

Subject: Response to Consultation Paper on Implementation Model for BharatNet

To,
The Advisor (Networks, Spectrum & Licensing),
TRAI

Sir,
Please find my response below on consultation paper

Q.1 The “Report of the Committee on NOFN” has recommended three models and risks/advantages associated with these models. In your opinion what are the other challenges with these models?

Some of the other challenges with below models besides been stated in paper are:

- CPSU-led
 - Chances of delay due to internal corruption between Govt agencies and third party vendors- While Govt owned entities like BSNL, etc may be executed it end-to-end, they still need to involve third part products and vendors for execution. There has been many instances getting highlighted of corruption wherein Govt agencies collude with vendors to deliver sub-standard work or make money for people involved in the projects. Occurrence of such cases will be lead to stalling of projects when been exposed and leading delay in execution
 - With fast changing technology landscape, it will be a challenge for likes of BSNL, Railtel etc to cope up fast including training and obtaining subject matter expertise in multiple areas been envisioned
 - Sourcing strategy for best of breed technology players could be a challenge due to heavy layered based decision making

- State Government-led
 - More than project management, envisioning and collaborating with more than 25 states in India will be a nightmare for central agency to ensure that BharatNet is creating as an integrated entity and not mere collection of more than 25 entities
 - There are very few states in India with centre of excellence like IITs, CDAC etc for joint collaboration and working for delivering project of such critical nature

- Private sector-led (EPC/Consortia)
 - One key challenge is ensuring multiple Public-Private relationship being monitored to ensure timeliness
 - Geographies of interest is another area wherein private player will opt aggressively for some of states and ignoring underdeveloped states thereby leading to disconnect in BharatNet approach

Q.2 Do you think that these three models along with implementation strategy as indicated in the report would be able to deliver the project within the costs and time-line as envisaged in the report? If not, please elucidate.

- As mentioned in report, BSNL led and government enabled model is already delayed which provide a clear answer for option 1 and that is negative.
- State government led model will also see challenges for making decision based on 'democratic' approach which will lead to a chaos than a solution. 'Democratic' means decision will be changed or diverted based on state political state of government. However, only ray of hope here is healthy competition which will lead to some of state accelerating BharatNet roll out, however end result will be again a non-integrated network
- Growth of mobile market in India is perfect example of similar scenario wherein Private sector-led (EPC/Consortia) can be looked as best possible option today

Q.3 Do you think that alternate implementation strategy of BOOT model as discussed in the paper will be more suitable (in terms of cost, execution and quality of construction) for completing the project in time? If yes, please justify.

Growth of mobile market in India is perfect example of similar scenario wherein Private sector-led (EPC/Consortia) can be looked as best possible option today. Even after decades of investment in telecom network and advent of mobile in other parts of the world, India never had any strong mobile subscriber base till late 90's. Entry of private players definitely accelerated growth of mobile adoption although the approach was auction based in this case. For BharatNet, partnering with private players through BOOT or BOOO basis may be explored.

Setting up Special Purpose Vehicle will be recommended. BOOT models are envisioned and designed by Government led experts who can include scope based on all stakeholders and end users. Partnering with experts in various area will definitely lead to faster execution to availability of right technology expertise, past execution history which can be used for best practices and maintain best of products and SLAs to maintain quality of network.

It will be then upto government how efficient they want to built BharatNet on similar lines as mentioned in Singapore case study in paper. Transparency in government driven projects is also challenge, because in case of wrong doing , internal government machinery works to hide the scam and does not let in come in public domain.

However, government need to ensure that **clauses** are not made friendly only for private players as had been cases of some of BOOT models like 'Some of expressway in NCR region/Western India' and 'New Airports in Metros' which basically burden every cost to end customer instead of provisioning in their costs. Transparency in BOOT need to stricter on similar lines which Highway Ministry is now doing with expressway vendors.

Q.4 What are the advantages and challenges associated with the BOOT model?

BOOT Model as mentioned above come with its own set of advantages and challenges

Advantages:

- Faster execution due to access to latest technology
- Faster decision making by private players due to time linked plans
- Bringing best practices from both Indian as well as international firms
- Healthy competition leads to better ideas
- Better market outreach of initiative to public through private players due to their aggressive sales and marketing approach
- Absence of upfront cost
- Transparency can be enforced through mandatory disclosures in time bound manner

Challenges

- Private player oriented clause may lead to killing competition later, thereby hampering growth. Ex. T3 Delhi airport was executed with clause, no new airport within 150kms and first right of refusal leading to delay in additional airport in fast growing city like Delhi and Mumbai.
- High cost of ownership
- Players tend to pass on very cost to end customer instead of provisioning in their costs
- Region of focus due to high monetization factor may lead to lack of interest shown for some of states/area within India geography

Q.5 What should be the eligibility criteria for the executing agency so that conflict of interest can be avoided?

Telecom is one industry which is fast converging with other industries, banking being the latest one, therefore conflict of interest should not be defined based on industry. It is important that expertise is obtained through participant from players with serious intentions to create growth in broadband space through BharatNet. However, conflict of interest may arise when vendor working for BharatNet itself have competing broadband services. Sister concerns of similar companies applying for BharatNet need to be evaluated for their neutrality of running this program in mutually exclusive way than their related business.

Any deviation from planned contract should attract heavy penalty.

Q.6 Should there be a cap on number of States/ licensed service area to be bid by the executing agency?

Executing agency may be allowed more than one states or area for bidding depending on previous success and financial maturity.

It is important to ensure that atleast 3 players are provided license in each of state/area to ensure absence of dominance by one player.

Q.7 What measures are required to be taken to avoid monopolistic behaviour of executing agency

Ensure that atleast 3 players are provided license in each of state/area to ensure absence of dominance by one player.

SPV need to design complete value chain for execution in a way that it is not dominated by single agency and that approach may be taken in an agile manner wherever it can be designed.

Executing agency should also be distributed across areas with a fall back plan in case one of the agency fails to deliver.

Q.8 What terms and conditions should be imposed on the executing agency so that it provides bandwidth/fibre in fair, transparent and non-discriminatory manner?

- Players shall provide bandwidth/fibre to any entity who wish to bid for the same in fair and transparent manner
- Sister entities of player shall only be allowed to bid for other states and areas
- Player may provide services over its own bandwidth in a manner which does not follow predatory or monopolistic policies
- SLAs between player and other market entities shall be delivered as agreed and any constant complains in this shall be seriously treated with a financial clause

Q.9 What flexibility should be given to the agency in terms of selection of route of laying optical fibre, construction, topology and deployment of technology?

Agency need to adhere to planned design as per Special Purpose Vehicle team. Any deviation to agree design should be consulted with SPV executive body and decision be granted on case to case basis based on criticality, financial implication and customer need, etc. It is important to have a controlled route in order to execute it in time bound manner along with other agencies like road, railtel, etc

Q.10 What should be the methodology of funding the project? In case of VGF, what should be the method to determine the maximum value of VGF for each State/ service area and what should be the terms and conditions for making payments?

Following methodology of funding be used for VGF funding

Identify:

- Define drivers and need for VGF for particular state
- Define customer need and criticality of BharatNet for particular area

Assessment:

- Identify challenges which customers will face in absence of bharatnet
- Identify financial cost to achieve identified drivers
- Identify challenge for players to fund for that area, whether it is only financial or proactive support from local agencies can solve the VGF problem
- Define benefits expected to be achieved for funding VGF for a state

Recommend:

- Develop a model based on weightage driven inputs to recommend VGF funding for particular state/area

Q.11 What kind of fiscal incentive and disincentive be imposed on the agency for completing the project in time/early and delaying the project?

Agency maybe provided appropriate fiscal incentive as per agreement and penalty maybe applied accordingly

Some of incentive could be providing additional dark fibre or bandwidth and penalty could be in monetary terms by reducing terms of BOOT timelines and not allowing to charge customer anything till they are ready.

Q.12 What should be the tenure/period after which the ownership of the project should be transferred to the Government?

This is an interesting area wherein ALL the projects in India so far on BOOT have never seen Transfer back to Government. Players tend to typically drag the Operating stating they are making losses/haven't covered their revenue. Ex, Expressways which were suppose to end 5 years back and still been run and even charges are being increased yearly. Similarly, looking at Airports, they also are talking same language.

It is very important that SPV add stringent TIME bound conditions for BOOT contract. Although it is expected that players will only invest for profits but their greed should let Indian customer be taken for a ride

Q 13 Do you think that some measures are to be put in place in case the executing agency earns windfall profits? How should windfall profits be defined?

As mentioned above, it is very important that SPV add stringent TIME bound conditions for BOOT contract. In case of stringent contract, it is also expected that SPV /government conduct detailed analysis in start by involving consulting leaders. Telecom and broadband is a fact growing market and therefore if players fault on timelines, it need to be penalized.

Accordingly, any windfall profits made by players also need to be discounted provided it doesn't happen or be proved that it was deliberate through internal manipulation.

Windfall profit also maybe due to new innovative business model which private entity may create and such innovation are expected to benefit Indian customers thereby only supporting vision of BharatNet

Q.14 Whether there is a need to mandate the number of fibres to be offered as a dark fibre to other operators to ensure more than one operator is available for providing bandwidth at GP level?

Yes, there is an Eminent need to mandate the number of fibres to be offered as a dark fibre to other operators. It is important to maintain competition and thereby promote faster growth of BharatNet

Q.15 What measures are required so that broadband services remain affordable to the public at large?

Broadband in India witnesses growth hindrance due to lack of right business models in place. It was always seen as a pipe for data rather than a service. Bundled services with landline was seen as a complimentary extension for which many consumers never saw it as a standalone service.

Broadband services require focus for both mobile as well as landline driven revenue models. While broadband infrastructure can be monetized through mobile broadband by enhancing last mile speed, it can very well grow on wireline driven model also. It is also expected to witness competition from technology like 4G.

Broadband services models can grow by enhanced push to SME segment along with Fixed-Mobile convergence for home segment. Single home has at least 2-3 users which very well shows the potential reach. By providing consumer friendly financial models, broadband uptake has tremendous scope for growth due to sheer advantage in terms of network strength. Its advantage over its wireless peer such as lack of network problem and signal drop should be seen as key selling parameters around business models.

Market segments like Education, e-Commerce, home run enterprises, Energy are some of the areas where profitable models have possibilities.

Q.16 What safeguards are to be incorporated in the agreement entered between Government and executing agencies if RoW is not being granted to the executing agency in time?

Agency may be given defined safeguards as defined in contract due to any RoW challenges. However, this is key objective of Special Purpose Vehicle wherein they Plan since inception along with agencies and obtain approvals. Any planned RoW should be obtained to minimize financial and time implications

Q.17 The success of BOOT Model depends on participation of private entities which will encourage competition. What measures should be adopted to ensure large scale participation by them?

With vast, young and dynamic Indian telecom market which is riding high and fast on Digital Wave, is good enough incentive for any player to join BOOT model. Considering participation from developed countries through FDI and funding can be some of areas to generate participation.

Some of key challenges which most of companies and countries highlight for Indian project is at implementation level including infrastructure and centre-state policies. SPV will clear strategic objective and power should be able to convince them with large scale participation. Example of Singapore wherein all agencies worked closely or Denmark which gave freedom to roll out services without license is interesting

Q.18 Please give your comments on any other related matter not covered above

Having missed wireless wave, today there are large MNC operators waiting at Indian door step to invest for Indian Broadband story. There is need to identify importance of BharatNet and empower the SPV for the same with financial, people and political support in order to leverage global money and expertise to benefits 1.3 Billion Indian specially ones in remote areas which are waiting to see power of broadband in same way they experience through Mobile.

From:

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