

This document is compiled and edited by

Prof Rekha Jain¹

Executive Chair, IIMA-IDEA Telecom Centre of Excellence

Professor, Computers and Information Systems Group

Indian Institute of Management, Ahmedabad

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Draft of The
New Telecom Policy 2011

Outcomes of the policy workshop held on February 5, 2011

at



IIMA-Idea Telecom Centre of Excellence

IIM Ahmedabad

This document is an outcome of the policy workshop held on February 5, 2011 held at IIMA-Idea Telecom Centre of Excellence, IIM Ahmedabad. The following is the participant list.

S.No	Name	Organization
1	Mr R S Mathews	COAI
2	Comde J. Jena	TCOE
3	Mr P Swaminathan	Siva Group
4	Mr Madhav Joshi	TTSL
5	Mr Ranjan Banerjee	TTSL
6	Mr Ashok Sharma	Aircel
7	Mr Bhaumin Shah	Aircel
8	Mr Rajesh Singh	Idea
9	Mr Rajat Mukarji	Idea
10	Mr Gajendra Upadhyay	Vodafone
11	Prof Siddharth Sinha	IIMA
12	Anil Arya	Idea
13	Prof Rekha Jain	IITCOE
14	Rahul Vatts	Idea

Preamble

The importance of telecom sector as a core infrastructure that helps all economic and social activities, connects different parts of the society and economy, generates employment and directly contributes to GDP growth is well known. Given the potential role of telecom, in the past, the central thrust of telecom policy has been to increase telecom penetration. Increase in teledensity in the past and its contribution to the service sector is an indication for the sector to be recognized as being in the infrastructure sector and an essential service for the country. Going forward, the sector needs to be seen in the context of its contribution both to the developmental aspects and competitiveness of various service sectors.

The telecom sector is characterized by high investments and a long gestation period, and a stable policy environment is critical to attract both private and public investments, and to ensure the resulting health of the sector as a whole.

Over the last 15 years of telecom deregulation, wireless sector has driven both coverage and provided a strong infrastructure. This has resulted in far reaching socio-economic benefits which have been transformational, besides adding to GDP growth. This has happened post the New Telecom Policy 1999 which laid down certain basic guidelines that benefited the overall industry. Due to various reasons, many of these principles have been diluted leading to several issues that have surfaced. Thus a comprehensive review of issues is in order rather than taking a piecemeal approach.

The New Telecom Policy 2011, (NTP 2011) is designed to take the telecom and broadband sector to the next level of growth to become a major driver of the economy and spur inclusive growth. This policy is aimed at providing the sector a platform for sustained growth, attract further investments and take telecom access to the remotest regions of the country over the next five years. To sustain growth in this sector India will need to become a global leader both in telecom and manufacturing.

NTP 2011 would aim at establishing policies that promote competition, innovation and investment in telecom services and facilities including deployment of broadband services in the

country. Obsolete barriers of regulation would be eliminated and even handed policy would be there for all technologies providing similar services.

The main aim of NTP 2011 is to develop a comprehensive framework. Policy goals should address the legacy issues of a corporatized incumbent and partially effective regulator. Technological changes leading to convergence need to be embedded in future policy agendas. Cyber safety, crime and warfare preparedness has become an important aspect of national security. There should be a time based or trigger based review mechanism for the enclosed policy as the business, technology and regulatory environment evolve very rapidly in this sector.

Objectives

The objectives of this policy are to:

1. Encourage convergence and drive this sector to the next level of growth through provision of basic services to all citizens along with an increasing focus on Internet and Broadband. This would facilitate building of a knowledge and service economy using telecom resources and allow the proliferation and interlinking of applications and service across other sectors such as medicine, health, education, entertainment, finance and disaster mitigation.
2. Allow market forces to drive competition. Encourage investments and long term viability in the sector by providing a clear and certain roadmap for licensing.
3. Provide an institutional framework and market based frameworks for spectrum management that are responsive to technological advancement and societal requirements.
4. Facilitate consolidation in the sector
5. Strengthen the institutional, legal, and regulatory framework and processes, to bring in more efficiency, timely decision making and transparency through neutrality and independence of regulatory authority.

6. Provide support for infrastructure growth.
7. Encourage R&D in the sector and make India a world hub.
8. Encourage building of world class design and manufacturing facilities.
9. Enable a greater depth and spread of telecom network access into the remote and distant parts of the country and to create a favorable policy environment to deliver basic services .
10. Create an environment for sustained human capital formation commensurate with the expected growth of the sector
11. Create a framework for ensuring cyber security, proactively determining threat scenarios and dealing with cyber crime, and online safety in an increasingly connected world.
12. Create a framework for addressing the environmental and health concerns of the sector.
13. Incentivize the use of renewable resources in synch with sustainability requirements.
14. Provide a framework for streamlining the tax and levies to accelerate growth in the sector.
15. Facilitate efforts of Indian companies in their efforts for building overseas markets.

1. Broadband led Growth

- DoT could consider a variety of organizational mechanisms for deployment of infrastructure. It could set up a special company that works in a PPP mode as has been done in Australia by setting up NBNCo. It could also set up a high powered committee with representatives of industry associations in the telecom sector, other infrastructure providers such as National Highway Authority of India,

Indian Railways, Electricity Companies etc, some of which have significant captive telecom networks, to oversee the deployment. The deployment could be undertaken by a consortium of public and private companies. A regulatory framework to allow access on non-discriminatory basis to all operators at regulated rates and at subsidized rates to educational and healthcare services will need to be developed. The standards for the equipment to be deployed on this backbone and the roles and responsibilities for creation and maintenance of such a network will need to be established. The most important aspect of this initiative would be the funding mechanism possible through a national fund funded by various user ministries.

- It is important for the Government to leverage and harness all available technologies to achieve the national broadband objectives in the most expeditious and effective manner.
- There is a need to digitize government documents and records to help simplify processes and makes access to government information more easily accessible for public sector agencies and citizens.
- Government/USO should encourage and incentivize the private operator to lay the optical fiber till the village.

2. Licensing

Predictability and certainty are pre-requisites.

- Delink spectrum from license. New licenses issued in future should not include start up spectrum.
- Move away from administratively determined criteria to a market-driven approach. A market-driven approach will ensure that spectrum goes to the entity that puts the highest value on spectrum and is best placed to ensure its optimal use.
- The licenses may be unified and all services may be permitted under the same license.
- Licenses specific to services may also be allocated. However spectrum, required for services, if any, may be treated on market based mechanism.
- In case any new UAS licenses are issued in future, they should not carry with them any eligibility for start-up spectrum. Since there is no start-up spectrum, the licensees will not have any roll-out obligations for wireless access networks.
- A clear policy of renewal is necessary to ensure no adverse impact on investments in this sector. Continuity of services and investment protection should be ensured through fair terms of renewal.
- Changes and amendments in the licensing regime to be effected through transparent and open discussion with all stakeholders.

- Uniform rate of license fee of 1% for all types of licenses (excluding ISP) to recover administrative charges. USO fee to be determined based on the USO requirements and not to exceed 3%, and in any case to be arrived at in consultation with all the stakeholders.
- License fee to be charged only on licensed activities as per Hon'ble TDSAT judgment.

3. Convergence

The sector today is witnessing 3 times the number of competitors that have proved unsustainable even in other markets, the emerging presence of integrated operators with a pan India footprint, and a blurring of boundaries between fixed, wireless and internet segments. There is a need to consider a licensing framework that takes into account the era of convergence that is imminent.

- **With Convergence, our objective should be to move towards-**
 - Light touch Regulatory and Policy environment.
 - Suitable Competition in all Sectors
 - Harmonized Terms & Conditions of Licenses
 - Equitable Terms of Interconnect
 - Holistic and predictable telecom resources (Spectrum, power, USOF) Policy
- **Licenses Issues-**
 - There should be harmonized licensing terms & conditions
 - All Licenses should be perpetual as long as license fee is paid & general overall compliance.
 - Access Licenses should be de-linked from spectrum.
 - License Fee should be standardized to cover only the costs of administration & USO.

- **Interconnection**

- Fair cost based interconnection is crucial in a convergent scenario.
- Equitable & non-discriminatory interconnection must be ensured.

- **Spectrum Management and Availability**

- Clear, fair, predictable & transparent spectrum policy is critical as there would be multiple services/service providers which would be competing for allocation of spectrum.
- We believe that market based policies will work more efficiently as the market is the best judge and therefore there is a need to move away from an administrative system to a market based mechanism.
- The Government should follow a “Technology neutral approach” wherein market will determine value.

4. Spectrum

The objective is to move away from ‘command and control’ to a greater market driven mechanism and institutional reform of the spectrum management process. Spectrum not to be seen as a revenue source, but the real economic value of spectrum may be seen in terms of growth on telecom services and its impact on socio-economic development. Attempts should be made to balance the benefits of spectrum pricing with long term impact on development.

- Ensure adequate spectrum availability roadmap, assured quantum, with predictable timelines and spur efficiency.
- As the custodian of radio spectrum, the government must satisfactorily address a number of goals for spectrum management. These are - efficient utilization of the scarce resource, sufficient competition in the telecom market, and rapid diffusion of telecom services.

- Ensure transparent spectrum allocation and list of all users (including all government /defence agencies) and their terms of use be available in the public domain.
- Ensure availability through vacation from non-commercial including government users within defined time frames, spur availability through spectrum sharing, and spectrum trading.
- Since currently there is a scarcity of spectrum and since the market may operate more efficiently if it is allowed to discover the optimal number of operators, merger/transfer/sharing/leasing of spectrum should be permitted amongst UAS/CMTS licensees.
- Once value has been determined by the market, there is no rationale for spectrum usage charges.
- A separate independent body and fund to manage spectrum.
- Identification of new spectrum bands for commercial use like 700 MHz.

5. Mergers & Acquisition

M&A is critical to the sector's sustenance. The conditions should be simple so that M&A activities gain impetus to promote efficient utilization of scarce spectrum resources. In order to support efficient sharing of infrastructure, government needs to create an environment to facilitate consolidation in telecom sector. Flexible and realistic M&A policy is necessary and all efforts should be made to allow mergers. Aspects relating to dominance of market entities should be met through general guidelines and can always be referred to Competition Commission, if required. The following policy guidelines are suggested:

- Market share of the merged entity shall not be greater than 30- 40% in terms of subscriber base or in terms of AGR with appropriate cap on spectrum.
- No M&A activity if number of access service provider reduces to 5-4 in a telecom circle.

It is therefore imperative that the Indian policymakers give a high priority to allow the consolidation in the sector. Any favorable consolidation policy is a need of the hour and is a win-win proposition for all concerned parties

6. Governance and Legislative Frameworks

- The Indian Telegraph Act 1885 to be amended to reflect the proposed NTP 2011 in entirety.
- TRAI Act 2000 should be reviewed to give suitable powers to TRAI to resolve interconnection issues.
- The regulatory mechanism should be more transparent and technology and service neutral and in line with the latest developments in the sector. The rules for staff selection in the TRAI should encourage industry experienced personnel to join TRAI.
- Privatization of government incumbents should be done in a time bound manner within the next three years.

Streamlining the definition of AGR

- There should be clear definition of AGR to avoid any doubt and dual levy of License Fees / Spectrum Charges.
- AGR should include revenue from Licensed activities only.

Infrastructure

For growth of sector it is important to define telecom sector as a critical infrastructure sector for development of this important sector and incentives in the form of related tax benefits should accrue. This should be addressed with a National Telecom Infrastructure Policy with its provisions as part of this NTP.

- Facilitate sharing of active and passive infrastructure provisioning and backhaul sharing.

Need for a National Telecom Infrastructure Policy (NTIP)

- With the learning from the environment in building telecom infrastructure in the country and taking into account the requirement of facilitating smooth and enhancement in the pace of telecom infrastructure growth it is imperative to lay down a **National Telecom Infrastructure Policy (NTIP)**.
- This is potentially one of the most important requisites for inclusion in the new National Telecom Policy 2011. It will help in alignment of all states and local bodies leading to facilitating the future build up of the telecom and broadband infrastructure, by specifying:
 - uniform procedures for land acquisition,
 - uniform taxation regime,
 - extending subsidies,
 - encouraging optimum sharing and
 - other packages for creating conducive environment to boost national telecom infrastructure building.
- This requires that rules relating to infrastructure are made after due process involving key stakeholders from the community as well as the industry. Approval process must be transparent and objective so as to

avoid the huge costs that poor quality decisions can impose on the players as well as the community.

- More so, there has to be parity with “infrastructure designated sectors”. Keeping in mind the criticality of telecom, the telecom infrastructure should be considered at par with other “infrastructure sectors” such as water, power, ports, natural gas distribution, etc.
- It is hence important to have uniform policy guidelines in place which should be applicable across all states of India which will encourage establishment of telecom and broadband infrastructure. For example there should be uniformity in policies for Right of Way, procedure for laying underground cable, rules and levies related to telecom infrastructure including telecom towers. This uniform or a common “National Telecommunications Infrastructure Policy” should cover the following key aspects:

Right of Way Act

- The requirement for rollout of backhaul fibre networks has increased the importance of rights of way (RoW). A large part of the cost of deploying fibre networks is in form of RoW. Telecom operators have been guaranteed the ROW under Section 10 of the Indian Telegraph Act, 1885 and as per the Act, the charges that can be levied for granting ROW shall be limited to the restoration charges. Despite this, exorbitant and non-uniform levies are being imposed by various municipalities. A number of states have begun to regulate the ROW charges as a source of revenue for the state, resulting in additional costs to the providers and, ultimately, to consumers. DoT should bring out ROW guidelines which should be

uniformly applicable in all states. Indian Telegraph Act Would be suitably modified to include the above provisions.

- The operators should be re-imbursed by DoT for the infrastructure they lay in rural sector such as optical fiber network/BTSs.

7. R&D

The import of telecom equipment has been increasing exponentially (nearly Rs 400 billion, Source: DoT Annual Report, 2009, page 18), as India manufactures very little. There is little R&D in the sector and hence few indigenous products. The objective and focus of R&D effort should be based on India's own strengths i.e. in areas where we already have an expertise and areas in which we propose to develop expertise in the coming years. Policy objectives are to establish India as one of the top 2 countries for R&D investment globally and as the leading source of IPR creation globally, say in 5G technology say by 2020. In the short term i.e till 2015 India's telecom sector should focus on local manufacturing of large number of accessories for telecom products, such as battery, power supply, shelter, communication cables and other Indian products that local Indian manufacturers have a ready capability to manufacture. This would be done through facilitation of foreign funds and creation of R&D funds from the levies operators already contribute.

- Since telecom R&D has several spillover effects, public funding is necessary. However, disbursal of the funding and implementation of the various programs should be done in a PPP mode
- DOT needs to have a time frame of 15-20 years to develop and strengthen entrepreneurship and support companies involved in indigenous design and manufacture through grants and other funding mechanism. DoT needs to develop a mechanism by which it can take equity stakes without taking controlling stake

in companies that have indigenously developed high quality products but do not have the finances to provide deferred credit.

- DoT should play a lead role in developing an ecosystem that supports companies, especially those developing leading edge products, through the entire life cycle, including for technical exhibitions, certification and patenting. ICICI Knowledge Park set up in PPP mode for the life sciences sector is an example of a sector specific ecosystem that facilitates access to new technologies, supports start ups and provides services for patenting.
- Support for setting up a of a Telecom Entrepreneurship Development Centre (TEDC) for accelerating the development of innovative, cutting edge products, a suggested mechanism is the creation of TEDC. The TEDC should provide a fillip to the indigenous R&D and channelize the efforts towards building capabilities for next generation network research by linkages to various technology, management and R&D institutions, venture capitalists, other incubators etc. National institute/institutes that foster R&D and brokers relations with existing high tech R&D labs, technology institutes etc, large manufacturers and service providers, innovators, and small enterprises etc. to be created.

Objective and Focus for the R& D effort

In order to address the security concerns faced by the Telecom industry, we should set up a Telecom Security Council of India as a Self Regulatory body in PPP mode. It should be a single window set up to provide security certification.

Incentives in order to encourage Telecom R& D effort - Some of the incentive that could be offered by the government are:

- Tax holidays should be given to provide impetus to Telecom equipment manufacturing.
- Greenfield investment should be promoted; e.g. free land / 10 years free rented land to the manufacturing facility.

- Accelerated deductions for R&D expenses should be allowed.
- Full refund should be allowed in case of exports of equipments from the local manufacturing bases, on Excise Duty/Sales Tax.
- Hardware and embedded software have the same custom duty rate
- No royalty TDS on software imported;
- Extend Tax benefits on applied research for companies beyond STPI scheme that has been declared to cease at 2011 (other than SEZ).
- The Government should consider increasing the R&D credit for income tax purpose to Indian product companies, who are registered R&D houses. Such companies should not be required to pay MAT. By allowing a larger R&D deduction and removing MAT payment, the Indian companies will have additional cash flows that can be directed towards R&D.
- We believe initiatives on investment towards R&D companies in close cooperation with universities will also boost the research & development in telecom field resulting in more Intellectual Property Rights (IPRs).
- In setting up the factory, the expatriates should be given special tax benefit from personal tax prospective and relocation bonus.
- Each skilled worker's employment shall be linked with certain amount of tax refund.
- Special prize may be given for disabled people's employment in case the factory reaches certain percentage. Incentives be given for participation in the "World Skills" programme/events.
- Incentivize scientific and technology innovations. Set up a national high-tech bonus to encourage innovations in telecom sector.
- Government should provide various subsidies (no fund should be created) for the effort on the R&D done by the Indian manufacturing units.

8. Design and Manufacturing

To be a world leader in the next 15 years, the policy should support manufacturing in selected areas say core and access network equipment, devices, power equipment etc. and provide benefits (tax incentives) for economic value added through indigenization.

- Set up national institutions for supporting design and development of new standards and contribute to the global process of standards

Setting up of Special Zones or Telecom Clusters

- The establishment of Special Zones or Telecom Clusters for encouraging local manufacture of telecom products and optimization of telecom industry environment is very helpful, this can help India to accelerate the process of local manufacturing and R&D.
- Following are some of the advantages of having a special zone or a telecom cluster:
 - There are huge spillover knowledge and skills effects.
 - Reduction in the cumulative cycle time on the basis of reduced inter-company transit times
 - Faster “time to market” as co-location of the broad hi-tech mfg ecosystem would allow tighter collaboration & faster decision/issue-resolution cycles
 - The broad base of companies concentrated within cluster(s) is cost-beneficial for the related industries - e.g. logistics providers servicing multiple OEMs; component supply base supplying to multiple EMS providers. Hence, this scale allows bigger investments while yielding higher returns & capacity utilizations for the same.

- Over a period of time such an ecosystem ensures that the associated aspects of talent, housing, and community development evolve to meet the needs of a thriving industrial ecosystem

9. USO and Rural Growth Policy

- Both from a penetration perspective and developing rural telecom infrastructure and services, it is important to address rural telecom service as an integrated development program, covering (health, education, job opportunities) for the upliftment of the rural poor. Funding for rural telecom should be through a variety of mechanism including regional development funds, funds for rural roads (for developing ducts), USOF etc.
- The management mechanism for deployment of funds should be through a PPP company with an advisory board consisting of private operators, regulators, rural development members. There should be goals and objective performance measure for the company.

10. Human Capital Formation

Various reports have indicated that India does not have adequately trained telecom engineers as curriculum in most engineering colleges is outdated. There are few incentives for college teachers to upgrade their own knowledge and the curriculum. There are hardly any industrial linkages of these colleges. DoT should support work with various industry bodies and key colleges (to begin with) to develop relevant curriculum and facilitate interactions within the sector. To illustrate, the Bio Technology Department started post graduate courses in 1985 in six universities in close collaboration with University Grants Commission, ICAR and Department of Ocean Development. It funded students doing training with companies etc.

- Support say 20 universities/technology institute/management institutes that focus on R&D in telecom products and services through specific dedicated programs in collaboration with leading industry and professional associations.
- Create a facilitating IPR framework for creation and protection of IP, especially in the context of knowledge and service industries.
- DoT should work in partnership with the National Skill Development Council and industry and identify the relevant needs of the sector and prepare a roadmap.

11. Security

Ensure continuous dialog with all stakeholders to address security concerns, but the same has to be coupled with the genuine needs of the industry to grow and provide access to millions who were unconnected for a large period in history.

- Policy should ensure that the needs for security is balanced with the burden of additional costs and fresh mechanism needs to be developed to address these concerns in consultation with relevant departments and ministries regarding cost sharing of implementation.
- Engage all stakeholders in discussions for realistic policy framework on issues such as equipment clearances, interception and monitoring, while ensuring consumer privacy, subscriber verification (use of UAIDAI) and harmonization of encryption levels.
- Immediate establishment of centralized monitoring system as announced last year.

12. Environment- Health Standards

- To address the emerging environmental and health concerns there should be incentive for green technologies and incorporation of incentivizing on medical health safety norms.
- DoT should constantly review and monitor such initiatives. It should also develop awareness through educational programs.

13. Taxes and Levies

Currently, telecom industry is subject to service tax, license fees including universal service obligation fees, spectrum charges. Besides, the states levy additional taxes such as Octroi, VAT, stamp duty, entry tax and levies on towers. The total of all the above levies on telecom industry works out to 30 percent of their total revenues, which is one of the highest in the world. Telecom sector in other developing countries like Malaysia, Sri Lanka and Pakistan pay less than 7 percent and in China it is around 3%. The telecom sector in India therefore continues to be one of the highest taxed despite the fact that the mobile tariffs in India are the lowest in the world. For a more inclusive economic growth, it is important to take telecom services to the masses including the rural areas.

- Taxes and levies should be rationalized as government could get higher inflows through higher service tax as a consequence of higher penetration due to reduction in taxes and levies.
- For growth of sector it is important to define telecom sector as an infrastructure sector for tax benefits and facilitate sharing of active and passive infrastructure provisioning and backhaul sharing