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Broadband Service

Global Broadband Market Overview

Telecommunication services have rapidly changed during last two decades, more than ever after onset of two major innovations; Internet and Mobile Phone Systems. These technologies not only have provided improved communication facility to communities around the globe but have also radically influenced the economical growth of countries.

Subsequent to the introduction of high-speed broadband access in early 2000, telecommunication companies have started offering a whole variety of new services. The end-users are demanding for more diverse applications over the broadband connections. One of the most important factors behind the immense success of broadband technologies is that it offers carrying IP traffic over high-speed access links which means that any information & communication service e.g. data, voice and video that can be delivered via IP is well-suited over broadband.

Today, Broadband Internet is one of the fastest growing market segments in the world. According to the most recent statistics

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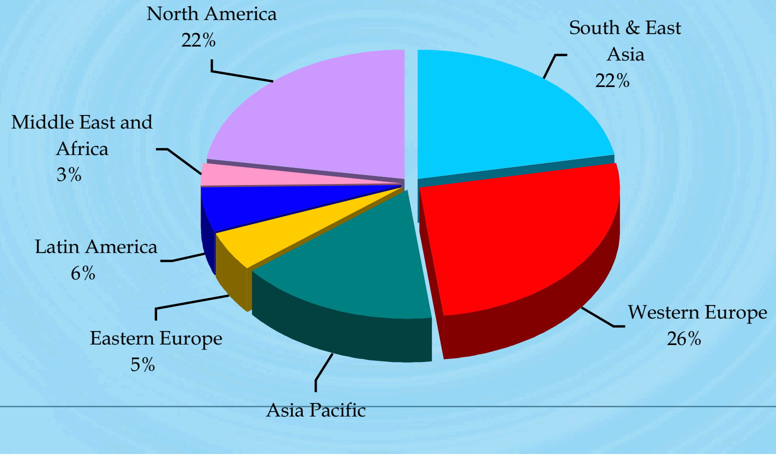
Regional Broadband Trands



published by Point Topic's Global Broadband Statistics there were 382.4 million broadband subscribers worldwide by the end of August 2008 as compared with 317 million in August 2007. This shows a total growth rate of 17 percent over past one year.

Regional Broadband trends reveal that Western Europe has the largest share of broadband subscribers (26%) followed by North America (22%). South and East Asia region is in third place (22%). Following Figure shows the share of world broadband subscribers by region.

USA is the most populous country in the world in terms of Broadband subscribers and is followed closely by China. Total number of broadband subscribers in USA is approximately 76.88 Million, whereas in China this figure is around 76 Million mark. As far as the technology trend is concerned, DSL is the dominant broadband technology world over, used by almost 65 per cent of the broadband community (247 million).

Broadband Technologies in Pakistan

In Pakistan operators are offering wide range of broadband technologies like DSL, Cable, FTTH and WiMax. At present DSL is the leading broadband technology with approx 65 % of the market share. Major DSL operators in Pakistan are Micronet, LinkDotNet, CyberNet, MultiNet and PTCL.

HFC (Hybrid Fiber-Coaxial) is the second largest broadband technology in terms of market share. Approximately 25 % of the total broadband subscribers in Pakistan use HFC technology. Worldcall (Pvt) Ltd is the largest provider of Cable Modem Broadband in Pakistan through the use of its HFC network in Karachi and Lahore. Wateen Telecom is another providing HFC service provider in the country.

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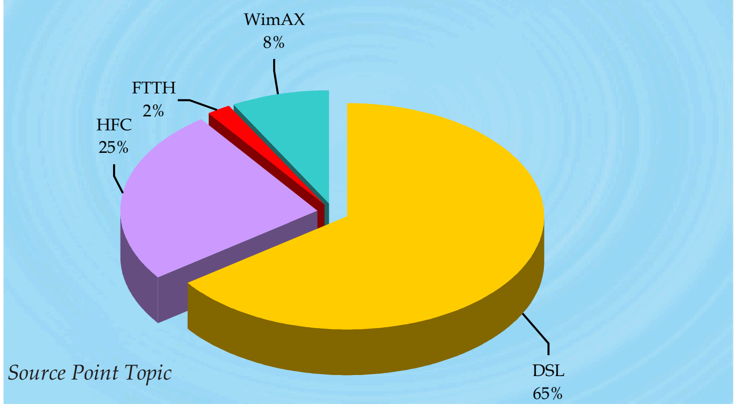
Technology Trends in Broadband



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Global broadband market analysis has shown that subscribers base for FTTx technologies is increasing with a rapid speed. One of the major reasons behind this increase is the emergence of new innovative applications and services such as IPTV. These new services require very high speed access connectivity which can only be provided through FTTx technologies. Mobile broadband is also taking off in many countries where 3G or WiFi/WiMAX networks are used as an alternative or complementary to fixed-line broadband access especially in rural and remote areas.

During the last one year broadband market of the country has witnessed positive developments. Operators have started offering FTTH and WiMax services in metropolitan cities. At present there are approximately 2800 FTTH and 20000 WiMax subscribers. According to a market report WiMax network built by Wateen Telecom in collaboration with Motorola is the largest 802.16e based network in the world. Other market players are in the process of deploying their FTTx & WiMax networks which will proliferate competition for the long term benefits of end users. Following chart shows the broadband technologies market share in the country.

Broadband in Pakistan

Broadband penetration has increased during the last one year in Pakistan. At the end of July 2008 there were almost 170,000 broadband subscribers, a 150 % increase on subscriber numbers in comparison with July 2007. This figure does not include the broadband subscribers covered through mobile networks broadband technologies i.e. GPRS, EDGE. According to Point Topic Global broadband analysis, Pakistan has been ranked 4th in the world for annual broadband growth.

Despite the astonishing growth, Pakistan still lags behind many countries in terms of overall broadband subscribers, the range of broadband services and investment in next generation broadband networks. It is believed that optimum development of a knowledge-based society will require a wide range of broadband services to be available.

With a Local Loop installed capacity of approximately 5.5 million, it is predicted that DSL technology may not be able to cater the future broadband requirements of the country. This leaves a huge investment potential in fiber and wireless broadband access technologies. One recent example is purchase of 75 % shares of Burraq Telecom Limited through a joint venture investment by Qatar Telecom & A.A. Turki Corporation for Trading and Contracting of Saudi Arabia. Burraq Telecom is an established operator licensed to offer a full range of telecommunications services across Pakistan, including long distance international and wireless local loop. Qatar Telecom plans to invest approximately US$ 80 million in the coming few years to deploy and operate BWA/WiMAX networks within Pakistan.

In order to meet the next generation telecommunication requirements an expansion and up-gradation of domestic infrastructure will be required so that operators can deploy Next generation Networks using Internet Protocol (IP). This will also trigger investment opportunity for the backhaul and Local Loop Infrastructure providers especially in metropolitan cities. In addition to data, inclusion of voice and entertainment services over broadband will attract the service providers to invest in high speed access networks like FTTx.

A noteworthy reduction in broadband service cost has been observed. For example per month subscription rate for a 512kbps unlimited DSL connection has reduced from US $ 55 to US $ 16.

Moreover deployment of Optical Fiber Access Network (OFAN) by PTCL for improving Quality of Service and reduction in Local loop charges are few other commercial developments occurred during last one year.

Comparison with Similar Economies

India's Broadband market is very much similar to Pakistan. ADSL is the dominant broadband technology with over 74 % of market share. According to Point Topic Global Broadband statistics total number of broadband subscribers in India is 4.1 million with a penetration rate of 0.37%. There are several major operators that offer broadband services via their own coaxial cable or optical fiber networks. Wireless Broadband services are beginning to emerge via WLL, WiFi and WiMax. Government of India has officially targeted 20 million broadband subscribers by 2010. Telecom Regulatory Authority of India (TRAI) initiated a public consultation on "Allocation and pricing of spectrum for 3G services and broadband wireless access" in June 2006. In late 2007, TRAI urged government to speed up its efforts in developing the licensing procedure and pricing for 3G and WiMAX spectrum.

With a low broadband penetration in comparison with its neighbors, the Malaysian government has been making important steps towards improving connectivity, allocating RM 12.9 billion for the Ninth Malaysian Plan (2006-2010). According to Point Topic Global Broadband statistics total number of broadband subscribers in Malaysia is 1.4 million with a penetration rate of 5.62%. One important area of development has been WiFi, with service providers beginning to rollout their 'hotspot' services. The government allocated 2.3 Ghz radio spectrum for WiMax in March 2007. Other technologies in Malaysia that are in use or are in the process of being tested include ADSL2+, ATM, 3G, HFC, ISDN, FTTH, VSAT, PLC, VoIP, VPN, Digital TV and MMDS.

PTA Initiatives

Pakistan Telecommunication Authority aims to encourage widespread investment and competition across broadband sector of the country. In August 2007, PTA issued a detail determination on various broadband issues. As a result of which PTCL and ISPAK have mutually finalized a comprehensive Standard Operating Procedure (SOP) for broadband services and Service Level Agreement (SLA) for Broadband bandwidth provision. PTA is also working with various government organizations (MoIT, USF Co) on issues like broadband policy review and broadband proliferation in un-served areas. PTA is in the process of involving operators, policy makers and academia through a workshop on “Broadband”. The meeting is scheduled to be held during first week of November with an objective to discuss present and future broadband market of the country. In consultation with the mobile Industry PTA is working on possible introduction of Third Generation Mobile Networks in the country. It is believed that 3G mobile networks with a built-in feature of providing high-speed data services will boost the broadband usage.

Broadband initative taken by USF Co will pave the way to reduce the broadband access gap between urban and rural communities. USF is all set to provide Broadband Subsidies to licensed Telecom operators of the country and the program is being started from Faisalabad Telecom Region (FTR). USF Co has invited the bids for the provision of broadband services in selected areas of FTR. It is believed that this initiative will help in bridging the digital divide through provision of broadband subsidies to interested service providers. PTA has kept a close interaction with USF Co regarding its broadband objectives. Moreover, PTA is also an active member of USF Co Board of Directors.

Broadband has a major importance in accelerating the contribution of ICT to economic growth in all sectors, enhancing social development and facilitating innovations. Improving country's competitiveness in terms of broadband availability, quality and services is one of the major targets to be achieved through engagement of all stakeholders. Pakistan with a present broadband penetration rate of just 0.2 % has a great investment potential in broadband services, applications and content. With young people between age 15-24 account for over 50% of population [Source : UNFPA], gradual increase in digital literacy and awareness, increased demand and consumption of entertainment services, ongoing Internet Telephony consultation and deployment of value added services, broadband will be the next big bang for telecommunication operators of the country. It is expected that steps taken by PTA in collaboration with Industry players will ensure better and economical broadband services in Pakistan. It is estimated that there will be 5 Million Broadband subscribers in Pakistan by 2010.