

Conformance and Interoperability of IPTV

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Agenda

- Policy Guidelines for IPTV in India
- Current Status of IPTV in India
- Key issues
- ITU-T work on standardization and interoperability
- Vision for future of IPTV



- **IPTV Service Providers**

- Telecom service providers (UASL, CMTS) granted license by DoT
- Service providers permitted to provide IPTV services
- Cable TV operators registered under Cable Television Network (Regulation) Act 1995

- **Standards**

- Bureau of Indian Standards (BIS) to lay down the specifications for IPTV set top boxes for use in cable networks. The cable operators providing IPTV service to follow these standards

- **Act**

- Programme code and Advertisement code as provided in Cable Television Network (Regulation) Act 1995 shall be applicable even in the case of contents provided by the Telecom IPTV service provider.
- They shall be responsible for ensuring compliance to the codes with respect to such content.



Adherence to Code of Conduct

- If the contents are being sourced from content providers other than telecom service provider, then it will be the responsibility of telecom service provider to ensure that their agreements with such content providers contain appropriate clauses to ensure prior compliance with the Programme and Advertisement Codes and other relevant Indian laws, civil and criminal, regarding content.

Commercial Interoperability

- The IPTV service provider should provide commercial interoperability so that if the subscribers decide to switch over to any other service provider or platform they should be able to do so at least cost. Commercial interoperability here would mean that in addition to offering the receiver set on an outright purchase basis, a subscriber should also have the option to purchase it on a hire-purchase basis or on rental basis with a provision to return the receiver set on such terms and conditions as may be laid down by regulations issued by TRAI.



Preservation of Content for Specified period

- The Government in the Ministry of Information and Broadcasting may direct the IPTV service providers to ensure preservation and retention for specified periods of different kinds of content made available to their subscribers and requires it to ensure its security and also that it is not tampered with during such period. The IPTV service provider may be required to produce the same to the Government or its authorized representative, as and when required and the IPTV service providers will be required to ensure compliance to all such directions.

Monitoring of the IPTV Network content and storage for 90 days

- The IPTV service provider shall provide the necessary facility for continuous monitoring of the IPTV network at its own cost and maintain the recordings of programmes and advertisements carried on the network for a period of 90 days from the date of broadcast and produce the same to the Government or its authorized representative, as and when required

Current status of IPTV in India



- Multiple operators offering IPTV services:
 - Bharti Airtel “Digital TV Interactive” (Delhi and NCR)
 - Aksh “IControl” (Delhi, Mumbai, Many cities in India)
 - Smart Digivision “Myway” (Delhi, Mumbai, many cities in India)
 - ACT Television “Interactive TV” (Bangalore)
- Each one offers their own STB and User Interface
- Each one has its own set of services
- Each one offers services on closed networks with guaranteed QoS
- Estimated ~100,000 subscribers of IPTV in India (Approx. numbers)
- Industry still searching for the killer application beyond Time Shifted TV (Catch-up TV).

Key Issues

Reasons for Low offtake of IPTV Services have to be deliberated upon. Some of them may be due to -

- a) **Policy related** :Needs to be deliberated by all stakeholders with the concerned ministries at the proper forum
- b) **Operational issues** :
These needs to be deliberated upon among content providers, channel aggregators ,Head end servers , content service providers, network providers and other stakeholders

Operational Related Issues

- Walled Garden approach of users adopted by Network providers
- Unlike the mobile phones ,Set top boxes (STB) facing the problem of incompatibility
- Absence of Universal contents -- Any programme on any time and any where basis
- Absence of Interoperable Content Delivery Network.
- Absence of Eco system among various stakeholders

ITU-T work on Standardization and interoperability



- ITU Focus Group work has given shape to various recommendations being worked upon by different groups.
- Specific importance of H.770 for service delivery and selection.
- In addition, the H.750 for specification of the metadata paves the way for interoperability.

Vision for future of IPTV

We have to evolve IPTV standards that will take into consideration

- (a) consumers' interests
- (b) content providers' interests and
- (c) network operators' mediating service providers' & other stakeholders' interests.

Simultaneous fulfilment of these interests can be brought about by defining an IPTV architecture that make it possible to achieve the following

Significant increase in IPTV as well broadband user density across the country by extending the benefits to television terminals (Approx. 100 million TV homes) as against the conventional PC terminals (Approx. 25 million PC homes)

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Interoperable Set Top Box(STB)



- Customer to have a single basic module for set-top-box supporting voice, video and data applications
- Same set-top-box should be inter-operable with any technology be it DSL, PON, Cable or Satellite with appropriate attachable front-end module
- Like the mobile (which Connect to the nearest base stations), the STBs should always connect to the nearest inter operable Head- ends for accessing the universal contents. There will be a range of content and Channels aggregators who will provide their contents and channels to the Head Ends
- Like the PCs the STBs should be able to operate even in standard alone way without being connected to any Network. The user should always be able to play the audio /video contents stored in the internal mass storage of the STB.
- Set-top-box should be available to customer off-the-shelf, independent of the Access Service Provider in a manner similar to the GSM mobile set

Interoperable Content Delivery Network (CDN)



- Customer of one Access Provider should have access to content hosted by other Service Providers, i.e. interoperability through an integrated network
- Security architecture and mechanism should ensure content availability for viewing only after payment assured from user, and no content pilferage is possible
- IPTV service should be neutral of access N/W. It can be provided by telecom operator using telecom N/W as well as cable operator using cable network however cable operator will have to build IPTV setup providing these services video on demand time shifted TV and other interactive services

Stakeholders

- Content providers
- Content/Channel Aggregators
- Head end server providers
- Broadband network provider
- Clearing Agency
- Agency for content security

Thank You

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