Pakistan is seen as an emerging country – what are the main telecoms issues?

Pakistan is definitely emerging at a rapid pace, especially after introduction of 3G/4G services nationwide. The country also boasts long-haul fibre connectivity across the territory as well as good international connectivity: current international capacity stands at 550 Gbps, but with increases seen in data usage it is expected to grow up to 3000 Gbps. There are challenges as well, such as last mile connectivity – fixed infrastructure needs to be improved and made more reliable. In a country with a population of 190 million, we have only 3 million fixed and wireless local loop subscribers – this is an alarming figure and a strategy needs to be put in place to address it. So the PTA has divided a fixed local loop (FLL) licence into 14 regions, and a licence for a region can be obtained for $10,000. There is a demand for fibre to the home and operators that are offering this through FLL licences have been well received by consumers, but more push is required so that such services are available nationwide.

What is your background?

I did my PhD in electrical engineering at the University of Pittsburgh in 1997 and have worked in Pakistan and in the US in several organisations including telecoms companies, academia, start-ups, consultancy firms and government. In 2011, I worked for Pakistan’s information technology ministry, working mainly on telecoms policy to address and improve the socioeconomic conditions of the country using ICT. Then in 2013, I was appointed as chairman of the Pakistan Telecommunication Authority (PTA), the telecoms regulator, through an open competition by an independent commission.

How is the PTA organised?

The PTA was established in 1996 to perform the regulatory functions in the telecoms sector of Pakistan. We have about 450 people – the headquarters is in Islamabad and there are seven regional offices around the country, which are mainly tasked with enforcement of licence conditions, resolving consumer complaints and maintaining checks on the quality of services being provided by telecoms operators. As a regulator we promote the modernisation of services, allocate spectrum and facilitate innovation – however, we are not a converged regulator. For media related issues we have the Pakistan Electronic Media Regulatory Authority (PEMRA).

I am also an ex-officio member of the PEMRA board. PEMRA is mainly concerned with broadcasting content and access to services, and relies on the PTA for most technical decisions. There is also a separate entity called the Competition Commission of Pakistan (CCP) that deals with competition related issues for all sectors. Recently, the Ministry of Information Technology issued a telecoms policy that sets out the role of the PTA and other organisations, and details our telecoms law and regulation, as well as markets, infrastructure, spectrum, the universal service fund etc.

What is the overall coverage plan?

From current figures, we have approximately 133 million mobile subscribers out of which 31.8 million have converted to 3G/4G and are using mobile broadband services (MBB). We also have a teledensity of 71% and among the lowest calling charges globally, which is a healthy sign for consumers in Pakistan. The real game changer has been the 3G/4G auction after which MBB usage density jumped from 2% to over 18% within 2 years. We have recently held another auction offering...
850 MHz to provide 3G/4G services, which will also make a positive impact on MBB growth. There are plans to hold auctions for the 700 and 1800 MHz bands and introduce most modern technologies for people of Pakistan. There is also an effort to streamline the process of issuing local loop licences to make it easier. There are big right of way issues in the cities while the terrain in some of our remote areas is quite difficult. These obstacles also weigh against our ranking in ICT indicators and the digital economy, as we will not have enough land lines, at least not for some time.

**Q: THERE MUST BE A LOT OF POTENTIAL DEMAND...**

A One of Pakistan’s biggest strengths is our human resources. There is a need to introduce strategies and programmes to harness this by making our people more technology savvy and empowering them with digital skills. One such recent initiative was a PTA workshop to train women on mobile app development, the objective being to empower women through ICT. I am also the CEO of the National ICT R&D Fund – through this company we have just established an incubator/accelerator with Mobilink, the biggest telecoms operator, that will incubate 40 start-up companies each year. We are already seeing entrepreneurs being successful in the country, and some of our start-ups have made it to Silicon Valley. There are many start-ups working on local problems, such as one that has developed a mobile-enabled system for controlling home water heating. We also have new medical apps such as a GPS-smartphone system for registering child immunisations.

**Q: A SIM VERIFICATION PROGRAMME HAS HAD SPIN-OFFS IN OTHER MOBILE APPLICATIONS...**

A Since August 2014, and because of national security concerns, we have put in place a system for issuing new SIMs [subscriber identification modules] after biometric verification, and in 2015 it was decided to re-verify all the existing SIMs. The PTA, along with operators, ran a programme where all the existing SIMs were biometrically verified in just 4 months, and during the process about 2.6 million SIMs were blocked. The people of Pakistan supported this initiative. Although the telecoms industry suffered financial losses, there were certain positive outcomes like an increase in mobile banking. After biometric verification of SIMs, people can now simultaneously open a mobile banking account while purchasing a SIM without any paperwork. Other applications using mobile banking have also emerged, such as paying the passport fee and support for poor people and farmers.

**Q: WE UNDERSTAND THAT APPLICATIONS FOR DISABLED PEOPLE IS AN IMPORTANT INITIATIVE...**

A Yes, one of the policy directives for the PTA is that all websites should be accessible to disabled people and we are helping to fund content that can be read out in local languages other than English for the blind. We are also running a competition for developers to come up with mobile apps for the disabled.2

**Q: HOW ARE YOU RESPONDING TO ISSUES SUCH AS OTT, NET NEUTRALITY AND PRIVACY?**

A These issues, especially net neutrality, are relatively new for us. We do not feel that there can be very strong regulation on internet related issues like OTT. There has to be a collaborative approach. The telecoms policy has though tasked the PTA to come up with a framework for voice over IP and other services. Access to the internet is open and without any discrimination except for certain restrictions related to pornography, child pornography and blasphemous material. We believe that as we still do not have enough penetration of broadband, any initiative that can help would be welcome. At the same time, we are looking at the privacy and data protection issues which may increase with greater availability of broadband. We believe in creating more awareness among users.

**Q: TO SUM UP, WHAT’S ON YOUR AGENDA FOR THE NEXT 6 MONTHS OR SO?**

A Personally I am involved with much more than the usual regulatory role, such as with the National ICT R&D Fund and helping with establishing a centre for big data analytics, 5G, IoT and cloud computing. Regional work is also important, such as with the South Asian Telecommunications Regulators Council (SATRC). I am actively involved with other international agencies like ITU, ICANN, CTO, APT and USTTI and we are planning international training with the help of some of these organisations in Pakistan in the coming 6 months. At the PTA, I would like to see the allocation of more spectrum, right of way reforms, enhancing international connectivity, improving user experience (and for this we have just established the country’s first internet exchange point), accelerating moves towards IPv6 and making the internet more accessible for people with disabilities.