Lt Col (Veteran) VC Khare, Cable TV Industry Observer

Introduction

- 1. The subject consultation has NOT outlined any issues, worded by TRAI, for consultation. Hence words have been extracted from the text, in the TRAI document, to comment upon.
- 2. Theese comments are confined to issues pertaining to wireline broadcasting ,in general, and cable TV networking, in particular.

Extracts Pertaining to Carriage Services

- 3. The words/text are extracted in RED and reproduced below..
- (a) Carriage Services are in the nature of infra-structural services. They provide pipes for content to be delivered to end users. Carriage services essentially provide the medium for carriage of content/information.
- (b) This Category, in these comments, is confined refers to Cable TV Services, services HITS and IP TV Services, if provided by CABLECOs.
- (c) Technically Cable TV can provide voice telephony and broadband.
- (d)This Category, in these comments, is confined refers to Cable TV Services, services HITS and IP TV Services, if provided by CABLECOs.
- (e) Technically Cable TV can provide voice telephony and broadband.
- (f)Level Paying field between competing technologies and maintaining consistency in policy across sectors.
- 4. Wirel;ine broadcasting deals with Cable TV (Conductor Attachment Based Electronic Extension of Television) and draws comparison with unbundled copper loop of Telcos, or CAT 5e extensions from opticfal fiber connected DLC (Digital Loop Carrier) Terminals, also in TELCO domains.
- 5. Cable TV networks in nIndia can, at best, be called network slums hug in the air over encroached supports, like an umbrella without the canopy, but feeding TV content to over 120

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million households in the residenmtial segment. These networks have been erected by people with no formal education on wireline networking because 'Broadcast Engineering', in general, and wireline broadcasting, in particular, are NOT taught in India. This state of affairs exists because RoW was never by Cable TV networks. The latest amendment to the Cable Act has provided for RoW to this type of networking but Cable Act Rules have NOT covered its procedural implementation mechanics, considered a very serious ommission.

- 6. Cable TV networking, i.e. wireline broadcasting essentially has four components i.e. Headend (equivalent of Central Office in the Telecom parlance), the delivery pipe comprising of hybrid optical fiber and copper (similar to fiber up to DLC and Cat5e therefrom in TELCOs), the subscriber drops and CPE i.e.Addressable Set Top Box (STB) like the ADSL modem or POTS instrument.
- 7. In case of TELCOs, from 1885 in India, Telecom wireline was erected(through vendors with 'state of the art' switching hardware and designed distribution infra-structure), owned and operated by the state with proper RoW, at tax payers expense. The budgeting for this domain remained in Tax Payer's Expense domain for over 100 years. Private TELCOs were established with investment from very rich business houses through public issues. The quality of networking, by established preceduce, was similar to the that of State wned TELCO. They have a very robust usage based and time tested billing system with fewer plans, compared to content delivery in Cable TV which is based upon fixed subscription based viewing. The other difference is that Telecom is a central government subject and was never delegated to the State Govts to administer, unlike Cable TV.
- 8. Hence, if voice is permitted over Cable TV networks, they will have to be laid all over again, properly designed and with RoW permissions, to make them bi-directional to deliver 'triple play', with much higher bandwidth handling capacity, a unique virtue of coaxial cable. That certainly will increase broadband density in the residential segment. If the delivery pipe to 120 million subscribers is to be laid all over again, besides heavy payments to Municipalities for RoW governed differently, it will be a very heavy capital intensive venture..
- 9. The networking hardware costs to lay the properly designed and erected networks, as a very rough estimate, may be as under:-

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- (a) Coax drops 31,50,000 kms @ 25 mtrs per subscriber costed at Rs 15/- per mtr amounting to Rs 4725 crores.
- (b) Optical fiber 840000 kms of fiber per headend for 6000 Headends estimated @ Rs 10000/per km costing over Rs 900 crores.
- (c) It is presumed that existing optical nodes will be used up hence their cost is NOT added.
- (d) Distribution cubicals and laying costs will be additional.
- (e) RF amplifiers required will number over 50,00,000 costing over Rs 7500 crores.
- 10. The playing field may then become level with TELCos
- 11. These expenses are beyond the financial muscle of existing MSOs (should be addressed as Headend Service Providers i.e. HSPs) in DAS environment.
- 12. In existing norms, this expense falls in 'other than Headends' category and hence FDI permitted is 49 %. This service being un-organized, no foreign investor will come forward to undertake such expenses at 49% ceiling..
- 13. The other alternative could be for the State to lay the fibre backbone, built to proper engineering design with terminals and leased to CABLECOs.

Extracts pertaining to FDI for MSO domain

14. The words/text are extracted in RED and reproduced below...

Present FDI in Cable TV for MSOs -74 %; 49% through direct route and rest 25% through FIPB route. Proposed 100 %; 49% direct route and balance 51% through FIPB route.

15. In the hurried implementation of DAS, financially constrained HSPs, who have also invested upfront into provisioning STBs, NOT essentially meeting Indian Standards in all cases, have gone in for consumer grade equipment governed by the the practiced principle of 'How much

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credit and how much discount?' not realising that "Quality does NOT come cheap". Hence these will require replacements in middle term if NOT short term. The expenses incurred are estmated at Rs 3.0 crores for 6000 Headends amounting to Rs 18000 crores. This is besides expenses on captive power backups and air-conditioning. Further expenses have to be incurred on CAS and SMS for addressability, in the existing uni-directional networks over shabby overhead networks.

16. Hence 100% FDI for MSOs with 74% direct route and balance 26 % through FIPB would sound realistic.

Extracts pertaining to domain other than MSO

17. The words/text are extracted in RED and reproduced below...

For Cable TV networks 49% direct route. Proposed 100%; 49% direct and 51% through FIPB route.

18. Foreign investors may consider coming in with 100% FDI with 80% by direct route and the balance through FIPB.

ADDITIONAL FACTOR FOR CONSIDERATION FOR SKILLS IMPROVEMENT

- 19. Present Crop of Cable TV technicians lacks recognised formal vocational qualification. This category, with about 20 years experience, is in the age group around 40 years. They can be given recognized short term exposures on Network Erection and Maintenance.
- 20. A regular symmeter at the level of it is in states needs to be introduced for the younger generation to take up such employment with CABLECOs.
- 21. SCTE or CABLE LABS in the United States would be interested to set up such upskilling programs if the environment so permits.
- 22. Last but NOT the least, CABLECOs Management too needs professional NOC Managers and Executives to handle the size of business that this industry has the potential to generate. A semester in Electronics Engineering syllabus of the Universities can meet this requirement fith foreign help.

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23. 49% FDI through ditrect route may be considered to professionalise CABLE TV industry.

Conclusion

- 24. The practical FDI figures could be as under :-
- \(a) For 'MSOs' i.e. HSPs 100% FDI for MSOs with 74% direct route and balance 26 % through FIPB .
- (b) For 'Other than MSOs'i.e HSPs -100% FDI with 80% by direct route and the balance through FIPB.
- (c) For Skills improvement 100% FDI with 80% by direct route and the balance through FIPB.