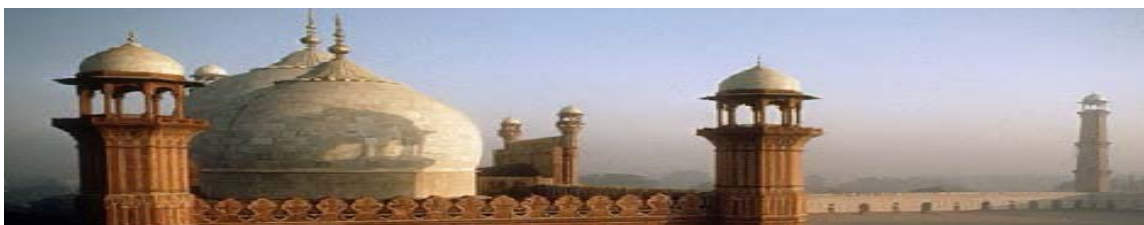


# Pakistan Telecom Brief



By Ken Zita

Pakistan is a huge potential market that appears to be approaching the tipping point of achieving rapid and sustainable growth. The government recognizes that the low level of network penetration is an obstacle to broader reform of the economy and is deliberately moving to create a disciplined and positive investment climate for the sector. The Ministry of Information Technology and the Pakistan Telecommunications Authority are executing three bold changes: introducing open licensing for basic services; restructuring the dominate carrier, PTCL, with an eye toward swift privatization; and introducing two new mobile services providers in 2004 to complement the four existing players already in the field.

The market buzz centers chiefly on the mobile tender. Mobile growth is soaring and could double from the current 3.5 million subscribers by year end 2004. The addressable market could top 15 million subscribers within five years. Unfortunately, a newly developed *Mobile Cellular Sector Policy* adopts a deterministic approach to spectrum allocation that is disproportionately weighted against efficient bandwidth planning for wireless local loop. This conservative approach could impact wireless last mile adoption in the near term. Spectrum will also be awarded by auction and the government is consequently at risk of artificially constraining network supply, limiting capital investment and depriving the economy of a much-needed stimulus from lower communications costs.

The restructuring of PTCL, including the possibility of splitting the company along product and/or geographical lines, is hoped to reduce the role of the state in telecommunications services and dramatically boost market competition. The introduction of new Local Loop (LL) and Long Distance and International (LDI) licenses also assures that the infrastructure market will be vibrant for years.

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## **Key Indicators**

Islamic Republic of Pakistan	
Population	150.7 million
GDP	\$60.5 billion
GDP real growth*	5.1%
GDP per capita	\$410
PPP	\$295.3 billion
PPP per capita	\$2,000
Pop.below poverty	35%
Literacy	45.7%
Phone lines*	4.0 (Nov. 2003)
Telephone density*	2.9 (Nov. 2003)
Mobile phones*	2.96 million (Nov. 2003)
Mobile density*	2.3 (Nov. 2003)

Sources: CIA World Factbook 2003, U.S. Department of State and World Bank 2003, \*Government of Pakistan as of November 2003



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## Political and Economic Brief

Pakistan is a critical partner to U.S. efforts to combat global terrorism -- but remains one of the world's most complex policy challenges. Bilateral relations with the U.S. and with South Asian neighbors, particularly India, have reached historic highs. President General Pervez Musharraf has reversed a number of critical policy directions to make Pakistan a "modern, progressive, and dynamic" nation. But President Musharraf has been a constant enigma to the international community. He came to power in a bloodless military coup in 1999. As general and chief of staff of the army, he overrode the constitution to name himself chief executive, then president, in 2001 -- drawing international opprobrium and earning suspension from the Commonwealth.

Despite an initial cold welcome to world stage, Musharraf has largely reversed international opinion to secure positive support both for his leadership and for Pakistan. Increasingly, Pakistan's political and economic successes are viewed as critical to U.S. interests, regional stability and advancement of the Muslim world at large. Criticism of the country has virtually evaporated following a series of spectacular political moves in early 2004, some dangerously unpopular at home, that merit recapping:

- Just two years ago, Pakistan-India relations were at their nadir. An assault on India's parliament in December 2001 by terrorists of Pakistani origin brought tensions to the wire just as the two nuclear neighbors dangerously escalated their war of words, and conventional fighting over Kashmir led to the deployment of a million troops on both sides of the border. Today the two powers have embraced a rapprochement that promises to lower tensions and build on a platform, or "composite dialog", of peace and increasing cooperation.
- The president has pledged cooperation with the international community in the global war on terror. Taliban and Al-Qaeda remnants are believed to be operating in Pakistan's tribal areas along the border with Afghanistan, and the Pakistani military is now working collaboratively to apprehend these terrorist elements. Since 2002, Pakistan has arrested and turned over to U.S. authorities a succession of key al Qaeda operatives.
- In late January the president ordered the arrest of the father of Pakistan's nuclear bomb and chief scientist Abdul Qadeer Khan, a national hero. The arrest exposed an international ring of nuclear weapons proliferation sales to states including Iran, Libya and North Korea. Khan was pardoned, conditioned on his full cooperation in the government's on-going investigation.
- As host for the increasingly important regional South Asian Association for Regional Cooperation (SAARC) summit in Islamabad in January 2004, President Musharraf used the occasion to improve relationships with his neighbors, and to announce, with the Indian Foreign Minister, the launch of a "composite" dialog that would include discussion of the question of Kashmir.

Musharraf escaped two assassination attempts in December 2003. The two bombings sent shock waves through the country and persuaded many officials that Islamic fundamentalists linked to terrorist groups outside were involved and must be dealt with. Al Qaeda had already issued a

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death threat against Musharraf, blaming him for the arrest of some 500 of its members over the past two years. Regional analysts believe the assassination attempts have systemically changed the views of even Islamist-leaning members of the military to acknowledge that a crackdown on extremist elements was necessary.

Pakistan has struggled to stabilize its political system since independence in 1947, alternating between periods of civilian and military rule. In nearly sixty years, no elected government has completed a full term in office. Decades of corruption scandals have eroded public trust in the political parties constituting Pakistan's parliamentary democracy. The military, which represents the world's eighth-largest armed force and is highly trained and professional, has been a dominant political force.

In a referendum held in October 2002, the president's term was extended five years to 2007. He has agreed to relinquish his role as chief of the army by December 2004, in response to pressure from the legislature and political parties. Prime Minister Mir Zafarullah Khan Jamali has been head of government since November 2002. Pakistan has four key parties that are members of its National Assembly: the Pakistan Muslim League (PML) and the Pakistan People's Party (PPP) are national political parties, while the Muttahid Majlis-e-Amal (MMA) -- an umbrella group of six religious parties, including the Jamaat-I-Islam -- has gained significant influence. Other parties with a strong regional, ethnic, or religious base include the Muttahida Qaumi Movement (MQM). After the last elections in late 2002, the political system remains highly fragmented, with no group winning a substantial majority of seats in the legislature, and religious groups banding together in the MMA to earn a very significant portion of seats for the first time.

Pakistan continues to face internal domestic extremism and sectarian conflict. President Musharraf has called for an end to religious extremism and banned many violent groups. Islamic fundamentalism is entrenched in many circles, and elements of Pakistan's security establishment are also widely perceived to have been the political authors of the Taliban. Of concern to the international community is the government's effort to reform that segment of Islamic schools, known as madrassas, which teach their students (usually from poor families or orphaned) a militant version of Islam. Although these radical madrassas are only a segment of the larger number of such schools, the Taliban drew upon some of these radical madrassahs as recruiting ground for soldiers. The government is devoting substantial international assistance to improving Pakistan's public and madrassah educational systems which may help over the long term.

### **Demography and Economy**

Pakistan is almost twice the size of California, and occupies a strategic location in South Asia, bordering the Arabian Sea, between India on the east and Iran and Afghanistan on the west and China in the north. With 150.7 million population it is the world's seventh most populous country. The Himalayas, the Hindukush and the Karokaram meet in its mountainous north while plateaus, plains and deserts spread southward to a 1000 kilometer coastline that is occupied by two key port cities, Gwadar and Karachi. Although the official language of Pakistan is Urdu, it is spoken as a first language by only 8% of the population. Around 48% of the population speak Punjabi, 12% Sindhi, 10% Saraiki, 8% Pashtu, and 14% other. English is widely used within the government, the officer ranks of the military, and institutions of higher learning. Ethnic groups are largely Indo-European including Punjabi, Sindhi, Pathan (Pushtun), Baloch, Muhajir, Saraiki and Hazara.

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Poverty remains a serious concern in Pakistan with 32% of the population living below a poverty line defined by minimum caloric intake. Rates had fallen substantially in the 1980s and early 1990s, but poverty started to rise again in the late 1990s. No more than 45.7% of adults are literate (male 59.8%: female 30.6%), and gender disparities in education remain significant. Life expectancy is about 63 years. The population is growing at roughly 2% annually. Inadequate social services and high population growth have contributed to persistent poverty and income distribution inequities. Few resources have been devoted to socioeconomic or infrastructure development and Pakistan's relative underdevelopment are key concerns. Pakistan has grown much more than other low-income countries, but has failed to achieve social progress commensurate with its economic growth.

The Musharraf government has turned around a serious deterioration in its macroeconomic situation to a much brighter picture in the last four years. Major macroeconomic reform had begun in the 1980s but suffered internal and external setbacks during the last decade. Bad policies, poor fiscal management, natural disasters and the Asian financial crisis made the late 1990s a drop off point for economic development. Pakistan's nuclear tests in May 1998 also brought on a new round of stringent economic sanctions by the G-7 and the U.S. following those imposed in 1992.

The government has reined in the fiscal mismanagement that produced massive foreign debt. Economic performance has improved. In 2002-3, GDP grew by an estimated 5% while inflation remained low at 3.3 percent. Pakistan has a per capita GDP of about \$410, according to the World Bank, and purchasing power parity of \$2,100. 2002 GDP of \$60.5 billion reached purchasing power parity of \$310 billion and grew at a real annual rate of 5% in 2001-2. Despite the recent economic improvements, Pakistan's debt overhang remains substantial and the country's global economic position and growth prospects remain vulnerable to exogenous shocks. Pakistan still lags behind countries with comparable per capita income in most social indicators.

U.S. assistance has played a key role in the recovery. In December 2001, the United States led Paris Club efforts to reschedule Pakistan's debt on generous terms and in April 2003 reduced Pakistan's bilateral official debt by \$1 billion. Pakistan has requested additional debt reduction, and additional bilateral debt reduction in 2004 appears likely. Pakistan's economic prospects began to increase significantly with unprecedented inflows of foreign assistance at the end of 2001. The International Monetary Fund (IMF) recently praised Pakistan's track record in meeting conditions attached to a \$1.3 billion IMF Poverty Reduction and Growth Facility to improve health, education and poverty reduction. Moody's in February 2004 assigned a favorable B2 rating to the 5-year \$500 million eurobond issue by the government in February 2004.

Pakistan's principal natural resources are arable land, water and extensive natural gas reserves. Agriculture accounts for the largest share of Pakistan's GDP, at 24%, and employs 44% of the labor force, above all in cotton. Frequent earthquakes, especially in north and west, and flooding can depress economic growth nationally. Pakistan's sizeable energy resources, including natural gas, some oil reserves, coal and large hydropower resources, want for capital and a range of domestic and international political constraints to be lifted.

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Privatization of state-owned telecommunications monopoly, PTCL, is seen as a litmus test for attracting inward investment. The government's goal of increasing foreign direct investment (FDI) has far to go, however, and is likely to meet continuing concerns about the security situation, political uncertainties, and questions about judicial transparency. The Musharraf government has also increased freedom and liberalization of the media. It has allowed the expansion of private radio and television stations – ending more than five decades of state monopoly on broadcasting.

### Telecom Policy Environment

For many years Pakistan adopted a traditionalist approach to the telecommunications sector. The state monopoly served as a cash cow: rate rebalancing was largely ignored; international traffic was constrained;<sup>1</sup> investment was directed disproportionately toward rural areas; and taxation on both carriers and consumer devices slowed market demand. Pakistan has recently embraced dramatic steps to reform the sector, best captured as three broad themes:

- Opening the market for basic fixed line services to competition through minimal licensing requirements;
- Renewing efforts to restructure and privatize Pakistan Telecommunications Corporation Limited (PTCL), the incumbent operator; and,
- Updating its mobile sector policy, including introducing two new operators in 2004.

While the changes are positive, Pakistan remains cautious in its approach to industry reform. Whereas many countries are adopting unified licenses, and genuinely technology-neutral regulation, Pakistan has chosen to segment the market according to local, long distance and mobile services. This segmentation will create artificial distinctions between service types, skewing both market demand and efficient distribution of investment capital.

The benchmark legislation for telecom is the *Pakistan Telecommunication (Re-Organization) Act 1996*. The Law established the regulator, the Pakistan Telecommunication Authority, PTA; created PTCL as a statutory corporation (which was later partially privatized through a public market listing); and granted PTCL a monopoly over basic services until December 31, 2002, among other matters. The PTA was initially embedded within the Ministry of Information Technology (MoIT), the highest policy body for the sector. With the appointment in 2001 of the current PTA chairman, Major general (retired) Shahzada Alam Malik, the PTA has exerted its identity as an independent force.

### Fixed Line Liberalization

The first significant step of the government's liberalization program is to open the fixed-line sector to competition. In July 2003 the government published the *Telecommunication Deregulation Policy*. The Policy codifies the scope and rights for competitive entry in basic services, and sets broad terms for interconnection. The centerpiece is the establishment of two new categories of basic services licenses: Local loop (LL), for fixed line telecommunication within

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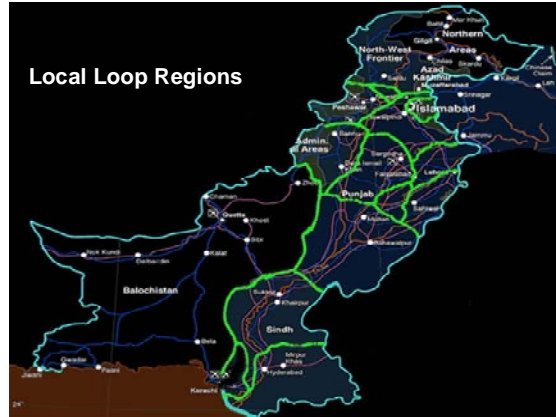
<sup>1</sup> According to PTCL statistics, the ratio of inbound to outbound calls is approximately 12:1 for 2003



the 14 PTCL regions, and Long-distance and International (LDI), for connectivity between regions.

In March 2004, the government opened both classes of license to general competition. The process specifically allows participation by foreign firms. The registration fee for a LL license is \$10,000 per region.

For the LDI license, which includes rights to provide international connectivity, the fee is \$500,000 plus a \$10 million performance bond. LDI licensees will also be subject to “stringent requirements of technical and financial capability, experience and roll out,” including specific targets for deployment; the objective is to raise the barriers of entry to encourage strategic operators.



Companies can obtain permission to operate in multiple service areas, or to combine LL and FDI franchises. License duration for both is 20 years. Fees for any spectrum required are subject to separate licensing fees.

Tariffs on both types of licensees are not regulated for carriers that do not have significant market power. Licensees are required to devote 1 percent of gross revenue minus inter-operator payments mandated by the government to a Research and Development Fund. A Universal Service Fund charge will also be levied, equivalent to a maximum of 1.5% of gross revenue, also less mandated fees. Additionally, the government has created a special tax on international termination called the Access Promotion Contribution. The APC is intended to be a mechanism to help fund rural network expansion. Its terms are somewhat complicated, and permit LDI licensees to retain a fixed share, up to 6 US cents per minute, of termination charges paid by international carriers according to a ‘one country, one rate’ scheme.

After a long history of monopoly control, liberalization of the basic services sector is likely to attract considerable interest from industry. The ministry hopes that at least three LL competitors will be introduced in each region.

### **Restructuring of PTCL**

The government’s efforts to restructure and privatize PTCL have been on-again off-again since 1991. It had an offer in the late 1990s for 26 percent equity, reputedly totaling \$3 billion, but held out in negotiations and ultimately missed the unique global market window at that time. Since then, it has had difficulty attracting potential buyers. Investors have been concerned about political risk, and appropriate support from the government to transform the utility into a commercially-oriented corporation. With fortunes rising in the local telecom sector, the government hopes to make privatization of the company a landmark deal for broader reform of the economy. A successful deal would demonstrate the government’s increasing support for market capitalism and, it is hoped, boost anemic levels of direct foreign investment.

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PTCL and the government are contemplating different strategic options for restructuring. Plans have been vetted for both a geographic and functional split of operations. Analysts believe the most likely scenario is a break-up into three new companies, tracking with the firm's largest business units: local, long distance and mobile. This approach mirrors the policy environment fashioned for new competitive entrants. From the government perspective, breaking up PTCL prior to a sell-off will help curtail the market power of any one single service provider, thereby stimulating competition. Unbundling the sale will also likely increase revenues for the government. The risk, of course, is that the mobile company, PTML (branded as "Ufone"), is disproportionately more attractive than the other businesses. According to AKD Securities, PTML's contribution to PTCL's total revenues is expected to rise to 12.5% over the next five years – and contribute 39% of PTCL's overall revenue growth. Future growth of mobile, both in terms of subscribers and net revenues, will almost certainly outstrip demand for fixed line services.

The target is to sell up to a 26 percent stake in PTCL; the government currently holds 88 percent of shares. Some estimates place the value of the tranche at around \$1 billion. PTCL's net profit for the year ending June 2003 was 23 billion rupees (\$400 million). The new buyer would gain management control.

Splitting up PTCL could take at least two years or longer, complicating hopes for a quick disposal. Leading international investors that have publicly stated their interest in the sale include Singapore Telecommunications Ltd., Egypt's Orascom Telecom Holding, Saudi firm Oger and the Menara Telecom consortium. Unsolicited offers are reportedly making the planning process a moving target. The eventual new owner(s)' greatest challenge may prove to be organizational. PTCL needs a fundamental shake-up of its corporate culture, and a massive reduction in staff.

A criminal proceeding began in March 2004 involving senior PTCL and MoIT&T representatives regarding a 305,000 line network between PTCL and China Wanbao/ZTE dating from 1998.

### **Mobile Policy and 2004 Tender**

On February 9, 2004, the PTA released an Information Memorandum announcing the tender for two additional mobile cellular licenses to complement the four operators already in service. It also began circulating a draft *Mobile Cellular Sector Policy* that outlines the government's strategic objectives. An auction was held April 14, 2004, with winning bids submitted by Norway-based Telenor and UAE-based Warid Telecom. The license fee is \$291 million, estimated to be equivalent to approximately 28 times current monthly subscriber revenues.

While nominally a technology-neutral competition, it is evident that the government is taking a managed, interventionist approach to market forces. The mobile tender made available 27.2 MHz of spectrum in the 900 MHz and 1800 MHz frequency bands that are characteristically reserved for GSM. Only minimal frequency was being made available in bands that support CDMA or alternative technologies such as PHS. No allocation was made at 800 MHz and only 5 MHz of spectrum was allocated in the 1900 MHz band.

The government appears to have adopted a "pro-GSM" strategy to the deliberate exclusion of CDMA. In late 2003 the government approved for use the Extended GSM (E-GSM) band at 890 MHz - 894.8 MHz. E-GSM is a seldom-deployed technology scheme that does not have



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widespread vendor support. It also encroaches on frequencies that are more efficiently applied for wireless local loop or full mobility services engineered explicitly for the 800 MHz band. American firms of course produce systems for both GSM and CDMA and are positioned to compete as local market dynamics warrant. The more serious policy issue is that the government is not enabling market forces to flourish. Instead, the bureaucracy is picking de facto technology standards through bandwidth allocations, and is determining how radio resources will be used. It bears noting that GSM providers are currently not allowed to deploy fixed WLL applications, despite the technology's inherent ability to do so. In the end, the government's own strategic objective of quickly raising teledensity from the current 2.9 percent will be undermined by failing to encourage a market-oriented spectrum plan.

Additionally, the spectrum policy does not encourage market innovation with new technologies. For example, there is no explicit provision for unlicensed spectrum such as WiFi and similar bands, nor is there specific endorsement of a petition process for industry participants to request new allocations based on emerging technologies. By settling on a traditionalist approach, the government is at risk of artificially constraining wireless network supply, creating unnecessarily high service charges, and depriving the economy of a much-needed stimulus from lower communications costs.

Government officials maintain that the current spectrum allocation plan is the result, in part, of a past lack of discipline in making assignments. For example, PTCL currently holds 40 MHz of spectrum at 1900 MHz that it is using for trunk microwave radio. The company will be required to retire some of that capacity. PakTel, a GSM operator, will relinquish 20 MHz at 890 MHz. The military will also free about 5 MHz of spectrum in the 800 MHz band, opening up an estimated 25 MHz by 2005. All will be compensated by the government.

Bringing structure to frequency assignments is highly commended, and a proposed band plan and frequency monitoring capability for the Frequency Allocation Board will be valuable. In the near term, however, the government is enacting policy – and defining the scope of market opportunity – on the basis of a narrow and restrictive interpretation of technology potential.

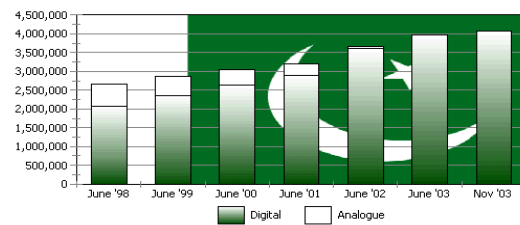
As significant, the government has chosen to adopt an auction for the spectrum in the current tender. Industry observers expect bids of \$100 million, and some estimates for the value go much higher. Existing operators, who obtained their frequencies through allocation, will be required to make retroactive payments to match the new bids. The government thus hopes to raise at least \$600 million, and possible more, through the competition. The government appears to be clinging to its historical tendency of treating telecom as an income source. Recent experience in global markets suggests that the spectrum auction will constrain capital available for infrastructure expansion, raise real costs of service, and dampen expansion by existing service providers. Some observers expect litigation from one or more of the existing operators. The government believes, however, that the transparency associated with an auction process outweighs the potential liabilities.

The net effect of introducing additional mobile competition is to increase mobile density from the current level of 2.3 percent. The PTA believes that mobile customer base could increase by 3 to 4 percent per year and mobile phone density reach more than 10 percent in a few years' time.

## Telecom Market Overview

As of November 2003 Pakistan has just over 4 million fixed telephone lines in service, yielding a teledensity of approximately 2.9 percent. The low penetration is widely regarded to be a major impediment to economic growth. PTCL installed around 1.19 million fixed lines since June 2001 and plans to add 690,000 new subscribers over the next two years. It is by far the dominant operator. The National Telecommunication Corporation (NTC) handles Government and military communications and has nationwide presence with 72,000 customer access lines and a nationwide fiber backbone. Additionally, the Special Communications Organization (SCO), established in 1976, provides public network services to politically sensitive regions such as the Azad Jammu and Kashmir and Northern Areas. SCO operates a network of about 60,000 lines.

**PTCL: main lines in service 30/11/2003**  
4,078,153 lines (teledensity, 2.9%)



Source: PriMetrica's GlobalComms

According to the PTA, as of 2002, total financial turnover for the sector was 2.2 billion. Of this, PTCL accounted for approximately 79 percent, mobile companies earned 13 percent, Internet Service Providers had 4 percent, and Payphone companies (of which there are over 177 operators running 129,000 PCO booths), 3 percent.

An estimated 60 to 70 percent of the population in rural areas has no access to telecoms services. According to the De-Regulation Policy, PTCL is obliged to install no fewer than 83,000 new lines per annum in rural and under served areas until end 2008. In reality, far fewer lines are believed to be deployed. PTCL plans to widely adopt CDMA WLL to accelerate build-out in rural areas. The company is installing systems operating at 450 MHz and expects to commission as many as 400,000 lines in 2004. A contract for 200,000 lines was awarded to Huawei in February 2004 and PTCL expects to engage additional suppliers.

In addition to PTCL, and the new LL franchisees expected, TeleCard ([www.telecard.com.pk](http://www.telecard.com.pk)) is pursuing the fixed line market with CDMA wireless. The company, led by the Arfeen Group, started as a payphone operator in 1992, and has introduced public call offices nationwide. It went public in 1995 and became the first listed, privately owned telecom operator in Pakistan. Lately it has established a joint venture with Pakistan Telecommunication Ltd. to install and operate a wireless local loop network. The project will be implemented in three phases, at a total estimated cost of \$126 million. Phase I involves implementation of a 165,00 line network at a total estimated cost of \$27 million, to be financed through an additional equity issue and vendor credits. Additionally, TeleCard and PTCL plan to install 125,000 wireless card payphones by the end of 2004. San Diego-base Axesstel, Inc. ([www.axesstel.com](http://www.axesstel.com)) concluded a \$10 million deal with the group for CDMA2000 1x advanced fixed wireless desktop phone terminals and software for public call office management.

PTCL's optical fiber network is arguably the crown jewel of Pakistan's telecommunications sector. Borne out of national security concerns associated with decades of simmering hostilities with its neighbors, the national long distance network provides comprehensive connectivity to all major cities, secondary towns and strategic border areas. PTCL also has an extensive urban fiber

optic network with points of presence in an estimated 600 locations. With demand growing from enterprises for high-speed services, PTCL has identified the market potential for metropolitan fiber and fiber-to-the-building services to meet the access requirements of business customers in key commercial districts and buildings. The local broadband access market is largely undeveloped. PTCL faces significant competition from HFC cable operators in Karachi, Islamabad and Lahore and needs to offer an equivalent or superior service to stem customer flight. The company believes that its fiber backbone is one of its strongest strategic assets, and now seeks to better capitalize on the base to attract and retain high-margin business customers. The urban fiber ring systems will also be used for transport for PTCL's proposed CATV network, currently under planning and development.

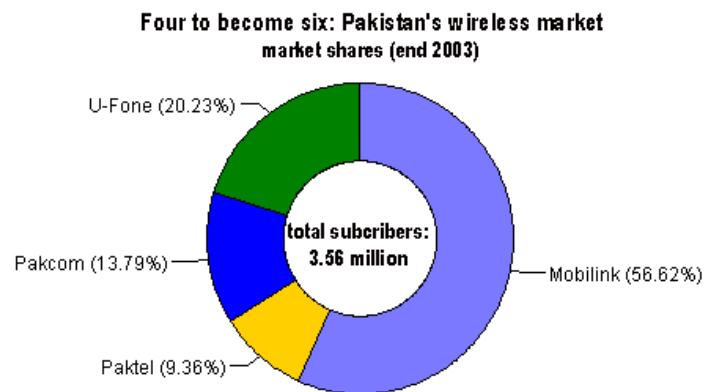
International connectivity, meanwhile, is being expanded with links by the PTCL to the Se-Me-We-4 cable, while the Mobilink and the Saif Group are extending connectivity to the Gulf with a spur to the FLAG cable. With the gradual restoration of relations with India, many groups are eyeing the potential for completing a high-speed terrestrial cable at Lahore to Amritsar.

### Mobile Market

The mobile sector is characterized by robust competition – by four operators today, expanding to six by the end of 2004. As recent as January 2001 Pakistan had only 225,000 mobile subscribers. Rapid penetration began after call party pays billing was introduced in 2001. As of March 2004, the market climbed to more than 3.56 million. By year-end 2004, the total number of subscribers could reach 8 million. Industry observers believe that the addressable market by 2006/2007 may be 12-15 million. Given the anticipated growth of the existing incumbents, the new operators licensed may face a difficult game of catch-up.

The largest player is Mobilink, followed by Ufone, Instaphone and Paktel. Mobilink GSM (PMCL) ([www.mobilinkgsm.com](http://www.mobilinkgsm.com)) is a subsidiary of Orascom Telecom, and a partner of Pakistan's Saif Group. It started operations in 1994 and commands an estimated 56 percent market share. Ufone ([www.ufonegsm.com](http://www.ufonegsm.com)) is PTCL's subsidiary likely to be spun out as part of the anticipated PTCL divestiture. It was late to enter the market, launching services on July

29, 2001, and so only accounts for about 18 percent of customers. It reached the 100,000 subscriber mark after four months in operation. Instaphone (Pakcom Ltd) ([www.instaphone.com](http://www.instaphone.com)) is a subsidiary of Millicom International Cellular (MIC) S.A., the Luxembourg-based operator of mobile properties in middle-income markets. It is the only operator not using GSM, having instead opting for TDMA. It claims to have the largest active subscriber base but PTA figures indicate a market share of about 16 percent. Paktel ([www.paktel.com](http://www.paktel.com)) is the smallest of the four.



Source: PriMetrica Globalcomm

**Mobile Market – November 2003**

Operator	Mobilink	UFone	Instaphone	Paktel	Total
Subscribers	1,675,000	552,000	478,061	255,000	2,960,261
Technology	GSM	GSM	D-AMPS migrating to TDMA	AMPS migrating to GSM	

Source: MoIT&amp;T

While mobile take-up is gathering speed, the pace would hasten further still if the government lifted duties on initiating service. It collects a tax of Rs 2000 for installation (about \$35), a sizeable sum in a country where the GDP per capita is \$492.

Additionally, in the past year, ending June 2003, the PTA issued a total of 80 licenses: 56 licenses for card pay phone services, 15 for electronic information services and 9 for other services.