

# Philippines Telecom Brief

By Ken Zita



Philippines is one of the great telecom success stories in recent years, fueled by tremendous growth in mobile and text messaging services. The number of mobile subscribers has leapt five-fold since 2000 to 32.5 million, topping 41 percent penetration. This remarkable growth is due both to innovative pre-paid pricing packages, and to the unparalleled adoption of short message service (SMS) text messaging as an alternative to traditional voice calls. Philippines mobile services providers Smart, the PLDT subsidiary, and Globe Telecom were among the first in the world to utilize mobile pre-paid calling plans that tap the “middle of the market pyramid.” The result is wide household penetration of basic access services throughout even low income areas. As important, SMS has caught on with a fervor that is unrivaled anywhere in the world. Domestic text traffic is thought to outweigh that of voice by a factor of 10 to 1. Non-voice services account for approximately 40 percent of mobile carrier revenues.

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The rapid rise in mobile communications has come at the expense of the fixed line network. Fixed line penetration is about 4 lines per hundred and the installed base is steadily eroding. Broadband adoption is at the very earliest stage: only 76,000 DSL lines were in service at the end of 2004 serving a national population of over 82 million. With the heavy dominance on mobile, one would think the Philippines is preparing for a rapid transition to 3G. The opposite is true. Incumbents have claimed that the market is “not ready” for mobile data services and are resisting political and competitive pressure for greater market opening. VoIP is in a similar stalemate. A new government Department of Information and Communications Technology is being organized and the new policy body is expected to actively manage competing views of the market’s future.

The Philippines is an important global player in off-shore call centers and business process outsourcing, trading on its excellent international connectivity, high literacy rate and a workforce skilled in American English. The Philippine Board of Investment notes that

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more than 60 call centers are employ

<b>Key Indicators</b>	
<b>Philippines</b>	
Population	83.9million
GDP	\$86.4 billion
GDP real growth*	6.1%
GDP per capita	\$1,030 (2004)
Literacy	92%
Phone lines	3.93 million
Telephone density	5.08
Mobile phones	34 million
Mobile density	52
Sources: CIA Factbook, US Department of State, Network Dynamics Associates	



ing 40,000 people with annual turnover of \$480 million and growing at 100 percent. Support has been given to promoting IT zones at the Clark and Subic Bay former US military bases. An e-Government initiative is also on the table to streamline public sector administration and further promote ICT adoption widely throughout society.

### Political and Economic Brief

A deep rooted legacy of feudalism introduced by Spanish conquest (1521-1999), American colonialism (1899-1945), and the dictatorship of the Marcos regime (1965-1986) have made lasting impact on the political and economic structure of the Philippines. The country today is a society run by an elite of ruling families who control most of the land, industry and finance and exercise extensive political patronage. Despite a vibrant democracy, most representatives in Congress over the past century come from only 134 families. Families, in effect, have superseded parties as the main form of political organization and political parties are based on personalities rather than ideologies. Representation from landed families has reduced from 58 per cent in the early 1990s to around 40 per cent by 2004, but many have successfully re-emerged with their wealth transformed into industrial and commercial capital.

Ferdinand Marcos famously led the Philippines for 21 years through strong-armed political rule with close support from leading Filipino families and from Washington, which depended upon the Philippines as a military staging area for the Vietnam War. Marcos came to power in 1965 and, through martial law, greatly increased control over key economic assets through forced nationalization that favored his family and close associates. He slightly loosened the reins on political control in 1981 but was ousted in 1986 through a popular uprising over election fraud. Corazon Aquino, widow of former opposition leader Benigno Aquino who was assassinated in 1983, channeled popular discontent in the “People Power” revolution that installed her as president in 1986. Aquino presided over the fundamental shift in the strategic relationship with the US. Once hailed as a possible “the 51<sup>st</sup> state”, the long period of US military involvement in the Philippines came to an end with the 1991 closing of Clark air base and Subic naval bases.<sup>1</sup>



In 1992 Fidel Ramos, a former secretary of defense, was elected president with a strong pro-reform agenda aimed at reducing corruption, increasing transparency and improving private investment. His replacement, Joseph Estrada, a movie star *playboy*, ended up in jail for

<sup>1</sup> Source material for this section from U.S. Department of State Country Background Note (<http://www.state.gov/r/pa/ei/bgn/2794.htm>), U.S. Department of State Country Reports on Human Rights Practices 2004 (draft), and The Economist magazine.



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corruption charges, harking Philippines back to an era of larger-than-life, but questionable, political leaders. The standing president, Gloria Macapagal-Arroyo, who was elected vice-president with Estrada in 1998, took over the executive office. She was sworn in for her second term as president on June 30th, 2004 as both head of state and chief of government. Yet another scion of a historical political family, “GMA” has promised a process of “charter change”, or *cha-cha*, as Filipinos call constitutional reform, to improved electoral problems, political corruption and endemic political paralysis.

The political structure of the Philippines, like the US, has three co-equal and independent arms of government, a bicameral legislature and a strong executive presidency. The Senate includes 24 popularly elected representatives, most of whom consider themselves potential presidential contenders. Also like the US, the quest for political office has become an expensive and elaborate media affair. GMA's rivals for the presidency included a movie star, a televangelist, two former news anchors, popular comedians and sports stars. It costs an estimated 3 billion pesos (\$53 million) to mount a credible presidential campaign, in a country where half the population lives on less than \$2 a day. The exercise of democracy has been largely successful but is not without its foibles. Voters write the name of their preferred candidates onto allots that counted manually nationwide, creating opportunities for fraud.

Terrorist opposition groups are active in the country, chiefly in the Southern provinces of Mindanao, Sulu and the Cotabato Autonomous Region, but notable incidents also affect the capitol. On February 14, 2005, six people were killed and 103 injured when a bomb ripped through a bus near the intersection of two of the largest avenues in Makati, Manila's central business district. Near-simultaneous blasts killed 6 people and injured 42 in the cities of Davao and General Santos. Abu Sayyaf Group (ASG), an armed Muslim militant organization, claimed responsibility for the attacks.<sup>2</sup> Efforts to track down and destroy the ASG have met with some success, especially on Basilan, where U.S. troops advised, assisted and trained Philippine soldiers in counterterrorism. In May 2001, the ASG kidnapped several Americans, beheading one of them in June 2001. In a June 2002 rescue attempt, another American hostage was killed. In August 2002 the US added the Communist Party of the Philippines/New People's Army (CPP/NPA) to the U.S. Foreign Terrorist Organization list. A separatist movement, the Moro Islamic Liberation Front (MILF), has reached a peace that has held since it was concluded in May 2003.

At least 85% percent of the population of 82 million is Roman Catholic (and nine percent Protestant). The 5 percent Muslim minority is based largely in the southern Island province of Mindanao.

## **Economy**

The Philippines has fallen from being the second richest country in Asia, after Japan, to one of the poorest. A third of the population lives below the national poverty line and more than 45 percent subsists below the \$2 per day international benchmark. Real average family income has plunged 20 percent from 2000 to 2003 in the National Capital Region. Despite a vibrant participatory democracy, and ongoing efforts to distribute economic more widely, a small elite continue to own key natural resources and national industries, making economic reform difficult.

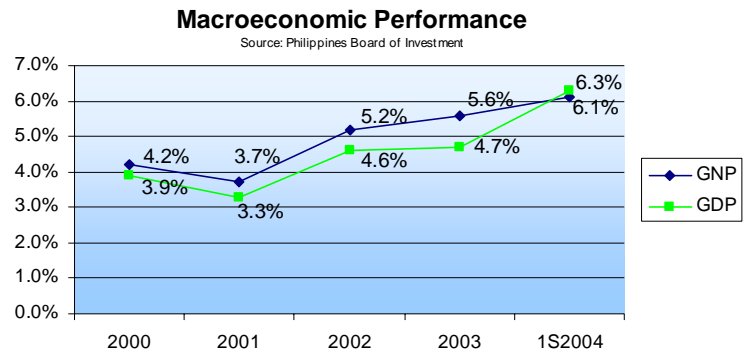
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<sup>2</sup> Manila Times, Makati Bom



Over the past 30 years Philippines has posted economic growth averaging 3.5 percent annually, a modest rate compared with 5.8 percent in Malaysia and 6.5 percent in Indonesia. The economy took a steep dive in 1984-1985, shrinking by more than 10 percent, and this economic shock contributed to the political undoing of the Marcos regime. While Marcos was successful at establishing some major infrastructure projects, the continued concentration of wealth into the hands of a few families, combined with institutionalized corruption, negatively impacted the country's economic potential.

Economic stability began to return with the administration of President Ramos, which in 1992 introduced a broad range of economic reforms and initiatives designed to spur business growth and foreign investment. The 1990s were a period of relative prosperity, and the country was not as badly hit by the Asian financial crisis as its regional neighbors due in part to annual hard currency remittances of about \$7 billion from overseas Filipino workers (which have risen to more than \$8 billion since then). Although there has been some progress, the Philippines' banking sector continues to grapple with non-performing assets and the subsequent tightening of bank lending and liquidity continues to impact capital investments.



The Estrada administration (1998-2001) continued many of the Ramos reforms and passed important investment protection legislation. However, scandals involving the Philippine Stock Exchange and the President shook the confidence of investors and the business community and ultimately led to successful efforts to impeach and remove President Estrada. Transparency International estimates that Estrada pocketed about \$80 million in illicit deals – real money, but only a fraction of the \$5 billion to \$10 billion said to have been plundered by Marcos. The economy has steadily expanded over the past several years despite the political drama, as the figure shows.

President Gloria Macapagal-Arroyo, elected in 2001, has made considerable progress restoring macroeconomic stability with the help of a well-regarded economic team. Her administration enacted an anti-money laundering law, legislation to reform the government procurement system as well as modifications to the Philippines' convoluted documentary stamp tax system. Important financial services legislation has also been put in place.

In 2004 GDP growth was 6.1 percent, exceeding the official target of 4.9-5.8 percent. Year-on-year inflation has lately been under control but climbed from 3.1 percent in 2003 to about 5.5 percent in 2004, attributed to pressures from soaring oil prices and utility-rate adjustments. Forecasters believe the inflation rate will breach the higher end of the Government's 5.0-6.0 percent targeted range due to higher crude oil and consumer prices, especially in Metro Manila.

Fiscal problems remain one of the economy's weakest points and its biggest vulnerability. According to the Asian Development Bank, the Philippines is the second most active debtor in

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Asia after Japan, and has managed budget surpluses in only six of the past 30 years. National Government debt is 79 percent of GDP; by comparison, the debt in the US, the highest in its history, is about 5 percent. The peso depreciated by 27 percent from 2000 to 2004. Standard & Poors downgraded the Philippine sovereign debt by a notch in January 2005. In February 2005 Moody's Investor Services downgraded Philippine sovereign debt by two notches, to B1, or four levels below investment grade. The heavy debt service load (equivalent to over 40% of the National Government budget) has prevented more aggressive public expenditures on infrastructure improvements. Foreign investment fell 82 per cent to \$320 million in 2003 from the previous year. Government revenues in 2004 were just over 14 per cent of GDP, among the lowest in Asia. New and/or higher taxes continue to face resistance from vested interests and public disenchantment with waste, corruption, and languishing cases against "big fish" tax evaders. As of mid-March 2005, only two of the president's eight proposed tax increases have passed congress. Meanwhile, the government is under increasing pressure to deliver on its anti-poverty promises, and a workable economic pact with all classes of society is required.

### **Telecom Policy Environment<sup>3</sup>**

The Philippines Long Distance Telephone Company, PLDT, was founded in 1928 by GTE during the period of American colonial rule (1899-1945), and has been privately held since. After the Second World War, the Philippines was well positioned to become a regional commercial center as it was the second wealthiest society in Asia in the 1950s after Japan. However the nation steadily lost this status and much of the decline took place during the presidency and eventual dictatorship of former President Marcos. In late 1967, the pro-Marcos wing of the Cojuangco family, one of the Philippines richest families, engineered a forced buy-out of GTE and gained control of PLDT. It was at this time that PLDT was gifted a virtual monopoly over both domestic and international services. Piltel, an emerging competitor at the time, was ordered to stop rolling out additional landlines. The rationale for awarding the monopoly – borrowing from AT&T's arguments for a 'natural monopoly' – was that PLDT would assume a universal service obligation (USO) to be funded through cross-subsidies from its international revenues. Unlike the success of the Bell System, time has shown that PLDT fared poorly in meeting its public service commitments.

During the 1950s the Philippines did reasonably well building basic infrastructure, keeping pace with regional neighbors. As the Marcos regime grew more powerful, in the 1960s and 1970s, development languished. By 1988, two years after President Marcos was deposed, there were just over 600,000 telephone lines in operation for a population of 65 million (teledensity of 0.92), over 80 per cent of them in the National Capital District (NCD) of Metro Manila. Meanwhile, 50 percent of the country's 1,600 municipalities had no telephones at all.

Real reform began in 1992, under President and former Secretary of Defense, Fidel Ramos. The new administration cleaned house at PLDT, replacing Marcos appointees, and set as a goal a 10-fold increase in phone lines in 10 years, which was nearly achieved (teledensity rose from under 1 percent in 1992 to 9.08 in 1998). In 1993 the government led an innovative, if controversial, mechanism known as the Service Areas Scheme (SAS) to stimulate network expansion in poor areas and to offset PLDT's dominance in the sector.

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<sup>3</sup> Network Dynamics thanks Optel Inc for its comments reviewing this text.



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Under SAS, companies were awarded public network franchises in lucrative markets such as Manila, Davao or Cebu but were required to assume obligations to build networks in unserved areas. This *quid pro quo* was meant to help distribute economic opportunity more widely through society. The SAS allocated sixteen regions and sub-regions to nine companies and was predicated on a mix of urban and rural network deployment. To receive an international gateway, companies made a commitment to build 300,000 landlines; a cellular license required a commitment of 400,000 landlines. Companies raced forward with their build obligations in fear of losing hefty performance bonds. Six companies met their targets, all of them players in the market today: Digitel, Globe, Bayantel, PLDT, Smart and Piltel. The program quickly shifted the concentration of the nation's telephone lines away from Metro Manila to only 40 percent of the national total. Unfortunately, the forced increase in capacity in the developing regions was not matched by corresponding market demand. Even today, less than half the installed fixed line capacity is actually subscribed.

The SAS experiment is an instructive case of politically-motivated strategies, however well intentioned, and economic reality. The NTC basically overrode the demand forecasts contained in the DOTC's 1993 *National Telecommunications Development Plan* which called for 2.8 million fixed lines by 2005, less than half proscribed by the SAS scheme. Other troubles emerged. The over- investment in infrastructure was not met with anticipated revenues from international services, the lodestone that made the company's financial models work. When international call revenues began to plummet – first from call-back, then new trans-Pacific capacity and ultimately VoIP – all the forecasters, policy makers and industry analysts were caught flat-footed. In 2002 the national telecom plan expected 63.5 per cent of revenues would come from international; in reality, it was only 22 per cent. The dramatic drop hurt the potential for cross subsidizing local fixed line services. The SAS also had not anticipated the sudden emergence of mobile cellular as a financially viable alternative for basic access. The same national plan forecast 1 million cell phones by 2004 when the actual figure topped 34 million. Low-cost pre-paid services in particular helped destroy the tariff rebalancing that had been required for the SAS fixed line schemes to be profitable. The delay in rationalizing fixed line tariffs only accelerated the switch to mobile.

The market was more effectively deregulated in 1995 with the Telecommunications Policy Act of 1995 which divided the country into 11 eleven regions open to direct competition with PLDT. The Asian economic crisis of 1997 brought the expansion of fixed line networks to a halt, giving way to a period of withdrawal of some foreign partners and domestic consolidation: C&W, Comsat, Deutsche Telecom, Millicom, Nextel, Telstra, TVG, Nynex/Verizon all withdrew, while Islacom merged with Globe and Smart was acquired by PLDT.

In the end, the greatest problem with SAS was that the scheme was a political solution detached from the underlying economics of supply and demand. Certain areas were seriously overbuilt, leading to a wasteful duplication of networks. The new operators were also confined to narrow franchise areas and none of the new operators was able to reach the scale necessarily to compete meaningfully against the incumbent. As a result, PLDT remains dominant in the fixed line market. The SAS program was abandoned in 2002.

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Running in parallel to the SAS were two additional programs, the 'Municipal Telephone' project and the 'Telecom Barangay' project, both with funding support from the Export Development Corporation of Canada. The Municipal Telephone Project installed 500 telephone kiosks (known as 'Public Calling Offices' or PCOs) and telecenters in provincial towns and then handed them off to the Telecommunications Office (TELOF). After the Asian financial crisis an attempt to privatize them met with no success. The DOTC runs the 'Telecom Barangay' project, but it stalled in 2002 for lack of funds, by which time around 12,000 lines had been put in service.

Mobile telephony rose from the collapse of the fixed line competition experiment. Mobile has succeeded everywhere but the Philippines case is spectacular. Driven by uniquely popular SMS messaging services and the pioneering of pre-paid services, mobile penetration in 2005 is expected to rise to around 40 per cent, up from 4 percent in 1999. This penetration rate is double that expected even as recently as the mid 1990s. But success disguises dilemma. Mobile cellular has displaced fixed line telephony, especially in low income areas, diminishing the infrastructure options available to support Internet services.

### **Policy and Regulation**

The mechanism for policy formation is evolving, with greater direction being imposed by the executive branch. In early 2004, the President issued an executive order establishing a Commission on Information and Communications Technology (CICT) as the government's primary policy coordination body. The CICT is expected to be elevated to a full cabinet position with the creation of a Department of Information and Communications Technology (DICT) once anticipated legislation is passed in mid 2005. The new DICT will supersede the existing Department of Transportation and Communications. Its mandate will likely draw from the CICT's current scope of objectives, which include:

- "To ensure the provision of strategic, reliable and cost-efficient information and communications technology (ICT) infrastructure, systems, and resources as instruments for nation-building and global competitiveness; ...
- To ensure a policy and legal environment that will promote a level playing field, partnerships between the public and the private sectors, strategic alliances with foreign investors, balanced investments between high-growth and economically-depressed areas, and broader private sector participation in ICT development.
- To foster and accelerate convergence of ICT facilities such as but not limited to the development of networks;
- To ensure universal access and high-speed connectivity at fair and reasonable cost;
- To ensure the provision of information and communication services in areas not adequately served by the private sector;
- To foster the widespread use and application of emerging ICT;
- To establish a strong and effective regulatory system that will ensure consumer protection and welfare and foster a healthy competitive environment;
- To promote the development of ICT expertise in the country's human capital to enable Filipinos to compete in a fast-evolving information and communication age;

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- To ensure the growth of the ICT industries;
  - To preserve the rights of individuals to privacy and confidentiality of their personal information;
  - To encourage the use of ICT in support of efforts for the development and promotion of the country's arts and culture, history, education, public health and safety, and other socio-civic purposes."<sup>4</sup>

The government's challenge is that, even with a new department, it has few substantial levers of control to direct material change in the market. Like the US, the telecom sector in Philippines (and by extension, the IT industry) has been privately held since its inception. The government's role has been largely to issue licenses and manage competition, not to guide specific investments though there have been exceptions. The private sector bristles at the possibility of any government-led "industrial policy" that might "interfere" with the "free market." The creative tension between politicians seeking fresh solutions for ICT, and the established operators defending the status quo, makes for interesting public theater. The CICT is keen to develop Philippine content and applications, a detour from past government's focus on access infrastructure.

The National Telecommunications Commission (NTC) is the regulator, established in 1979. It is "the sole body that exercises jurisdiction over the supervision, adjudication and control over all telecommunications services throughout the country" and has quasi-judicial powers. NTC decisions can be appealed only and directly to the Supreme Court. While nominally an independent organization, NTC became an "attached agency" under the supervision of the current Department of Transportation and Communications in 1987, and the "attached agency" concept leaves scope for a blurring of responsibilities. A review of the NTC's structure is expected, in part to provide new regulatory and enforcement powers that are more appropriate to current industry demands.<sup>5</sup>

The NTC has taken strides towards greater transparency and exerting greater influence over the market, especially on consumer issues. For example, it was supportive of low cost pre-paid pricing schemes for both mobile and local fixed lines in which the Philippines has led the world. It has pressured operators to provide better customer care services, and to be less eager to disconnect those with late payments. But the transformation to full transparency remains incomplete. A World Bank paper in 2004 pointed out that political interference with key appointments is routine, so 'the sector is essentially a hostage to political expediency.' There is, for example, no long term contract of employment that protects the regulator from political dismissal, and the commissioners are routinely subject to pressure from elected officials.

Congress continues to play an important role in policy: indirectly through various working committees (and well timed leaks to the media), and directly, as an ultimate gateway to the issuing of new licenses. A company seeking a franchise must first secure a bill through Congress, and only then a Provisional Authority (or PA) from the NTC. Next comes a public hearing, often used by incumbent operators to oppose competition. Finally the NTC must issue a Certificate of Public Convenience and Necessity (CPCN) before the company can begin operations in the

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<sup>4</sup> Executive Order No. 269: [http://www.ops.gov.ph/records/eo\\_no269.htm](http://www.ops.gov.ph/records/eo_no269.htm)

<sup>5</sup> Preston Gates Guide to Telecommunications in Asia, 2005 Edition.



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franchised area. Revisions or extensions to the area of operations must revert to Congress, while licenses and CPCNs can be challenged in court. This process has historically been costly and time consuming. Some analysts believe that what looks on paper like a system of checks and balances is in reality a system of prevarication, influence peddling and horse trading adapted from the USA.

Foreign ownership of a telecom carrier is restricted to 40 per cent and non-nationals are excluded from the top positions within a company. But there is apparently flexibility in the rule. PLDT is owned at least 54 percent owned by foreign interests: 24 percent by Hong Kong-based First Pacific (which also controls management), 15 percent minority stake held by NTT, and 5.13 percent by Fidelity Investments. Globe is 45% owned by SingTel, which boosted its share from 40 percent in early 2005 and has said it is open to increasing its position. Newspaper reports suggest that Bayan Telecom, owned by the Lopez family, and Digital Telecom, led by the Gokongwei family, are both potential takeover targets, with Vodafone, NTT DoCoMo and Hutchison as potential suitors. Hutchison is also rumored to have made approaches to Extelcom and Digitel, although both companies have denied talks.

Telecom carriers are not permitted to own cable television or broadcasting stations<sup>6</sup> but PLDT is on record as wanting to break this restriction as it looks towards content over broadband and cellular networks for future earnings. Multimedia convergence in the Philippines will require further changes to the law.

### Interconnection

The NTC is mandated by the *Telecommunications Policy Act of 1995* (Republic Act 7925) to 'ensure equity, reciprocity and fairness' in charging for interconnection between networks, whether based upon revenue sharing or access charging principles. In July 2000, a new regulatory framework for interconnection was announced by the NTC as a 'first step in moving towards cost based interconnect.' It sets out modern guidelines for bilateral commercial negotiations between carriers, including the principles of non-discriminatory, non-restrictive, non-conditional and non-anti-competitive arrangements.<sup>7</sup>

The NTC has laid out a transition period for the shift from retail-based revenue-sharing and other bilaterally negotiated agreements to 'cost reflective' agreements that use regional, geographic or closed numbering area averages to maintain a revenue-neutral (wholesale + retail) balance. The aim beyond 2006 is to shift to long range incremental cost based charges (LRIC). Fixed line operators complain the use of FCC-style network element cost allocations give greater weight to the costs of the local exchange areas and only incremental weightings to national long distance and international direct dialing costs. They say this makes it difficult to sustain a business case for investment in the fixed line network. Bilateral commercial interconnect agreements are to be registered with the NTC and the NTC is empowered to arbitrate in cases of non-agreement. While the NTC is often requested to intervene it has little power to directly influence the negotiation process.

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<sup>6</sup> 1994 Republic Act 7925, SEC 4

<sup>7</sup> (Memorandum Circular No. 09-07-2002 *Implementing Rules and Regulations (IRR) for Specific Guidelines for Competitive Wholesale Charging for Interconnect Services* - <http://www.ntc.gov.ph/archivesframe.html>)



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National long distance network charges are typically split 30:40:30 to the originating network, backbone network and terminating network. While the smaller networks still use this arrangement, larger networks have shifted to bilaterally negotiated access charges. The general response of the larger carriers has been to build their own backbone networks or use capacity offered at discounts by specialist providers. The surge in mobile cellular usage has focused more attention on mobile-mobile and fixed-mobile interconnection. As they are all bilaterally negotiated, terms vary. In 2004 fixed-mobile termination fees ranged from P4.00 to P8.69 per minute. In the case of Smart, fixed-mobile calls terminated at P4.00 and mobile-fixed calls terminated at P3.00 per minute, while termination charges of P4.00 were set for calls between Smart and other mobile operators. Interconnect charges for SMS, which occupy far fewer network resources, were lower at P0.35 per message.

### **VoIP**

The cost of telecommunications in the Philippines is among the highest in the region and the debate over whether to deregulate VoIP services is spirited. Media stories and public hearings are common. A bill seeking to classify phone calls made over the Internet separately from conventional voice calls has been filed in Congress. PLDT has insisted VoIP should be treated as a telecom service and be used only for public services by licensed carriers. The competitive access providers and ISPs seek "fair" regulation of VoIP – in essence, the right to participate according to free market principles. The Philippine Internet Service Organization (PISO) has been advocating a "no regulation" stance for VoIP services for years. The regulatory outcome may be determined by what the definition of VoIP is, some calling it technology, others an application, and whether it should be regarded as a regulated or enhanced service.

VoIP services are currently allowed for international services, but only to the six companies with international gateway licenses. PLDT has said the telecom industry should be "ready" to compete with VOIP technology and be allowed a regulatory "soft landing" -- that is, to have the government protect its already protected market as long as possible. Its position can only be seen as tactic delaying the inevitable. The NTC is expected to issue a ruling in 2005. Meanwhile, PLDT and other carriers have requested short codes for their own cut-price national long distance calling plans based on VoIP.

### **Spectrum Management**

Radio spectrum has been called 'the lifeblood of telecommunications' by the chief of the NTC's frequency management division. It is an apt description given the importance of satellite and mobile cellular systems in the country, and the contribution spectrum fees makes to Government revenues. Nevertheless, information about radio spectrum allocations as of early 2005 is still only available to the public through personal request. NTC has announced an internal computerization program, an overdue improvement as the radio spectrum management records have until recently been kept on an index cards.

It is reasonable to expect, with the heavy dominance on mobile, that Philippines is preparing for a rapid transition to mobile-based data by upgrading to 3G. During 2004 there were calls within Congress to issue 3G or third generation mobile licenses by auction. The NTC issued a proposal for issuing 3G licenses in 2005 with an auction reserve price pegged at 450 million pesos (\$8.3 million) for the bandwidth. Up to five (5) licenses could be awarded. In February 2005, Smart and Globe protested arguing that the market was not ready and that 3G should be treated as an

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extension of existing 2G licensing without auctions. Like PLDT's case against VoIP, "not ready" for 3G implies the incumbents are not ready for competition. Because fixed line take-up is so low, data services over wireless are a much-needed complement to the national infrastructure. Some spectrum clearing up may be necessary in the proposed 2.1-Ghz frequency band; NTC has reportedly been looking at allocating the 1950 to 1980 frequency range and 2140 to 2170 frequency band range. It is not clear when the 3G licensing issue will be decided.

## ICT

The government clearly sees telecom as a basic driver for the creation of new services industries, particularly call centers and business process outsourcing. Philippines has excellent international connectivity and a workforce skilled in American English, and strong cultural ties to the US. According to the Philippine Board of Investment, as of first quarter 2004, more than 60 call centers were in operation, employing about 40,000 people with revenue turnover of approximately \$480 million and growing at 100 percent per annum. Support has been given to promoting IT zones at the Clark and Subic Bay former US military bases, and special purpose investment corporations have been established for each. 'IT buildings' in metropolitan areas have been designated by agencies such as the Board of Investment and Philippine Economic Zone Authority (PEZA) to attract foreign companies. The quality and the quantity of the telecom infrastructure, and especially broadband, is seen as central to this effort. Exclusive licenses are being offered to telecom companies that install fiber access rings for these projects.

CICT has crafted an ambitious e-Government development scenario designed to promote Internet access, build ICT awareness, encourage competition, create jobs and improve government services. The plan is to develop "citizen centric" applications for basic daily needs such as tax filing, business licenses and so on. Community eCenters are planned for public Internet access, and an e-schools program has begun.

The Department of Science and Technology has also proposed a Government Systems Information plan that is intended to establish uniformity for information management systems across government agencies. Currently data resides in "silos" in each. The government does not operate its own unified physical network (as compared to Thailand or Vietnam), and basic connectivity is essential before the more challenging task of integrating applications can begin. The CICT has not yet designed or mandated an architecture for government systems; instead, each agency and department prepares its own projects which the government, through the CICT e-Government Committee, elects to support. The synergies of a centrally planned effort are thus still lacking. Some of these issues are hoped to be resolved through a seven-step plan for effective e-government:

- "Appoint a national chief information officer (CIO)
- Provide funding for cross agency projects
- Integrated government web portal (sic)
- Integrate national and local government portals
- Implement new applications (health, literacy training, crime reporting)

- Webcast Congressional hearing, and Focus group discussions on citizen requirements.”<sup>8</sup>

Funding for the Philippine e-government effort is in its early stages. The Department of Budget and Management (DBM) disbursed \$68.2 million (3.7 billion pesos) for "e-government" projects in 2004. The budget for 2005 has fallen to around \$18.4 million (1 billion pesos).

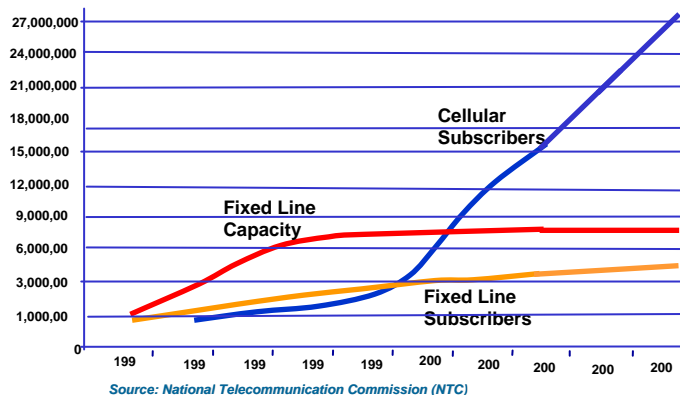
An E-government Centre of Excellence was established in late 2004 with support from Oracle, HP and Red Hat, working together with the National Computer Centre (NCC). It is intended to support the development and implementation of technology solutions within national and local government in the country.

Non-governmental organizations are active in Philippines and may make important contributions to ICT and e-government. Many NGOs have active websites offering a range of free or low-cost ICT skills training, news and information services, B2B portals, and so on. A good example is b2bpricenow.com, funded with an InfoDev World Bank grant in collaboration with the Landbank's Development Assistance Department, Unisys Corp. and the Philippine Rural Reconstruction Movement (PRRM). The portal offers farmers price information allowing them to reach deals that are settled offline. By May 2003, two years after launch, transactions had reached \$56 million (3 billion pesos) and the portal had plans for online transactions with debits and credits to the farmers' accounts at the Landbank, together with small transactions fees to fund the future sustainable development of the portal.

### Telecom Market Environment<sup>9</sup>

The Philippines telecom market is clearly a story about the success of mobile relative to fixed line. As recently as 2000, mobile subscribers outnumbered fixed by only a margin of 2:1. That ratio jumped to about 10:1 in early 2005, with mobile subscribers topping 34 million and fixed lines at just over 3.3 million. The dramatic rise in mobile penetration is inspiring: 41 percent of the population that could never before afford a phone now has basic service. But beneath the clear statistical success of the high mobile penetration rate there are issues of concern.

The first is retail cost of service. One in every three Filipinos has a mobile phone, but very few use it for voice. Instead, the phone is primarily a text terminal for SMS messages. A quick look at market pricing shows why. An average voice call costs 8 pesos per minute (\$0.147) versus 1 peso for text (\$0.0184). While prices and promotions vary, the relative differential is telling. Mobile phones have created “near



<sup>8</sup> “Philippine E-Government Strategy, presentation by CICT Chairman Virgilio L. Pena, November 12, 2004

<sup>9</sup> Network Dynamics thanks Optel Ltd. for background data and comments on this section.



universal” household access to communications, but, practically speaking, not to universal telephone service.

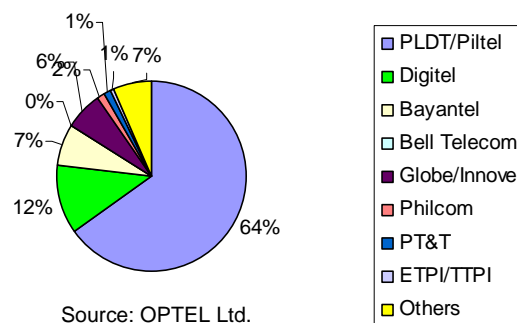
A 2003 study conducted by the Japan External Trade Organization (Jetro) shows the Philippines with the second most expensive basic telephone charges in Asia. The monthly charge at that time for a business telephone line, \$22.07, was lower only than the \$23.81 cost in Okinawa and Yokohama. By contrast, the charge for the same service was \$4.44 in Seoul, \$4.23 in Beijing and \$2.51 in Bangkok. The high charges are reflected in the carriers’ bottom line. PLDT reported that its fixed line business returned positive EBITDA of 54 percent in 2004. High tariffs apply equally for mobile. The JICA survey showed that Philippine users paid \$0.12 to 0.13 a minute as compared with \$0.05 per minute in China, and \$0.04 to \$0.08 in Kuala Lumpur.

A second issue is that the fixed line network is not positioned to help the nation embrace Internet services. While there is much talk about encouraging ICT and e-Government, there is no widespread infrastructure in place to support data services. Consumer and small business broadband penetration is almost imperceptible: only 76,000 DSL lines were in service in late 2004. Only about half of installed fixed line capacity is utilized across all carriers. The revised 1993 National Plan aimed to have 75 per cent of municipalities with local exchange services by 2005. But by 2005 around 35,000 barangays (rural districts) out of a total of 42,000 remained unserved. Currently there is no universal services fund but the issue is said to be on the agenda of the CICT. The CICT's direction is to bring the technology to unserved areas as part of Pres. Gloria Macapagal-Arroyo's (GMA) Medium Term Philippine Development Plan 2004 - 2010 (MTPDP). Part of the debate is whether to introduce a fund to which all operators contribute, to auction the USO, or to provide incentives to operators to commercially explore under-served areas. Industry is resisting the plan on the basis that a pot of money would attract political interference and encourage misappropriation. International services are levied with a 10 percent tax, which is paid directly to the state treasury and not dedicated to telecom infrastructure.

Importantly, the digital divide in the Philippines is not simply a development issue: it is also a social and political one as the poorest and least served areas of the country tend to be in the Muslim south.

PLDT dominates the fixed line segment with 64 percent market share and 2.15 million subscribers, as of 2004, according to NTC. Other larger competitors include Digital (12 percent), Bayantel (7 percent) and Globe/Innove (6 percent), but they are mainly focused on selling broadband and high-speed data circuits to large enterprises and to call centers and business process outsourcing facilities in export-promoting and IT zones.

**Philippines Fixed Line Market**



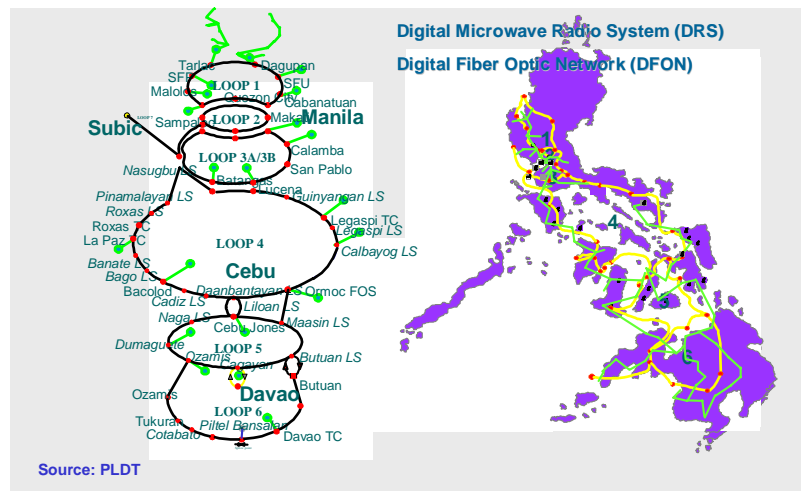
The current fixed line duopoly for each region may be revised by NTC. Following a legal battle that went to the Supreme Court, BayanTel was given approval for additional service areas, a move opposed by competitor Eastern Telecommunications Philippines. NTC is apparently still trying to stimulate last mile investments. Given the poor results of the SAS program, and



continued unwillingness of the main operators to invest in low-income areas, it is surprising that the government has not already chosen to completely deregulate fixed line local services.

While PLDT dominates the fixed line sector, the Philippines government itself is also a services provider through the Telecommunications Office (Telof). The Telof provides connectivity to about 27,000 subscribers, primarily in lower income areas in the Visayas and Mindanao regions, despite PLDT's tacit universal service obligation. Oddly, the government owes PLDT an estimated 188 million peso (\$2.2 million) debt for past due interconnection payments to PLDT's network. The debt represents the interconnection charges Telof has failed to pay PLDT since 1994. As a result, PLDT has been blocking calls originating from Telof's network – that is, from the poorest and most underprivileged segments of Philippine society. Telof is considering building its own international gateway facility in the hope of saving 2 million pesos (\$35,715) a month in interconnection charges.

Though last mile broadband deployment is in its relative infancy, the domestic backbone and international connectivity is robust. PLDT has invested significantly in trunk networks over the years, and this infrastructure plays an important part in the Philippines' positioning as a rising location for global call centers and business process outsourcing. The country has more than 350 Gbps of international capacity on a variety of regional and trans-Pacific submarine cables (APCN-1, APCN-II, GPT, C2C, G-P, BMP, East Asia) as well as satellite services coverage (ACeS, Agila-II, among others). The domestic network is comprised of six fiber optic rings, as the figure from PLDT shows.



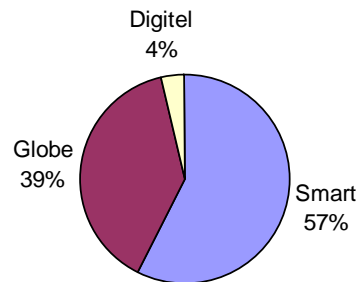
There are 73 small local exchange carriers (LECs) spread across country, 14 inter-exchange carriers, 11 international gateway facilities and hundreds of value-added service providers.

Following the Asian financial crisis, in 1998, PLDT accepted a take-over offer from First Pacific, the Hong Kong based private equity firm. NTT also controls 15 percent of shares. The company reported net revenue growth of 15 percent in 2004, and a 27 percent gain at Smart, its mobile unit. The strong financial improvement attracted the attention of Fidelity Investments, the largest mutual fund in the US, which acquired 5.13 percent of PLDT's shares shortly after the earnings announcement in early 2005, despite a downgrade of the company's debt by rating agencies. The company plans capital spending of about \$350 million annually (18-20 billion pesos) from 2005-2007, with half of that to be devoted to the fixed line business, apparently to enable upgrades to broadband.

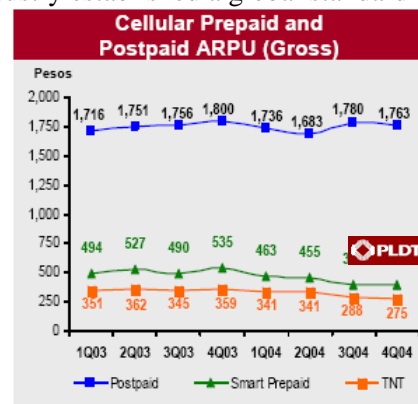
As the dominant carrier, the PLDT's fixed line tariffs are regulated. However, like other utility companies, the PLDT is permitted to vary these in line with a currency exchange rate adjustment (CERA) mechanism. If the peso falls in value against the US dollar tariffs are allowed to rise by about the same proportion. Local exchange carriers may offer metered and/or flat rate tariffs, either pre-paid or post-paid. There are no fixed line charges for calls within local exchange areas, and as of 2005 the PLDT was charging P5 per minute for nationwide calls, and P13.75 for calls to mobile handsets. Smart was charging P7.50 per minute for nationwide cellular calls, and P7.50 for calls to fixed line phones. SMS text messages are priced at P1.00 nationwide and P15.00 for international messaging, compared with over P22 (\$0.40) for IDD service from PLDT. This pricing structure encourages use of SMS and discourages use of mobile voice, so although mobile cellular penetration rates are 10 times higher than fixed, more than 60 per cent of traffic is carried over the fixed network. However, one consequence of high cellular penetration rates is the challenge this poses to tariff rebalancing since any substantial increase in fixed line prices will simply accelerate mobile-fixed substitution. Yet without rebalancing, investment in fixed line networks will remain limited, and access to fast Internet and high speed data and video will remain restricted. This will remain true even with the advent of new and alternative broadband wireless technologies because to serve the customer they have to get close to the customer's premises and that requires a local loop, ideally of fiber.

**Mobile**

The recent success of mobile phone services in Philippines is nothing short of amazing. Mobile penetration has skyrocketed from about 4 percent of the population to 41 percent, with the number of users growing five-fold, from 6.45 million to an estimated 34 million subscribers at year-end 2004. Smart, the PLDT subsidiary had 19 million subscribers for about 57 percent of the market. Globe reported 13 million subscribers, or 38 percent share, while Digital Telecommunications Philippines, the smallest, reported about 1.2 million subscribers, or 4 percent.



Although the first analog systems were introduced in 1991, and GSM in 1993, it has only been since 1999 that the market took off. The great accelerator was the introduction of pre-paid services. Philippine service providers are world innovators with innovative billing packages, and the local industry established a global standard of excellence in pre-paid services. Some 96 percent of Philippine mobile customers use paid plans. The lower cost of consumer market entry significantly broadened the market of potential customers, and offered affordable access to a great many people, for example, to itinerant laborers. Pre-paid SIM cards also surmounted the problem of consumer bad debt that plagued the early stages of mobile market development. Networks now cover 90 per cent of the population (although only 70 percent of the country geographically). Additionally, Smart pioneered the 'Pasa-a-Load' service followed by Globe's 'Share-a-Load' that allows users to transfer calling credits between SIM



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cards, and it is common for Philippine workers overseas to transfer bank funds by SMS authorizations.

Growth in 2005 is expected to slow as subscriber penetration exceeds 40 percent of the population. Profitability per subscriber is also falling, as the higher penetration figures are associated with an increased number of lower income users. Current average revenue per user (ARPU) per month for pre-pay is estimated at about \$7.30. The cost to acquire a pre-pay customer is about 1.4x monthly ARPU, or about \$11.20. Not surprisingly, the mobile sector shows significant financial returns. Smart's free cash flow for 2004 was about \$325 million. Despite the low average ARPU, voice telephony remains a relatively expensive service for lower income pre-pay customers.

Smart's post-paid monthly ARPU in 2004 was \$32. According to Globe, the cost to acquire a post-paid subscriber in 2003 was \$178, of which 94 percent went to handset and SIM card subsidy and the balance to promotional and marketing expenses.<sup>10</sup>

The main players briefly described:

- *Smart Communications Inc.* (PLDT). PLDT launched the country's first analog mobile service, Piltel, in 1991, and in 1999 acquired Smart, a GSM network that was launched in 1994. Smart has an estimated 19 million subscribers at the end of 2004. In addition to the main Smart brand, it also competes in the low-end consumer segment through its subsidiary Piltel, aka the Pilipino Telephone Corp. Piltel's "Talk 'N Text" service accounted for about 20 percent of its subscriber base, or slightly over 4 million users. Smart introduced an international cash remittance through text service, Smart Padala, in August 2004. Smart Padala now has over 10,000 retailers nationwide. It also launched a pre-paid service in Hong Kong, targeting the large Filipino community there. The company acquired 40 percent of Meridian Telekoms, Inc. (MTI) in 2004 which is primarily engaged in providing wireless broadband and data services to small and medium scale businesses. Aside from MTI and Piltel, Smart subsidiaries also include Smart Money Holdings Corp. (SMHC), content provider Walfac Mobile, Inc. and call center I-Contacts Corp. (ICON).

Smart's network reportedly has 36 switches and over 5,000 base stations covering 95 percent of the country's population. It recently signed a \$300 million contract with Nokia for the supply of equipment to expand its digital mobile network and to introduce data services and upgrade to 3G, should it win a license. Nortel won a 10 Gbps fiber network contract and an expansion contract for subscriber loop equipment in December 2004.

- *Globe Telecom*, the network holding company led by the Ayala family, has benefited from its strategic relationship with Singapore Telecom. SingTel has steadily increased its stake in Globe, most recently by acquiring Deutsche Telekom's 24 percent holding in 2003, and boosting its interest to 40 percent in 2004 with a new infusion of \$120 million. It plans to raise its position once again in 2005, to an anticipated 45 percent or higher.

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<sup>10</sup> SMS in Business and Government in the Philippines, Emmanuel C. Lallana, PH.D., ICT4d.ph



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Globe first launched a GSM mobile service in 1994 and later acquired Islacom. Mobile services now account for an estimated 90 percent of Globe's telecoms revenues. It also offers fixed line services through Innove and ISP services through GlobeNet.

Globe operates two mobile brands: Globe and Touch Mobile. Taken together the company ended 2004 with a total of 13 million subscribers, of which 92 percent were pre-paid. The majority, or about 11 million subscribers, were Globe customers. Touch Mobile, which competes in the same mass market as PLDT's Piltel unit, had 1.698 million subscribers, up slightly from 1.5 million at end-2003.

- *DigitalTelecommunications Inc.* (Digitel), which trades under the Sun Cellular brand name, is owned by the Gokongwei family. Launched on March 29, 2003 it is the newest player in the market with about 1.2 million subscribers and approximately 4 percent market share. It reached an impressive 1 million subscribers after its first three quarters in operation. Sun has introduced aggressive promotions, including plans for unlimited on-net calling and over-the-air credit loading service like Smart and Globe. The company plans to spend \$200 million in 2005 to increase network capacity from 2 million to 6 million lines.

Express Telecom (Extelcom) is a marginal analog cellular operator. The company, a subsidiary of Lopez family's BayanTel and one-time local operation of Millicom International, offers analog services in Manila. The business did poorly and the investment was written off by BayanTel in 1999 for a loss of at least \$150 million. However, the company holds 10 MHz spectrum at 800 MHz, clearly useful for CDMA services. It also has cellular sites, towers, frequencies and rights of way. Express Telecom is reportedly restructuring a \$21 million (P1.2-billion) debt with three creditor banks. Observers are watching to see if the license rights are brought back to life by international investors.

## SMS

Short message services (SMS) have been a phenomenal success in Philippines. SMS texting is more common than talking, even among talkative Filipinos. According to *SMS in Business and Government in the Philippines*, an excellent study prepared by the Information and Communications Technology for Development in the Philippines ([www.ict4d.ph](http://www.ict4d.ph)), SMS was introduced as a free service in 1994 and so became an effective alternative to high voice tariffs. Service providers began charging for the service in 2000, creating a popular uproar, but consumer activism has ensured that prices remain reasonable.

Text messages dominate mobile network traffic by a factor of 10 to 1. SMS is a key source of mobile industry revenues. In 2003, non-voice services accounted for about 40 percent of Smart's total mobile revenues and 41 percent of Globe's.

In many ways SMS has become a poor man's Internet service. As such, a huge range of applications and online communities, sub-cultures, social trends and public policies initiatives have emerged. Text games were an early innovation and have evolved to include interactive television programs with the audience texting comments to broadcasters. Astonishingly, in Metro Manila there are three cable TV channels – Cable Café, LinkTV and PinoyCentral – devoted to chat, according to the ICT4D SMS study. SMS has also made a big impact on financial services.

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Filipino workers abroad send home an estimated \$8 billion in hard currency remittances. Smart has targeted this flow of funds with its Smart Padala service which, in cooperation with MasterCard, enables money transfer with a branded application known as Smart Money. The final frontier for SMS, perhaps, is e-government – or “m-government” (for mobile) – to those who believe that text messaging can be put to work for government-citizen communications. A variety of projects are expected to be tested.

### **Satellite**

As in Indonesia, satellite coverage of the archipelago remains an important mode of telecommunications. Until 1994 Philcomsat held a monopoly over international satellite communications as the signatory to Intelsat, while Domsat operated a domestic monopoly using Indonesia’s Palapa satellites. Now any gateway facilities operator can use any satellite they choose. In 1997 the Philippines first satellite, ‘Agila’ (Eagle) was launched by the Mabuhay Philippines Satellite Corporation, 67 percent owned by PLDT. More recently a PLDT subsidiary, ACeS Philippines Cellular Corporation (ACeSPhil) in partnership with Indonesia’s PSN (Pasifik Satelit Nusantara), provides a mobile phone satellite system.

