

Digitization of TV in India – Need to Provide Consumers to Select Digital Addressable System (DAS) Head end Service Provider (HSP) of their Choice

Background

While the digitization of TV is going on in the country and in the digitized TV era, we are going to live forever for TV services, it is important that we have a future proof ecosystem in place. IP in the core, edge and access is there to stay. Copper and coaxial might give way to OFC to give coverage up to the premise, building or curb. As a policy, we need to allow a consumer to choose the DAS HSP of his/her own choice. We already provide freedom to a mobile sub to change the service provider through the MNP. For TV, STB is akin to a mobile HS and monthly billing for a TV connection might be more than a low end pre-paid mobile sub. Just like a mobile sub is free to select the MNO, a digital TV consumer is also allowed to select the DAS HSP out of the available ones in the dependent geographic area.

Open Access Digital CATV Infrastructure

As this is not mandatory today thus DAS HSPs are mostly deploying DVB technology both for head end and distribution. For transport of DVB signals from head end to LCO interconnection node, DAS HSPs use optical nodes over fiber. This is rigid and makes a digital TV consumer dependent upon the service of one DAS HSP only. The rest of the world namely US, EU and other countries when they digitized CATV, DVB was the only cost effective technology. Now, India is doing it when open access IP based technology is available and is affordable. This is an opportunity for us to be future proof. DVB over IP offers best of both the worlds. It uses the proven MPEG TS at the head end, and for transmission and distribution, it uses the ubiquitous IP. At the consumer end, it again uses the DVB STB. Such a technology allows even the digital TV consumer to select the DAS HSP. We have more than 60,000 LCOs and 5000 MSOs. None of them goes out of business and the country gets state-of-the-art DVB over IP digital CATV infrastructure. Very minimal incremental cost needs to be incurred by both DAS HSPs and LCOs. For country deploying a future proof digital CATV infrastructure so late, even if we have to allow more FDI in this industry, it is worth.

If India gets such digital CATV infrastructure, imagine IP is available at every digital CATV Home. 100 M HHs by 2014 get covered by ubiquitous IP infrastructure. BWA providers would be deploying LTE and femto cells. This IP infrastructure would be ready to provide them the much needed back haul oxygen for which telcos are struggling. Nation has embarked upon NOFN. NOFN does not address the access whereas DVB over IP is end-to-end infrastructure conveniently riding over NOFN in the core and edge and providing the much needed state-of-the-art access and the last mile.

Telcos, MSOs, LCOs, DTH operators etc., are all infrastructure providers with voice, data and video as bearer services. While voice is primal in nature, data and video services enable

innovators to do unlimited things beyond imagination. Broadcast TV is a specialized form of video service.

Digitization of TV (which has already been done by the DTH and IP TV service providers and now being expanded rapidly by the OTT players) by the government over cable is an attempt to bring to 150 M HHs (assuming rest of 75 M HHs are shared between DTH and IP TV providers) affordable QoS with ability to select the programs of one's choice. This is highly an infrastructure exercise, the fruits of which will be enjoyed by the DAS HSPs, LCOs, content providers, consumers and government.

India is one of the late entrants in this. This also has an advantage as we can truly deploy a world class future proof digital CATV infrastructure and not follow what rest of the developed world has done. We are known for very poor conceptualization, planning and execution of national level infrastructure projects. Our roads and flyovers before commissioning start getting choked. The lone exception is DMRC. The technologies for digitization of TV are DVB, DTH, IP TV and DTTB. DVB has already proven itself to be the best in head ends and CPEs. For wired transmission and distribution of one way broadcast service over cable, RF over optical fiber and last mile coaxial have been conventionally deployed for ages.

Consumers - Pick and Choose Your Own Digital TV Service Provider

India is now on a national mission for an infrastructure which must be state-of-the-art, scalable, future proof, affordable and above all meet the requirements of all stake holders, i.e., content providers, infrastructure providers, consumers and government. The consumer does not want to be tied down to a particular service provider whether wireless or wire line. A person spending 50 L on a flat cannot be told that for your wired telecom needs you have only X service provider, for your wired TV service, you have only Y digital CATV provider and only Z as IP TV provider. The government must come out with regulations and policy which only allow open access wire line infrastructure which is already adopted in case of wireless. An open access wire line infrastructure must not be implemented by multiple access operators bringing their own wires into the premise. Instead, it should be done through interconnection at the node where main infrastructure service provider and open access infrastructure service provider actually interconnect. With such infrastructure chain, the consumer has an option to pick the main service provider who is fully equipped with OSS/BSS/CRM/SMS/Pre-paid and gives a better QoS and customer experience. The open access operator like LCO partners the main service provider like DAS HSP. Each open access LCO has main DAS HSPs in the geographic area of the consumer interconnecting with each other at the node and through a simple process, a consumer, if unsatisfied, can change his DAS HSP, and may be within two weeks as against one week for MNP. In case, there are any incremental financial overheads, let these be split between the consumer and the new DAS HSP because open access LCO is really a pass through and he can be compensated suitably for his coordination role by the new DAS HSP as he gets a new customer. To achieve the above, the

government must do three things, make open access mandatory over a reasonable period of time, enhance FDI and allow RoW to this industry.

Unlimited Value of Open Access Infrastructure to GDP Growth

Let us look at the wider pay offs of the above for the country's GDP. If the above is implemented, IP truly becomes ubiquitous to 150 M HHs, a stepping stone for world's largest, quickest and cheapest NGN in India. This NGN powers up the rapid proliferation of much needed BWA for which the country is struggling. As against 100 M broadband target, only 13.7 M subs that too majority with 256 kbps, the world's lowest speed qualifying for broadband subscriber has been achieved, making us a laughing stock on all global broadband forums. Government is contemplating NOFN which leaves access up to the operators. We have seen since 1994, how much high speed state-of-the-art wire line access capacity has been created by the national operators. They would build access with 3G, 4G, 5G etc., thus country is left high and dry as virtual education and health care services cannot be delivered satisfactorily to very large number of subs for sustained classes to 87 % college dropout students who want to work from 9 am to 5 pm and study graduate and PG courses from 8 pm to 11 pm when they are back at home. Likewise, multispecialty hospital based diagnosis, consultation and prescription services to 70 % HHs can never be provided on wireless alone.

The country must not miss this opportunity now. Both TRAI and MIB must consider these inputs and give the country a future proof digital CATV infrastructure and consumers the much needed choice to select the digital CATV service provider.