

Sector Overview

The IT & Telecom industry in Pakistan has undergone a dramatic change in the recent years led by the government with the aim of making it a major player in these two key industries.

With perhaps every global IT company in the world having presence in Pakistan, and with revenues growing by 30-40% year on year, the IT industry is probably the most exciting and dynamic sector in the country today. An industry characterized by about 75,000 professionals, major ongoing IT projects within the government and the private sector to the tune of hundreds of millions of US dollars, and world-class software product and services companies bears testimony to the vibrancy of the IT and IT enabled services sector in Pakistan. The convergence of communications, computing, and entertainment has resulted in the blurring of boundaries between disciplines and IT companies now come in all shapes and sizes. IT has indeed been taken out of the closet and has been mainstreamed into every aspect of industrial and economic activity within the country.

The year 2004 was a crucial year for the telecom sector in Pakistan. The Government of Pakistan decided to liberalize telecommunication sector and provide access to foreign investors. Government of Pakistan announced telecom deregulation policy, mobile policy and broadband policy.

Remarkable growth in Pakistan telecom sector has been witnessed in this year. New licensed companies have started rolling out their networks across the country. Prices of all telecom services have dropped down drastically and revenues of existing operators have improved significantly.

Foreign direct investment (FDI) in IT & Telecom sector has increased upto US \$ 1,9377.6 million in year 2005-06 which was merely US \$ 221.9 million in 2003-04 and it is expected to go further up in the next fiscal year. With the consumers getting new connections fast, tele-density is making a quantum leap especially in cellular mobile telephony. Currently mobile sector has a penetration of 29.87 % whereby fixed phone density is 4.24 %. Total number of cellular phone users has crossed 46 million by November, 2006 and the subscriber base would continue to grow up. Two new cellular operators have recently launched their operations and are aggressively pursuing expansion plans which will further augment the expansion of the cellular sector of Pakistan. According to an international research firm, the mobile penetration rate in Pakistan is likely to cross 30 percent by the year 2007 from current 29.87%.

Up till November, 2006, 187 licenses for basic telephony services (LDI, LL, & WLL) have been awarded to various local and international players. 234 licenses have been granted for various value-added services, besides 315 licenses for card payphones, many of whom are already in operation.

IT & Telecom Sector at a Glance

IT Sector:	
Cities & towns connected with Internet	2389 (September, 2006) cities & towns
Internet Connections/ Subscribers	2.4 million (September, 2006)
Internet Users	Approximately 12 Million (Sept, 2006)
Access to Internet	97% of Population
Broadband Subscribers	90,000 (November, 2006)
Number of ISPs	127 (Nov, 2006)
Numbers of Cities on Fiber Optic	592 (December, 2005)
Bandwidth availability	3053 MB purchased and 2113 MB delivered.
<u>Cost per E-1 connection (2MB)</u>	<u>US\$ 1, 450 per month</u>
<u>Total Number of IT companies working in Pakistan</u>	<u>730 (Registered PSEB Members)</u>
<u>Total Number of Substantial IT companies</u>	<u>487 (Active PSEB Members)</u>
Total Number of Foreign IT& Telecom companies working in Pakistan	58
Total Number of ISO 9000 certified companies	100
Total Number of companies CMM Assessed	One CMMi Level 5 company
Total Number of Medical Transcription companies	15 (May, 2005)
Software industry Turnover	Around US\$ 70-80 million
Total IT spending in fiscal year 2003-2004	Around US\$ 600 million
IT & IT enabled services Exports during 2005-2006	US \$72.210 million (transacted through State Bank of Pakistan)
Number of IT Professionals engaged in export oriented software development	Around 13000
Number of IT graduates produced per year	Around 20, 000
Number of Universities offering IT / CS programs	100 +
Total number of IT professionals employed in the country	About 100, 000
Number of Software Technology Parks (STPs)	10 (November, 2006)
Total amount of space utilized in STPs	750,000 sq. ft.
Total Number of Call Center	310 (December, 2006)
Number of Call Center agents working for international clients	Around 3500 +
Foreign Direct Investment (FDI) in IT Sector	\$ 30.2 million (2005-2006)
Telecom Industry Statistics:	
Investments of Telecom Industry	\$ 2606.6 million (July, 2003 to

	June, 2006)
Investments/Financial size of Telecom Industry	USD 4.25 billion (June, 2003)
Revenues of Telecom Industry	Rs. 192,626 million approx. (2005-2006)
Foreign Direct Investment (FDI) in Telecom Sector	\$ 1905.1 million (2005-2006)
Foreign Investment (FDI) in IT & Telecom Sector	\$ 1,937.7 million (2005-2006)
Investment Potential (next 3-5 years)	USD 5-8 billion
Share of Telecom sector in GDP	2% (2005-2006)
Contribution of Telecom sector to GST/ CED	Rs. 25,178.00 million (2005-2006)
New licenses issued Cellular Long Distance & International Local Loop: Fixed Line Wireless	04 (for AJK & Northern Areas) 14 + NTC + PTCL + SCO 82 92
Number of Cellular Users	46.4 Million (November, 2006)
Telephone Density (Mobile + Fixed Line) Ind. WILL	34.11 per 100 population (November, 2006)
Fixed Phones: Installed Working	6, 000, 000 5,174,480 (November, 2006)
WLL Subscribers	1.42 Million (November, 2006)
Digitalization	100%
Total Exchanges Digital Manual	3157 (December, 2005) 3077 80
Transit Exchanges	36 (+8 HCTE) (December, 2005)
Countries on ISD	242 (December, 2005)
Telegraph Offices	278 (December, 2005)
Payphones PCOs (including payphones of WLL companies)	353,194 (March, 2006)
Long Distance VHF PCOs	3101 (September, 2006)
NWD Stations	2340 (December, 2005)
No. of Payphone Companies	403 (December, 2005)
Total Length of Main Optical Fiber Link	11609 Km (Up to September, 2006)
Percent growth in Exports	45% over Fiscal year 2002-2003
Export target for the current fiscal year 2005-2006	US \$ 72 million (state Bank Transactions)

Source: Various (Ministry of IT & Telecom, PTA, PTCL, PSEB, Economic Survey 2005-06)

Pakistan IT & Telecom Industry Structure

We now look in detail at the sub-sectors of the IT & Telecom Industry.

IT Industry Sector

The components of Pakistan's IT industry are as follows:

- A) Internet
- B) Software development & IT services
- C) Computer hardware manufacturing

A) Internet Growth in Pakistan:

With the introduction of first commercial email service, the internet entered into Pakistan back in the year 1993. PTA started issuing Electronic Information Service (EIS) category licenses. Since then internet growth in Pakistan is increasing with every coming year. Upto Nov, 2006, there are 127 ISPs operating in Pakistan. Major ISPs include Paknet, Micronet Broadband, Pak Datacom, Comsats, Acsys Limited, KASB Technologies, Go Internet & Software, GOL Internet Services, Logitech, Net 21, and Nexlinx.

**Internet Connectivity in Pakistan
1998-September, 2006**

Category	1998	1999	2000	2001	2002	2003	2005	September 2006
Cities connected with Internet.	-	29	295	558	1,081	1,350	2288	2389
Bandwidth (Mbits)	8.095	16.185	24.795	91.896	232.469	410	1400	1500
No. of ISPs	44	68	98	111	127	127	145	152
Fiber Optic Installation (No. of Cities)	60	72	93	135	258	300	592	593
Internet Bandwidth Rates (E 1 Line)	-	-	-	\$6,000	\$6,000	\$5,400	\$2,000	\$2,000

Source: PTCL, PTA, PSEB

It can be seen from the above table that the IT connectivity in the country has grown by leaps and bounds over the last five years. This has benefited the customers not only in terms of quality and availability of services but also with substantial reduction in cost.

No. of Internet Subscriber in Pakistan (1998-2006)

Year	No. of Internet Subscriber
1998	100,000
1999	250,000
2000	500,000
2001	750,000
2002	1,000,000
2003	1,600,000
2004	20,00,000
2005	21,00,000
2006	24,00,000

Source: PTA Telecom Status Report 2003-04 and Annual Report 2006

Revenue of ISPs/DNOPS (2002-03 & 2003-04)

(Rs. In million)

Company Name	Annual Gross Revenue		%age increase in Revenue	Assets		%age increase in Assets
	2002-03	2003-04		2002-03	2003-04	
Paknet	394.667	264.094	-33.8%	515.319	426.839	-17.17%
Pak Datacom	182.895	217.096	18.70%	322.453	366.312	13.60%
Comstar	130.053	125.508	-3.49%	205.664	227.675	10.70%
Acsys Limited	39.356	26.527	-32.60%	22.066	23.431	6.19%
KASB Technologies	70.719	80.117	13.29%	109.135	106.498	-2.42%
Go Internet & Software	39.761	47.212	18.74%	74.151	160.874	116.95%
GOL Internet Services	32.964	46.124	39.92%	4.400	7.480	70.00%
Logitech	5.264	66.610	1165.39%	8.692	64.253	639.22%
Net 21	39.707	45.728	15.16%	27.824	29.522	6.10%
Nexlinx	40.609	38.667	-4.78%	22.810	20.545	-9.93%
Total	975.995	957.683	-1.88%	1,312.51	1,433.429	9.21%

Source: PTA Telecom Status Report 2003-04

DSL Subscribers in Pakistan

S.No.	Name of the Company	No. of subscribers
1	Micronet	6,040
2	Cybernet	2,085
3	Multinet	1,093
4	Dancom	2,680
5	HRI	720
6	Others	2680
Total		19,462

Source: PTA Telecom Quarterly Review March 2006

B) Software Development & IT Services

The turnover of the software industry in Pakistan is estimated to be USD 70 – USD 80 million per annum. The figure may seem quite low as not all software sales are reported by firms which may not be registered with any association or any other authorities. Presently there are 270 software houses based in Pakistan, catering to the domestic market as well as overseas requirements of the major software markets. The major ones are the USA, UK, EU, South Africa, Japan, Australia, and the Middle East. The ability of Pakistan to produce quality software at competitive costs is based on abundant pool of IT professionals and well-managed processes.

The main products of the software industry include ERP solutions & applications for textiles, banking, pharmaceutical, insurance and financial sectors, engineering and design applications, E-commerce and E-business solutions, CRM and Call center solutions, multimedia and training applications, medical & legal transcriptions etc.

Call Centers Industry Comparison December, 2006

	Pakistan	India
Total Number of Call Centers	310	N/A
Total Number of Agents	10, 000	Above 0.5 Million
Cost of 2 Mbps connection	PTCL (PIE) US \$ 1450 / Month FLAG US \$ 1600 / Month	US \$ 5,500/Month (India is proposing to bring down this rate)
Agent Salary Per Annum	US \$ 3600	US \$ 1,989

Source: Pakistan Software Exports Board.

Call Centres in Pakistan are operating in the areas of insurance, banking, pharmaceuticals, telecom, and airline business.

C) Computer Hardware Manufacturing

Computer hardware manufacturing is extremely capital intensive in nature and at present there is no computer hardware manufacturing activity in Pakistan in the true sense. Hardware components are available in abundance and at fairly cheaper rates. Consequently most of the computer vendors are assembling PCs from imported parts and components. However, all major international players like Philips, HP, Intel, and Samsung already have their offices in Pakistan besides a number of other players like Acer and Dell are operating through distributors. There are presently only a few local companies like INBOX, RAFFLES, MICRO PAK etc. which have developed organized assembly lines and are producing small components like casings of PCs and are marketing brands in their own names. M/s Enabling Technologies are doing some hardware designing activity. In most of the cases the microprocessor used is of Intel with limited sales of AMD.

II. Telecomm Sector

Comparison of Basic Telecom Data with Regional Countries 2006

Country	Out-going Inter- national Traffic Total M Min.	Total Tele- comm unication Staff (000s)	Tele- comm unication Revenue Total M RS	Tele- comm unication Invest-ment Total M US\$	Internet Hosts Total	Interne t Users (Millio n)	PCs Total (000s)	Internet Sub- scribers (Million)
Bangla- desh	39.3	19.8	523.9	80.1	1	243	1050	81
Bhutan	6.2	0.4	9.2	2.8	985	15	10	2.1
India	660	416.6	7959.2	3511.5	86871	18481	7500	4140
Indonesia	289.4	39.8	2167.1	1703.3	62036	8080	2519	865.7
Nepal	33.3	4.8	84.2	20.9	917	80	85	20
Pakistan	128.3	74.0	192, 626	2606.6	15124	12	600	2.4*
China	1005.7	-	55527.1	26782.5	160421	79500	35500	67746.5
Iran	329.9	46.2	1715.1	1263.7	5052	4800	6000	816.2
Maldives	7	0.5	65.2	8	532	15	20	1.1
Philippines	171	21.4	2952	696.7	27996	3500	2200	800
Sri Lanka	56.5	10.9	334.5	82.2	1882	225	250	85.5
Thailand	342.4	29.3	4140.5	400.9	103700	6972	2461	2403
Malaysia	982	20.7	4791.8	1009.2	107971	8661	4200	2997.4
Hong Kong, China	4400	17.8	6255	1065	591993	3213	2864	2327
Japan	2811.4	114.4	168914	19997.4	12962065	61600	48700	33883.9
Korea (Rep)	1041.8	53.3	21737.2	6506.6	253242	29220	26741	1178.5
Singapore	1965	8.8	3348.6	433	484825	2135	2590	2020.8
Taiwan, China	3076.7	38.3	10300.2	3551.7	2777085	8830	10665	7822.1
Vietnam	67.2	90	1611.7	-	340	3500	800	917.1

Source: PTA Telecom Status Report 2003-04

Note: * Up September, 2006

Teledensity Trends of the Provinces of Pakistan (2001-2005)

Years	Teledensity (%)			
	Punjab	Sindh	N.W.F.P.	Baluchistan
2001	2.4	3.0	2.0	1.3
2002	2.6	3.2	2.2	1.3
2003	2.7	3.3	2.4	1.4
2004	3.1	3.5	2.5	1.5
2005	3.5	4.1	2.7	1.9

Source: PTA

Teledensity (Fixed and Mobile) (1997-April, 2006)

Years	Teledensity Fixed (%)	Teledensity Cellular (%)	Teledensity WLL* (%)	Total Teledensity (%)
1997-98	1.99	0.15	0	2.14
1998-99	2.11	0.19	0	2.3
1999-00	2.18	0.22	0	2.4
2000-01	2.28	0.52	0	2.8
2001-02	2.50	1.16	0	3.66
2002-03	2.69	1.62	0	4.31
2003-04	2.94	3.31	0	6.25
2004-05	3.43	8.29	0.17	11.89
2005-06	3.67	5.12	1.13	9.92
April, 2006	3.4	22.2	0.66	25.66

Source: PTA

WLL: Wireless Local Loop

Teledensity Comparison with Regional Countries Year March, 2006

Countries	Teledensity (%)
Pakistan	23.1
Bangladesh	9.0
India	12.8
Sri Lanka	27.0
Nepal	3.0
Thailand	10.97
China	23.98
Malaysia	17.38
South Korea	55.31

Source: PTA and ITU

Note: * 2005-06

Telecom Sub-Sectors

The telecom sector can be divided into three major segments

- (i) Basic Telephony Services (LDI, LL & WLL)
- (ii) Cellular Mobile Operations
- (iii) Payphones
- (iv) Others

i) Basic Telephony Services

Historically the telecom access / teledensity (considered to be a measure of development of a country) has remained low in Pakistan. However in recent years this sector despite being under the monopoly of PTCL has seen double digit growth in new connections coupled with a turnaround time for installation of less than 72 hours. PTCL has been privatized now and Etisalat Telecom of UAE has acquired 26% stake in PTCL with management control. Under the deregulation policies, 105 new players have entered which will not only increase the service choice for customers at competitive rates but will also provide services in the under served areas. Segment-wise breakdown of companies that have been issued licenses is given as under:

Licenses Issued after Deregulation of Telecom Sector (November, 2006)

	Wireless Local Loop	Local Loop	Long Distance & International	Cellular Mobile	Total
Number of Licenses	103	70	14	2	189
Number of Companies	16	38	14	2	70

Source: PTA

Names of the WLL, LL, LDI & cellular mobile players can be downloaded from Pakistan Telecom Authority website (www.pta.gov.pk).

Revenues & Assets of Listed Telecom Companies (2002-03 & 2003-04)

(Rs. In million)

Company Name	Annual Gross Revenue		Increase/ (Decrease) in Revenue	Assets		Increase/ (Decrease) in Assets
	2002-03	2003-04		2002-03	2003-04	
Pak Datacom	182.895	217.096	18.70%	322.453	366.312	13.60%
PTCL	67,747.493	74,100.000	9.38%	130,778.875	141,594.528	8.27%
Telecard	1,083.878	1,649.193	52.16%	2,111.537	3,258.294	54.31%
World Call Communication	1,687.197	2,425.545	43.76%	3,178.097	3,562.280	12.09%
World Call Multimedia	165.915	264.328	59.32%	707.626	719.813	1.72%
World Call Broadband	-	46.135	-	465.000	1,529.411	228.91%
Total	70,867.378	78,702.297	11.06%	137,563.588	151,030.637	9.79%

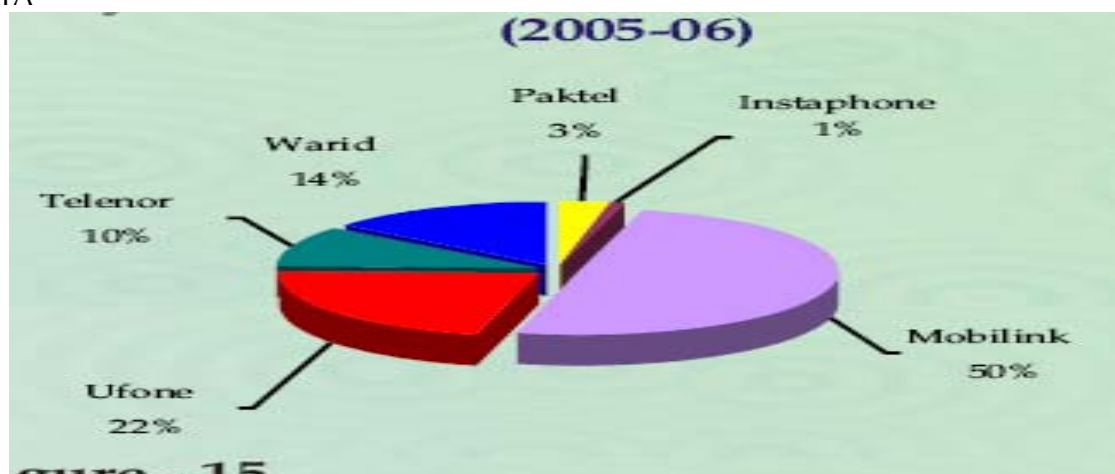
Source: PTA Telecom Status Report 2003-04

ii) Cellular Mobile Operators The cellular phone sector is one of the fastest growing sector of the telecom industry which has recently been given the status of an industry by the Government. The number of cellular phone subscribers has increased to over 46 million by November, 2006.

Cellular Subscribers in Pakistan (1997 to November, 2006)

Years	Warid	Telenor	Paktel		Instaphone	Mobilink	PTML (U-fone)	Total No. of Subscribers
			GSM	AMPS				
1997-98	0	0	0	60,000	53,184	82,912	0	196,096
1998-99	0	0	0	70,000	108,058	87,556	0	265,614
1999-00	0	0	0	80,221	112,000	114,272	0	306,493
2000-01	0	0	0	96,623	220,000	309,272	116,711	742,606
2001-02	0	0	0	218,536	330,000	800,000	350,000	1,698,536
2002-03	0	0	0	319,400	420,000	1,115,000	550,000	2,404,400
2003-04	0	0	0	470,021	535,738	3,215,989	801,160	5,022,908
2004-05	508,655	839,289	924,486		454,147	7,469,684	2,579,103	12,775,364
July, 2006	4.9 million	3.6 million	1.0 million		0.3 million	17.2 million	7.5 million	34.5 million
Nov, 2006	7.27 million	9.6 million	1.38 million		0.25 million	22.03 million	9.65 million	46.4 million

Source: PTA



Source: Economic Survey 2005-06

Revenues & Assets of Mobile Companies

Company Name	Annual Gross Revenue (Rs. In million)		Increase / (Decrease) in Revenue	Assets (Rs. In billion)		Increase / (Decrease) in Assets
	2003-04	2004-05		2003-04	2004-05	
U-fone	4,374.000	8,598.538	49.13%	13,996.100	20,274.291	30.97%
Instaphone*	2,946.847	3,195.752	7.79%	5,421.839	5,210.428	-4.06%
Mobilink*	13,242.441	25,333.723	47.73%	25,349.263	45,927.569	44.81%
Paktel*	1,929.432	2,024.858	4.71%	3,179.231	18,597.417	82.90%
Warid Telecom**	-	175.354	100.00%	-	18,660.826	100.00%
Total	22,492.720	39,328.225	42.81%	47,946.433	108,670.531	55.88%

* Financial Year ends on December 31 of respective year

** Revenues based on un-audited AAA

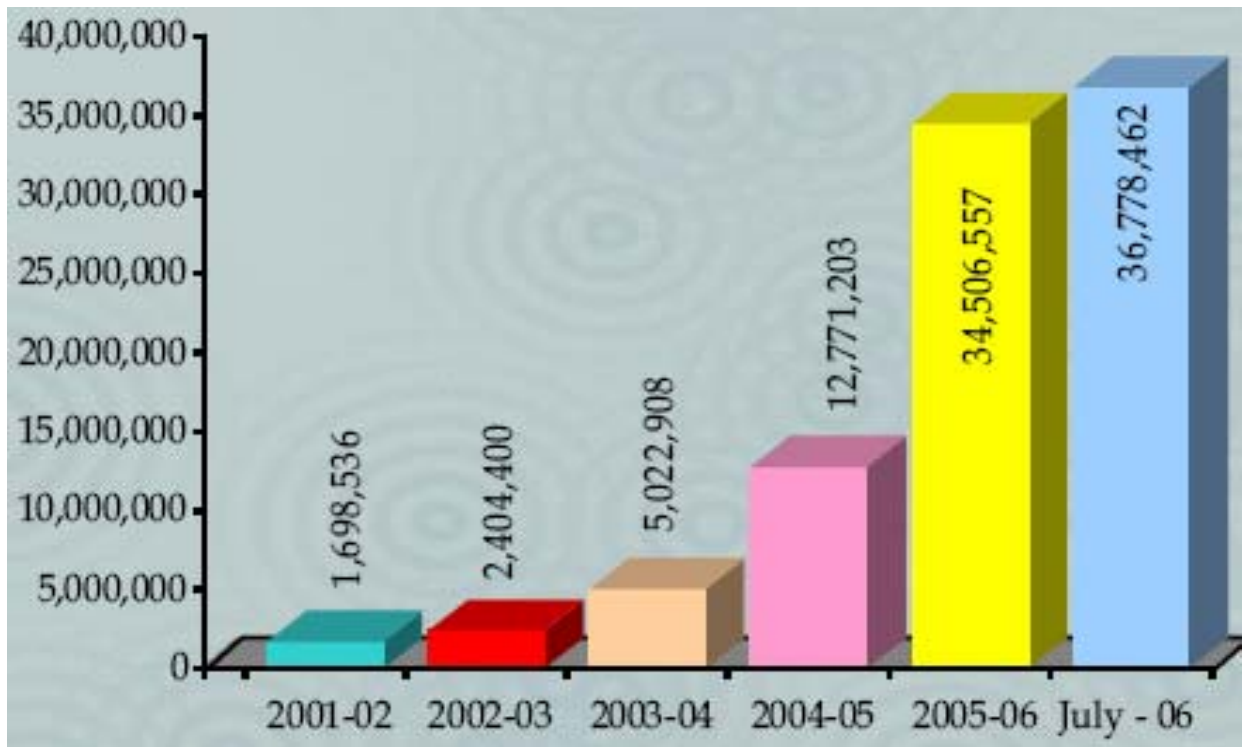
Source: PTA

Growth Rates of Cellular Subscribers (1997 to July, 2006)

Years	Telenor	Paktel		Instaphone	Mobilink	PTML (U-fone)	Total
		GSM	AMPS				
1997-98	—	—	52.3	23.6	57.6	—	45.2
1998-99	—	—	16.7	103.2	5.6	—	35.5
1999-00	—	—	14.6	3.6	30.5	—	15.4
2000-01	—	—	20.4	96.4	170.6	—	142.3
2001-02	—	—	126.2	50.0	158.7	199.9	128.7
2002-03	—	—	46.2	27.3	39.4	57.1	41.6
2003-04	—	—	47.2	27.6	188.4	45.7	108.9
2004-05	—	96.7	96.7	(15.2)	132.3	221.9	154.3
2005-06	2.7	1.0		(15.2)	17.0	7.0	

Source: PTA

Growth of Cellular Subscribers in Pakistan (2001 – 2005)



Source: PTA

iii) Payphones

Growth of Payphone Companies in Pakistan:

Despite other advanced services, conventional services like payphone and prepaid calling card are also gaining momentum in Pakistan. Payphone business has shown rapid growth in the last four years and is considered an important mean of providing the fixed line facility to general public and self employment source for the low income group.

Number of incentives have been extended to Card Payphone Operators by PTA including abolition of annual royalty and reduction in annual fee from 25% initial Licenses fee to 1.5% annual gross revenue or 10% of initial license fee whichever is higher with effect from July 1, 2004. Upto November, 2006, 315 licenses were issued to Payphone operators. Total number of PCOs reached 353,194 at the end of March, 2006 from 127,910 in June, 2003, showing more than 120% growth. World Call is leading the market with more than 30,000 PCOs followed by Dancom and Telecard.

Major Payphone Operators

Sr. No.	Card Payphone Companies	No. of PCOs (2004)		
		Rural	Urban	Total
1	Dancom	3,982	19,352	23,334
2	TF Payphones	1,373	3,616	4,989
3	World Call	-	-	29,159
4	Telenet	562	3,389	3,951
5	PhoneNet	0	2,470	2,470

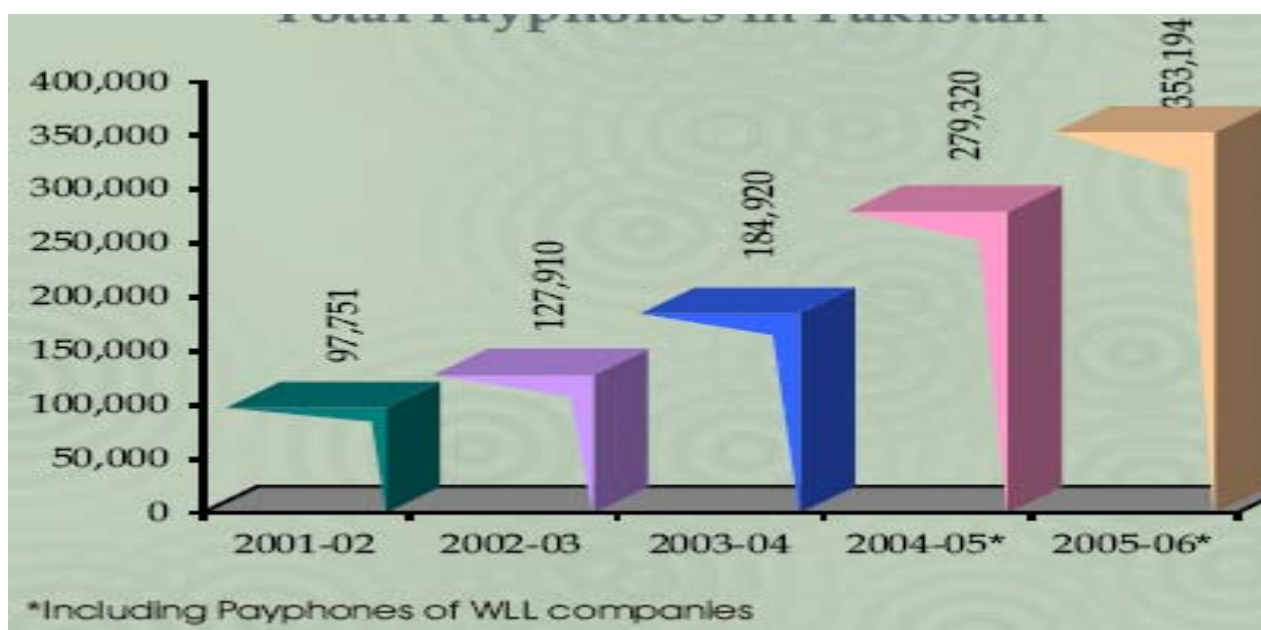
Source: PTA

Total Number of Card Pay Phones in Pakistan (2000–March, 2006)

Year	No. of Payphone Companies	Number of Payphone PCO's
2000-2001	64	66,968
2001-2002	99	97,751
2002-2003	164	127,910
2003- 2004	281	184,920
2004-2005	372	279,320
2005-2006	403	353,194

Source: PTA

Growth of Payphone PCO's in Pakistan (2001–2006)



Source: PTA

(iv) Telecom Manufacturing Sector:

At the time of independence Pakistan was dependent on imported telecom equipment. Government of Pakistan with joint ventures started manufacturing in 1950's but it was not enough to cater for local market demand. In 1990s, foreign telecom equipment manufacturers setup their facilities under local joint ventures in Pakistan realizing the potential of the market and to meet huge unmet demand.

Today, Pakistan has a sizable equipment manufacturing base to meet the requirements of local telecom operators to some extent. Many foreign companies like Siemens, Alcatel, ZTE, Huawei, Nortel Networks, and Ericsson Pakistan (Pvt.) Ltd. have setup telecom manufacturing facility. Besides foreign companies, many local companies like Comcept, Telephone Industries of Pakistan (TIP), Carrier Telephone Industries (CTI), LT Engineering, and Frontier Cable Industries (Pvt.) Ltd. (FCI) are working in Pakistan. As the telecom market is expanding, investment in the sector will improve more and these major telecom manufactures will have to become competitive and come up with new, improved and innovative products to recapture their share in market.

Telecom Manufacturers Statistics (2002-2004)

(Rs. In million)

Sl. No.	Company Name	Revenue (In Million)		Assets (In Million)	
		2002-03	2003-04	2002-03	2003-04
1	Frontier Cable	1.1	107	185	264
2	NRTC	172	569	211	353
3	Compect	467	612	656	825
4	ZTE	1054	1117.7	1058	1158
5	CTI	1100	1004	577	1264
6	Alcatel	1424	726	-	-
7	TIP	1499	1240.8	3337	3263
8	Siemens	5812	4795	4375	5153
Total		11529.1	10171.5	10,399	12,280

Source: PTA Telecom Status Report 2003-04

(v) Value- Added Services

Besides the aforementioned services the Pakistan Telecom Authority has awarded a number of licenses in valued added services and some of them have already started operations. These are given as under:

Number of Licenses Issued By PTA

S. No	Service	Licenses issued
1	Audiotex Services (ATS)	17
2	Burglar Alarm System (BAS)	2
3	Card Pay Phone Services (CPPS)	315
4	Data Communication Network (DCNS)	23
5	Digital Radio Paging Services (DRPS)	1
6	Electronic Information Services (EIS)	127
7	E-Mail Services	11
8	Mobile Telephony	6
9	Non Voice Communication Network Services (NVCNS)	31
10	Stored and forward Fax Services (S&FFS)	8
11	Satellite Services.	13
12	Special License (SL)	4
13	Basic Telephony (TEL)	3
14	Trunk Radio Services (TRS)	1
15	Video Conferencing Services (VCS)	1
16	Voice Mail Services (VMS)	2
17	Vehicle Tracking System (VTS)	8
Total licenses issued		562

Source: PTA

Exports of Computer Services /IT & IT Enabled Services (2000-2006)

(US \$000)

Description	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06
Hardware Consultancy Services	-	-	-	537	341	1,207
Software Consultancy Services	-	-	-	8,977	7,922	19,049
Maintenance & Repairs	-	-	-	42	151	110
Export of Computer Software	20,124	19,773	23,000	21,800	24,607	45,914
Other Computer Services	-	-	-	1,538	2,937	5,930
Total	20,124	19,773	23,000	32,894	35,958	72,210

Source: State Bank of Pakistan

The software export figures of State Bank of Pakistan are based on the receipts on account of computer services. These figures should not be considered as the exact figures of Pakistan's software exports as most of the software companies only disclose the funds that they bring in for paying the salaries and not the actual earnings through software exports. It has been estimated that the software companies earn five times more than the money spent on salaries and therefore it is estimated that presently, the software exports for Pakistan are around USD 125 million.

Foreign Direct Investments in IT & Telecom Sector (2002-2006)

(Million US \$)

Sectors	2002-03	2003-04	2004-05	2005-2006
Telecommunications	13.5	207.1	494.4	1905.1
Total FDI in IT & T Sector	789.0	949.4	1,524.0	1937.7

Source: State Bank of Pakistan

Contribution of Telecom Sector in GDP

Year	(Rs. Million)
2000-01	62,483
2001-02	70,951
2002-03	78,729
2003-04	90,394
2004-05	115,026
2005-06	2%

Source: Economic Survey 2005-06

Total Telecom Contribution to National Exchequer

(Rs. Million)

	PTA Deposits	Activation Tax	GST/CED	Income Tax	Custom Duty	Total
2001-02	38	1,200	8,810			10,048
2002-03	470	1,910	11,526	15,573	147	29,626
2003-04	694	4,020	12,119	21,009	555	38,397
2004-05	17,725	7,577	20,397	19,799	1,627	67,125
2005-06	17,384	11,398	26,770	20,854	696	77,102
Note: PTA deposited 1.9 billion in June 06 and another Rs. 6.4 billion will be deposited shortly. Income tax for 2005 - 06 are estimated						
Source: Central Board of Revenue and PTA						

GST: General Sales Tax

CED: Central Excise Duty

Source: PTA

Employment Status of Telecom Sector 2005-2006

S. No.	Sector	Employment Generation
1	Cellular Mobile	26,642
2	Fixed Line	36,163
3	Value Added	82,211
4	Selling Outlets and manufacturers	38,047
Total Employees		183,063

Source: Economic Survey 2005-06

Employment and Foreign Direct Investment Potential of Telecom Sector Next 3 to 5 years

Service	Direct Employment	Indirect Employment	Foreign Investments
Mobile	5,000	Vendors, Franchises and distributors	US \$ 2-3 billions
Fixed Line Telephony	15,000 LL (5,000), WLL (8,000), LDI (2,000)	Pay phone (PCOs) Vendors, Customer Service Centers, Call Centers and Distributors	US \$ 3-5 billions
Total	20, 000	350,000	US \$ 5-8 billions

Source: Annual Report of PTA, 2003-04

Facilitation

The Government is making all efforts to actively support and provide an enabling environment for growth in the IT and Telecom sectors. Brief details of the key regulatory authorities involved, legislation, policies and incentives are discussed in the following section:

a) Regulatory Authorities & Associations

Ministries & Other Government Departments

1. Ministry of Information Technology
2. Pakistan Software Export Board

Telecom Authorities

1. Pakistan Telecommunication Authority (www.pta.gov.pk)
2. Frequency Allocation Board (www.fab.gov.pk)

Associations

1. Pakistan Computer Bureau (www.pcb.gov.pk)
2. Computer Society of Pakistan (www.csp.org.pk)
3. Pakistan Software House Association (PASHA) (www.pasha.org.pk)
4. Internet Service Providers Association of Pakistan (www.ispak.com.pk)

b) Legislation & Policies

Telecom Sector

The telecom industry has now been deregulated and all its sectors particularly the basic telephony services which had previously been the domain of the state owned monopoly PTCL have also been opened-up for investors. Recently under the new policy, licenses for Local Loop (LL), Long Distance & International (LDI), and Wireless Local Loop (WLL) were auctioned, thus completing phase 1 of the deregulation. The salient features of the policy for acquisition and operation of LL & LDI (Basic Telephony) are given on page # 42-43.

Some of the major regulations affecting the Telecom Sector are given as under:

S. No.	List of Regulations for Telecom Sector
1.	Pakistan Telecommunication Authority (Functions & Power) Regulations, 2004
2.	Type Approval Regulations, 2004
3.	Amateur Radio Wireless Regulations, 2004
4.	Regulations regarding registration of Satellite Service Providers in Pakistan, 2004
5.	Interconnection Guidelines 2004
6.	Interconnection Dispute Resolution Regulations, 2004
7.	Pakistan Telecommunication (Re-organization) Act, 1996
8.	Non Voice Communication Network Services Regulations, 2004
9.	Burglar Alarm Service Regulations, 2004
10.	Vehicle Tracking Service Regulations, 2004
11.	AudioTex Service Regulations, 2004
12.	Fixed Line Tariff Regulations, 2004
13.	Trunk Radio Services Regulations, 2004
14.	Card Pay phone service Regulations, 2004

IT Sector

Tax and other Incentives

<u>Income Tax Incentives:</u>	
Income Tax on software exports from Pakistan	0% till 2016
Income tax on IT training institutions	Exempt for a period of 5 Years*
Income tax on venture capital firms	0% till 2014
<u>Sales Tax Incentives:</u>	
Sales tax on computer hardware	15%
Sales tax on computer software	0%
Sales Tax on Import of PME (not manufactured locally)	0%
<u>Custom duty on:</u>	
Import of Plant, Machinery, and Equipment in the area of IT	5% *
Import of computer parts	0%
Imported computers (excluding two laptop computers)	5%
<u>Fiscal Incentives:</u>	
Repatriation of profits allowed to IT Sector companies	100%
Foreign Equity allowed in IT Sector	100%
Initial Depreciation Allowance, % of PME cost	50% (Part-II of the Third Schedule of Income Tax Ordinance 2001)
Rate of depreciation on computer equipment	30% (Part-I of the Third Schedule of Income Tax Ordinance 2001)
<u>Other Incentives:</u>	
Rates for 2MB internet connection (E1 Line)	US \$ 1,450 (Previous US \$ 3,500)

Source: Income Tax Ordinance 2001, CBR, Ministry of IT & Telecom, PTCL, Investment Guide of Pakistan, BOI and PSEB

***SRO 575 dated June, 2005**

* Exemption available for IT training institutions set upto June 30, 2005.

Institutional Incentives for IT & Telecom Sectors

- Telecom and IT Sectors given the status of "Industries"
- State Bank of Pakistan (SBP) has allowed banks to open Internet Merchant Accounts within Pakistan
- Banks are allowed to invest in the form of equity in dedicated IT ventures
- PTCL will provide international bandwidth and Internet connectivity to the ISPs and corporate customers within 4 to 8 weeks. The cost of Internet bandwidth has been drastically reduced to \$2,000/E1 Line/month for 2 Mbps connection which is one of the lowest in the region
- All telecom services have been deregulated and the processing period for license applications has been reduced considerably
- Internet delivery on cable TV has been permitted

Telecom Sector
Investment Policy, Tax and other Incentives
Telecom Sector Given the Status of Industry

POLICY PARAMETERS	CONDITIONS	
	Manufacturing Sector	Non- Manufacturing Sector (IT & Telecom Services)
Govt. Permission	Not required except specific licences from concerned agencies i.e. PTA, and Ministry of Information Technology.	Not required except specific licences from concerned agencies i.e. PTA, and Ministry of Information Technology.
Remittance of capital, profits, dividends, etc.	Allowed	Allowed
Upper Limit of foreign equity allowed	100%	100%
Minimum Investment Amount	No Restriction	0.15 Million US\$
Customs duty on import of PME (not manufactured locally)	5%*	5%**
Sales Tax on import of PME (not manufactured locally)	0%	0%
Withholding Tax on import of PME***	0% ***	0%***
Initial Depreciation Allowance, % of PME cost	50%	50%
Royalty & Technical Fee	No restriction for payment of royalty & technical fee.	Allowed as per guidelines:- <ul style="list-style-type: none"> ▪ Initial lump-sum up to \$100,000 ▪ Max Rate 5% of net sales ▪ Initial period 5 years ▪ In case of non-residents is such as contained in the overriding provision of bilateral agreements on avoidance of double taxation.
Withholding Tax on Dividends: Public & Insurance Cos. Other Companies	5 % 10%	5 % 10%
Withholding Tax on Capital Goods****	1%****	1%****
Corporate Tax Rate:	Tax Year 2006	Tax Year 2007
Public Companies	35%	35%
Private Companies	37%	35%

* SRO 455 dated June 12, 2004

** SRO 575 dated June, 2005

***Withholding tax on import of PME which is entitled for 5% rate of customs duty under Chapter 84 of the First Schedule to the Customs Act, 1969 or exempt from Customs duty or subject to a lower rate of customs duty under relevant customs notification.

**** Withholding tax under section 148 on Capital Goods is charged at reduced rate of 1% under clause (13G) of Part-II of Second Schedule to the Income Ordinance, 2001.

Source: Income Tax Ordinance 2001, CBR, Ministry of IT & Telecom, and Investment Guide of Pakistan, BOI.

Projects / Investment Opportunities:

a) Opportunities in Information Technology

- IT Enabled Services/Technologies
 - Call Centers
 - GIS (Geographical Information System) mapping)
 - Business Process Outsourcing (BPO)
 - Back Office
 - Software Testing
- E-Government Projects
 - Land Records Management System
 - Document Scanning and Conversion
- Industrial Automation Projects
 - Database Applications (MIS, Workflow, ERP etc.)
 - Data warehousing & Data Mining Facilities
 - Intranet & Extranet Solution Development
 - Network Deployment & Configuration
 - System & Process Application Development
- Content Development and post processing
- Software Products, e.g. ERP:
- Information Security
- Bureau Services
- Hardware, Chip design VSLI, Internet Equipments

b) Opportunities in Telecom Sector

- PTCL Collaboration Contracts (The deregulated telecom sector of Pakistan provides wide range of opportunities for the investors. Every segment of telecom is showing vibrant growth and market potential which is a consistent source of encouragement for further investment in the areas including Local Loop, wireless Local Loop, Long-distance & international and mobile.)
 - Voice over Internet Protocol (VoIP)
 - Calling Cards
 - Wireless Local Loops (WLL)
- Value Added Services
 - Audiotex
 - Trunk Radio
 - Digital Radio Paging
 - Internet/Electronic Information Services
 - Card Pay Phone Services
 - Burglar Alarm Services
 - Non Voice Services
- Outsourced Services
- Video Conferencing
- Data Communication Network Services (These comes under Value Added Services)
- International Satellite Operators for Domestic Data Communications
- Vehicle Tracking System (VTS) (These comes under Value Added Services)
- Global Mobile Personal Communication System (GMPCS)

- GOP has established Universal Service Fund to bridge the digital divide between urban and rural territories. Through competitive process and based on least cost subsidy mechanism contracts will be awarded to the Universal Service Fund contributors for provision of telecom services in the un-served and under-served areas through out the length and breadth of the country. Project will also include provision of broadband and e-services in the contract areas.
- E-Commerce related Projects
 - PKI (Public Key Infrastructure)
 - Banking Networks and Services

Opportunities in IT & Telecommunications

- Manufacture of Telecom Equipment
- Telemedicine
 - System development and manufacture
- Distance Learning Programs & Content development for education and training
 - Multimedia
- IP Based Products
 - IP ABX
 - IP ACDs

Information Resource

Project Studies and Pre-Feasibilities Available

Sectoral and Project Studies Available:

Sector	Topic	Firm/Consultant	Year
Information Technology	Electronics, Software & Information Technology	United Consultants (Pvt.) Ltd. (Prepared by BOI)	June, 1998
	Sectoral Study on Highly Technical Schools & Computer Institute	M/s United Consultant Limited, Lahore	1999
	Sectoral Study on High-Tech Sector Software Development	M/s Azhar Zafar Chartered Accountants, Lahore	1999
Tele-Communications	Sectoral Study on Telecommunication	Farooqi & Associates	1998

Source: BOI

SME Pre-Feasibilities Available with BOI:

1. Medical Transcription
2. Information Technology College
3. Internet Café
4. Mobile Phone Franchise Shop
5. Call Center (In bound call and support center)

Analysis of SME Pre-Feasibilities

Sr. No.	Sector / Projects	Project Cost (million Rs.)	Capital Cost (million Rs.)	Working Capital (million Rs.)	Land (Sq. ft)	Work Force	Capacity	IRR %	Payback (Years)
1	Medical Transcription	3.88	2.84	1.04	18,750	89	100% capacity utilization	110.00%	1.67
2	IT College	2.1	1.53	0.57	1,346	18	22-25 students in two classes	54.00%	3.47
3	Internet Cafe	1.28	1.12	0.16	880	2	20 computer systems	29.91%	2.48
4.	Call centre (in bound & out bound)	4.65	3.55	1.102	1,250	31	20 Seats	33.97%	3.72
5.	Mobile Phone Franchise Shop	1.849	1.534	0.315	480	14	-	78%	1 Year & 2 months

Foreign IT & Telecom Companies Doing Business in Pakistan

Sl. #	Company Name	Country	Quoted on Stock Exchange		Success Story	
			Yes	No	Yes	No
1	AT & T	USA		✓	✓	
2	INTEL	USA		✓	✓	
3	IBM	USA		✓	✓	
4	Microsoft	USA		✓	✓	
5	NCR Corporation	USA		✓	✓	
6	NCR Systems Pvt. Ltd.	USA		✓	✓	
7	Mentor Graphics Inc.	USA		✓	✓	
8	APTECH	USA		✓	✓	
9	Oracle	USA		✓	✓	
10	Cisco Systems	USA		✓	✓	
11	Intelsat satellite	USA		✓		
12	Elixir Technologies Corporation.	USA		✓	✓	
13	Telstar 10 Satelllite (M/s Loral Skynet)	USA		✓		
14	Information Systems Associate Ltd.	USA		✓	-	
15	Software Productivity Stragestists, Inc.	USA		✓		
16	AST Research Inc.	USA		✓		
17	PANAM SAT Satellite.	USA		✓		
18	Samtech Research Abn Of Sameena Inc.	USA		✓		
19	Elite Software Technology Consultants Ltd.	UK		✓	-	
20	International Emerge Technologies (Pvt.) Ltd.	UK		✓	-	
21	Europe Star Satellite	UK				
22	Remote Silicon	UK		✓	-	
23	Airsys ATM Ltd. /Joannou & Paraskevaides (Overseas) Ltd.	UK		✓	✓	
24	Data Base Systems Ltd.	Malaysia		✓		
25	Dancom	Malaysia		✓	✓	
26	Sapura	Malaysia		✓	✓	
27	First Global Consultant Inc.	Canada		✓		
28	Hell Borton Geophysic Service (Int'l).	Canada		✓		
29	SESAT, W5 and Atlantic Bid tm 2 (M/s Eutelsat Pvt Ltd)	France		✓		
30	ALCATEL Pakistan Ltd.	France		✓	✓	
31	M/s Pakcom (Pvt) Ltd. (Instaphone)	Luxembourg		✓	✓	
32	M/s Paktel (Pvt) Ltd. (Paktel)	Luxembourg		✓	✓	
33	ZTE	China		✓	✓	
34	Huawei Technologies	China		✓	✓	

Sl. #	Company Name	Country	Quoted on Stock Exchange		Success Story	
			Yes	No	Yes	No
35	Oracle Corporation Singapore Pte Limited.	Singapore		✓		
36	Idream Technologies Pte Limited.	Singapore		✓		
37	Ericsson	Sweden		✓	✓	
38	Seets Swedish Eastern Engineering and Trading Systems Aktiebolag.	Sweden		✓		
39	Thaicom Satellite	Thailand		✓		
40	Siemens	Germany		✓	✓	
41	Pakistan Mobile Communication (Pvt.) Ltd. (Mobilink)	Egypt		✓	✓	
42	M/s NERA Network AS-Pakistan	Norway		✓		
43	Axiom Telecom	UAE		✓	✓	
44	M/s NEC Corporation	Japan		✓		
45	Hyundai Information Technologies Co. Limited.	Korea (south)		✓		
46	Pakistan International Computers Limited.	Iceland		✓		
47	The Resources Group Int. Limited	Berumda	✓			
48	LMKR (Halliburton)			✓	✓	
49	Motorola			✓	✓	
50	3 M			✓	✓	
51	Compaq			✓	✓	
52	Nortel			✓	✓	
53	Invislign Technology			✓	-	
54	M/S Global Systems Network (Pvt)Ltd. (APSTAR Satellite)			✓		
55	M/s Logitech (Pvt) Ltd (New Skies Satellite)			✓	-	
56	M/s Telenor	Norway		✓		
57	M/s Warid Telecom	UAE		✓		
58.	M/s Etisalat	UAE		✓		

Source: SECP, PTA, PSEB, BOI

List of ISO 9000 Certified Companies Updated list as of November, 2006

Sl. No.	Company Name	Location	Consultant
1	Sunsoft (Pvt). Limited	Karachi	BVQI
2	Fair Factor Force	Rawalpindi	BVQI
3	Simcon International (Pvt.) Ltd.	Karachi	BVQI
4	Soft Tek Systems	Rawalpindi	BVQI
5	Mas Infosoft (Pvt.) Limited	Lahore	BVQI
6	Sofcom (Private) Limited	Karachi	BVQI
7	Abacus Consulting	Lahore	BVQI
8	Compsi Soft	Lahore	BVQI
9	Adam Soft	Lahore	BVQI
10	Etilize	Karachi	BVQI
11	Oclits Sytems	Karachi	BVQI
12	Osmani & Company	Karachi	BVQI
13	E-dev technologies	Karachi	BVQI
14	Premier Software (Pvt.) Limited	Karachi	BVQI
15	Shahnawaz (Pvt.) Ltd.	Karachi	BVQI
16	Acrologix	Lahore	BVQI
17	Techlogix	Lahore	BVQI
18	IT Sec International	Karachi	BVQI
19	ZRG International	Karachi	BVQI
20	Sysnet Pakistan (Pvt.) Limited	Karachi	BVQI
21	Outreach Digital (Pvt.) Limited	Karachi	BVQI
22	AMZ Access	Karachi	BVQI
23	Softflux Pakistan	Karachi	BVQI
24	Title Development	Karachi	BVQI
25	Cure MD	Lahore	BVQI
26	Global Interlord	Lahore	BVQI
27	Superior Solutions	Lahore	BVQI
28	Brain Strom	Lahore	BVQI
29	Power Soft Nineteen	Lahore	BVQI
30	Al-Rahma Soft	Lahore	BVQI
31	Ovex Technologies	Islamabad	BVQI
32	Target Systems	Islamabad	BVQI
33	Dot Com People	Peshawar	BVQI
34	Pearl Consultancy	Islamabad	BVQI
35	Digital Prodigy	Islamabad	BVQI
36	Cogilent Solutions	Islamabad	BVQI
37	Digital Spinners	Islamabad	BVQI
38	Descon IT 24 (Pvt.) Ltd.	Lahore	DNV
39	Auto Soft Dynamics (Pvt.) Ltd.	Lahore	DNV
40	IO 2 IO (Pvt.) Ltd	Lahore	DNV
41	Yevolve (Pvt.) Ltd	Karachi	DNV
42	Itim Associates	Karachi	DNV
43	Millennium System Consultant	Karachi	DNV

44	DataXs (Pvt.) Ltd	Lahore	DNV
45	Avanza Solution (Pvt) Ltd.	Karachi	DNV
46	IKON Technologies	Karachi	DNV
47	Integrated Systems Research	Karachi	DNV
48	Millennium Software (Pvt.) Ltd	Karachi	DNV
49	PIBAS Pakistan (Pvt.) Ltd	Karachi	DNV
50	Sidat Hyder Morshed Associates	Karachi	DNV
51	Web Technologies (Private)	Karachi	DNV
52	Trivor Software Consultants	Islamabad	DNV
53	Advanced Computing &	Rawalpindi	DNV
54	Scan Infotech (Pvt) Ltd	Karachi	DNV
55	Threesixtydegrez (Pvt.) Ltd	Karachi	DNV
56	TPS Pakistan (Pvt.) Ltd	Karachi	DNV
57	Shaukat Khanum Memorial	Lahore	DNV
58	Clarusfot (Pvt.) Ltd	Karachi	DNV
59	Efrotech Services	Karachi	DNV
60	EDP Services (Pvt.) Ltd	Karachi	DNV
61	Feditecc Enterprises	Karachi	DNV
62	Knowledge Management	Karachi	DNV
63	Vertex Business Solutions	Karachi	DNV
64	Techaccess Pakistan	Islamabad	DNV
65	Softech Worldwide	Karachi	DNV
66	Kontac Remote Services	Karachi	DNV
67	Digital Research Labs (Pvt.) Ltd	Islamabad	DNV
68	Voxel communications.	Islamabad	Moody
69	Xavor (Pvt.) Ltd.	Lahore	Moody
70	Askari Information Sytem	Islamabad	Moody
71	Tower Technologies	Lahore	Moody
72	And or Logic	Islamabad	Moody
73	Datels International	Islamabad	Moody
74	Creative Chaos.	Karachi	Moody
75	E-Starts.	Islamabad	Moody
76	Accountancy Outsourcing	Lahore	Moody
77	Digital Processing	Islamabad	Moody
78	Gulfnet	Islamabad	Moody
79	Prosol Technologies	Islamabad	Moody
80	E-Worx	Lahore	Moody
81	Care (Pvt) Ltd	Islamabad	Moody
82	Call Central	Islamabad	Moody
83	Pak Software Solutions	Islamabad	Moody
84	Microasian	Karachi	Moody
85	Apvision	Karachi	Moody
86	Electronic Solutions	Islamabad	Moody
87	SBP	Karachi	Moody
88	GeoPak	Islamabad	Moody
89	SECP	Islamabad	Moody
90	Softtech World Wide	Karachi	Moody
91	International System Technology	Karachi	Moody
92	Application Xs	Karachi	Moody
93	Computer Research	Karachi	Moody
94	Islamabad Software Factory	Islamabad	Moody
95	E-Plenet	Karachi	Moody
96	Info Tech	Lahore	Moody

97	Logiks		Moody
98	MixIT	Karachi	Moody
99	Alt Source	Karachi	DNV
100	B-Soft	Peshawar	Moody

Source: PSEB

List of CMM Level 3 Companies

1. NCR (CMM Level 4)
2. Netsol(CMM Level 5)

Source: PSEB

List of Call Centers in Pakistan

International Call Centers:

Sr.#	Name of Companies	City	Operational Since	Regd. with PTCL	No. of Agents	Contact #
1	M/S Ovex Technologies	Islamabad & Lahore	3-Apr-04	Yes	200	2870775/2871171
2	Touchstone	Islamabad	1-May-03	Yes	200	111-111-044
3	TRG (Pvt) Ltd	Lahore	1-Feb-03	Yes	150	7123928
4	Alt source	Karachi	1-Feb-04	Yes	125	4311706-9
5	DPS	Islamabad	3-Jul-04	Yes	90	2826630
6	GONETBPO (formerly AMZ Technologies)	Karachi	3-Jun-03	Yes	70	4391340-5, 2219761-3
7	Voxel Technology	Islamabad	1-Sep-03	Yes	70	2822938/2822143
8	Call Central	Islamabad	1-Jul-03	Yes	60	2823250
9	Vertcity (Pvt) Ltd	Karachi	1-Dec-03	Yes	50	4381297-8
10	Irnina technologies	Lahore	3-Sep-04	Yes	45	111000911
11	Americom Technologies	Karachi	April-02	Yes	50	111373737
12	Kontakt Remote Services (Pvt) Ltd	Karachi	1-Jul-03	Yes	40	5802581-3, 0333-2150501
13	Hello Technologies	Islamabad	3-Oct-03	Yes	35	2270626/2275833
14	Uffaq Technologies (pvt) Ltd	Karachi	1-Dec-03	Yes	30	5899677
15	Sequal Systems INC	Lahore	July-04	Yes	30	6309572-3
16	Rapid Response	Islamabad	3-Jun-04	Yes	25	2824220
17	KFC	Karachi	1-Feb-04	-	25	111 97 97 97
18	LYNX	Karachi	1-Apr-01	-	20	-
19	Nova Leather (Pvt) Ltd	Karachi	1-Sep-03	Yes	20	5061706-11
20	FORETEL Corporation	Lahore	8-Nov-03	Yes	20	5763320
21	Vision Technologies	Lahore	1-Jul-03	Yes	20	6316005-8
22	Sameer Enterprise	Lahore	1-Jul-03	Yes	15	03008483609
23	Innovative (pvt) Ltd	Lahore	1-Aug-03	Yes	12	6662653
24	ITS Homes	Lahore	2-Aug-04	No	12	6307725-9
25	Virgin Resorts Pakistan	Muridkey	May-03	Yes	12	5840641
26	Hillal Corporation	Karachi	1-Oct-03	Yes	10	506 11 25-6

Sr.#	Name of Companies	City	Operational Since	Regd. with PTCL	No. of Agents	Contact #
	(Pvt) Ltd					
27	InfiniLogic (Pvt) Ltd	Karachi	16-Oct-04	Yes	10	5801993
28	APEX Communication	Lahore	May-04	Yes	10	5892972
29	MPS Call Center	Lahore	May-04	No	10	6300241
30	TransData	Lahore	18-Aug-04	Yes	10	7520160-1
31	Call Buddy Ltd.	Islamabad	3-Aug-04	Yes	9	2106115
32	5C Alliance Pakistan (Pvt) Ltd	Karachi	Dec-02	Yes	8	4527239
33	Global Network Solutions	Lahore	(29-Jan-04)	Yes	8	5840674-5
34	Metropolitan Business solutions	Lahore	9-Aug-03	Yes	6	7510011-14
35	Virtual Soft	Islamabad	3-Jun-04	Yes	5	2870138-9
36	Pisces	Karachi	-	Yes	5	5393416-4528444
37	Fiber technologies	Lahore	1-Jan-04	Yes	<5	6662653 0333-4309796
38	English Boot House	Karachi	(3-Dec-03)	Yes	<5	5678504
39	ARY Communications (Pvt) Ltd	Karachi	(25-Sep-03)	Yes	<5	5212815, 5688370
40	Comtec Solutions (Pvt) Ltd	Karachi	(25-Sep-03)	Yes	<5	5892980
41	Gerry's Information Technologies	Karachi	(12-Nov-03)	Yes	<5	111-123-321
42	International Studio and Laboratories	Karachi	(22-Oct-03)	Yes	<5	6344647
43	Phonecast (Pvt) Ltd	Karachi	(16-Oct-03)	Yes	<5	4553403
44	TCCM	Karachi	-	-	<5	-
45	Weave And Knit (Pvt) Ltd	Karachi	(2-Oct-03)	Yes	<5	5064695, 5064696
46	ZRG International Ltd.	Karachi	1-Jan-94	Yes	<5	4313221-2
47	LMK Resources	Islamabad	20-Mar-02	Yes	<5	111-101-101
48	Quick Link Telecom	Islamabad	(1-Jan-04)	Yes	<5	4448009
49	Absolute XS INC	Lahore	(6-June-04)	Yes	<5	042-5852240
50	Adamsoft	Lahore	3-Aug-04	Yes	<5	042-6317246-8
51	Customer Care	Lahore	3-Aug-04	Yes	<5	
52	Ebos (Pvt) Ltd	Lahore	July,03	Yes	<5	042-5870096 0300-8422865
53	First Marvel (Pvt) Ltd	Lahore	July,03	Yes	<5	042-5852382
54	NBA Computers	Lahore	Sep,03	Yes	<5	4384005-6

Sr.#	Name of Companies	City	Operational Since	Regd. with PTCL	No. of Agents	Contact #
55	V-Telecom	Lahore	April-03	Yes	<5	042-5840471-73
56	E-bizsoft Pvt.Ltd	Karachi	(24-Feb-04)	Yes	<5	4386439
57	Xenon	Lahore		-	<5	7992215
58	Sapphirc Textile Mills Limited	Karachi	(20-Jan-04)	Yes	New setup	111-000-100
59	Pemier Software (Pvt.) Ltd.	Karachi	(3-Nov-03)	Yes	new setup	2400280, 2436238
60	Central Trading (Pvt.) Ltd.	Karachi	(16-Jan-04)	Yes	new setup	4541960-67
61	SoftWise Technology	Karachi	(20-Jan-04)	Yes	new setup	5839992, 5835309
62	Apvision Pvt. Ltd.	Karachi	(5-March-04)	Yes	new setup	5822437
63	Outbox Solutions Corporation	Karachi	-	Yes	new setup	4521214, 03202015880
64	Computer Training & Testing Center.	Karachi	(5-April-04)	Yes	new setup	4310956-7
65	Softex System	Karachi	(20-April-04)	Yes	new setup	5687454
66	WW Resource (Pvt.) Ltd,	Karachi	(4-May-04)	Yes	new setup	-
67	Plexus Pvt. Ltd	Karachi	(7-March-04)	Yes	new setup	5660740-5
68	Hauka Pvt. Ltd	Karachi	(15-June-04)	Yes	new setup	0300-2733857
69	Softech Corporation (Pvt.) Ltd	Karachi	(16-June-04)	Yes	new setup	4559807
70	Simple eSolution (Pvt.) Ltd.	Karachi	(22-June-04)	Yes	new setup	7786931
71	NetPace System (Pvt.) Ltd.	Karachi	(2-July-04)	Yes	new setup	4313715
72	Out Source R Us(Pvt.) Ltd.	Karachi	(19-July-04)	Yes	new setup	-
73	Secure Voice Link International Pvt. Ltd.	Karachi	(7-Sep-04)	Yes	new setup	4541391
74	Dovemex Solutions Limited	Karachi	(10-Sep-04)	Yes	new setup	0300 2098867
75	Emcon Engineering	Karachi	(14-Sep-04)	Yes	new setup	5218611
76	Alvia Promotions (Pvt.) Ltd.	Karachi	(5-Oct-04)	Yes	new setup	439 2472
77	Trakker (Pvt.) Ltd.	Karachi	(8-Oct-04)	Yes	new setup	4390300
78	Barbedwire Technologies (Pvt.) Ltd.	Karachi	(25-Nov-04)	Yes	new setup	2789315-20
Total Number of Agents:					1590*	

* Total number of agents are calculated by assuming an average of 3 agents in call centers having <5 agents and no agent in call center with new setup

Source: PSEB

Domestic Call Centers:

Sr. #	Name of Companies	City	Operational Since	No. of Agents	Contact #
1	NADRA	Islamabad	3-Jul-04	140	111-786-100/90391115
2	PIA	Islamabad	1-Feb-03	106	111-786-786
3	PTML	Islamabad	Feb-01	100	
4	Mobilink	Islamabad	1-Aug-03	55	03008555999
5	Shell Pakistan Limited	Karachi	1-Oct-03	50	4571924, 4577 860, 5689525
6	TCS (Pvt) Ltd	Karachi	1-Sep-03	50	111123456
7	Abn Amro Bank	Karachi	1-Jan-98	25	5687580-2
8	Citi Bank	Karachi	1-Jan-94	25	2412641, 111 333 333
9	Standard Chartered	Karachi	-	25	2425000, 111 002 002-2
10	Union Bank	Karachi	1-Sep-03	25	111 001 002, 0800-44 444
11	Aghaz Consulting	Islamabad	July-02	25	2651259
12	Regtel Enterprize	Lahore	April- 02	24	0300 9443693
13	Premier Software (Pvt) Ltd	Karachi	March-04	24	2417933/2401188
14	DHL Pakistan (Pvt) Ltd	Karachi	Oct-02	16	11-500-000
15	Saudi Pak Commercial Bank Limited	Karachi	1-Oct-04	16	111 001 987
16	UniLever	Islamabad	1-Oct-03	16	111-212-312/111-787-787
17	MCB	Karachi	Oct-02	13	2414110-9, 111 000 777 - 2
18	Bank Al-Fallah	Karachi	(28-Oct-03)	<5	111 225 111, 111 777 786
19	Mezan Bank	Karachi	(23-July-04)	<5	5610582, 5650771-3
20	Askari Commercial Bank	Islamabad	Operation will start from 15-Dec-04	<5	9272150
21	Earth Tel Service	Islamabad	17-Jul-03	<5	0300-5119028
22	MTBC	Islamabad	-	<5	0300-8565113
23	United Bank Limited	Karachi	(October-03)	new operation	90332122, 90332996
24	MNet Services (Pvt.) Ltd.	Karachi	-	new operation	
25	Inter Link Multi Media (Pvt.) Ltd.	Karachi	(19-June-04)	new operation	2637111
26	AKD Securities (Pvt.) Ltd.	Karachi	(25-June-04)	new operation	5863453
27	PICIC	Karachi	(10-Sep-04)	new operation	241 4220
28	Intellicon Communication	Karachi	(25-Oct-04)	new operation	4390300
29	KASB Bank Ltd.	Karachi	(4-Nov-04)	new operation	2213234
Total Number of Agents:				750*	

* Total number of agents are calculated by assuming an average of 3 agents in call centers having <5 agents and no agent in call center with new setup

Note:

1. The figures are updated till December 05, 2004
2. In column -4 the figures in bracket represent date of registration with PTCL since the setup is new and the exact date of operation is not known.

Source: PSEB

List of Medical Transcription Companies (PSEB Members)

Sr. #	Company Name	Address	Phone No.
1	Hi-Tech Quality Solutions (Pvt) Ltd.	105, St 22, F-10/2, Islamabad	2292526-27
2	IT Promoters	1st Floor, Nasr Chamber, Block-19 , F-7 Markaz, Islamabad	2650114
3	SINTEC SYSTEMS	North Star Plaza, 20-B, Satellite Town, Murree Road, Rawalpindi	4419163
4	Azad Information Technology	Mian Muhammad Road, Mirpur, AJK, Branch 265, St 53, F-10/4 Islamabad	2211040-2211058
5	Softmatics International	199-B, Street 50, F-10/4, Islamabad	2214804/2214834
6	ALAMSOFT Inst. of IT & Medical Transcriptions	D-86, Royal Centre, 6th Road, Satellite Town, Rawalpindi	4581707
7	Oursol (Pvt) Ltd.	2nd Floor, Block 4-B, F-7 Markaz, Islamabad	2651607
8	C Soft (Pvt) Ltd	4th Floor, Software Technology Park, Constitution Avenue, 44000, Islamabad	2201934
9	Descon IT24 (Pvt) Ltd	38, Sir Agha Khan III Road, (Davis Road), Lahore	6365134
10	Io-2-Io (Pvt) Ltd	405-F, Phase 1, Johar Town, Lahore	5168417/5168424
11	Shahnawaz Transcriptions (Pvt) Ltd	301-B, 3rd Floor, Lakson Sq Bldg #3, Sarwar Shaheed Road, Karachi	5655582-84
12	Software Technology Innovators	C/O Sir Syed University of Engineering & Technology, University Road, Karachi	4992106-4993922
13	KASB Institute of Technology (Pvt) Ltd	84-B, S.M.C.H.S, Karachi	4314970-73
14	Parjun Enterprises	A-11, Humaira Center, 188-1-A Block 2, PECHS, Karachi	4546805
15	Compsi (Pvt) Ltd	10-Civic Center , Barket Market, New Garden Town, Lahore	111-007-007

Source: PSEB

List of Cellular Mobile Operators

Sr. No.	Operator Name	Country
1.	Pakistan Mobile Communication (Pvt.) Ltd. (Mobilink)	Egypt
2.	PTML (U-fone)	Pakistan
3.	M/s Pakcom (Pvt) Ltd. (Instaphone)	Luxembourg
4.	M/s Paktel (Pvt) Ltd. (Paktel)	Luxembourg
5.	Telenor Mobile Communications	Norway
6.	Warid Telecom	UAE

List of Licences issued for Long Distance International (LDI)

Foreign Companies

Sr. No.	Name	Country
1	M/s. Wateen Telecom.	UAE
2	M/s. Dancom	Malaysia
3.	M/s Redtone Télécommunications (Pvt) Ltd	Malaysia
4.	M/s Link Direct Int'l	Egypt
5.	M/s Telenor	Norway

Local Companies

Sr. No.	Name	Country
1	M/s. Burraq Telecom.	Pakistan
2	M/s. Callmate Telips Telecom Ltd.	Pakistan
3	M/s. DV Com.	Pakistan
4	M/s. Telecard.	Pakistan
5	M/s. Worldcall Telecom.	Pakistan
6	M/s. Circle Net Communication	Pakistan
7	M/s. Wise Communication Systems (Pvt) Ltd.	Pakistan
8	M/s Multinet Pakistan (Pvt) Ltd	Pakistan

Source: PTA

List of IT & Telecom Companies quoted on Stock Exchanges

Sr. No.	Name
1.	Pakistan Telecommunication Company Limited.
2.	Callmate Telips
3.	Pak Datacom Limited
4.	The Resource Group (TRG) Pakistan.
5.	Telecard Ltd.
6.	WorldCall Broad
7.	WorldCall Communication
8.	WorldCall Multimedia Ltd.
9.	Southern Network

Source: Karachi Stock Exchange

PTA's Fee Schedule for different types of Telecom Services

Sr #	Services	Appli- cation Fee	Evalu- ation Fee	License Fee	Renewal Fee
1	Electronics Information Services *	500	5,000	National Level 300,000 PTCL Region 50,000 (Each)	0.66% of gross sales Revenue
2	Non-Voice Communication Network Services	500	10,000	1,000,000	0.66% of gross sales Revenue
3	Digital Radio Paging Services	500	10,000	1,000,000	20% of License Fee (In addition to renewal fee, royalty fee @ 4% of annual gross revenue or 50% of License fee which ever is higher is to be paid)
4	Card Pay Phone Services	500	5000	National Level 500,000 Province Level 300,000 Metropolitan City 200,000 District Level 100,000	1.5% of Annual Gross Revenue minus Inter-Operator payments (Only Call Charges & Line Rent) and Revenue related Taxes like General Sales Tax (GST) and Withholding Tax (No other tax or duty is deductible) paid to GoP on annual revenue from licensed services as reported by annual audited accounts of CPP Services OR 10% of initial License Fee "whichever is higher" w.e.f. July 01, 2004.
5	Voice Mail Services	500	5,000	500,000	0.66% of Annual Gross Revenue OR 10% of Initial License Fee "whichever is higher" w.e.f. July 01, 2004. This shall not be applicable to fixed line and mobile licensees as they are already paying the fee on total gross revenue minus inter-operator revenue.
6	Trunk Radio Services	500	5000	500,000	0.66% of Annual Gross Revenue OR 10% of Initial License Fee "whichever is higher" w.e.f. April 01, 2001
7	Audiotex Service	500	5,000	500,000	1.5% of Annual Gross Revenue OR 10% of Initial License Fee :whichever is higher" w.e.f. April 01, 2001
8	Vehicle Tracking Systems	500	10,000	1,000,000	1.5% of gross sales Revenue or 10% of License fee which ever is higher " w.e.f. April 01, 2001
9	Burglar Alarm System	500	5,000	500,000	0.66% of gross sales Revenue or 10% of License fee which ever is higher" w.e.f. April 01, 2001
10	Video Conferencing Services	500	5,000	500,000	0.66% of Annual Gross Revenue OR 10% of Initial License Fee "whichever is higher" w.e.f. July 01, 2004. This shall not be applicable to fixed line and mobile licensees as they are already paying the fee on total gross revenue minus inter-operator revenue
11	Store & Forward Fax Services	500	5,000	National 50,000 Province 30,000 District & Tehsil 10,000	0.66% of gross sales Revenue
12	Local Loop (LL)	US \$500		US\$ 10,000 Per PTCL Region	0.5% of annual gross revenue minus inter-operators payments

Source: PTA

Tariffs/Fee Schedule for Cellular Mobile Telephony Services (CMTS)

Sr #	Particulars	
1	Initial License Fee	Auction Through Open Bidding
2	Annual License Fee	<u>As per New Mobile Policy</u> 0.5% of annual gross revenue minus inter-operators payments <u>For Existing Licenses</u> <u>Annual Royalty</u> 1.5% of annual gross revenue minus PSTN Charges and leased rental charges w.e.f. July 01,2001 4% of annual gross revenue minus PSTN Charges and leased circuit charges and 4% of net profit after tax upto June 30, 2001

Source: PTA

Country Specific Strategy IT & Telecom Sector

	USA	Canada	UK	Germany	France
Invest Capital	OPIC, EXIM, TDA	CIDA	ECCD	HERMES, KFW-DEG	COFACE
DTA/ BITs	✓ / X	✓ / X	✓ / ✓	✓ / ✓	✓ / ✓
Marketing Channels	Chambers, CC/HIC, Embassy, OPs, Cos	Chambers, CC/HIC, Embassy, OPs, Cos	Chambers, CC/HIC, Embassy, OPs, Cos	Chambers, CC/HIC, Embassy, OPs, Cos	Chambers, CC/HIC, Embassy, OPs, Cos
	Japan	China	Singapore	Malaysia	South Korea
Invest Capital	JBIC, Exim Bank	Exim Bank, ADB	-	-	-
DTA / BITs.	✓ / ✓	✓ / ✓	✓ / ✓	✓ / ✓	✓ / ✓
Marketing Channels	Chambers, Existing & Targeted Cos OPs, Parep, Embassy of Japan (Pak)	Chambers, Existing & Targeted Cos OPs, Parep, Embassy of China (Pak)	Chambers, Existing & Targeted Cos OPs, Parep, HIC.	Chambers, Existing & Targeted Cos OPs, Parep, HIC, Malaysian High Comm.	Chambers, Existing & Targeted Cos OPs, Parep Korea, Korea Embassy

Source: BOI

Telecom De-Regulation Policy 2003

Salient Features

Telecom Sector Given the Status of Industry

License term	20 years
Technology	Neutral
Policy review period	5 Years
Licensing categories:	<ul style="list-style-type: none"> Local Loop Fixed Telecom (LL)-14 Regions Long Distance Int'l Fixed Telecom (LDI)
LDI Licences	Country-wide LDI licenses
Application Fee (Non-refundable)	Initial Fee of US \$500 or Rs. 29,000 for LL & LDI
Licence Fee	<ul style="list-style-type: none"> US \$ 10,000 for Local Loop (LL) US \$ 500,000 for Long Distance Int'l (LDI)
Performance Bond	<ul style="list-style-type: none"> Not required for Local Loop (LL) Licensees US \$ 10 Million for Long Distance Int'l (LDI) Licensees
Annual Fees	Annual License Fee @ 0.5% of Adjusted Gross Revenue*
Universal Service Obligation (USO) contribution	USO contribution @ 1.5% of Adjusted Gross Revenue
R&D Fund	R&D Fund 1% of Adjusted Gross Revenue
Interconnection & Co-Location	Right to interconnection, leased lines and collocation facilities from the incumbent for licensees.
Performance Obligation	<p>LDI Licences</p> <ul style="list-style-type: none"> Build five Poles one each in five PTCL Regions within one year Build 13 Poles in all PTCL Regions within 3 years Must own transmission system (2mb/s x km) to the extent of : <ul style="list-style-type: none"> 10% in year 1 30% in Year 2 50% in year 3 <p>(Long-term lease of 5 year or more shall be acceptable in lieu of ownership)</p> <ul style="list-style-type: none"> Performance Bond equivalent to US \$ 10 M to be obtained from LDI applicants at the time of award of License against: <ul style="list-style-type: none"> Meeting infrastructure roll-out targets Providing incoming and out going interconnection services for voice and data traffic to all who may request <p>Local Loop (LL) Licences:</p> <ul style="list-style-type: none"> Start operations by building one Pole within the prescribed period Acceptable technical and quality standards Provide free of cost: <ul style="list-style-type: none"> Directory assistance, Access to emergency services, Any other service mandated by PTA No Performance Bond prescribed WLL Applicants will bid for required Frequency Spectrum

Salient Features of Telecom De-Regulation Policy 2003 (Contd...)

Pricing Regime	<ul style="list-style-type: none">▪ Tariffs of both types of Licensees (LL/LDI) shall not be regulated until they become SMP▪ PTA has the right to regulate tariff (of non-SMP) in case of evidence of unfair and burdensome pricing▪ PTA shall determine the status of SMP under the notified Rules 2000 <i>inter alia</i> Interconnection Rules▪ PTA will continue to regulate PTCL rates subject to Price Cap regulation as set out in the notified Rules
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* Adjusted Gross Revenue= Gross Revenue minus PTA/FAB mandated and Inter-operator payments

Note: For details refer to www.pta.gov.pk

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