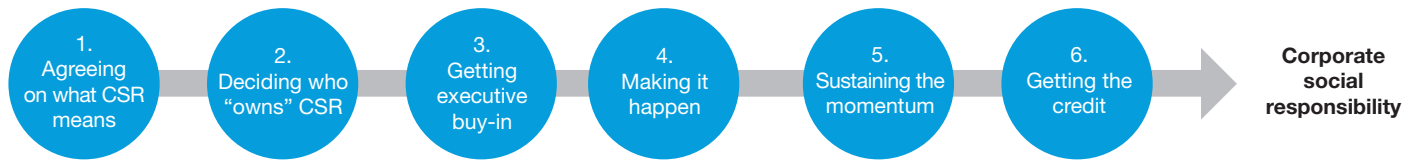
CSR into existing business processes, such as developing employee safety targets for field crews or making the workplace more accessible to employees with disabilities, and embedding it into everything from management dashboards to personal performance objectives and, ultimately, remuneration. A committed CEO will help this process by continuing to talk about CSR in public and internally and by publishing reports that detail progress.

The sixth and final challenge is to get credit for your achievements from your stakeholders. Companies face a dilemma in that reporting in a truly open manner may simultaneously lay them open to criticism. Many companies struggle with the concept of “putting their heads above the parapet” on CSR and want to remain part of the pack. However, experience shows that the businesses that gain the most benefit from CSR are those that are prepared to break new ground, open their performance up to independent scrutiny, and have the courage to admit publicly that they need to improve in some areas. For example, TELUS issues an annual CSR report, which sets out the company's challenges and performance in managing environmental, community relations, and workplace issues. This information is externally audited to ensure accuracy and credibility.

Creating and deploying a CSR strategy

Every communications operator's situation is unique. But PwC's deep experience with industry clients worldwide has enabled us to develop a straightforward, coherent, and consistent approach to creating and deploying a CSR strategy that is not separate but truly part of the core strategy of the business both in managing risk and driving value. The first step is to identify the issues and assess their relevance to the company's operations and business goals. Second, set specific goals and objectives for managing those issues. Third, implement internal controls to ensure that the goals and objectives are met. Finally, put measurement systems in place to monitor and report regularly on performance, and compare the actual performance with the original goals and objectives.

Figure 1: The road to CSR



Making corporate social responsibility part of a company’s business plan requires overcoming six potential stumbling blocks.

Within that overall approach lie four components that are key to designing and deploying an effective CSR strategy for a communications operator:

1. **Inventory and gap analysis.** In our view, what communications companies need is a systematic approach that helps them—whether they already have a strategy or are still forming one—to quickly create an accurate inventory of their existing CR activities and assess the activities against their internal obligations (such as values, codes, and policies) and leading external practices (such as peers, rating indices, and reporting guidelines).
2. **Stakeholder engagement.** As we have discussed above, companies no longer are accountable only to shareholders and the investment community. Instead, they recognize that a broad and diverse group of constituents, including employees, activists, suppliers, consumers, regulators, communities, and NGOs, can have a significant impact on their reputation and business performance. Stakeholder engagement, therefore, has become a core requirement for maintaining competitive advantage.
3. **Operational solutions and support to decision making.** National and international policy options, corporate investment priorities, and areas such as strategic environmental management all have a major influence on CSR strategies, targets, and performance measurement.
4. **Program development and implementation.** The company needs to develop and implement a range of strategic programs for the ongoing management of business conduct, risks to reputation, and corporate responsibility. This involves developing,

implementing, and testing codes of ethics and conduct; corporate responsibility, environmental, health and safety, and community management systems, controls, policies, and procedures; appropriate internal audit processes; and performance and risk metrics.

Going forward: New horizons in CSR

Like every other aspect of the communications industry, its CSR agenda never stands still. So, what CSR issues will affect the sector’s companies over the next five to ten years? For an answer, we posed the question to Mr. Pach. In his view, the key CSR issues of tomorrow will range from the sourcing of raw materials to the ethical impact of new converged services on people’s lifestyles and privacy.

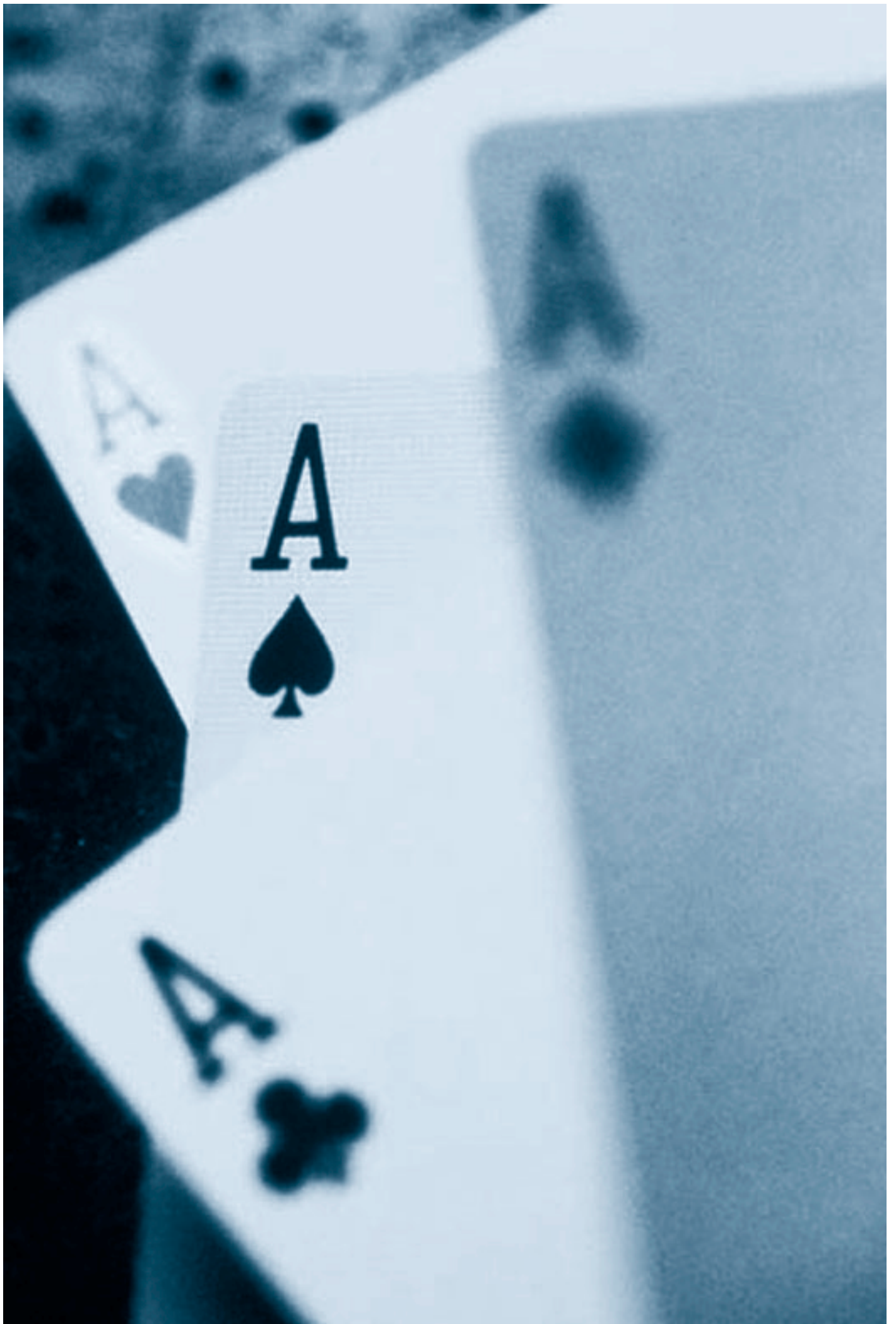
“It’s hard to say precisely what will happen, because technology is changing so quickly,” he replied. “However, as new technologies are developed, we may see new requirements for how materials are sourced. For example, a few years ago there was an issue with respect to ‘coltan,’ a type of tantalum used in almost all electronics. This material was sourced from the Congo under less than ideal

conditions, with significant impact on the environment, wildlife, and local people. As new types of equipment come along, you may see requirements on how those materials are sourced.”

Mr. Pach continued: “Another major issue for telecommunications companies will be the ethics around how new technologies are used. We’re looking at providing all sorts of entertainment content now on cell phones—and these offerings will have an impact on privacy, lifestyle, and work habits. The way we work has also changed significantly in the last five years. I’m working from home more now. I’m much more accessible and I have the kind of mobility to be in contact no matter where I am. People will need to learn how to work with those tools so that they can maintain a work/life balance.”

There’s no question that CSR is here to stay for the communications industry. But CSR itself will continue to be a moving target as the industry evolves and society’s expectations change. The only way to keep abreast of developments will be to stay engaged with stakeholders, ranging from investors to NGOs and from customers to suppliers. That is the bedrock of good CSR—which today, as we have said, is really just part of good business.

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A Winning Combination

As mobile devices become more sophisticated, consumers will want a more personalized experience, which will drive demand for mobile content and services beyond anything the industry has experienced in a long time. In the not-too-distant future, we'll be seeing mobile features expand more rapidly beyond such things as ring tones and text messaging. While advanced forms of mobile service are emerging in certain parts of the world, carriers and media companies must consider a number of challenges—business models, technical advances, advertising solutions, and sticker shock—as they try to capture the revenue opportunities that mobile promises.

by **Kenny Fraser, Michael Kelley and Adam Kennedy**

An Air France flight attendant gets into a taxi at Charles de Gaulle airport and heads for her home in Paris. As the car pushes through traffic, she flips on her mobile to watch a live broadcast on the network TF1, which is covering the devastation of a hurricane in the Bahamas. It's riveting but puts her in need of a little relaxation. She had missed a music special on Canal+ featuring her favorite hip hop performer, Oxmo Puccino. With two clicks, the mobile is searching it out on her digital video recorder at her home.

Just as she's about to watch the show, the device alerts her that Air France is sending a videocast about some staffing changes. So she clicks on that, and by the time she's finished listening, she has remembered that it's her father's birthday, and she has forgotten to buy him a present. She really wants to surprise him with something special. Not to worry. The car is edging down Boulevard Haussman toward Galeries Lafayette, and a banner ad just popped up on her handset alerting her to a cashmere coat sale in the men's department.

By punching in a short code, she's eligible for a 20% discount. That survey she filled out for Galeries Lafayette some time ago just paid off big time. If she hurries, she can drop her bags at the apartment, buy a coat, and pay an unexpected call on papa.

If that scenario sounds like a pipe dream, consider the fate of one tired old word spawned in the '90s: *convergence*. As everyone in the communications and media industries knows, convergence is happening, and we're going to see mobile features expand well beyond such things as ring tones and text messaging. Mobisodes of popular TV series, movie snippets, short animation, comedy sketches, music videos, short-form personal videos, photos, news clips, video games, and full broadcast streaming could all find a spot on the "most popular mobile services" list, alongside options for mobile payments and location-based services. Many are already cropping up in certain pockets of the world. For example, real-time sports highlights and MP3 downloads have really started to gain traction in Europe.

There's little wonder that mobile telephony is at the center of convergence. Look at the increasing variety in the alliances emerging between carriers and media companies as part of an evolutionary drive that's turning mobile devices into entirely different gadgets. For example, Vodafone Group has announced alliances with the Walt Disney Company, Yahoo!, and Google in the areas of content, advertising, and search functions, respectively. France Telecom recently evoked its keen interest in content when it announced that it would fund 10 to 15 films a year. And, in January 2007, Apple entered the cell phone market by introducing its iPhone, which combines music, Web browsing, e-mail, and telephony.

It's clear that as mobile devices become more sophisticated, people will want a more personalized experience. And that's exactly what entertainment and communications companies are racing to deliver.

But how do the plain old mobile phones largely in use today evolve into the kind of enriched device that our fictional flight attendant enjoys? Clearly, while advanced forms of mobile service are emerging in certain parts of the world, carriers and media companies must consider a number of challenges as they try to attain that futuristic reality:

- There are potential corporate-agenda clashes and operational issues—concerning such things as spectrum usage and business models—as companies with differing business models try to work together.
- There are new technical advances that need to emerge—not the least of which involves better navigational functionality.
- There's a need for fresh advertising solutions in order to add new features without also adding sticker shock.

What's at stake for converging industries

In order to understand the torpedoes that can sink an alliance—and the solutions that might lead to a splashy success—it pays to look at what's at stake for all the industries converging in the mobile space.

As has been widely reported, filmed entertainment revenue has been spotty—down in 2005 versus 2004 and edging up slightly in 2006. What's more, people

are looking at TV differently, so advertising revenue is subject to decline. As the usage of digital video recorders increases, it is accelerating the tendency by consumers to skip commercials. On the wireless side, the average revenue per user (ARPU) for voice services in the United States has been declining for years. So, both content providers and wireless carriers are looking for alternate revenue streams to maintain or potentially increase revenue.

PricewaterhouseCoopers anticipates significant growth in the online and wireless space during the next few years for five entertainment segments: filmed entertainment, music, video games, electronic books, and online casino gaming (which is not legal in the US at present).

Collectively, those segments generated US\$19 billion in global online/wireless revenue during 2005, and they are expected to increase to \$67 billion by 2010, according to PwC's *Global Entertainment and Media Outlook: 2006–2010*. In fact, digital and mobile content will account for 41% of total growth in those segments during the next five years, with a compound annual growth rate of 6%.

While online revenue growth has been substantial in recent years, wireless content is now in liftoff mode, thanks to a confluence of media and telephone forces. We expect that huge businesses will be created by the content companies—or, separately, by intermediaries between the content companies and the carriers. One of the voids that an intermediary company might fill would be to repurpose content from a TV show or to edit together entirely new content tied to the program.

Mobile carriers see the value in alliances with media firms. They recognize that they don't have all the skills and information they need to create content on their own and they want as much content as possible. And content players are eager to discuss mutually beneficial alliances. Yet the potential conflicts between the two industries cannot be overestimated.

The cost-sharing debate

One sticking point concerns the financial model. Most carriers regard data and video as incremental revenue streams, and they favor a revenue-sharing model. But the media companies have to repurpose their content, and, because incremental

costs are involved, some have talked about sharing costs. Programmers note that TV shows need to be re-edited, and sometimes require new footage, in order to make for an enjoyable viewing experience on a miniature screen. And some have suggested that the carriers help pay those costs.

They draw a parallel between what's occurring now with mobile carriers and what cable networks experienced decades ago when they were established. At that time, cable operators that carried their signals guaranteed them a minimum fee, so that the channels could have a reliable revenue stream that would help them grow their businesses.

Despite that line of logic, the content providers haven't convinced the mobile carriers that they need to share the content costs. The carriers note that they already have significant expenses related to the maintenance of their subscriber base, the network, and back-office systems.

While entertainment companies have conceded the cost-sharing negotiating point, their leverage in securing favorable deals is subject to change. And while it may seem counterintuitive, one need only look at a country where one player dominates the telephony business for clues as to how that could occur.

In Japan, NTT DoCoMo has such a dominant market position that they are able to establish and then sustain their own ecosystem of content providers, and they can dictate the rules of that ecosystem. However, the company takes a smaller split of the content revenue than do carriers in other markets because the company has a large customer base and the smaller split fits into its business model. This approach has encouraged significant growth in the amount of content that's available on mobile phones in Japan.

Those market conditions in Japan—along with the unusually keen appetite on the part of Japanese consumers for new services—has led to the popularity of such things as short animation and user-generated content like short video clips taken on the mobile phone camera. (See sidebar on page 22 for more information on popular services in certain markets and on unique market conditions.)

In the near future, the competition between carriers will spark a trend of exclusive content agreements and agreements that

include more favorable revenue terms to some media and entertainment companies. For example, in the US, if a company were going to repurpose the popular TV series *Seinfeld* for mobile, the company would have a lot of clout in negotiating the deal.

Needless to say, there's a downside to those exclusives. If a given carrier doesn't have a large enough customer base using advanced services, even a bigger revenue share may not be appealing to content providers.

Cable operator conflicts

Other points of friction can occur when alliances are struck between multiple system operators (MSOs) and mobile carriers, as the cable companies move from offering triple plays to quadruple plays—delivering video, voice, broadband Internet, and (now) mobile. This is the case especially in the US.

The perspectives of mobile and MSO players differ markedly. And when operators enter the mobile arena, they are confronted with variables that can take some time to appreciate.

While cable platforms no longer enjoy monopoly status in some countries, like the US, they are still the dominant multi-channel player in many local markets. In contrast, wireless operators are in an extremely competitive environment. The carriers have aggressive marketing strategies that can involve four or five price plans in a year, whereas cable operators may have only one.

The pace of business—and the differing nature of the businesses—is significant. For example, in the US, the cost of acquiring a customer on the cable side is probably \$100. On the wireless side, it can be between \$250 and \$450. Needless to say, much of the cost relates to the carriers' marketing strategy of offering consumers handsets at a fraction of their wholesale cost. That, in turn, requires that the carriers lock customers into multiyear agreements.

As the MSOs wrap their minds around those factors, they also need to convince mobile carriers that some of their more sophisticated ideas for advanced mobile services actually make business sense. That's when another big issue can raise its head: "on deck" versus "off deck."

On deck refers to content that the carrier has on its network and is pushing down to users. Off-deck content allows consumers to use their mobile devices to remotely "read" content loaded on their digital video recorders and watch it on their mobile devices—like our flight attendant pulling up a recent TV special featuring the French hip hop artist Oxmo Puccino.

The challenge the wireless carriers face with the off-deck model is that they have only a limited amount of spectrum. They don't really want their customers to pull down tons of content that's off deck, where they don't get any royalties. With on-deck content, they have license agreements with entertainment and media companies and it's supported by fees or advertising.

Spectrum and revenue, therefore, are key issues to address. Solving the loss of revenue may involve some careful negotiations among carriers, MSOs, and content providers. The spectrum quandary, though, might be relieved by acquiring more, if it is available, or maximizing the current spectrum by implementing more sophisticated technologies.

Other challenges

Above and beyond issues related to agreements among the players are the challenges that involve advertising, technology, and determining what consumers really want.

One key problem for everyone involved—device manufacturers, carriers, and content providers—has to do with navigation. At present, it's common for mobile users to click through several pages before they pull up desired content. It can be a test of patience, likened by some to navigating the Internet before search engines like Google came along. Making the whole process effortless is a compelling need if consumers are to use much advanced content.

In a series of consumer focus groups conducted by PwC in the US, users indicated that they simply want text messaging and phone service, and don't want to be bothered with more advanced services. This finding suggests that aggressive marketing may be in order.

In addition, a large number of participants indicated their interest in advertising-supported content on mobiles if the content was either free or offered at a

Different strokes for different mobile folks

If any market is ripe for change in the mobile space next year, it is the United States. As 2007 progresses, the country is likely to see greater adoption of phones equipped with third-generation technology, allowing for higher speeds of transmission. Mobile service from a joint venture combining the resources of four cable MSOs (multiple system operators) and Sprint Nextel is expected to launch, allowing consumers to do such things as remotely interact with their TV sets. And live mobile television broadcasts, enabled by new services such as QUALCOMM's MediaFLO, will push the possibilities even farther.

While the US has an opportunity to learn from the experiences of those on the "bleeding edge" of advanced mobile services in other markets, there is a healthy degree of skepticism regarding how directly the experiences of others can be applied to the US.

One example of why caution is the order of the day can be found in the area of SMS text messaging. In the US, it's met with lukewarm reception. That is in marked contrast to the Philippines, where text messaging caught on like wildfire. One reason: The Filipino carriers offered it for free when it launched so that it became embedded in the way people communicated with each other.

The great success of more sophisticated services like animated short films and user-generated content in markets such as South Korea and Japan is due partly to their very advanced infrastructure. What's more, consumers are much more amenable to using mobile content than they are in other countries. And in a lot of markets with metropolitan areas, people use over-ground mass transit, so they can use mobile devices when they're going to work.

In South Korea, downloads have been very significant, and that's where PricewaterhouseCoopers is predicting some of the largest growth in music downloads. A similar picture is emerging

in Japan, where mobile video content usage is increasing, although it's still too early to say how successful it will be. Gaming is also emerging as a standout mobile category in Asia.

In a 2006 report on mobile telephony in the Asia Pacific region (excluding Japan), the research firm IDC predicted that non-voice mobile services will generate almost US\$27 billion in 2010, accounting for 23% of all mobile service revenue. IDC also expects huge growth of mobile content usage and revenue in Western Europe. Another 2006 IDC report focusing on that region predicted that spending on video content will grow from US\$69 million in 2005 to almost \$3.2 billion by 2010—a compound annual growth rate of almost 115%.

While those figures look very attractive, carriers shouldn't adjust their forecasts yet. Several Western European mobile carriers offer a wide variety of services, from downloads to video calling, and the penetration levels are still relatively low. One of the main reasons is the issue of dropped calls, or interruption of service. Consumers got used to that when talking on the mobile, but it becomes frustrating when downloading a file. Another barrier is cost. Basic mobile service generates an ARPU of about £20 to £40 a month in the UK. But accessing services like video typically entails premium fees, which can vary by offering.

Mobile operators in England have tackled the problem indirectly. While they're certainly trying to solve technical issues, there's also momentum for carriers to acquire companies that offer fixed services, like broadband. The essential economic thinking is to make customers dependent on one company for most, if not all, of their communication needs. The company can then ensure premium downloads over customers' computer or mobile devices, seamlessly.

The same approach is seen in the US, with triple and quadruple plays, but in Europe mobile operators are driving it.

reduced cost. In fact, consumers are willing to give up certain information about their spending habits and other personal information in order to get the free content. This is the case particularly for the younger, or 18- to 24-year old, demographic that many advertisers seek to attract.

Adding advertising to mobile content involves a very different model than the traditional fee-based offerings, like text messaging and ring tones. Operators need to start thinking about what content can be offered for free, but have it surrounded or embedded with advertising as part of the ecosystem. Some banner ads and text message ads are already in use to a limited degree. But greater experimentation with those options as well as preroll video ads (which must be viewed before certain content is watched) are in order. Another possibility is on-screen coupons, which might be triggered if a consumer drives near an advertiser's store location. With all of these options, it's important that the ads not be considered intrusive, so experimentation is key, as is building consumer acceptance.

One area of promise is short codes (also known as common short codes), which are used by such US television shows as American Idol and by shows emanating from many European countries, including France, Germany, Spain, and the United Kingdom. The codes are often used as a way for viewers to vote on contestants in competitions, and their popularity is growing. A 2006 consumer survey conducted by M:Metrics showed that short codes are particularly popular in Spain, where almost 30% of all mobile users responded to the lure of short codes in advertising or other media.

They've been extremely lucrative for the phone carriers and TV shows, which charge for each vote. For example, the European wireless carrier Telenor generated some \$85 million in revenue from short codes less than a year after their introduction, according to information on the Common Short Code Administration Web site (www.cscsa.com).

It is possible that one day TV viewers will watch commercials that contain text overlays at the bottom that announce cost-saving deals—if consumers punch in a certain short code on their mobile

devices. Or the short codes may be included in advertising alerts on mobile devices, much as our fictional flight attendant received news about the sale at Galeries Lafayette. Once a transaction is made with a short code, both the carriers and the TV networks would receive fees from the advertisers, much as Google receives fees for each “click through” from advertisers on its site. The TV networks would still derive revenue from the commercials, and the short-code revenue would come in addition to that.

Right now, direct mail coupons on the whole have a less than 1% redemption rate. So while short codes have yet to be tested as a means of conveying coupons, the concept is ripe for introduction. With short codes, advertisers can start a two-way relationship with consumers because the use of the codes lets them know that consumers are engaged. However, such a relationship should be initiated carefully so that no one raises concerns about the issue of privacy.

It is likely that advertising will not take too long to become a meaningful revenue base, although whether it will be meaningful in the multibillions of dollars of projected growth in the next five years is debatable.

Because advertising has such potential, and there’s a limit to how much mobile phone subscribers are willing to spend on fee-based extras, the next year or so is a key period for experimentation. Along with experimentation will come greater exploitation of workplace applications on mobile devices.

It’s becoming much more mainstream to have the ability to take any application currently in use via computers in the workplace and enable it in the mobile space. Time sheets are a good example, and much more commonly now technicians get their work orders on mobile devices. Before long, employees will receive informational Webcasts on their phones, much as they currently are able to do on their computer screens.

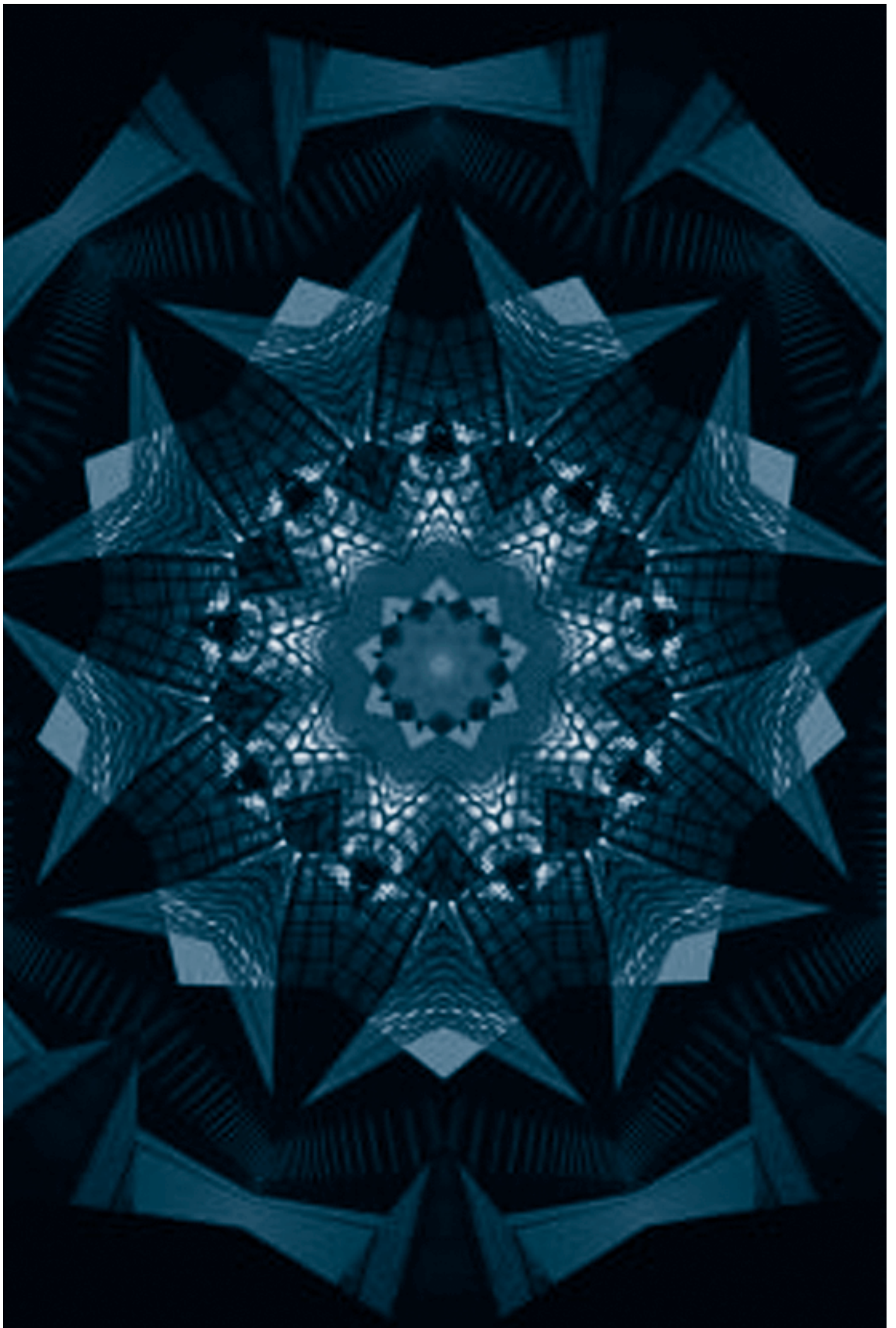
Clearly, many markets around the world are in for a heady period of experimentation, negotiation, and research as they create a new mobile world. A simple ride through Paris—to say nothing of London, Shanghai, or New York—could become a far richer experience than it is today.

Here are some recommendations for how operators and content providers can make the most from the mobile content opportunity:

- Listen to your customer.
- Have an open mind and build alliances that provide a range of choice and content.
- Remember that outstanding technology is a value, but that winning is all about content and service.
- Identify value propositions based on the unique advantages of mobile—location, usage data, and SIM-based authentication. This will help determine where key premium revenues can be developed.
- Understand the user’s needs and enhance the customer experience by delivering advertising or content. The message cannot be a detractor.
- Don’t be afraid to experiment with new business models that involve such options as advertising, subscription, pay-per-use, and revenue sharing.
- Remember that in today’s world, every competitor is a potential ally. Keep talking to the business-to-business market and explore new alliances.
- Break down the walls within your own company that may be hampering various divisions from working together.
- Focus on customer service and adjusting to a changing competitive environment.
- Build a solid strategy and be steadfast in executing it. Modify where necessary, but execute it to the fullest.
- Make investments in your strategy and infrastructure to get the job done.

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A Different View

As fixed and mobile providers move into content services in search of higher subscription revenues, margins, and brand differentiation, they need to re-examine the way they report on their business to both internal and external stakeholders. Central to the re-examination is the basis on which they account for and report their costs, revenues, and key financial and nonfinancial statistics on customer acquisition and churn. Operators need to gain a clear understanding of what accounting for convergence really will involve—and of how it will differ from common industry practice in the past.

by Paul Barkus, Fernand Izeboud and Pierre-Alain Sur

Today, convergence can be seen in action everywhere. In the United States, by rolling out fiber to the home, Verizon is able to go head-to-head with cable companies in providing wireline TV. Meanwhile, mobile operator Sprint has partnered with IMG Media to set up full-fledged TV studio facilities, demonstrating its commitment by signing up established broadcasting talent, including Fox Sports' James Brown and CBS tennis analyst Jim Courier.

At the same time, media companies are expanding the other way. In Europe, satellite broadcaster BSkyB recently moved into broadband provision. And the merger of the United Kingdom's cable and communications provider ntl:Telewest and mobile virtual network operator Virgin Mobile has created Virgin Media. The first unified quadruple-play company, Virgin Media encompasses mobile, broadband Internet, TV, and fixed telecoms. In Hong Kong, PCCW has established a successful IPTV business and has recently acquired the valuable rights to live English Premier League football.

As an increasing number of operators pursue convergence opportunities, they need to address fundamental questions about their long-term strategic objectives, what their core business is, and the basis on which the business should be valued. For example, should a converged operator be valued as an operator or as a media company? Or is there another option, one that would address the disparities between communications and media companies? Such questions should be answered on the basis of reliable information. It is almost as important, therefore, for management to consider how to report on the success of their converging business to internal and external stakeholders.

Based on our research and industry insights, we have identified the three primary areas in which convergence affects a communications operator's reporting: consumers, services, and costs. Each of those areas has accounting and reporting issues that are directly affected by convergence. Our analysis shows that to identify the best approach to accounting and reporting for each area, an operator should ask itself three key questions:

1. What are the issues today?
2. What reporting issues will convergence bring in the future?
3. What should we be considering now to be ready for that future?

3. What should we be considering now to be ready for that future?

We will now examine each question in the context of the three areas of consumers, services, and costs.

Consumers: The search for relevant and comparable KPIs

What are the issues today?

In terms of reporting on consumers, the key issue operators face in pursuing convergence is the lack of consensus over which key performance indicators (KPIs) they should apply. Consumer numbers and average revenue per user (ARPU) are already established as the principal KPIs for many operators, but they present some thorny issues.

While ARPU has weaknesses as a measure—with many operators regarding either top-line revenue or gross margin, or even EBITDA (earnings before interest, taxes, depreciation, and amortization), as a more useful indicator—the fact is that ARPU remains popular with analysts and investors. Also, significant variation currently exists in the way these KPIs are calculated. Examples include how to define active and inactive customers when disclosing customer numbers, and which revenue and discount streams are included in ARPU.

Such differences really do matter to operators' market valuations. Customer numbers can be used to measure market share, which is interesting but arguably not very important. However, the same numbers can also be used to determine levels of churn, which is widely regarded as a truly critical performance indicator. Churn is critical because it determines payback periods, and payback periods determine the ongoing profitability of the business.

An issue that has arisen with ARPU is that the revenue number used for the ARPU calculations is often higher than the revenue reported in the accounts, because discounts such as free downloads or reduced price line rentals are considered nonrecurring and are not deducted when calculating ARPU. Also, ARPU is often based on invoiced revenue as opposed to Generally Accepted Accounting Principles (GAAP) revenue, which may include gross revenue streams that are presented net in the accounts. Similarly, it is not unusual for different customer

numbers to be used when reporting the total customer base and ARPU, with inactive customers being disregarded in the ARPU calculation. Such grey areas tend to undermine market confidence in the industry's reported consumer numbers.

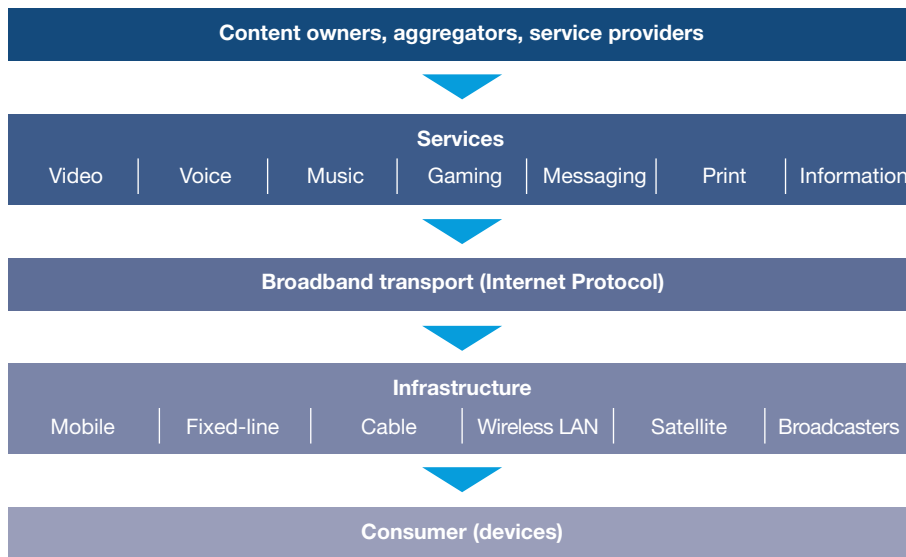
What issues will convergence bring in the future?

Scrutiny of operators' reported consumer numbers is likely to increase as convergence advances. In the build-up phases of new service offerings, financial indicators are generally less interesting than non-financial ones, since the focus is primarily on two key reporting and valuation metrics—share of new customer additions and customer growth. For the group of customers adopting new service offerings, the ARPU delta is often of interest.

There is a parallel here with the early days of the dot-com boom of 1999–2000, when user numbers became the key indicator in calculating market valuations and acquisition multiples. It seems likely that, as new convergent content offerings roll out, analyst interest in customer numbers and market share will be strong in the initial phases, during which the absolute revenue numbers are typically small but future growth potential is exciting. Recent mega-deals such as Google's purchase of YouTube have once again raised questions about the valuation of Internet companies and about how successfully a user base can be monetized.

A further issue concerning consumers is operators' ability to manage customers across several different services. If an individual takes more than one service offering, do the operator's systems regard that individual as one consumer, or many? And if an operator offers a triple- or quadruple-play bundle, is it more interested in total revenue per customer or in revenue per customer for each individual service? Even when able to answer those questions, an operator may have difficulty putting a strategy into effect. It is not unusual for existing billing and customer relationship management systems to have difficulty identifying customers who are billed separately for more than one service. Having said that, issuing separate bills has its advantages—the operator may be able to maintain multiple brand identities and, a cynic might argue, draw less attention to the total monthly amount the customer is paying.

Figure 1: Convergence—the new value chain



From acquiring content to acquiring and serving customers, convergence is bringing about many developments that companies must determine how to reflect accurately in their accounting and reporting and must align with their business model.

What should operators be considering now?

Operators launching convergent services need to face up to a number of questions concerning KPIs. Do they want to apply their own consistent definitions to their KPIs? Or is the change in business model a reason for a change in KPIs? If so, is there merit in finding convergence in definitions with other market participants?

More broadly, operators use a wide variety of definitions for customer numbers and work out ARPU in differing ways. Various regulators around the world have shown interest in non-GAAP and nonfinancial indicators, particularly when they do not correlate directly with the results shown in the financial statements. While the SEC seems unlikely at the moment to impose definitions as it has in the oil/gas and mining industries, one high-profile failure or one class-action lawsuit in the US communications sector could change that position. And if the US were to lead in regulating those numbers, others might follow. We think the industry’s developing its own consensus could have considerable merit—albeit possibly difficult and time consuming to achieve in practice.

With such a clear impact of KPIs on valuation for existing and new businesses, management should be aware of the potentially adverse impact of errors in such information. Another key question for operators, therefore, is whether their

systems are designed to enable rapid, flexible, and reliable reporting of consumer numbers.

Services: Issues over revenues, partnerships, and principals

What are the issues today?

As operators launch converged services, they need to work out how they are going to combine multiple service offerings on one bill. A broadband line may carry voice, data, Internet security, video on demand, and more—each needing to be tracked, monitored, and billed for, accurately and effectively. Again, all this presents a major systems challenge for many operators.

The shift to multiple services also raises a number of accounting issues. Included currently are questions on the allocation of total revenue and discounts to components (multiple elements) of the service, as well as how to deal with rollover minutes, free downloads, and services provided both within and outside bundles.

Arrangements involving multiple elements, such as delivery of hardware at a discount in combination with a subscription contract, require an assessment of the amount of the consideration that should be allocated to the elements. This is relevant because in many cases hardware revenues can be recognized at the signing of the contract, whereas other

revenues are recognized over time as services are delivered. US GAAP includes clear guidance on how to account for multiple element arrangements. Although International Financial Reporting Standards (IFRS) are less clear, many IFRS-reporting operators have chosen to adopt a similar model.

Loyalty schemes are a further contentious area, affected by the proposed new International Financial Reporting Interpretations Committee (IFRIC) pronouncement D20. This interpretation deals with incentive schemes and is aimed principally at the retail and airline sectors’ reward and air miles schemes. However, it will apply to the limited number of customer loyalty reward schemes that some mobile operators currently offer. It may also alter some operators’ current accounting for incentives given to a customer on signing a contract, such as vouchers for free music downloads—because if D20 is approved as drafted, such incentives likely will be treated as a component of revenue rather than as a cost.

Finally, each operator needs to determine whether it is the principal or the agent for content delivery. Gross and net recognition of revenues is a particular issue in Europe. Of 24 large European operators who adopted IFRS in 2005, five disclosed a change to net recognition of some revenue streams—such as content and premium rate numbers—which previously has been recognized gross. At least two operators made this change without formal disclosure because the numbers concerned were relatively small. To date we have not become aware of any operators moving in the opposite direction, from net presentation to gross.

In considering whether it is acting as principal or agent in a content delivery transaction, an operator should ask itself a number of questions. Who does the customer believe is providing the service—who is the, as the US regulations put it, “primary obligor”? Who sets the price to the end customer? And who bears inventory risk? Although possibly relevant, credit risk is not the primary determinant of status as principal or agent. It is perfectly possible to bear credit risk without being the principal in the transaction.

What issues will convergence bring in the future?

A growing trend that will become even more pronounced in the future is that of

operators seeking to access content through partnerships with content providers. The partnerships may take the form of subsidiaries, joint ventures, agency arrangements, revenue sharing, or long-term supply agreements. In entering such partnerships, operators need to pay close attention to how they report revenues, whether the arrangement results in a business that needs to be consolidated or equity accounted, or whether the assets used to provide the service are captured by one of the leasing standards.

In examining those issues, operators should bear in mind that it is very unusual, in practice, for revenue-sharing arrangements to involve genuine sharing of revenue for a product or service delivered jointly by the operator and the content provider. At root, most revenue-sharing arrangements are one of two things: either a way of determining an element of variable payment to the content originator—in which case the operator is probably acting as principal and should record revenue gross; or, alternatively, a way of determining the operator's remuneration for acting as intermediary between the content provider and the end-user customer—in which case the operator is acting as an agent, and its reported revenue is the net commission it retains.

Operators are seeing some increase in revenues generated from advertising, although the absolute numbers remain small. Barter-type arrangements, which were popular during the Internet boom, do not seem to have returned. If they were to make a comeback, it would now be very difficult to recognize such revenue streams at "fair value" under IFRS and US GAAP unless the operator could demonstrate recent, substantially identical transactions being settled in cash.

Finally, as mobile payment systems are being introduced, operators need to consider whether the systems will make them subject to financial institution regulatory supervision, with the related reporting requirements.

What should operators be considering now?

In preparing for the converged environment, operators need to take a fundamental look at whether their accounting policies are robust and easy to apply. IFRS adopters should also decide whether

they would be happier devising their own method of attributing revenue to bundled services or following US GAAP (EITF 00-21).

A further question concerns whether the time is now right to take a different line on gross/net presentation of content revenues. We believe there may be benefits in making any change early, while the numbers are still relatively small. And if operators are reporting multiple revenue streams, they should look at whether they have multiple reportable segments, whether they can allocate costs with revenues on a reliable and reasonable basis, and whether applying different multiples to different revenue streams might have an impact on the company's valuation.

Such decisions are not straightforward. Strict application of EITF 00-21, arguably, is not compliant with IFRS because the cash restriction provision in the EITF does not apply under IFRS. This means it is theoretically possible to recognize more revenue up-front under IFRS than under US GAAP. However, it may be possible to get to the same numerical answer by carefully applying IFRS principles that relate to the allocation of fair values.

In simple terms, having more reportable segments is likely to mean more cash generating units (CGUs), also known as reporting units under US GAAP, for impairment testing purposes. This in turn increases the likelihood of impairment charges being recognized, because it means that unprofitable CGUs cannot be disguised effectively by being aggregated with profitable ones. For example, a loss-making content delivery business might be impaired if considered on its own, but if, instead, the business is part of a profitable mobile communications CGU, there may well be no impairment charge to recognize. However, having more revenue streams does not necessarily mean having more reportable segments—it will remain difficult, and possibly not very meaningful, to allocate shared network infrastructure costs to multiple services.

In light of these considerations, as convergence continues, management of companies may choose to address the complexities of converged business models by doing just the opposite: simplify their operations (and reporting) by splitting the

"network provider" element of the operator from the "service provider" element. Such simplification would be along the lines of the restructuring of BT in the UK, where the network business now trades with the rest of BT on the same terms as with competitor operators. In these circumstances, the network element may come to resemble a traditional utility, with reassuringly predictable cash flows, and may be less at risk from potential impairment charges in the future. In fact, we see a trend indicating that operators may consider enforcing such splits to simplify their regulatory tasks.

Costs: Understanding customer and content acquisition

What are the issues today?

On costs, convergence raises issues for operators in two key areas—customer acquisition and content acquisition.

In terms of customer acquisition, consumers are the life-blood of the business, and expenditure to attract and retain them may well be the biggest outflow after network costs. Currently, there is a relatively clear East/West division in how operators account for customer acquisition and retention costs. Most European, and virtually all US, operators, expense; many Asian operators capitalize. In terms of content acquisition, the treatment of content costs—whether as intangible assets, inventory, or prepaid expenses—varies across the industry and differs from common practice in the media sector.

At the moment, there is no prescriptive guidance for operators on how to account for subscriber acquisition costs, except under US GAAP (SAB 104). Under current GAAP, both immediate expensing and deferral as an intangible asset under IAS 38 are acceptable. While capitalization may be easier to support on pure accounting technical grounds, the fact is that practicality and industry practice both favor immediate expensing. In the past, IFRIC, which relates solely to IFRS, has declined to take subscriber acquisition costs onto its agenda, while acknowledging that current practice includes a diverse range of approaches.

On the content side, most broadcasters treat programming rights as inventory or similar current assets. Amortization methods vary widely, ranging from immediate write-off on first showing to deferral over

periods of up to 20 years. Generally, amortization is linked to the planned number of showings. As operators move strongly into the converged arena, in-house development of content and services may be an attractive option for those with the right skills. Nevertheless, to date there does not appear to have been a significant increase in R&D costs being capitalized. Possibly this is because in-house development is often classified as software rather than development costs, with the result that it appears in the financial statements as an addition to intangibles or property, plant, and equipment (PP&E) rather than explicitly as capitalized development costs.

What issues will convergence bring in the future?

The simple answer is that convergence will drive costs upward on both the customer and the content sides. Customer acquisition and retention costs will rise thanks to a combination of more expensive devices, more intense competition, and more demanding consumers. And given the vital role of attractive content in driving consumer acquisition and retention, content costs could well become most operators' second biggest variable cost in the near future.

Current trends regarding subscriber acquisition costs (SACs) are mixed. On the one hand, for mobile communications, the average cost of a "typical" handset—which now has a camera and is GPRS-enabled—has risen. So have commission payments, reflecting a move to 18- to 24-month rather than 12-month contracts. On the other hand, operators are showing greater enthusiasm for bringing handset supply in-house, through direct sales and/or own store networks.

In addition, many companies are introducing SIM-only offerings, generally to be able to offer reduced-rate basic services and a free choice of handset to the customer, at reduced SAC.

What should operators be considering now?

As SACs are expected to increase, so is the risk of spending SAC on a customer that will not provide the expected return. Information on individual customer behavior and spending patterns is key to understanding customer profiles, which can then be used to develop tailored

service offerings and determine appropriate SAC levels. This requires sophisticated data-gathering and analysis tools.

Operators need to examine whether expensing customer acquisition costs is still the most appropriate option, given their increasing levels of expenditure and the fact that common industry practice differs both among Western operators' existing peer companies in Asia and new peer companies in the media sector. Significantly, there are variations among broadcasters and cable operators in how they account for decoders/set-top boxes. The majority defer some costs, either as subscriber acquisition costs or as PP&E.

Regarding customers, there can be no doubt that SACs do result in an ongoing benefit to the operator. Without drilling down too deeply into the GAAP issues, the practical reasons for not capitalizing SACs include the difficulties of measuring and tracking them and the relatively short customer contract periods. In fact, in more mature markets and for traditional voice offerings, these considerations, together with the relatively more stable total customer numbers, may cause the difference in income statement impacts between the two policies in any given year to be small.

Meanwhile, on the content acquisition side, operators need to ask what method of accounting for content costs most fairly reflects commercial substance and most appropriately shows the consumption of content in the income statement. For those operators acquiring content for use over several years, disciplines around the initial investment decision and the monitoring of carrying value will be required just as if the content were a tangible fixed asset.

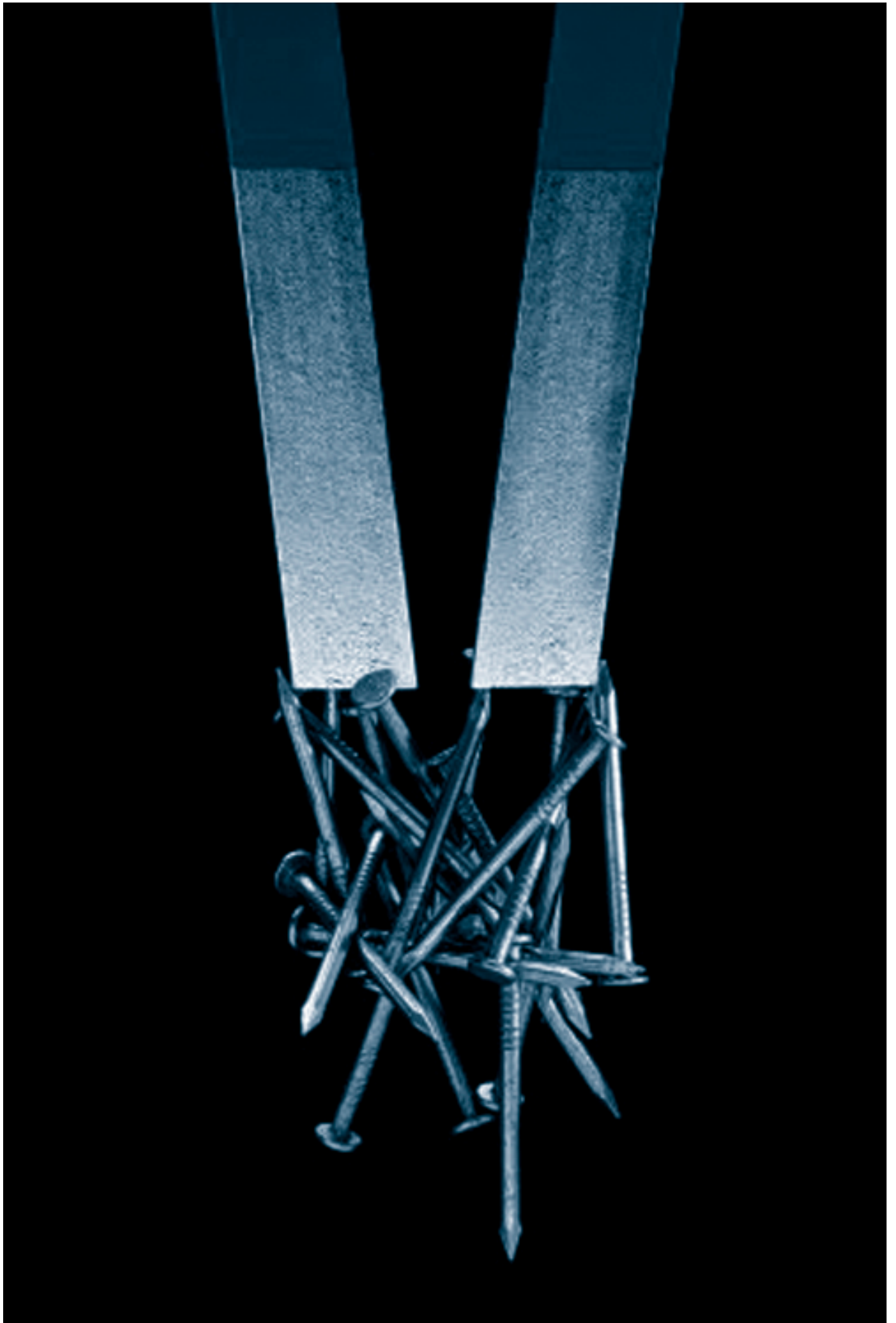
Conclusion: Think strategy and numbers

As we pointed out earlier in this article, the converged communications and media landscape is still taking shape, and operators are adopting a variety of strategies to claim their positioning in it. Over time, some of these strategies will outperform while others will lag behind. In the race toward convergence, what is clear is that operators will need to think hard about the impact of convergence on their accounting and reporting, and invest time and effort in ensuring that both are fully aligned with their evolving strategy and business model. Thinking about it now enables operators to address the issues proactively—to be part of the emerging debate rather than waiting for somebody else (regulator or competitor or maybe investors) to impose a solution on them. By communicating with the investor community and aligning the GAAP financial statements with the underlying fundamentals of the business, companies can help investors better understand the drivers behind management's decisions.

There are other benefits, too. Spending cash now on systems that can cope with new revenue models gives operators a chance of avoiding the inefficiency and inherent unreliability of spreadsheet-based work-arounds. The right data-gathering and analysis tools allow for quick response to customer behavior in determining service offerings and SACs. In the end, investors place value on transparent reporting but tend to be quite conservative when it comes to KPIs; change makes them nervous, so you need a good story for why you've introduced new measures or changed the way you apply them.

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Attracting the Right Talent

Many companies acknowledge that people are their most important resource. But, which people? As communications operators become technology-based businesses, not only their business models have to change. Today's convergent, services-based marketplace also requires a new approach to managing talent across the business, which requires new skills to be developed in new ways. The views of 153 senior executives from the communications and technology sectors were captured by a survey conducted recently by the Economist Intelligence Unit and PricewaterhouseCoopers, and this article reflects on the findings of the survey.

by Mark Abbs and Steve Couch

Innovation requires talent. As the innovation cycle in the communications sector climbs toward a new peak, that underlying dynamic is making itself felt as never before. As a result, today’s communications operators face a looming talent shortage. To overcome it, they must be able to compete for—and develop—the best and the brightest individuals. The key question is whether their talent management culture, processes, and systems are up to the job.

Businesses jostle to recruit from a relatively small number of sought-after individuals worldwide. An advanced degree in mathematics or the sciences may be just the first requirement. The best people need, in addition, not only a strong drive to succeed but also the willingness and ability to learn continually, to collaborate, and to innovate. They also should be able to lead teams through rapid change, to coach and manage the performance of their teams, and to improve the engagement of their teams—thus, possessing abilities aimed at improving the business performance and executing the business strategy of the organization.

To recruit and retain extraordinary individuals, successful communications businesses must ingrain talent management into their corporate culture. They must work harder at keeping their best people, developing skills internally while keeping a constant lookout for the best and the brightest. They must sharpen their focus on what they regard as their core business, using outsourcing where applicable and moving some operations offshore to gain global access to larger, and cheaper, pools of talent. They must also place particular emphasis on retooling as well as developing the talent they already have.

And, they have no time to lose if they are to successfully elevate their talent management to world-class status. Given the potential returns from employing top talent, workforce investment represents a crucial means for communications companies to drive financial performance in the coming decade. Investing in the workforce effectively may well determine which companies succeed and which fail; which companies continue to innovate,

cut costs, and drive productivity; which companies win and retain customers through exceptional customer experience; and which companies simply struggle to replace the talent that has walked out the door.

Four key points of best practice

In recent years, PricewaterhouseCoopers has earned a wealth of experience in helping communications companies reshape and regroup for the broadband-based, post-voice world. Now, backing up this experience is our in-depth research survey of talent management in companies across the communications and technology sectors. The survey highlights four key observations that help define what we regard as best practices in talent management for communications operators:

1. Make human capital management a real priority, not something you just talk about.
2. Decide what the right quality of talent is, and then make sure you acquire it.
3. Harvest the wealth of talent that already exists in the business, and do so while seeking alternative ways of gaining access to talent, such as joint ventures.
4. Look across borders and use global markets to access global talent.

One: Make talent management a priority

Many communications executives say that managing human capital is key; but with 15% of the survey respondents ranking their business’s performance in recruiting and developing talented people as “very adequate” (see Figure 1), most

have a low opinion of their firm’s current capabilities in this area.

At the other end of the spectrum is Yahoo!, which was founded in 1994 and has evolved into a global brand that has changed the way people communicate with each other. Human capital management is number one on the company’s list of strategic priorities, and their willingness to share human capital strategies and metrics with shareholders demonstrates a real belief in the power of their people.

Many communications companies face a shortfall between the talent management rhetoric and the reality in their business. To close this gap, many companies need to reprioritize their human capital strategy to encourage superior, sustained performance, and then put that prioritization fully into effect. In our view, it is vital that communications operators take those steps before the currently looming talent shortage becomes a hard reality.

Communications companies can distinguish themselves by taking the lead in talent management. The best place to begin is to gain the support of top executives in driving the necessary change—because the importance of effective talent management must be clearly demonstrated at the top before line managers will believe it is a genuine priority. Identifying and developing future leaders, to whom the future of the business will be entrusted, is a high-level strategic responsibility.

“Recruiting, developing, rewarding and retaining the right people is critical,” said Ben Verwaayen, chief executive of BT Group Plc, in the company’s 2006 annual report. “A people business only

Figure 1: Capability of organizations in recruiting and developing talent

	Overall	N. America	Europe	Asia Pacific
Recruit and develop talented people	15%	17%	10%	17%
Define, measure, and reward collaboration	11%	18%	10%	7%
Provide appropriate training for executives	8%	9%	8%	6%

Few executives responding to the survey indicated that their organizations “very adequately” address the critical capabilities of managing talent.

really fires on all cylinders when its top team is on top of its game, which is why we have rigorously defined the capabilities we expect of leaders in this business and developed programmes to help them become even more customer focused.”

However, the support of senior managers does not reduce the need for rigorous implementation. It is important to make talent management real at all levels, including making human capital performance—turnover, progress in people development, and time to effectiveness—part of every manager’s performance review. Employees’ satisfaction is directly linked to their quality and productivity, and this alignment should be exploited as a core component of competitive advantage.

The most challenging activities commonly include:

- Defining the skills and competencies required for leaders to manage their talent pool effectively.
- Listening to talented people to establish criteria that are “enablers” in and “blockers” to attracting them.
- Recognizing and capitalizing on differences in leadership style and management behaviors to provide a more enriching environment for talent.
- Establishing a measurement or benchmarking plan to track and evaluate progress.
- Devising performance plans for managers with talent management as a key performance indicator.
- Clarifying roles between human resources and management concerning ownership and implementation.

Two: Focus on identifying and acquiring the right talent

Finding good people is always difficult, but one of the strongest messages to emerge from the survey was that communications executives are beginning to experience a painful scarcity of the essential “hybrid” employee: the talented, technically savvy individual who can also excel at collaborating, innovating, and managing change. For instance, 73% of the communications companies responding to the survey

Figure 2: Perceptions of the talent shortage

	Overall	N. America	Europe	Asia Pacific
Today	45%	33%	51%	40%
Next three years	66%	66%	63%	73%

The shortage of talent perceived by survey respondents varies by geographic area and, within geographic areas, in current versus anticipated levels.

thought innovation was a very critical skill when attracting and retaining staff.

AT&T is proud of its innovative heritage of more than a century. According to its 2005 annual report, AT&T Labs continues to build on its strong track record by “attracting the top thinkers and challenging them to look beyond the expected to find solutions never seen or even considered anywhere else.”

The technology industry has been complaining for some time that people who combine engineering knowledge with creative and collaborative thinking are in short supply. Now, as the technology component of communications services continues to rise, that scarcity is starting to affect communications operators. The outlook for scarcity varies widely by region and time frame (see Figure 2) but is expected to rise dramatically across all regions over the next three years.

Furthermore, the perception is that the quality of technical education is declining. Fifty-five percent of the respondents agreed that requisite mathematics, science, and engineering talent pools in developed nations are drying up relative to emerging markets in China and the Far East.

The result, as one United States-based survey respondent pointed out, is clear: “If demand increases even a small amount, we’ll be in another talent war.” Motivating employees is complicated. Is there always overlap between what employers and employees believe motivates employees? Studies have found that employees place high on the list factors such as participating in interesting work and feeling appreciated at work, and they rank good pay as important but lower on the list.

Those findings are consistent with well-regarded motivational theories, such as

Maslow’s hierarchy of needs, which defines food, shelter, and clothing as the most basic human needs. Once the basic needs are met, according to Maslow, we are motivated by higher factors, such as autonomy and self-esteem.

Noted business management theorist Frederick Herzberg distinguished between “hygiene” factors and true “motivators.” Hygiene factors are the external elements that affect staff, such as company policy/administration, working conditions, salary, job status, and security. Motivators, on the other hand, are the internal elements that affect staff, such as achievement, recognition, growth or advancement, and responsibility.

He found that while the hygiene issues do not actually motivate staff, they are necessary to prevent dissatisfaction and are an essential foundation of motivation; and without the motivators, staff may not be inspired to improve their level of performance. “It’s all about offering interesting work and a growth position,” said a senior HR executive in Germany. “People want to know how their career will unfold.”

The first step toward acquiring the right people is to decide what type of people the business needs, now and in the future. Each organization has distinct strategic goals, so it is important to start by defining the business’s individual talent landscape. Perhaps a talent management “health check” would enable the business to develop an explicit talent strategy and definition, including clarifying critical roles and future skills. For instance, for many communications companies the focus is on understanding customer segment needs and customer service. Therefore, the role of front-line staff—those in the retail stores and call centers and field technicians who directly

influence customers' experience each day—becomes ever more important to the business.

Implementing a company's strategy, then, will include building organization-wide understanding and acceptance of the talent management model as well as integrating it with performance management, process training, and process evaluation.

Three: Harvest talent from within—and from without

As communications companies worldwide intensify their focus on developing and training their people, it also makes sense to emphasize keeping and developing existing talent. In much the same way as retaining an existing customer is much cheaper than acquiring a new one, so companies should not underestimate the potential of the talent they already possess in-house.

However, developing talent within the business is not the only alternative to outright recruitment. Communications companies increasingly are seeking to access talent through partnerships, alliances, outsourcing, and offshoring, and also are forming special relationships to pull in talent from top schools. For instance, the various companies in the Telefónica Group have cooperation agreements with educational centers, universities, and academic institutions, which provide access to scholarships and hands-on training programs. Data suggest that as a source of human capital over the next three years, partnerships and alliances will be just as important as recruiting from competitors.

The key throughout any talent-harvesting effort is to stay focused on identifying and developing high performers. The current degree of focus is driving two trends. One is the move toward developing comprehensive and institutionalized recruitment, retention, and development programs. The other, and closely related, trend is the growing propensity to treat each employee as an individual. In developing and presenting a value proposition to employees, whether new recruits or existing staff, it is vital to align personalized development programs with desired career paths.

A further means of obtaining talent is to hire another company's talent through entering into business partnerships or outsourcing relationships. The perceived benefits start with reduced operating costs—but the advantages in terms of human capital management also include lower-cost access to scarce skills and greater workforce flexibility. Our research shows that most companies favor operating offshore over recruiting directly from overseas, because they can trust their partner's local recruitment knowledge within a territory more than their own. The importance of access to skills is underlined by the fact that companies entering alliances and outsourcing relationships are requiring increasing transparency concerning their partners' HR practices and metrics.

Companies also need to evaluate whether their "employer brand" is attracting the right kind of talent. How the brand is perceived—what current and past employees say about the company—directly influences the quality of people who apply. While altering the perception of the brand can be a slow process, companies need to invest in building their employer brand at select points of recruitment.

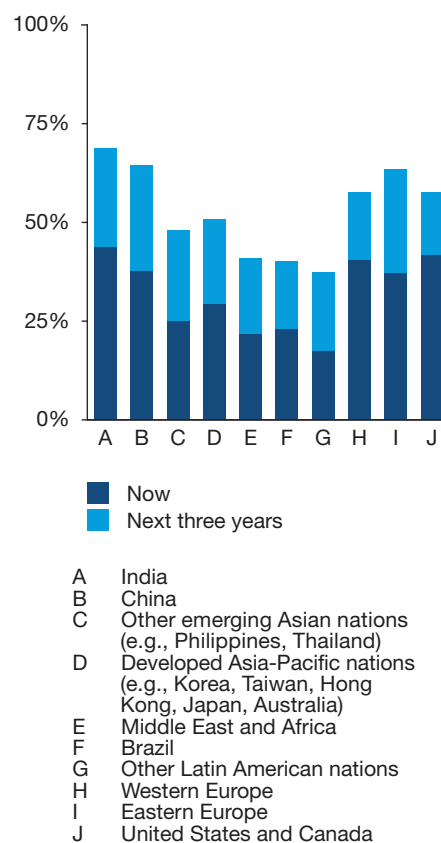
Four: Manage talent globally

The increasingly global nature of the communications sector is creating the need for lower costs, new types of talent, and economies of scale, all of which are driving companies to look overseas. Data suggest that many communications companies are beginning to have difficulty finding skilled people in emerging markets and difficulty retaining the people once they are on board.

It is understandable, therefore, that communications companies are starting to improve their capabilities by developing and managing global talent pools. The CEO of France's Wavcom said that while his company may be small, its far-flung operations still require active human capital management and "the challenge is keeping an extremely culturally diverse group of employees motivated and working towards the same goal."

While emerging economies represent a massive potential source of talent, the problem lies in tapping into the source

Figure 3: Trends in operating offshore to hire globally



Asked about their plans to operate offshore for the purpose of hiring people with required skills, the survey respondents identified countries in which they currently or will operate in the next three years.

effectively. As communications companies tackle this challenge, they need, simultaneously, to evaluate their pursuit of offshoring and their people management strategies in emerging markets. None of that is easy.

Desiring a global workforce is one thing; attaining it is another. So, companies are looking for ways to improve collaboration and alignment across skill sets and time zones. The combination of major differentials in remuneration between regions and competitive wage inflation in emerging markets makes it very hard to keep turnover down and harmonize HR across borders. Such problems can and will be overcome. Approximately 70% of the survey respondents either already had established operations in India or will do so in the next three years (see Figure 3).

Emerging markets, however, are not a panacea, and respondents indicated that they see the beginnings of a talent shortage. Salaries for technical staff are on the rise, particularly in China and India, and attracting and retaining technical staff in India is a growing challenge. In response, companies are taking programs that are established in Europe and North America, such as employee engagement surveys and defining individual career paths, and deploying them in emerging markets. Success is a matter of working harder to keep the people the company has, developing them, and creating a truly global talent pool. Global sourcing can also enable access to new consumer markets.

Conclusion: A focus on talent

As we noted at the start of this article, a communications operator's first steps toward effective talent management are to accept the massive strategic importance of talent to the business, make managing it a priority, then put the resulting commitment into effect. Those steps create the context in which the company can win the increasingly intense competition for highly skilled, innovative, collaborative people and thereby raise the performance of the business over the long term.

While human capital strategy might seem to start with recruitment, the most dramatic evolution is taking place in the realm of managing, developing, and optimizing companies' existing talent. Identifying and retaining top performers is becoming paramount and is occurring across the company rather than being focused on merely a few select individuals. As a result, more companies are applying tools to assess their present and future talent needs and are tailoring individual career and development plans; line managers are learning the importance of nurturing talent and are being evaluated on their results in this area; and human capital metrics are being introduced and carefully tracked at all levels.

In short, the sustained performance of communications companies is inextricably linked to the ability to recruit and retain people with the right skills and qualities.

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Visit www.pwc.com/techconnect to download a full copy of the survey, Successful Strategies for Talent Management.

Perspectives

Incumbent telecom operators around the globe have faced many challenges over the past two decades. Deregulation brought fierce competition in many markets that drove down prices and stock values. Mobile and Internet services exploded and many markets quickly became saturated. Companies merged and companies broke up, and some merged again. Rapid change was not something that carriers who once held monopolistic positions were good at when faced with younger, nimble competitors with the latest technology. Now, with the reality of converged services starting to emerge in the communications market, more hurdles are ahead.

In the following interviews, we hear from executives at three major communications companies. These incumbents have managed to survive and thrive by doing things that tripped-up some of their peers over the years. We get their perspectives on what is important to sustaining their businesses for the coming decades, including the role of regulation, customer service, technology, employees, and new business models.



An Interview with Didier Lombard, France Telecom

France Telecom is committed to innovation. In 2005, Didier Lombard, chairman and CEO, launched NExT (New Experience of Telecommunication), a transformation plan designed to help speed the company's development as an integrated operator to deliver richer, simplified services to its customers. Here, Mr. Lombard shares his views on how France Telecom stays ahead of competition, the challenge of regulation, and how content and service quality are critical to future growth and sustainability in a convergent environment.

Communications Review: The telecom industry is experiencing massive change, which is moving operators increasingly to sell fixed, mobile, Internet, and video services in a variety of combinations. What strategy is France Telecom taking to stay competitive?

Lombard: Our strategy is to concentrate on our core network operator's business, acting as access supplier and manager under a business model that involves billing a broad customer base for a range of services.

France Telecom has moved far beyond triple- or quadruple-play strategies. With the gradual rollout of universal high-speed digital broadband access (at 100 Mbits per second today), France Telecom is setting its sights on providing customers with simultaneous access to a whole panoply of multimedia services. You could call this an "n play" strategy, as illustrated by our latest "Spring Collection," which offers an impressive number of possible service combinations.

The way I see the competitive situation in our markets today, there are three types of players:

- Telecom equipment manufacturers, who have been hit very hard over the last few years by the impact of telecommunications regulation on their operator clients, and by price pressure exerted by the arrival of new entrants (such as Huawei) from emerging countries.
- Telcos, moving in a highly regulated environment governed by the current dogma of "asymmetrical regulation," whose main purpose is to decrease the incumbent operator's share of the landline telephony market and stimulate the emergence of new entrants.
- Software giants such as Yahoo! and Google, who derive their income from audience figures, through a business model based on advertising revenue.

Asymmetrical regulation, especially in France, has had a considerable impact on telecom equipment manufacturers. As we are now at a major technological turning point and as market share in landline communications no longer necessarily means competitive dominance, we are beginning to see the end of this period of asymmetrical regulation.

As customers jump from having no equipment to being fully equipped at a minimal cost, we see substantial value erosion, which naturally affects the market players. This would be highly damaging to the economies of the countries concerned were we not at today's technological turning point.

Unencumbered by regulation, software giants have rushed headlong into the technological breach opened up by the Internet, working toward various audience-based business models.

Communications Review: Do you think that you have to own content to win the customer? How do you gain access to the right content?

Lombard: As I mentioned, Google works by building audience numbers that allow it to generate advertising revenue. Our agreements with Microsoft on Instant Messaging illustrate our model of a better balance between access and audience. Our audience-driven volumes are still fairly low, but will be rising sharply. We can see this with the soft launch of Instant Messaging on the Orange portal. With no advertising at all, the viral marketing effect has been huge, generating thousands of hits.

We are well aware that software giants cannot be stopped at a country's borders. Thus we have to cooperate with them. Content and networks enhance each other's value, producing a win-win situation: the value of content rises through networked distribution, and networks gain value by providing varied content.

France Telecom provides diverse content on its network, including content from outside France. For example, we offer quality video access services that require very fast video servers, and managing that type of server is very much a network operator's job. Mobile television consumption has risen from 20 to 120 minutes per month since we launched Orange Intense, our 3G mobile service.

So, yes, content is essential to us—not so much the actual development of content, but access to it. We need access to content by every available means, but what we won't ever be doing is buying television studios to create content for broadcasting over our networks or distribution via ADSL. The time-honored

principle still applies: It's unwise to over-reach by moving into a sector that isn't part of your core business—you have every chance of running into trouble. France Telecom could not make that kind of gamble despite that we sometimes behave like a start-up! We've seen what happened with Vivendi's attempts in France, and there was also a similar case in Japan.

Our customers are used to high service quality, with landline telephone failures averaging around one every 14 years. Service interruptions were very infrequent and usually caused by outside factors such as bad weather conditions. In television, the duration and frequency of signal interruptions must be kept to the minimum acceptable to the customer, and this brings very tough maintenance constraints.

For example, video on demand is a service that France Telecom can manage more efficiently than content owners can because our networks afford a user interface quality that content professionals cannot offer themselves. Consumers expect user-friendly content management tools. The quality of the user interface and its ability to conveniently handle large data volumes becomes a crucial consideration. When it comes to providing relevant, reliable, instant service, the quality of our video servers is a major differentiating factor that lies at the core of our network operator's business.

The development of mobile-phone television provides another example of the importance of content in revenue growth. Since this service started up, consumption levels have exceeded expectations. Some of our customers even watch television on their mobiles at home, something we hadn't really anticipated. Consumption will doubtless be increasing with the arrival of high-definition TV for mobiles.

New ways of watching television will also be emerging through agreements on "catch-up" viewing with television groups, enabling our customers to design their own viewing schedules. As provision of television content becomes less linear, operators will need very-high-performance networks that will not saturate. So the best approach here is mutual enhancement of networks and content through a win-win approach.

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France Telecom's copper-wire income is slightly increasing thanks to these new broadband services.

Communications Review: What role does technology play in your strategy, and how do you plan to execute the rollout of your next generation network (NGN)?

Lombard: I'd say the issue of NGNs was pretty much a non-issue for France Telecom. France Telecom networks have been new-generation for more than 10 years now. We see no specific difficulties or challenges with NGNs as such.

The France Telecom network in France, Belgium, Spain, and the United Kingdom is managed as a whole. For example, when the networks went down after the terrorist attacks in London, Orange was the only one to keep running normally, because it's switched at Beauvais, in France.

The France Telecom network is highly efficient, almost too efficient at times, because we actually have to design in processes to ensure that automatic network operation remains accessible to human intelligence. Because a fault originating in Barcelona might produce a failure observed in Switzerland, troubleshooting can become difficult. You could call it the "Brave New World" risk: the network can become too powerful and autonomous, making it difficult to understand. A network is not a matter of technology alone. Technology enables us to lower costs and mutualize expenses, but technological efficiency must go hand in hand with security. That is the real challenge for a network operator wishing to remain the leader in its market.

Communications Review: How can you cut costs while going through a transformation of the business?

Lombard: My answer ties in with your previous question; network sharing is important but dependent on the competitive situation. In the UK, 3G networks can be shared because this is allowed by the market situation and by the size of the players. Ironically enough, the British market situation has come about because of the British regulator's drive to dismantle British Telecom, much to the country's loss, since British consumers missed out on developments like ADSL and IPTV. In France, the market situation is not conducive to network sharing—it takes two to tango.

Communications Review: Customer service will be critical to keeping customers, who are becoming less loyal as more options become available to them. What are you doing in terms of billing, bundling, and customer care to reduce churn and keep customers happy?

Lombard: Customer loyalty is one of our primary objectives this year, and it hinges largely on service quality.

Historically, phone service quality was excellent, with failures averaging one every 14 years and if a problem did arise, customers just phoned the hotline (dialing 13 in France) for prompt service resumption. But the situation is getting more complicated, with new services that involve installing new systems and new technologies in our customers' homes. With Livebox, set-top boxes, and ADSL, we are putting computer systems in the home. All these interfaces are microprocessor-based, and while PC-literate users can negotiate their way through setup and operation, other users find it much more difficult—the slightest hiccup can become a completely intractable problem.

Also, all these new systems introduce additional complexity, and code to which we do not have direct access. So there is some degree of vulnerability to viruses and unlicensed use. In mobile telephony the situation is simpler, because the system is less open and remote maintenance more direct.

France Telecom is currently reviewing these complex mechanisms and trying to get back to basics to make things easier for the consumer. The aim is a return to the incident rates of classic telephony. We don't expect zero failures but we'll be trying to get as close to that as possible.

To help our customers deal with technological complexity, we will need a strong sales presence and an appropriate service culture. That explains why our sales-related spending has been rising and will continue to do so, at least in the short term. The priority objective of our sales teams is to push ahead with improvements in service quality, while aiming to control this spending.

Didier Lombard joined France Telecom in 2003 as senior executive vice president in charge of Technologies, Strategic Partnerships, and New Usages. He was appointed chairman and CEO of France Telecom in 2005. Mr. Lombard is also a director of Orange, Thomson, and Thales. He is a member of the Supervisory Board of Radiall and ST Microelectronics.

Prior to joining France Telecom, Mr. Lombard was deputy ambassador for international investment and chairman of the French Agency for International Investment, which he founded. From 1991 to 1998, he was general manager of industrial strategy at the Ministry in charge of Economy, Finance, and Industry. From 1988 to 1990, he was the scientific and technical director at the Ministry of Research and Technology.

Mr. Lombard is Officier de la Légion d'honneur and Commandeur dans l'Ordre National du Mérite. He is a graduate of the Ecole polytechnique and of the Ecole nationale supérieure des télécommunications.

For more information, visit the company's Web site at www.francetelecom.com.



An Interview with Alex Arena, PCCW

Hong Kong is a very competitive communications market. It has more than seven million people and four pay-TV operators, five fixed operators, and five mobile operators. PCCW Limited is competing in all these segments. Here, we talk with Alex Arena, an executive director and chief financial officer of PCCW, to understand how his company has evolved from a plain old telephone service incumbent to a market leader and innovator of new communications services.

Communications Review: The telecom industry is experiencing massive change, which is moving operators increasingly to sell fixed, mobile, Internet, and video services in a variety of combinations. What strategy is PCCW taking to stay competitive?

Arena: It's fair to say that we are approaching the market differently than some of our peers. I have an aversion to certain jargon. Words like *convergence* don't stick to me at all. Convergence is an engineering term. We're converging on IP technology, where things are moving around in packets and you can do next generation networks and fixed-mobile convergence. But that's not a consumer proposition.

We asked ourselves, how can we create brands across fixed line, broadband connectivity, television, and mobile, and how can we take branded services to the consumer in an integrated way?

Ours has been an evolution. We were a plain old telephone service (POTS) company—incumbent, monopolist. A nice business for a while, with good margins across all product lines, and we could afford the capex to do that. We did a good job of getting tele-density up, but, once competition was introduced, the connectivity business became commoditized very rapidly. So, we had to reassess.

We moved across to the content, applications, and transactions space. Why? Because we found out we are really good at it. In the past we let the consumer do the content, with voice calls, IDD [international direct dial] minutes, and faxing. We had the end-to-end connectivity, the security and the billing systems, the customer management systems, the call centers, and all the software and hardware that go with them. We realized that all that is just as applicable to selling movie tickets and subscriptions to a TV channel as it is to selling someone a voice call.

So that's been the renaissance of our company—taking the set of core competencies we had developed and transferring them to other areas.

We have converted our thinking now to look at all our fixed and wireless access technologies and how to make the same core set of content applications and transactions available across them all. We are looking at it from the consumer's perspective, which is "I don't care what device I use—a mobile or a TV remote or a PDA [personal digital assistant]. I want the same stuff across all those platforms. How can I get it?" That's the challenge we have been working on for the last few years.

Communications Review: What role does technology play in your strategy?

Arena: In voice, we were the first operator in the world to go from analog to fully digital. We completed that in 1993, which means we now have the oldest digital network in the world, and it is becoming obsolete. So we needed to move very quickly to an IP softswitch network, which is being turned on progressively as we speak.

In broadband, we started with 1.5 Mbps as our basic offering. We keep pushing that speed higher. About 93% of Hong Kong can get over 6 Mbps service, and about a quarter of the population in Hong Kong can get our ADSL2+ at 18 to 25 Mbps. We need that sort of speed because of television. We started offering TV via IP technology over our broadband network in September 2003. We started with an à la carte menu and 23 channels, of which 12 were free. We now offer more than 130 channels and we have introduced a lot of interactivity in the service.

There is 70% penetration of broadband in Hong Kong. We are the leading provider, with close to 60% of that market. But we feel 6 Mbps is not enough. It is OK to supply our standard TV product, but it is not good enough to supply HDTV. Therefore, we are already beginning to ramp up. Progressively, we will have 18 to 25 Mbps available to 90% of the population. With that I expect to deliver three HDTV channels, plus the PC, plus all the voice and transaction services the typical consumer needs, on one ADSL2+ line. We equip most homes in Hong Kong with two or more lines. I'm talking about dedicated services here. It is not Ethernet or shared bandwidth.

We just reacquired a mobile license a year and a half ago [Editor's note: SUNDAY Communications]. We are now fully absorbing a second- and a third-generation proposition and are doing some really interesting things with music, TV, and photographs on mobile.

One technology we use for mobile TV is cell multimedia broadcast (CMB), a proprietary standard that Huawei developed. It is broadcast, not streaming. If you do mobile TV on 3G streaming, you can support, typically, only six people on a cell site at one time. We can't launch a massively popular commercial service on that.

MBMS, a broadcast standard on 3G, is coming, but it is not available now. So, Huawei developed CMB, a pre-MBMS standard that will be MBMS upgradeable, and it is here today. We deployed CMB throughout Hong Kong, and as a result

we have broadcast television on mobile. It supports more than 250 users per cell site. The phone does not get hot because it is operating more passively, like a TV, and the battery lasts longer.

With this development, we can start to think about a mass consumer application. The cost to serve is low, and content cost is low because we already have it for our TV service. We don't need to charge people a download cost per minute. If you buy our 3G service, you get the broadcast TV as part of the service.

We are progressively adding interactivity and transactions. We'll get into home networking, and our ultimate goal is truly integrated services. Of course, the underlying technology is broadband and IP switching, and we are well on our way to achieving our vision of a broadband connection to every home in Hong Kong.

Therefore, in a nutshell, technology does play an important role in our strategy, but our approach is to look at technology as a means to deliver new consumer services rather than as an end in itself.

Communications Review: Do you pre-load options for all mobile users even if they don't subscribe to the service?

Arena: Yes. One thing we have learned over the last three years is that consumers can actually be quite slow to pick things up. We are moving very fast and the customer is not absorbing it. So what we do is load all the icons onto the phones, and then when customers come to a shop wanting a new phone, we prompt them to use the icons. We try to make it easy for them to take the service, without having to make a conscious decision about buying the service. With our basic service offering, customers can choose a music option or a TV option. They take one and later they call back to activate the other.

Communications Review: How is PCCW differentiating its service offerings, and what role does innovation play in gaining and retaining customers?

Arena: We were a POTS company, which is a challenge in a competitive market and an even bigger challenge in a mature, indeed saturated, market. What do you do in a market with 130% penetration of mobile phones—nine million phones for seven and a half million people? What do you do when voice has migrated to mobile? People don't care about fixed phones for voice any more. We had to reorient our fixed offering around a data service. We added a screen to our fixed line phones and started offering Chinese

SMS, as well as English, and we started letting people do things like download cooking recipes, get stock market quotes, and read horoscopes. We started giving new life to the fixed line.

As the next step, we went cordless on our fixed phones. We put color monitors on cordless phones. We are launching one shortly that gives radio services as well, and the one we are about to launch is a broadband device that is essentially an entry-level computer, with a five-inch screen. It is a hybrid that allows people to do things like transactions (e.g., shopping, betting, banking) and watch TV channels or do video calls. So the plain old phone is moving into a multimedia environment.

In television, we started offering basic IPTV about three years ago. We have installed more than 750,000 customers and have achieved about 35% household penetration. Our main competitor, a cable company, has a little more than that, with about 780,000 customers, but they have been at it for 14 years, during the first 10 of which they were operating as a monopoly. One key differentiator is our picture quality. Our standard picture quality is DVD quality.

We are now into advanced interactivity. People can purchase a ticket for the cinema through their TV. You pick the movie, the location, your seat, and make the purchase by credit card. We get HK\$6 per transaction. I think that 10 years ago, before we lost our international service monopoly, we got HK\$6 per minute for an IDD call. In our business, HK\$6 per transaction is a lot of money if we can achieve volume in the number of transactions.

We have had zero piracy with our IPTV offering in the three years it has been available. This is because of our point-to-point network architecture and the security in our network. We are now moving to introduce HDTV and we have actually rolled out an HDTV trial in the market. Importantly, if you want our TV service, you have to get broadband from us. We won't supply TV on our competitors' broadband. So, if you want a ticket on this train, you have to ride on our track.

Ninety percent of our broadband customers in the past couple of years have also taken our TV service. What does that tell you? They come to us for broadband because they want the TV. The TV application has driven the demand.

In launching the TV service we took the commercial decision that we would offer à la carte pricing and allow consumers to select individual channels of their choice. We expected that, over time, ARPU

[average revenue per user] would go up because people would buy more channels. It has worked. Our percentage of paying customers has gone up faster than the installed base. The ARPU has steadily risen. We've maintained essentially straight-line growth in TV customer numbers since launch and we are taking market share from our competitors. The other interesting thing is that our churn rate for our underlying broadband service dropped in half. It dropped to well under 1% per month and has stayed there.

Communications Review: How integrated is the support structure you've established for your services?

Arena: We have three channels to the customer. We have shops, which act as a very important educational platform, a good cross-selling opportunity, and an opportunity to demonstrate to our customers our latest service offerings. The shops sell all our products.

Our second channel is the call centers. They are now integrated and sell everything, which is very sophisticated because at certain times they are doing retention plans and at other times they are doing acquisition calls and new business for all products. We have been pursuing "one view of the customer" as our holy grail. We have had to train the call center operator to, when a customer calls, pull up the view of the customer, get the problem fixed as fast and as smoothly as possible, and then give a sales pitch to the customer. There is nothing like a satisfied customer to take another product. The whole sales channel is extremely integrated (the SUNDAY call center was just closed and is now fully integrated to the PCCW call center network).

The third channel is our direct sales force. At certain times of the day they are selling broadband, at other times they are canvassing homes to sell local phone service, and during other parts of the day they are in street booths or selling TV service or mobile service, etc.

We also have a self-serve option for customers, but the personal contact is so important because we can explain things and help customers through the options. For example, as a cost-cutting measure in years gone by, we automated a lot of customer services, but now we offer enhanced customer service where customers can talk to a live operator when they call. For an extra HK\$20 per month, they have peace of mind that when they call, they will get a live person. It's interesting that many customers want that and will pay for it.

Communications Review: Can you comment on your multiple brand strategy?

Arena: I can't address this topic without addressing the whole question of bundling, which is an unwelcome word in our company. We've seen what other carriers have done in offering triple- and quad-plays. For many of them, bundling revolves around a single bill for the customer. I don't want that.

Once you start aggregating on a single bill, simple bundling often results in price discounting. We have been able to avoid that by having brands for our different product lines. The consumer can evaluate the value of our different product offerings head-to-head against other offerings in the market and then make their decisions based on value.

We try to get customers to use one of our services. Once we get them on one service, we try to give them a reason why they should take another one of our access technologies. So in terms of brand, we put our brands out there so that they reinforce the perception of value. Then by allowing customers to extend a service from one access technology to another, we enable them to see the value in the integration of our services. For example, if one of our TV customers values a particular channel, say our self-produced Chinese Business News Channel, we can offer to extend this channel to his mobile phone if he switches his phone to PCCW mobile. The customer sees value in that, and we do not need to engage in a discussion about a bundle discount.

Communications Review: How does regulation affect the brands and your pricing structure?

Arena: Luckily for us, most of the regulatory issues, which were very challenging, are now behind us. The fixed line was heavily regulated and our competitors were doing everything possible to acquire a customer. They were discounting prices and giving away electrical appliances just to get customers. We were tariffed at a price we could not discount and we had no contract with customers, so they were all free to go. After a long battle, we were taken off of dominant carrier regulation and were free to differentiate by price and to target different customer groups. Now we can—and do—compete, and our fixed line market share has stabilized at around 67%.

Broadband, TV, and mobile have always been competitive markets in Hong Kong. Originally those were all separate businesses for us, and the mobile business was even a separately listed public company.

It has taken us some time to merge them, but now everything is under one roof with separate lines of business inside the company. And there are few regulatory issues that we need to deal with any more. It has taken us 10 years to do that.

Communications Review: Do you think that you have to own content to win the customer? How do you gain access to the right content?

Arena: On TV, we offer multiple channels (now over 130), many of which are exclusive, including many different language channels. It's interesting to look back on how we got the content in the first place.

First, the opportunity we offer the content providers is different. Our dedicated one-to-one relationship with the customer plus our sophisticated back-end support (e.g., billing, customer care) allow us to provide an à la carte proposition with revenue sharing to the content provider. Also, we can provide more direct feedback to the content providers on what viewers like and what they don't like.

Second, security is extremely important. We have been audited by all sorts of people. One content provider took nine months to do their security audit because they insisted we could not be as secure as a cable company. They were clearly satisfied by our security—we have zero piracy—and after a few months in service with us, they were talking to us about exclusivity because they suddenly saw how they were getting revenue assurance.

Third, we are now going into a whole new range of services utilizing interactivity. We wanted to create a Cantonese financial channel, and when we could not get anyone to do it for us, we hired the people, set up the studio, and did it ourselves. It was so important for us to have this channel because we can offer the linear TV experience enhanced with live stock quotes, and we allow customers to pull up data on the stocks while still watching the picture.

Once you have a channel like that, you can do so much more with it. With people always on the go, we decided we should offer the same information on the mobile phone. Our mobile phones allow you, at the press of a button, to pull up TV channels. If people are watching a channel at home and have to go to the office, they can have an uninterrupted experience and continue to watch it on their mobile phone. It is the same program on the mobile as on the TV, but with a six-second delay for reformatting for the mobile. If we can do this on the mobile, we can do it on

other platforms. And what's more, because it is our own content we don't need to pay anybody to reuse it.

Content, and content management, is now a big part of our business. We have to work with content providers and we have had to make certain content ourselves—it's not one or the other; it has to be both. Now when we negotiate with content providers, we do so for all access technologies. When we did our recent deal with the English Premier League, we knew what we could afford to pay for it because football is the killer application in Hong Kong. Our cable competitor said we paid too much. When a journalist asked me if we paid too much, I said no, because we are putting it on four platforms. We can put a live match on the PC, TV, mobile, and broadband fixed line service simultaneously. This is powerful stuff. To make it happen seamlessly across all our access technologies, we have found ourselves doing more of our own content and now we are launching our own self-produced sports channels.

Communications Review: Do you have other plans for local content?

Arena: More than 70% of our content is in Cantonese, either original or dubbed with subtitles. There is always more content available, and we have no technical limitations on the number of channels we can offer. The beauty of what we are doing is the dedicated service. The only limit to the number of channels is server capacity. If the market wants a particular piece of content, we can put it together.

We don't have plans to get into making general entertainment content, such as movies or producing drama. We have done a great job in making a Chinese business news channel, and it may be that we can leverage that skill to do more content of that ilk. But our philosophy is that if the content is already out there, and it's good quality, has a brand, and people like it, we'll get that content rather than compete against it.

Communications Review: How important is advertising in your business model?

Arena: We are one of Hong Kong's heaviest spenders on advertising. It has been quite an innovation to have people pay us for advertising on our TV services. Taking ads on a linear TV channel is something we are coming to grips with. It is starting to get some traction. It represents a new business opportunity for us, like interactive advertising, which we can offer.

But there is an issue: The advertisers themselves are not used to working on this sort of advanced, interactive platform. It takes a while for people to move off the traditional broadcast mode of advertising. Advertising will be a significant part of our business, eventually.

Communications Review: In terms of growth, do you envision any expansion outside of Hong Kong?

Arena: Yes, but we have to keep it in context. We are working with opportunities in China, which is our natural territory for expansion—already a quarter of our staff are based in China. But our strategy has been to find capex-light businesses to invest in. We really don't want to invest in fiber in the ground, switches, and all that.

Where we believe we are thinking innovatively is around the services, the service layers, and the applications. We think we have some interesting intellectual property in the way we have developed things like our set-top boxes and our IPTV platform. Already we have done projects as far afield as Thailand and Morocco.

We will continue to rebuild the company. As we move even further from our traditional roots as a POTS carrier, I'm sure that we will find many new opportunities for the company's growth.

Alex Arena is an executive director of PCCW Limited and group chief financial officer of PCCW. He joined the Pacific Century Group in 1998.

Prior to joining the Pacific Century Group, Mr. Arena was a special policy adviser to the Hong Kong government. From 1993 to 1997, he was director-general of telecommunications at the Office of the Telecommunications Authority of Hong Kong, as well as a member of the Broadcasting Authority. He also was an inaugural member of the Australian Telecommunications Authority, which he served for four years.

Mr. Arena graduated from the University of New South Wales, Australia, with a bachelor's degree in electrical engineering. He completed an MBA at Melbourne University, Australia, and is a Fellow of the Hong Kong Institution of Engineers.

For more information, visit the company Web site at www.pccw.com.



Interview with Julio Linares, Telefónica

Telefónica is the third largest telecommunications company in the world, measured by number of customers. The company operates in 23 countries on three continents and has more than 220,000 employees. Telefónica has faced its share of challenges over the years and has adapted to change. We sat down with Julio Linares, general manager for coordination, business development, and synergies at Telefónica, to find out how this large incumbent is managing to stay competitive and is continuing to grow its business in an increasingly unpredictable environment.

Communications Review: Telefónica has recently implemented changes in the structure of its business. Can you explain how that's progressing and what your business currently looks like?

Linares: I think that our new structure has contributed to fulfilling the financial objectives we set because we now have a simpler organization. In the new organization, the most important and basic unit is the country, and within the country, it's the customers, the network, and the people. I think it's a very clear organization that, from our point of view, is more efficient and allows us to be agile and responsive to market conditions. On both sides—revenue and cost—I think this organization is helping us to meet our guidelines and to be better prepared for the future.

In the case of Spain, Telefónica is basically organized in four major units. One unit takes care of the big customers, approximately 1,600 of them. This unit provides those customers with anything they need—from wireline to wireless to IT. This unit has to provide solutions, and there is no distinction between fixed and mobile.

The second unit focuses on residential customers and small and medium enterprises from the wireline point of view. In this unit, we have mainly commercial activities and anything related to customer care.

We have a third unit that covers people and small and medium enterprises from the mobile point of view. And, again, here we have all the commercial resources, customer care, marketing, and so on.

In the fourth unit, we have centralized all network, IT, and common resources for fixed and mobile.

We think this is a very practical solution. There is not yet clear evidence that the individual consumer is asking for convergent services. So we think it is better to start with an organization that could take the ball when we have better information about the demands and the reaction of the market in relation to convergent services. We are responding to customers who are clearly demanding convergence, which are the big customers. We are also responding to the cost side of convergence, anything related to network, IT, and common resources. We prefer to

keep the other two units separate so that our people do not lose focus. Then later on, we could consider moving them into a more integrated organization.

We are not following the same approach in every country. We have to be pragmatic and flexible. We use a different approach depending on the market status, regulation, competitors, and so on. The organization that we have in Spain may be quite common in most of the countries where we operate, but we also have some more advanced organizations with more integration, for instance in the Czech Republic, where we already have fully integrated fixed and mobile.

Communications Review: Does merging the fixed and mobile operations in the Czech Republic make the regulatory reporting more difficult because it is still driven by fixed and mobile services?

Linares: Not really, because we still get information by fixed and mobile and by segment. Internally, in all the companies, we try to have our own accountability per service and per market segment everywhere, regardless of the organization. Every month the countries have to tell us the P&L per market segment and the P&L per service. So we have two views of the P&L, regardless of the organization.

Communications Review: How affected are you by regulation in the industry?

Linares: It has a very big impact. The level of investment that we will make will depend on regulation. If you have regulation that allows you to differentiate from your competitors, to benefit from innovation and go ahead of the others, you will invest. If you have regulation that forces you to provide your competitors with anything based on cost you do for yourself, or that forces you to give a wholesale service to your competitor for any little service that you want to launch to the market, you are not going to find any reason to innovate. If you are not going to be able to differentiate from your competitors, why invest or innovate? Regulation will have a very big impact on our investment.

Additionally, the new extended value chain of the industry leaves traditional network regulation obsolete. All competitors for the market in the new value chain should have

equal opportunities by relying on general competition rules instead of *ex ante*, sector-specific regulation.

Communications Review: Telefónica has been successful in keeping a high market share while others have been losing share. What's the secret?

Linares: If there is a secret, we won't tell.

Really, I don't think there is a secret. We always try to do things well. What does this mean? Today we are a company that has a different history in different countries. We have companies that are very young and companies that are very old. For instance, Telefónica in Spain is very old and in other European countries the companies are very young, so their behaviors could be very different.

For companies that are very young, it is easier to be very market driven, very customer focused, and both are now important for everybody within the company. The biggest challenge is to move from being a technologically driven company to being a customer-driven company, and the challenge is greater for the oldest company than for the youngest. Today, the customer is the most important asset of the company, and we have to look at the customer all the time. We have to continually improve our customer knowledge and our customer care, and we have to constantly improve our offers to the customer. This is the major driver in our company. In the past, the major concern was first technology and then its deployment; today, the major concern is the customer.

Communications Review: You said that the newer businesses are more market focused than the older ones. How do you bring some of that knowledge and thinking into the older businesses?

Linares: One of the key priorities of Telefónica is to transfer best practices from one company to the other. This is very important. We have set up a special group to identify good practices and the areas or places where those practices could be implemented. Then we have to prove to people that we have an advantage in one market and convince them to exchange people from one place to the other in order to facilitate the transfer of good practices.

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When we acquire companies, we try to transfer people from one country to another. Initially, that exchange of people was done mainly from Spain to Latin America. Now you can see that within Spain there are many people from Latin America in key positions, so the exchange of people is working very well. Today, Telefónica has significant scale and is more diverse than before. It is important to benefit from the scale and diversity because we really believe both are part of our key competitive advantages.

When we buy a company, initially we have a very clear process and program in order to facilitate people exchange. Once companies are integrated, transferring is done on a less formal basis depending on the opportunities we have in the different companies. Every year, we identify the number of people who should move from one place to the other and measure whether this is happening or not. If at the end of the year we recognize that this is not happening, then we do something to improve it.

Communications Review: Many people say that content is king. Do you think that you have to own content to win the customer? What's your strategic view as to where you should be positioned?

Linares: We don't think we need to produce content—but to have access to the right content to better serve our customers.

I think that we are in a good position in terms of access to content. But what we really need is the capability to aggregate and deliver the right content to the right customers in all our markets. We need to be able to put content together in such a way that we provide the right package to each market segment.

Communications Review: How important is upgrading the network to enable you to deliver the services that you're trying to move toward?

Linares: Today in our core network, more than 94% of the traffic is going through our IP network and less than 6% of the traffic is going through the traditional network. So, now, the traditional network is a very small part of our total network in terms of traffic. We do not see a need to replace the old traditional network, which is very

efficient, in the next four or five years. All our new services are already supported by and based on a fully operational IP network, which is growing tremendously.

In order to deliver future services, the most important part of the network will be the access, regardless of whether it is wireline access or wireless access. The transport network is easier to evolve because it is not so capex intensive and is much more adaptive to new technologies.

In the access part of the network, we see a clear demand for more bandwidth in the future. Today in Spain, 80% of Internet access is broadband, which is a minimum of 1 Mbps download. This 80% of accesses produces 99% of Internet traffic, so in Spain broadband is the main access to the Internet. It is very difficult to be on the Internet without being a broadband customer. And as video applications increase, we are going to see higher and higher bandwidth demands in fixed and in mobile.

When you introduce video applications on top of non-video data applications, you increase the value significantly. When you introduce high-definition TV, you increase the bandwidth need by a multiple of three. And if you look to a longer future, it is possible to recognize the need for 3DTV and even more bandwidth. I do not see a limit for bandwidth demand, so we have to look constantly at the access part of the network to address this demand that is going to be increasing all the time. On the wireline side, we have to introduce fiber optics to meet this demand, and in wireless we have to introduce new technologies for 3G.

So we must ask: When do we do it and at what pace? Those are the major questions we have to manage, and the answers depend on the demand, our competitors' positioning, and the regulator.

We are testing high-definition TV, and our competitors are testing high-definition TV. We do have an advantage in Europe. In the United States, there is a higher demand for high-definition TV than in Europe, maybe because the standard-definition TV in Europe is a better quality. Then we are able to see what is happening in that market before we have to introduce it in our market.

Communications Review: In the world of tomorrow, will broadcasters exist or not? Will the satellite operators exist?

Linares: Well, it depends on interactivity. If interactivity is going to be very important for new multimedia services, then those platforms that are not able to provide interactivity will be limited. I think it is still too early to see how new services based on fully interactive platforms are going to work, and I think it is very important to innovate in those new platforms rather than to imitate existing pay-TV. If we are able to find new services, then interactivity will be a very important part of determining the platforms to support new personal TV services.

If you look to the future, you can have different views. But if you look at the last six years, the traffic in the networks was multiplied by fifteen in Spain, and that was because of broadband and peer-to-peer applications. In six years, the capacity of the networks to transport information has multiplied by fifteen, and that is a fact.

So broadcasters will exist, but they will need new capabilities to manage the overlap of this product with more general, Internet-based services.

Communications Review: Do you think that advertising is going to be an important revenue stream for you in the future?

Linares: We believe that advertising is something we have to take into account in our business. We recognize that there are applications that will not be developed unless they are based on advertising business models. It will be very difficult to charge customers per use or a monthly fee to provide some applications; because of that, I think we have to base some new services on advertising business models.

Communications Review: How do you attract and retain people within Telefónica to meet new market demands? Do you think it is easy to change the skill sets of your employees?

Linares: We believe that Telefónica today is a very attractive company to work for. When we look for new people, we are finding it is quite easy to attract new talent to the company. I think we are offering people a company that is present in many countries, a company in which they have

opportunities to progress because they can move to different businesses and to different companies. So, from that point of view, we believe that we are well positioned.

On the technical side, I think telecom companies are well prepared to move from telecommunications to computers and to manage the related technology. Of course, you always have to evolve, but we faced that kind of evolution in the past when we changed our central offices from rotary systems to digital systems. That change had a dramatic effect on the company from the technological and the personnel points of view, and we managed it very well. I think that telecom companies manage technological changes very well.

Maybe where we need to make an effort is in Internet-based applications and consumer electronics. We also need people to build and support a commercial business: good marketing people, good product development people, people who can translate technology into marketable products. This is the key challenge of any company in the world, in any industry: to know the customer; to be better than your competitor; to take care of the customer; and to differentiate yourself to reach the market before your competitor does, providing an attractive customer experience.

Communications Review: Who do you think your competitors are going to be in five years' time?

Linares: Today, we have traditional competitors that behave as we do. We also have adjacent competitors. And every day we have more adjacent competitors in the consumer electronic, IT, and Internet sectors. In five years' time, we are going to have fewer traditional competitors and more competitors from different industries.

Communications Review: How do you describe your company?

Linares: Formally, we describe ourselves as being providers of integrated information, entertainment, and communications services. We want to provide integrated solutions to our customers, whatever *solution* means for each market. We would like to provide customers anything they need—the terminal, network, applications, installation, maintenance, updating of software—not only for communication

but also for access to information, to share information, and for entertainment.

Telefónica is already a leader in its field, a company that has grown very rapidly. I see the company continuing its momentum in creating customer loyalty through the provision of innovative and high-quality services and solutions.

That's the way we see our business today and for the near future. I am not sure what the longer future will bring. I really believe the future is going to be brilliant for this industry. It has to be.

Julio Linares is general manager for coordination, business development, and synergies at Telefónica. He is also director of Telefónica, S.A., Telefónica España, Telefónica O2 Europe, Telefónica Latinoamérica, and Sogecable, S.A.

He joined Telefónica in 1970 in the research and development center, eventually becoming head of Telefónica's technology and technical regulations department. He has held various positions within the firm, including general manager of Telefónica Investigación y Desarrollo (Telefónica I&D); deputy general manager of marketing and development of Telefónica Services; chief operating officer of Telefónica Multimedia; and chairman of Telefónica Cable and Producciones Multitemáticas. From 1998 to 2000, he served as general manager of strategy and technology at Telefónica, S.A.'s Corporate Centre and as a director of Telefónica Sistemas, Telefónica Investigación y Desarrollo, and Vía Digital. In 2000, he was appointed chairman of Telefónica de España, a position he held until 2005 when he was appointed to his current position.

Mr. Linares holds a degree in telecommunications engineering from the Polytechnic University of Madrid.

For more information, visit the company's Web site at www.telefonica.com.

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The main content area is divided into several sections:

- Channels:** A vertical list of categories including Mobile, Wireless, Internet & Data, Business & Management, Policy & Regulations, Networks & Operator, and Hardware, Software & Technology. Below this list are links for "Free Personalized Newsletter Subscription" and "Edit Your Profile".
- Today's stories:** A list of news items dated April 18, 2007, including headlines such as "Telefonica Q2 Czech Republic Registers 25,000 IPTV Customers", "T-Mobile Plans to Offer Cinema Released Online", "British Government Mulls Bill to Allow Telecoms to Use Network Separation", "Venezuelans CAN'TV Worry of Uncertain Future", "Report: Consumers Not That Interested in Wi-Fi Phones", "Will Telefonica Offer A Telecom India Counterbid?", "Mobile Phones: Hackers' Next Target", "Imagine Connect With GeoChange", "Mobile TV Continues Slow, Steady Growth", and "Eisner Reports Strong Growth in Sub-Saharan Africa".
- Weekly Poll:** A section titled "Do you use IPTV?" with radio button options: "Yes", "No", "No, but I plan to in the next 3-6 months", and "I don't even know what IPTV is". A "Vote!" button is present, along with a note that "Results are posted every Friday." Below this is a question: "Have an idea for a poll, or a burning question to ask communications professionals?? Send us your ideas for voter polls."
- Lost Week's Results:** A section titled "Do you listen to podcasts on your mobile device?" with a bar chart showing "No" at 60% and "Yes" at 40%.

At the bottom left, there is a box titled "How to capitalize on Lifestyle Advertising in a customer-centric world?" with a link "A white paper". To the right of this box is another box titled "Now available" for the "2006 Wireless Industry Survey".

The following publications, authored by partners at PricewaterhouseCoopers, provide thought-provoking and informative discussions of interest to various segments of the industry. To obtain PDF files or hard copies of the publications, please see the Web sites named below.

Convergence Monitor: The Digital Home

is the first in a series of global surveys, of PwC staff from 17 territories, aimed at understanding consumer preferences and interest in buying and using various converged services. The report provides details on consumer attitudes and preferences and recommendations for those providing content and services in this market. To download the PDF, visit www.pwc.com/monitor.

How to Realize the Full Potential of Enterprise Mobility

is a white paper that looks at the operating environment in which business users can interact with customers, employees, assets, products, and other businesses in real time, any time, from any location. The most successful EMobility businesses will have an open, agile model that encourages innovation via alliances and partnerships and also demonstrates a willingness to cede short-term control for the sake of long-term growth. To download the PDF, visit <http://www.pwc.com/emobility>.

How to Capitalize on Lifestyle Advertising in a Customer-centric World

is a 65-page white paper outlining the fundamental shift in consumer media usage that is driving the need for advertisers to shift from one-way message delivery to two-way dialog with customers—or, lifestyle advertising—and the implications and opportunities that shift implies. To download the PDF, visit www.pwc.com/convergence.

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