

IPTV—A Great User Choice

— **Shyamal Ghosh**, Chairman, IPTV India Forum

IPTV is not Internet TV

We are all aware about the use of Internet and might even have access to it at home, cyber cafes or offices. Several people would have used it through third party sources to get their high school result and railway reservation. Internet TV uses a cloud of open bandwidth which can be accessed anywhere without any restrictions of region or country. IPTV uses managed and provisioned bandwidth for its service and could only be accessed in closed user group like a walled garden. It is therefore governed by sovereign laws and security.

Are Indian consumers ready for IPTV?

There are 100 million cable TV homes and 4 million satellite direct TV homes in the country. The key driver for growth of this segment is purely entertainment and lately the consumer is looking for added values and high definition picture quality. Rise in purchasing power enables both rural and urban consumers to move to next tier of services. In urban homes people are moving from two cable TV sets (one in bedroom and the other in drawing room) to dish TV for better quality of picture, whereas in rural areas, people are moving from community TV sets to personal TV sets.

A new trend is seen in a few countries, that of demand for IPTV. India would also see this trend provided broadband access in the country is increased and becomes ubiquitous. IPTV is a fully digitized service and the biggest booster is the feel good factor about having audio/video/text in one platform with complete control over the remote control.

- IPTV deployments are reaching

substantial mass with multiple deployments above 400 K subscribers

- Western EU has about 2 million subscribers
- France has about 2 million subscribers
- FT, Telefonica, PCCW combined around 1.5 million
- Asia Pacific will contribute 47 percent growth (according to a report by ABI research)

Strategic issues, opportunities, and challenges for the introduction of IPTV rollout in India

IPTV service is an independent network architecture called content delivery network (CDN) which provides delivery of video over IP (Internet Protocol) thus enabling triple play of voice, data, and video. This service is dependent on broadband availability. CDN architecture is a marriage of various devices and technologies including billing and set top box. IPTV technologies have matured. Delivery of IPTV service is bandwidth hungry and need managed bandwidth of 2–3 Mbps at each customer location. A good broadband connection is a life line for its survival. Rapid growth of broadband is the need of the hour.

Announcement of IPTV policy guidelines by Ministry of Information & Broadcasting (I&B) is awaited. The big players are perhaps looking forward to clearing of the regulatory environment before commercial launch even after conducting successful trials.

Business drivers for IPTV in India

Key business driver for IPTV is being a value added service for telecom players. Falling ARPU (average revenue per user) of fixed line and high churn rate with migration to mobile



services is a matter of great concern. IPTV service will not only get new broadband subscribers with fixed line, but also retain its old customers. IPTV service will also provide new revenue model to cable operators and ISPs.

Role of service providers and content developers in the rollout of IPTV in India

Effective participation of content developers and providers is of vital importance. The service provider is only an enabler and provides medium for content delivery network. Marriage of content provider and service provider is a must for establishing a win - win situation wherein both share profit on reasonable terms. It is a new kind of experience which service provider is having and it will take some time to settle the ground for both content provider and service provider as their backgrounds are different. Sooner this learning process is completed, quicker will be the roll out.

In network terms, IPTV requires establishing a point-to-point link through virtual addressing between the operator's server and the customer and uses multicasting techniques to achieve broadcast effect. The key issue in creating an IP distribution

network is that the IP mode will not be the only difference from the present distribution network. IPTV service can provide Live TV, time shifted TV, and VoD after code conversion and encryption. Typically, the live video content is delivered in Moving Pictures Expert Group version-2 (MPEG-2) format using IP multicast. This is the method in which information can be sent to multiple computers simultaneously. Newly released H.264 format is pre-designed to replace the older MPEG-2. In standard-based IPTV systems, Internet Group Management Protocol (IGMP) and Real Time Streaming Protocol (RTSP) are used. Here, IGMP version 2 is used for channel change and signaling for live TV viewing and RTSP is used for stored services like VoD.

Regulatory issues of IPTV in India

Classification of IPTV service is still not clear. Cable TV operators, USAL licensees, and ISPs are proposed to provide IPTV service as per Telecom Regulatory Authority of India (TRAI) recommendations to Ministry of Information and Broadcasting (I&B). These three service providers are governed by different statutes and licensing terms as well as FDI norms.

Standardization of the IPTV technology

Standardization of set top box and

its interoperability is very important. TRAI has recommended that this aspect needs to be ensured for providing multiple choice to the users. International Telecom Union (ITU) under its recommendation, *J700*, has finalized specifications for IPTV.

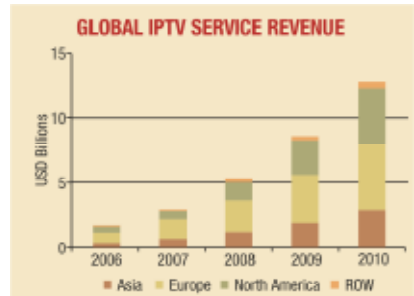
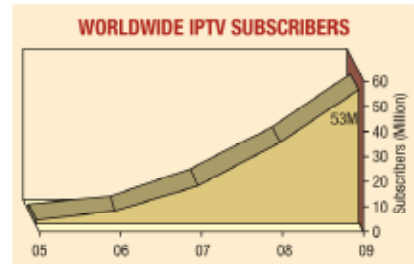
Business implications of IPTV

For telecom service providers, voice continues to be the dominant source of revenue despite increasing use of data services. The reason is that while Internet-based services generate a lot of traffic, they do not generate adequate revenues in the traditional model. The voice-based revenue stream from fixed lines is also coming under severe threat due to the movement towards free voice services based largely on VoIP and falling mobile tariffs.

The possibilities generated by the increasing popularity of broadband services will not mean much unless a killer application is found. IP-based applications are very promising and industry tends to get around to the view that IP-based entertainment through IPTV may be the application they have been waiting for.

Quality of services in IPTV

As per ITU, IPTV is defined as multimedia service such as television, video, audio, text, graphics, and data delivered over IP-based networks managed to support the required



level of quality of service (QoS)/quality of experience (QoE), security, interactivity, and reliability. In simple terms, provision of television signal using IP for transmission of signals to the subscribers is termed as IPTV. It is very important to lay down the QoS norms and parameters for IPTV services by TRAI.

Control of Internet television services

Internet television is an open source and not like IPTV which is delivered to closed users with managed bandwidth and QoS. Internet television is virtually impossible to control.

Advanced Internet protocol television features

Advanced Internet protocol television is same as IPTV, which will have all the features like time shift TV, VOD, video calling, and conference facility.

The future of IPTV in India

Full potential of IPTV would be realized when the reach of broadband connectivity is widespread. It is the mission of IPTV Forum to facilitate policies and regulations which will encourage broadband connectivity and will open up new vistas, unleashing the full potential of IPTV.

