

CHAPTER-II

DEPARTMENT OF TELECOMMUNICATIONS

2.1 Functioning of TERM Cells in Department of Telecommunications

Introduction

With the increase in the number of telecom operators in the country, the Government felt the need for the setting up of a competent authority in all the licence service areas and large telecom districts of the country, in order to ensure that service providers adhere to the licence conditions and compliance of telecom network security issues. Keeping this objective in view, Department of Telecommunications (DoT) established Vigilance Telecom Monitoring Cells in 2004, which was renamed as Telecom Enforcement, Resource and Monitoring (TERM) Cells in August 2008. Further, besides the coordination with various network/service operators, functions of TERM Cells include vigilance, monitoring, security and other functions.

Audit was conducted to assess whether the Monitoring, vigilance and security functions are being performed as per departmental rules, instructions issued by DoT from time to time and best practices followed elsewhere. Out of the 34, 27 TERM Cells¹ were selected by Audit for scrutiny, besides the office of the Dy. Director General, TERM Cell in DoT headquarters at Sanchar Bhawan, New Delhi.

Para No. 2.1 of the Report of the Comptroller and Auditor General of India for the year ended March 2012 (Union Government, Communications and IT Sector, Compliance Audit Observations No. 17 of 2014), had commented upon the Subscriber verification function to be done by TERM Cell.

Audit findings regarding monitoring, vigilance and security functions of TERM Cells are discussed below:

2.1.1 Poor performance in Testing of the BTSs

The TEC (Telecom Engineering Centre) developed the test procedures for measurement of emissions in September 2009. All CMTS/UAS licencees were accordingly directed (November 2009) to comply with the instructions issued in November 2008. In November 2008 DoT amended the UASL/CMTS Licence agreement to enjoin upon the Licencees to conduct audit of levels of emission for antennae (Base Station Emissions) and provide

¹ Ahmedabad, Gujarat, Bengaluru, Karnataka, MP, Chattisgarh, TN, Chennai, Odisha, Delhi, Hyderabad, AP, Jaipur, Rajasthan, Haryana, Punjab, Kolkata, WB, Lucknow, UP (W), UP (E), Nagpur, Pune, Mumbai, Bihar, Jharkhand and Kerala

self-certificates annually as per procedure prescribed by TEC or any other agency authorized by Licensor from time to time for conforming to limits/levels of emission for general public exposure as prescribed by International Commission on Non-Ionizing Radiation Protection (ICNIRP)² /DoT from time to time.

In April 2010 DoT issued instructions to all CMTS/UAS licencees that TERM Cell will test up to 10 *per cent* of new Base Transceiver Station (BTS) sites randomly at its discretion. Additionally, the BTS sites against which there are public complaints, shall also be tested by TERM Cell. Subsequently in December 2010, DoT while clarifying their earlier instructions, stated that TERM Cell will test up to 10 *per cent* of total BTS sites (including existing and new sites) randomly at its discretion in addition to attending to public complaints on the BTS sites.

Audit scrutiny of records (August-September 2013) regarding number of BTS tested in respect of 27 TERM Cells test checked in audit revealed that out of total available 6,86,548 numbers³ of BTS sites as on 31 March 2013, only 45,697 BTS (3.04 *per cent*)⁴ sites were tested by TERM Cells during the period from November 2010 to March 2013.

Further scrutiny revealed the following:

In their order issued (December 2010) DoT prescribed percentage of annual tests to be conducted by TERM Cells as 'up to 10 *per cent*' instead of specifying differential targets for testing of the BTSs for emission for the urban and rural areas. As the metropolitan cities and other state capitals/large cities having very high number of BTSs per unit area, where more people would have higher probability of exposure to EMF in course of their normal activities, DoT failed to minimize the risks of exposure in high risk areas.

DoT in their reply (July 2014) stated that in order to have fair representation of the coverage area, testing of BTS sites in rural/thinly populated areas of the city are also done. It was further stated that if sufficient number of related staff was posted in TERM Cells and sufficient tools/testing equipment were made available in TERM Cells, then such targets could be met in an effective and time bound manner in a routine way.

The reply is not tenable as clause 3(v) of DoT order dated 8 April 2010 stipulates that tools and equipment for testing were required to be provided by the concerned Mobile Service Provider to TERM Cell which should have been ensured before proceeding for testing. Further, 91 out of 849 BTSs i.e. 10.72 *per cent* were found to be non-compliant of

² Initially ICNIRP prescribed exposure limit for the Radio frequency field was communicated by DoT in April 2010. Subsequently in November 2011, as per recommendation of the Inter Ministerial Committee on EMF Radiation the same was lowered to one-tenth of the existing exposure level and communicated to all the licensees in December 2011

³ Total no. of BTS as on 31 March 2011, 31 March 2012 and 31 March 2013 were 5,81,619, 6,69,113 and 6,86,548 respectively.

⁴ Calculation of percentage : $45,697 / (5,81,619/4 + 6,69,113 + 6,86,548) * 100 = 3.04 \text{ per cent}$

prescribed radiation norms by TERM Cell, Mumbai in 2012-13, and hence the target of mandatory testing especially in densely populated area needs to be increased.

2.1.2 Non-imposition/non-realisation of penalty of ₹ 4219.30 crore on TSPs for non/delayed submission of self-certificates in connection with compliance to the EMF Radiation norms

In April 2010, DoT instructed all CMTS/UAS Licencees that all the existing BTSs should be ICNIRP (International Commission on Non-Ionizing Radiation Protection) guidelines compliant by 8 May 2010⁵ as per the Test procedure circulated on 9 November 2009 and the self-certificates to that effect were to be submitted by the TSP to respective TERM Cells by 15 May 2010, which was later extended up to 31 March 2011. All new BTSs installed after 8 May 2010, were required to be self-certified before they start radiating and there after once in two years. In both the cases, as per instruction issued (October 2012) by DoT, a self-certificate as prescribed in Licence Agreement or through instructions issued from time to time is not submitted by the licencee to the respective TERM Cell within due date a penalty of ₹ 5 lakh per BTS shall be imposed on the Licencee.

Audit scrutiny of self-certificates submitted in case of BTS commissioned before 8 May 2010 by the TSPs in eight TERM Cells⁶ test checked revealed that out of 1,31,394 BTSs, self-certificates had not been submitted in respect of 7811 BTSs up to 31 March 2011 for which a penalty of ₹ 390.55 crore should have been imposed.

In case of BTSs installed after 8 May 2010 out of 1,96,619 BTSs installed in 24 TERM Cells⁷ test checked in audit, self-certificates had not been submitted in respect of 76,575 BTSs (38.95 per cent) prior to starting radiation in violation of DoT instructions (October 2012) for which a penalty of ₹ 3,828.75 crore should have been imposed. However, only in five TERM Cells⁸ demand notices were issued against 3,359 BTSs out of 76,575. Moreover none of TERM cells could recover penalty for late submission of self-certificates till October 2013 as required as the matter is pending before Hon'ble Telecom Dispute Settlement Appellate Tribunal (TDSAT).

In reply DoT stated (July 2014) that the present set up for each TERM Cell do not have any regular sanctioned posts of below JTS level officers. To mitigate this problem, as an interim measure an arrangement of taking SDEs/JTOs from BSNL was done in 2010.

⁵ As per the procedure for measurement of EMF from BTS antennae communicated on 9 November 2009, all the existing BTS should be ICNIRP guidelines compliant by 8 May 2010 (i.e. six month after 9 November 2009) and all new BTS sites (i.e sites commissioned after 8 May 2010) should start radiating only after self-certificate has been submitted to relevant TERM Cells.

⁶ Ahmedabad, Gujarat, Bangalore, Kolkata, Nagpur (Maharashtra), Pune (Maharashtra), Mumbai, Kerala. The matter had been checked in all the selected TERM cells (i.e.27) but there was no such delay in the remaining TERM cells as per available records.

⁷ Ahmedabad, Gujarat, Bangalore, Karnataka, Madhya Pradesh., Chattisgarh, Tamilnadu, Odisha, Delhi, Hyderabad, Andhra.Pradesh., Rajasthan, Haryana, Punjab, Kolkata, West Bengal, Lucknow, Uttar Pradesh(East), Uttar Pradesh(West), Nagpur (Maharashtra), Pune (Maharashtra), Mumbai, Jharkhand, Kerala

⁸ Gujarat, Chattisgarh, Rajasthan, Haryana, West Bengal

Despite the stop gap arrangement made in 2010, till date around 50 per cent of these BSNL officers are made available to TERM Cells. In absence of sufficient manpower as stated above, the works assigned to TERM Cells were getting delayed or not even taken up.

The fact thus remains that even after 10 years of formation TERM Cells have yet to become functionally effective.

2.1.3 Non imposition of penalty of ₹ 87.90 crore on TSPs for non-submission of fresh certification in respect of upgraded BTS sites within the prescribed period

In accordance with DoT's instructions (December 2010), all TSPs were required to submit fresh self-certificates conforming to the ICNIRP guidelines on radiation norms whenever a particular BTS site was upgraded. In case of shared sites, all the sharing operators were required to submit fresh self-certificates. In October 2012, DoT prescribed a penalty of ₹ 5 lakh per BTS per service provider for failure to submit fresh self-certificates within the prescribed period of two weeks in case of BTSs upgraded after 10 December 2010.

Audit found in four TERM Cells test checked that out of 2,763 cases, demand notices had been issued in 1,005 cases only leaving non-imposition of penalty of ₹ 87.90 crore in these four areas as indicated in the table below:

Table-1

(₹ in crore)

TERM CELL	No of sites for which self-certificates not submitted	Penalty to be imposed	Out of col.(2) no of sites for which Demand notice issued	Out of col.(2) no of sites for which Demand notice not issued (col.2-col. 4)	Penalty not imposed (col.5*5 lakh)	BTSs upgrader or sharer
1	2	3	4	5	6	7
Vijayawada	954	47.70	0	954	47.70	Both
Punjab	470	23.50	0	470	23.50	Both
Haryana	355	17.75	21	334	16.70	sharer only
Jaipur	984	49.20	984	0	0.00	Both
Total	2763	138.15	1005	1758	87.90	

DoT attributed (July 2014) the non-issue/delay of demand notice to the absence of required manpower.

The reply of DoT reflected the non-serious attitude towards ensuring necessary compliance of the instructions by TERM Cell even after a lapse of more than 10 years of its formation, required manpower was not provided to discharge the duties assigned and effective functioning of TERM Cell.

2.1.4 Non-imposition of penalty for ₹ 23.09 crore on TSP for non-compliance of signage norms

TSPs were required to provide proper signage⁹ of proper size, color code and background for adequate visibility for showing the prescribed warning¹⁰ for information of general public about the exclusion zones at the BTS site. In case of non-compliance due to improper signage or if signage is absent, a penalty of ₹ 5 lakh was to be imposed on the TSPs as per order issued in November 2010. Subsequently, in October 2012, the penalty was reduced to ₹ 5,000 per signage per site on first verification and if compliance was not made within 30 days from the inspection date, a penalty of ₹ 5,000 per week was to be imposed subject to a limit of ₹ 50,000 per site for violation of signage norms.

In 27 TERM Cells test checked in audit revealed that signage norms were not complied in 1040 cases during 2010-11 to 2012-13 but TERM Cells did not impose penalty of ₹ 23.09¹¹ crore.

On this being pointed out DoT replied (July 2014) that TERM Cells could not impose penalty due to lack of clarification in respect of date of effect of order dated 11 October 2012. Further clarifications has been issued (March 2014) stating that penalty for non-provision of signage will be effective from the prospective date only. After that, TERM Cells are in process to take suitable action for such non-compliances.

DoT took almost one and half years to issue the clarification, which has resulted in continued non-compliance of DoT's instructions in this regard. Further, DoT's reply confirms that the penalty for non-compliance in respect of signage @ ₹ 5,000 will be effective only after October 2012. For cases prior to October 2012, it will continue as per November 2010 instructions.

2.1.5 Launching of GSM service by M/s Reliance Communications Limited in Delhi without prior approval of DoT

As per instructions issued (14 May 2008) by DoT, the licencees were directed that no new services shall be launched until appropriate system for monitoring are put in place. The

⁹ The test procedure was issued in September 2009 and supplementary procedure in August 2010

¹⁰ DANGER: On the tower structure; WARNING: at the entry point of exclusion zone; CAUTION: at the entry point of roof of the building of BTS in case of RTT or at the entrance of BTS compound in case of GBT

¹¹ (a)The figure had been arrived at by taking penalty at the rate of ₹ 5 lakh before and at the rate ₹ 5,000 from October 2012. (b) $(31+409+16)*5,00,000 + 584*5000 = ₹ 23,09,20,000$

Licencee must also inform DoT about launch of any new service/facility in their network 15 days in advance failing which it would be treated as breach of terms and conditions of Licence Agreement and appropriate action would be initiated. Subsequently DoT revised (8 November 2010) the 15 days time limit to 35 days.

Audit scrutiny(September 2013) revealed that M/s. Reliance Communications Ltd. (RCL) had launched its GSM service network in Delhi Licenced Service Area (LSA) in February 2009 without prior demonstration of the Lawful Interception & Monitoring¹² (LIS/LIM) capabilities of its GSM network in violation of the above instructions. However, TERM Cell Delhi took action after two years (November 2011) and instructed RCL to submit the necessary Certificate without asking for any explanation regarding violation of terms and conditions of the Licence Agreement. RCL submitted the necessary certificate in March 2012.

In reply to audit observation, TERM Cell (September 2013) stated that no penal action has been initiated as there was no such provision in DoT instructions issued (14 February 2012) to M/s.RCL for demonstration of LIM facilities of GSM network. DoT's reply is still awaited.

The reply of TERM Cell is not acceptable as breach of terms and condition of licence agreement would attract penal action and this was reiterated in the instructions issued in May 2008 and November 2011. Moreover, non-adherence to meeting the legitimate monitoring requirement of the security agencies has serious implication on National Security as stated in the above instructions.

2.1.6 Irregular/unauthorized operations of Other Service Providers (OSP)

In November 2006, DoT instructed all the heads of TERM Cells to ensure that data regarding Primary Rate Interface (PRI) line customers, Calling Line Identification Restriction (CLIR) customers, Heavy usages customers, Bulk connections etc. were being sent by the operator/service provider regularly and TERM Cell was required to take immediate action once the information received from any source regarding grey market setup/illegal service provider. Further, the above information in detail should be sent to DoT Hqrs on monthly basis. The above data must be scanned by TERM Cell concerned on regular basis to identify the misuse of cases/ clandestine, illegal operations etc. Further, as per DoT instructions (June 2007 and August 2008), TERM Cells are required to conduct the inspection of different facilities, provided to all the Licencees/Registered OSPs (Other

¹² Lawful Interception & Monitoring: Action (based on the law), performed by a network operator/service provider/access provider, of making available certain information and providing that information to an LIMF (Lawful Interception Monitoring Facility).

Service Provider)¹³ once in a year. It was also to be verified whether there had been any breach in compliance of terms and conditions of the registration by the OSPs.

Audit scrutiny in 10 out of 27 TERM Cells test checked revealed that no data analysis was carried out as required by them.

It was further revealed that in 18 TERM Cells¹⁴ out of 27 TERM Cells test checked, out of 4,274 registered OSPs during 2010-11 to 2012-13 with TERM Cell, annual inspection was conducted for 233 OSPs only (5.45 per cent)¹⁵. As it is a security related issue the overall impact of such failure may have far-reaching implication as discussed below:

- **Irregular operations by M/s. Alfa Flights Ltd.**

M/s. Alfa Flight Ltd. was functioning as OSP without registration with TERM Cell Delhi by obtaining telecom resources from M/s. Airtel. On the basis of a complaint forwarded (June 2012) by DoT to TERM Cell, they carried out inspection (June 2012) to locate the company and verify the reason as to why M/s. Airtel provided the resources to the company without verifying its authenticity as OSP. During subsequent inspection carried out by TERM Cell (February 2013) the presence of the Company could not be established.

In reply to audit query, TERM Cell replied that due to non-availability of staff, the case could not be pursued.

The fact remains that TERM Cell took 7 months to instruct M/s. Airtel (January 2013) to disconnect all Telecom Leased Lines provided to the company illegally as it may be of grave security concern.

- **Unauthorized international call centre by Sehgal Infotech Pvt. Limited (SIPL).**

M/s. Sehgal Infotech Pvt. Ltd. (SIPL) was running an International call centre since 2009 by obtaining a 10 Mbps International Leased Line (ILL) provided by M/s. Pipetel Communications Pvt. Ltd (Internet Service provider), without being registered as an OSP. TERM Cell identified the same during inspection in March 2013 i.e. four years after it started functioning and show cause notice issued for operating unauthorized call centre. M/s. SIPL simply issued an apology and requested for registration which was issued in May 2013.

¹³ The Service Providers providing 'Application Services' like tele-banking, tele-medicine, tele-education, tele-trading, e-commerce, call centre, network operation centre and other IT Enabled Services, by using Telecom Resources provided by Authorised Telecom Service Providers are being registered under Other Service Providers (OSP)

¹⁴ Delhi, Andhra Pradesh, Chennai, Tamilnadu, Odisha, Pune(Maharashtra), Ahmedabad, Gujarat, Hyderabad, Thiruvananthapuram, Mumbai, Nagpur(Maharashtra), West Bengal, Uttar Pradesh (West), Uttar Pradesh (East), Lucknow, Punjab, Haryana

¹⁵ $233/4274*100 = 5.45 \text{ per cent.}$

DoT did not reply to the observation. TERM Cell replied (September 2013) that there was no provision for penal action against the OSP as per terms and conditions of OSP registration.

Reply is not acceptable as the vigilance function of TERM Cell stipulates that (a) control over clandestine/illegal operation of telecom networks by vested interests having no licence (b) to file FIR against culprits, pursue the cases, issue notices indicating violation of conditions of various Acts in force from time to time. Therefore, TERM Cell failed to identify the illegal/ unauthorized OSP activities, which was fraught with security risks.

- **Irregular OSP services by M/s. Spanco BPO Services Ltd.**

M/s. Spanco BPO Services Ltd. (SBSL) a Domestic Call Centre (DCC) continued its operations after expiry of its registration (May 2011). TERM Cell issued (March 2013) notice to the company 21 months after expiry of registration despite the expiry of bank guarantee. TERM Cell did not take any penal action against SBSL for carrying out illegal activities. Subsequently, new DCC registration was issued to SBSL by TERM Cell (May 2013).

TERM Cell stated that unauthorized Call Centre may not be termed as carrying on illegal activities and there is no provision for penal action against the service providers for violation of terms and conditions of licence agreement. However, notice for disconnection of resources was issued (March 2013) to all the service providers.

Reply of TERM Cell is not acceptable, as they should take immediate action once the information is received from any source regarding grey market setup/illegal service provider as per DoT instruction of November 2006. Thus, it is an example of lax monitoring by TERM Cell. Reply from DoT is still awaited.

2.1.7 Failure to conduct Service Testing in time

In terms of DoT instructions, Service Testing is an important function of TERM Cells to verify the achievement of rollout obligations by the TSPs. As per the UAS/CMTS licence agreement, all access service licencees were required to rollout their service within the prescribed time period.

DoT had issued instructions(October 2009) to TERM Cells in relation to Service Testing for roll out obligation apart from indicating certain requirements to be performed by the TSPs. TERM Cells were also required to complete the testing within stipulated time frame as given below:

Table-2

Sl. No.	No. of BTS in the network	Time period for testing by TERM Cells
1.	Up to 50	1 month
2.	Up to 100	2 months
3.	Up to 250	3 months
4.	Up to 500	4 months
5.	> 500	5 months

Audit scrutiny in six TERM Cells test checked (September 2013) revealed that service testing was delayed upto 38 months as against the maximum prescribed time period of five months.

DoT attributed (July 2014) the above failure to the absence of manpower for which many of the works assigned to TERM Cells were getting delayed or not even taken up.

The reply of DoT is not acceptable as the service testing is directly related to the achievement of roll out obligations by TSPs, TERM Cell should have avoided such huge delay in testing.

2.1.8 Inadequate manpower to carry out the work assigned to TERM Cells

Though TERM Cells are mandated to ensure that the service providers adhere to the licence conditions and compliance of telecom network vigilance, monitoring, security and other communication related issues of the country, which is of paramount importance, the present set up for each TERM Cell does not have any regular sanctioned posts below JTS level officers, which was the working level for carrying out these types of field works and other associated activities of TERM Cell. It was stated that to mitigate this problem, an arrangement for taking SDEs/JTOs (maximum 7 per Service Area) from BSNL was made in the year 2010, but only 50 *per cent* of these BSNL officers are available for TERM Cell. Further, the manpower requirement of TERM Cell to carry out the assigned function was yet to be assessed by DoT. It was also mentioned in the reply (July 2014) that the issue of posting of adequate manpower in TERM Cell to carry out the assigned functions in an effective and time bound manner was pending with establishment wing of DoT since a very long time. This clearly indicates lack of co-ordination among different wings of DoT.

Conclusion

Thus, the prime objectives for which TERM Cells have been formed i.e., to curb illegal and clandestine activities in the premises of the TSPs, to prevent misuse of telecom networks by the vested interests having no licences and to undertake other vigilance and

monitoring activities remained mostly unfulfilled and unattained. The performance in testing of BTS regarding EMF radiation was found not up to the mark and instances were found where EMF radiations were found above the acceptable level. Further, TERM Cells have failed to discharge their major responsibilities/functions since they have not taken up timely action against the service providers/unauthorized users due to lack of co-ordination with other wings/branches of DoT despite clear-cut instructions issued by DoT from time to time. Due to such failure apart from non-imposition/non-realisation of penalty pointed out through test check, vigilance function of the department was also compromised. Contention of DoT about manpower deficiency being the primary reason for delay is not acceptable as alleged shortage of manpower has been allowed to continue even after ten years which resulted in private operators flouting the norms for ten years without being penalized and public being exposed to the risk of EMF radiation.

2.2 Irregular Amendment of the Telecom Licences to permit Intra-Service Area Roaming in June 2008 and its adverse financial impact on the Telecom revenues

Amendment in UAS/CMTS licences in June 2008 in irregular manner facilitated unilateral sharing of spectrum by the telecom service providers in the guise of Intra Service Area Roaming (ISAR) without making any payment.

Department of Telecommunications (DoT) in exercise of its power as licensing authority in public interest for the proper conduct of the Service, amended (June 2008) the clause 2.2 (a) (i) of the Unified Access Services Licence (UASL) and clause 2.1(a) of the Cellular Mobile Telephone Services (CMTS) Licences issued in 2001 and clause 2.2(a) of UASL migrated from CMTS Licence, by inserting a note in the Licence conditions as follows:

“A Licensee may enter into mutual commercial agreements for intra-service area roaming (ISAR) facilities with other licenced Cellular Mobile Telephone Services Licensees/Unified Access Services Licensees. Further, TRAI can also prescribe tariff/charges for such facilities within the provisions of TRAI Act, 1997 as amended from time to time.”

2. Scrutiny of the records of DoT revealed following infirmities in the approval process for amendment (12 June 2008) in the 280 UAS/CMTS licences in the telecom sector:
 - (i) The sole justification given in the suo-motto one page note put up on 4 June 2008 by the Access Service Division of DoT was that since there was no bar in the licence conditions for licensees to enter into roaming agreements in a service area, it will be appropriate to clarify this by exclusively specifying in the licence conditions to remove any ambiguity. The note proposing the amendment was suo-motto submitted

by the then Director (AS IV) of DoT without any recommendation of TRAI or request from any other stakeholder in Telecom sector.

- (ii) The GSM World Association has defined¹⁶ roaming “as the ability for a cellular customer to automatically make & receive voice calls, send & receive data, or access other services when travelling outside the geographical coverage area of the home network, by means of using a visited network”. Thus, the roaming arrangement is meant for providing connectivity during movement of a subscriber out of the area of home network to the area of visitor network. Therefore insertion of the provisions for ISAR in the licence conditions was against the very concept of the roaming as the standard and normally accepted definition of roaming was ignored.
- (iii) ISAR is being used by the UAS licencees to utilise the network of other licencees in the same service area and consequently, facilitated sharing of spectrum by the telecom service providers, as evident from the following:
 - Review of ISAR agreements revealed that the UAS licencees offer ISAR for non-spectrum districts as well as for spectrum districts. This implies that in case of non-spectrum districts¹⁷, spectrum of one operator is being utilised by the other party of the agreement whereas in spectrum district, both the operators utilise the spectrum of each other. The agreements also provide for traffic projections of sharing operators with a provision for increase in sites to meet increased traffic. Since amount of spectrum held with an operator is equivalent to certain number of wireless communication channels, therefore, the above arrangements between operators implied that the wireless channels of the visitor operators network could be used if all wireless channel of home operators network were busy in that area. Hence, spectrum sharing has been facilitated by DoT through ISAR.
 - A number of ISAR agreements were entered into by the TSPs who did not have 3G spectrum with the operators (having 3G spectrum) for giving 3G services. This also indicates that ISAR has facilitated sharing of spectrum.
- (iv) The fact that TRAI had opined against ISAR in April 2007 was not brought on record. TRAI had given detailed reasons in its report against ISAR. These inter-alia included difficulties in network planning and billing, quality of service responsibilities, incentive to set up own network and having adverse impact on spread of network in rural areas in particular. The fact that in case, the Government is not in agreement with any recommendation of TRAI regarding amendment of

¹⁶ This definition of roaming has been adopted by TRAI in its Consultation Paper dated 25 February 2013 on “Review of Tariff for National Roaming”.

¹⁷ In such districts only one of the parties (operators) of the agreements were having spectrum allotted.

existing UAS/CMTS licences, as per TRAI Act, Government needs to refer back the matter to TRAI for reconsideration, which was not brought on record too. Further, the Chairman TRAI had stated (July 2008) that-

- “any amendment in the terms & conditions of the licencees to the service provider would only follow after the recommendation is received from the Authority on request from licensor.”
- “this route cannot and should not be considered as a substitute or alternative to spread of the network envisaged under the roll out obligations.”

The ISAR proposal was approved without undertaking any analysis of the issues involved, its impact on the roll out obligations of the new licencees, financial implications etc. Recommendation of TRAI was not sought for, though it involved modification of the terms and conditions of UAS/CMTS Licences. This was inspite of the fact that TRAI was mandated to give recommendation on terms and conditions of licence as per section 11(1)(a)(ii) of TRAI Act 1997. Further, Member (Finance) also was not consulted at the time of amendment though it had significant financial implications - such as payment in respect of Spectrum usage charges and one time payment for spectrum- for future operations of the telecom services including auctions of the spectrum etc., as detailed in subsequent para.

3. Audit observed that 16 ISAR agreements had been entered into for 2G services between June 2008 and January 2011. In January 2011, DoT announced that in future the Spectrum will not be bundled with the licence, it will be made available only through market driven process. Afterwards, 53 ISAR agreements were entered between February 2011 and December 2012 for 2G services. Additionally, 86 ISAR agreements were entered into by the TSPs who were not having 3G spectrum with operators having 3G spectrum during 2011-12 for giving 3G services. Hence, spectrum sharing has been facilitated by DoT through ISAR, as also discussed in earlier para.
4. As ISAR facilitated sharing of spectrum, therefore the charges that had been approved by the Cabinet (November 2012) for ‘sharing of spectrum’ as submitted by DoT, became applicable on the parties involved in ISAR agreements. As per Cabinet decision, “sharing of spectrum will be permitted only when both the licencees have paid for their respective spectrum holding, above 4.4 MHz (GSM)/2.5 MHz (CDMA) based on reserve price/auction price” and “both TSPs would have to pay spectrum usage charge at the slab rate applicable on the entire combined spectrum holding.” The applicable one time charge for spectrum holding above 4.4 MHz (GSM) based on reserve price/auction price of auction held on November 2012 (for permission of sharing of spectrum) and the additional spectrum usage charges at the

enhanced rate for combined spectrum holding to be levied on the parties involved in the ISAR agreements has been calculated by audit and the same comes to ₹ 8,210 crore (**Annexure-I**) and ₹ 1,394.53 crore {**Annexure-II (a) and (b)**} respectively. Had the Cabinet decision been implemented, DoT would have earned this revenue. However, the order on spectrum sharing has not been issued by DoT (October 2014).

5. The Wireless Planning and Coordination (WPC)/Wireless Monitoring Organisation (WMO) wing of DoT is responsible for allotting the frequency spectrum and monitoring the frequency spectrum. There was no system existing in the WPC/WMO wing of DoT to ensure that none of these UAS/CMTS licencees share the spectrum assigned to them. Further, DoT didn't establish any mechanism to ensure the compliance of this requirement by the UAS/CMTS licencees. WMO to an audit query informed (June 2013) that the equipment to undertake the scrutiny of utilization of the allocated spectrum by the licencees have not been procured by DoT, though the proposal for the procurement of such equipment was submitted several years ago.
6. On above issues being pointed out by Audit (July 2013), DoT replied (August 2013)
 - (i) UAS licence condition 2.2. (a) (i) also inter-alia provides that the licencee shall be free to enter into an agreement with other service providers in India or abroad for providing roaming facilities to its subscribers under mobility services unless advised/directed by licensor otherwise. Roaming was already permitted under the licence conditions within India and it does not distinguish between intra-service area roaming and inter-service area roaming facility.
 - Reply of DoT is not tenable as licence means permission for carrying out activities as explicitly permitted in the licence. Therefore, anything not clearly mentioned in licence is not permitted. This may also be seen by the fact that the operators in their ISAR agreement have quoted DoT's amendment dated 12 June 2008 as authority for the agreement stating that "DoT vide its notification No 842-725/2005-269 dated 12 June 2008 has permitted the establishment of ISAR Services between network operators, whereby a subscriber provided with Services in one telecom circle by one of the network operators can also gain access to the Services of any of the other network operators within the same telecom circle." This clearly indicates that ISAR was enabled only after this amendment of the licence.

Moreover, as per accepted definition of roaming, these arrangements are meant for providing connectivity during movement of a subscriber outside the area of home network as detailed earlier.

(ii) The provision of ISAR facilities by licenced operators increased competition and resulted in reduction of tariff and efficient use of spectrum and also ensuring the continuity of the services to the customers in the areas within the LSA where the spectrum could not be allocated due to unavailability despite payment of the entry fee to the Government and as there was no bar in the licence conditions about entering into ISAR arrangement by various service providers, a clarificatory amendment was issued which was in “public interest”.

- Stand of DoT is not tenable as the outcome of ISAR as explained by DoT cannot be taken as justification for irregular amendment of licence. The reasons cited by DoT are afterthought as these were not mentioned in the note for approval of amendment. Further, the reply of DoT is an admission that paucity of spectrum was overcome by ISAR which confirms audit view that ISAR was to facilitate spectrum sharing. Moreover, even for matters of public interest “due process” has to be followed.

iii) In case of ISAR, the core network of visited licensee is used while in case of spectrum sharing the core network of home licensee would be used. ISAR and sharing of spectrum are basically two different technical concepts and do not require any clarification. In case of ISAR, the visitors’ network is used to ensure the continuity of the services already available in the home network while for spectrum sharing, both the entities must have spectrum in that particular area.

- Stand of DoT is not acceptable as
 - ✓ In terms of ISAR agreement, “The parties shall ensure that calls of the Roaming Subscriber would be routed back to the Home Public Land Mobile Network (HPLMN)”. This implies that the home network is also used during ISAR.
 - ✓ Further, ISAR agreements have also been entered into for those areas where both the operators are in possession of spectrum. Since amount of spectrum held with an operator is equivalent to certain number of wireless communication channels, therefore, the above arrangements between operators implies that the wireless channels of the visitor operators network could be used if all wireless channel of home operators network were busy in that area. Hence, spectrum sharing has been facilitated by DoT through ISAR.
 - ✓ The agreements also provide for traffic projections of contracting operators with a provision for increase in sites to meet increased traffic. This is

indicative of joint planning of network to facilitate communication channels for combined traffic of two operators.

- iv) Although WMO can monitor ‘Spectrum Occupancy and its utilisation’, there is lack of facility to identify the service provider owning the signal. WMO initiated process to procure monitoring equipments for identification of signals and this process is in progress.
- DoT’s response is indicative of casual approach of DoT towards putting in place a mechanism to monitor the usage of spectrum by the UAS/CMTS licencees. Despite lapse of more than twenty years since allotment of spectrum for commercial public telephony (1994), monitoring equipment for identification of signals has not been procured.

Thus an amendment on Intra-service Area Roaming was issued by DoT without undertaking detailed analysis of the issues involved, its impact on the roll out obligations of the new licencees and financial implications etc. Further, the recommendations of TRAI was not sought on proposed amendment even though TRAI was mandated to give recommendation on terms and conditions of licence. The amendment facilitated indirect sharing of spectrum by the telecom service providers without making any payment.

2.3 Hasty merger of Chennai Metro and Tamil Nadu Telecom Circles

Merger of Chennai Metro and Tamil Nadu Telecom Circles without any cost benefit analysis of the proposal in 2005 for the CMTS/UAS Licence resulted in undue benefits to the select Telecom Operators.

Government of India awarded (November 1994) eight Cellular Mobile Telephone Service (CMTS) licences for the Metro cities¹⁸ of Delhi, Mumbai, Kolkata and Chennai to eight companies¹⁹, initially for ten years, which was later extended to 20 years²⁰. Subsequently, 34 CMTS licences of 18 Territorial Telecom Circles were also issued to 14 companies during 1995 to 1998. Accordingly, in the States of Tamil Nadu, West Bengal, Maharashtra and Uttar Pradesh, there were two telecom circles within the state for the purpose of CMTS e.g. Chennai Metro & Tamil Nadu (TN), Kolkata Metro & West Bengal (WB), Mumbai Metro & Maharashtra and UP (East) & UP (West). Subsequently, when Unified Access Services (UAS) Licence was introduced (November 2003), the Service Areas (SAs) as applicable in CMTS were taken as reference for UAS licence.

¹⁸ two for each metro

¹⁹ Delhi SA { Bharti Cellular (now Bharti Airtel) & Sterling (now Vodafone)}, Mumbai SA {BPL Mobile (now Loop Mobile) & Hutchison Max(now Vodafone)}, Chennai SA {RPG Cellular (now Aircel) & Skycell(now Bharti Airtel) and Kolkata SA {Modi Telestra (now Bharti Airtel) & Usha Martin(now Vodafone)}

²⁰ The licence period of CMTS operators was increased to 20 years under the New Telecom Policy – 1999, which was effective from 1st April, 1999.

Audit observed that in November 2004, the then Minister of Communication and Information Technology (MoC&IT) desired the licensing branch of the Department of Telecommunications (DoT) to consider the merger of Licences for Chennai and TN Service Areas (SAs) as well as for Mumbai Metro & Maharashtra SAs, Kolkata & WB SAs and UP (E) & UP (W) SAs so as to have a policy review on this issue. Accordingly, the issue regarding merger of the two CMTS/UAS Licences in these four states was initiated in DoT. However since there were issues relating to merger of these SAs with respect to Spectrum availability, Entry fee, Licence Fee etc., the merger was deferred by DoT. However, in September 2005, DoT decided to merge the SAs of Chennai Metro & TN with immediate effect for the purpose of CMTS/UAS licences.

Scrutiny of records relating to merger of Chennai Metro and Tamil Nadu Circle at DoT revealed the following shortcomings in the processing of the case:

- The proposal for merger of Chennai Metro & TN SAs was considered by the Government for removal of the aberration which had arisen due to creation of two circles in a State. However, the so-called anomaly was removed in only one State ignoring the subscribers of other three major States since these cases were not initiated by DoT despite a lapse of more than nine years since merger of erstwhile TN and Chennai SAs. As a result, the subscribers of these three States continued to be denied the benefits of merger. There was nothing on the file to show as to why the proposal for merger of Chennai Metro & TN SAs only was being put up.
- The order dated 15 September 2005 on Merger for the CMTS/UAS Licence in TN stipulated that “the effective date for the merged licence shall be same as that of existing Licences. However, in case the effective dates of existing Licences are not the same; the effective date of the Licence later in date shall be the effective date for the merged Licence.” Audit observed that
 - ✓ The issue of extension of the licence period was neither examined nor proposed in the note put up for approval of the competent authority on 12 August 2005 by the officials of DoT, but later on included in the office order issued on 15 September 2005. Further, even while putting up the draft notification for merger, the issue of extension of licence period was not specifically brought out in the noting. Also, cost benefit analysis of the proposal for extension of effective date of licence period due to merger of licences had not been done though decision had bearing on Government revenues due to extension of effective date of licence and the same was effected without levying any additional fee.

- ✓ In consequence of the above order, the first beneficiary was M/s Bharti, whose licences for Chennai Metro and TN SA was merged during January 2007²¹. In case of M/s Bharti Cellular Limited for Chennai SA, the effective date of licence was November 2014 and for TN SA the effective date of licence was September 2021. Since the validity of the merged Licence for TN SA of M/s Bharti became September 2021, the UAS Licence for Chennai SA was extended from November 2014 to September 2021 (i.e. for 7 years) prematurely before expiry of licence period, without any additional cost. Had the licence been extended at the time of expiry i.e. during November 2014, the cost of extension of licence period would have been ₹ 499.35 crore i.e. the cost of spectrum of 9.2 Mhz (6.2 Mhz in 900 MHz band and 3 Mhz in 1800 MHz band) held in Chennai SA for extended seven years - ₹ 499 crore²² and the entry fee for licence for extended seven year period - ₹ 0.35 crore²³.
- ✓ The order dated 15 September 2005 stipulated that licence fee of the merged TN service area would be 10 *per cent* of Adjusted Gross Revenue. However for the licencees who were paying Licence fee at the rate 8 *per cent*²⁴ in TN Service area, the Licence fee was fixed to 9 *per cent* (instead of 10 *per cent*) for the period from 1 October 2005 to 31 March 2008. The financial implication due to this reduction of Licence fee was calculated by Value Added Service (VAS) wing of DoT as ₹ 3–5 crore annually, but details of which were not available on record.
- ✓ Incidentally, the issue regarding levy of spectrum usage charge (SUC) as a percentage of the adjusted gross revenue (AGR) paid to the Government was also not clarified for those cases where the amount of spectrum held by the Licencee for both erstwhile TN and Chennai SAs were different since the percentage of SUC charges to be levied depends upon the quantum of spectrum held by the Licencee in both the service areas. In the case of M/s Aircel limited (TN SA) & M/s RPG Cellular Services Ltd (Now M/s Aircel- Chennai SA) their spectrum holding at the time of issue of order was 9.8 MHz and 6.2 Mhz respectively and they were falling under different slabs prescribed for SUC²⁵, however, the order

²¹ In other cases of merger which held between 2007 to 2010 i.e. M/s Reliance Communications Limited, M/s Tata Teleservice Limited & M/s Bhart Sanchar Nigam Limited, effective date of licence of Chennai SA and TN SA were same, therefore, no issue of extension of licence period.

²² Auction of spectrum for Chennai SA was not held in February 2014 due to merger, therefore, similar size Kolkata Metro spectrum was auctioned in February 2014 was considered for calculation. Per MHz auction price for 900 Mhz and 1800 Mhz band for Kolkata SA was ₹ 194.63 crore and ₹ 73 crore respectively for 20 years. Hence, proportionate 7 year cost for 6.2 Mhz spectrum in 900 Mhz band and 3 Mhz spectrum in 1800 Mhz band comes to ₹ 422.35 crore and ₹ 76.65 crore respectively.

²³ As per Unified License guideline issued during August 2013, entry fee for licence of one service area for 20 years is ₹ 1 crore except for NE and JK (entry fee for NE and JK ₹ 0.5 crore). Hence, proportionate 7 year extension cost of licence comes to ₹ 0.35 crore.

²⁴ At the time of merger, Licence fee in TN circle was 10 *per cent*, however in respect of 1st and 2nd CMTS operators, licence fee was 8 *per cent* for the period from 01 April 2004 to 31 March 2008 due to 2 *per cent* relaxation given to them.

²⁵ In cases of merger which held between 2007 to 2010 i.e. M/s Reliance Communications Limited, M/s Tata Teleservice Limited & M/s Bhart Sanchar Nigam Limited, spectrum allocated to them for Chennai SA and TN SA were same, therefore, no issue of different percent of SUC arises.

did not prescribe the SUC percentage payable by them in case of merger. Moreover, DoT has already given in principle approval (October 2013) for merger of the two licences of M/s Aircel.

- Further, the merger had an impact on a wide range of issues such as entry fee, licence fee, spectrum availability and levy of spectrum usage charges as discussed above. However, recommendations of TRAI were not sought for before taking the decision for making amendments in the licence agreement regarding reduction in the LF and extension of licence period though these were part of licence conditions. This was inspite of the fact that TRAI was mandated to give recommendation on terms and condition of licence as per section 11(1)(a)(ii) of TRAI Act 1997. DoT had changed the terms and conditions of the UAS/CMTS licence by merging the two SAs without any reference to TRAI and no reasons were recorded in the internal noting of DoT for not referring to TRAI especially as this would have implications in other remaining circles.
- Besides, these issues involved financial implications also, therefore, the Finance Division of DoT, Member (Finance) and MoF should have been consulted in the matter before finalizing the decision. However, the views of the Finance were not available on records. The Cabinet, in its meeting on 31 October 2003 had, inter-alia, decided that spectrum pricing would need to be decided mutually between DoT and MoF so as to provide incentive for efficient use of spectrum as well as disincentive for sub-optimal usage. Hence the issue of the aforesaid order dated 15 September 2005 by DoT without any consultation with MoF, which inter-alia permitted to extension of validity of spectrum allotted without any cost, was inappropriate and contrary to the Cabinet decision.

Thus after having deferred the initial decision of merger on account of issues relating to Spectrum availability, Entry fee, Licence Fee etc., DoT took decision (August 2005) for merger of Chennai Metro and Tamil Nadu Telecom Circles without any cost benefit analysis of the proposal for the CMTS/UAS Licence which resulted in undue benefits to the select Telecom Operators. The matter was neither referred to TRAI nor consulted with Finance Division of DoT, Member (Finance) and MoF before taking the decision.

The matter was brought to the notice of DoT (May 2014); the reply of DoT is still awaited (March 2015).

2.4 Undue favour to CDMA licencees

Despite TRAI's recommendations and approval of the EGoM, DoT decided not to auction the 800 MHz spectrum for EVDO services in 2010 though CDMA operators were providing 3G EVDO services with the available 2G spectrum (800 MHz) without liberalisation of spectrum. This resulted in non-realisation of upfront charges and undue favour to the CDMA licencees

Department of Telecommunications (DoT) sought recommendations from the Telecom Regulatory Authority of India (TRAI) in May 2006 on the methodology for allotment of spectrum for 3G services and its pricing aspects. TRAI, in their recommendations of 27 September 2006 on allocation and pricing of 3G spectrum not only identified 2.1 GHz band for 3G services, but also recommended auctioning of 800 MHz band dedicated for EVDO²⁶ services as 3G Telecommunication services. DoT's Guidelines for auction and allotment of spectrum for 3G Telecommunication services and revised Information Memorandum (IM) published in August 2008 and October 2009 respectively also gave clear indications for auctioning the spectrum in 800 MHz during February 2010. In the course of audit of records relating to the auction of 3G spectrum in DoT, it was observed that:

TRAI, in its response to DoT's letter dated 9 January 2009 on the issue of reserve price for EVDO carrier in 800 MHz band, had very categorically stated that "since the spectrum efficiency in 800 MHz band, which would be used for EVDO services, is similar to the 3G spectrum in the 2.1 GHz band, the reserve price for per MHz spectrum in these two bands should be same. Therefore, the reserve price of auction of one block of 2x1.25 MHz of spectrum in 800 MHz band shall be 25 *per cent* of reserve price for 2 x 5 MHz in 2.1 GHz band." TRAI while giving its comments on the issue had recommended (23 January 2009) that "In case the auction for spectrum in 800 MHz band is held simultaneously with the auction of spectrum in 2.1 GHz band, the reserve price for 2x1.25 MHz of spectrum in 800 MHz band will be 25 *per cent* of the reserve price of 2x5 MHz 2.1 GHz spectrum band and the successful bidder shall pay the highest bid amount for 2x1.25 MHz spectrum in 800 MHz band or prorated amount in 2.1 GHz band, whichever is higher".

EGoM, constituted with the approval of Prime Minister in July 2009, in its first meeting (31 July 2009) on Auction of 3G spectrum concluded, during deliberation on reserve price for spectrum auction for EVDO services, that the spectrum efficiency of EVDO was similar to that of 3G and in its second meeting held on 27 August 2009 decided that the reserve price per MHz of EVDO spectrum in 800 MHz band should be the same as the price per MHz of 3G spectrum in 2.1 GHz band and arrived at a pan India reserve price for one block of 2x1.25 MHz of EVDO spectrum in 800 MHz band as ₹ 875 crore.

²⁶ Enhanced Voice-Data Optimized (EVDO) is a telecommunications standard for the wireless transmission of data through radio signals typically for broadband Internet access

From the above, it is evident that TRAI, DoT and even EGoM were of the view that 800 MHz band, which would be used for EVDO services, was similar to the 3G spectrum in the 2.1 GHz band, therefore, pricing of both should be similar.

However, at the time of the finalization of Draft Notice Inviting Applications (NIA) in January 2010, the MoC&IT (Ministry of Communication and Information Technology) decided not to auction EVDO carriers in 800 MHz band inter-alia on the ground that the present UAS licence condition did not prohibit provision of EVDO services by the existing CDMA operators and that TRAI had recommended in August 2007 that spectrum in 800, 900 and 1800 MHz band should not be auctioned.

Audit observed that the justification given by DoT for not auctioning 800 MHz that “UAS licence condition did not prohibit provision of EVDO services by the existing CDMA operators”, was incorrect as DoT adopted two different yardsticks for provision of 3G services by GSM and CDMA operators. GSM Operators who were allotted 2G²⁷ spectrum in 900/1800 MHz band were not allowed to provide 3G services with the available 2G spectrum and participated in the 3G auction to purchase 3G spectrum in 2.1 GHz by paying upfront charges. Like GSM operators, CDMA Operators were also allotted 2G spectrum in the 800 MHz band during 2000 to 2008 which was bundled with the 2G licence. However, the CDMA operators were providing EVDO services²⁸ since 2006 with the 2G spectrum (800 MHz band) available with them, which were not objected to by DoT.

DoT’s stand that TRAI had recommended in August 2007 that spectrum in 800, 900 and 1800 MHz band should not be auctioned was out of context as the TRAI’s recommendations of August 2007 was in respect of 2G services and later recommendations of the TRAI in January 2009 had even recommended the reserve price of the spectrum for auction of spectrum in 800 MHz band for EVDO services. Even earlier in September 2006, TRAI had recommended for auction of spectrum in 800 MHz band for EVDO services. Further, DoT’s Guidelines for auction and allotment of spectrum for 3G services and revised IM published in August 2008 and October 2009 respectively also indicated auctioning one block of 2x1.25 MHz spectrum in each of the circles where atleast two carriers of 2x1.25 MHz were available in 800 MHz for EVDO services.

In the NIA dated 28 September 2012 for auction of spectrum in 1800 MHz and 800 MHz bands and NIA dated 30 January 2013 for auction of spectrum in 1800 MHz, 900 MHz and 800 MHz bands, it was clearly mentioned that “Existing Licencees will be allowed to use the additional spectrum block(s) allotted through this auction to deploy any technology

²⁷ 2G (Second Generation) service focuses on voice communication and data with limited speed while 3G (Third Generation) systems support voice as well as increased data communication, mobile Internet access, entertainment and triple-play converged communications services.

²⁸ BSNL, Reliance and Tata have been providing EVDO services since 2006, 2007 and 2008 respectively.

by combining with their existing spectrum holding in the same band after converting their entire existing spectrum holding into liberalised spectrum in the same band as per the terms and conditions to be specified”. It was also mentioned that “Existing CMTS/UAS licencees can liberalise their existing spectrum holding in 1800 MHz band after payment of auction determined price”. The 800 MHz spectrum, however, went unsold in November 2012 and was sold to the single bidder (SSTL) in March 2013 auction after the reserve price was slashed by 50 *per cent* in view of lack of response in previous auction.

Audit, however, observed that while GSM operators had to separately buy 3G spectrum or had to pay for liberalisation of existing 2G spectrum (1800 MHz) for providing 3G services on 2G spectrum (1800 MHz), the same yardstick was not made applicable to 800 MHz spectrum holders (CDMA licencees) despite the fact that both the 1800 MHz and 800 MHz spectrum allocated before November 2012 and March 2013 was bundled with 2G licence. Thus, lack of response/lukewarm response to auction of 800 MHz spectrum in March 2013 needs to be seen in the backdrop of EVDO services already being provided by all the three incumbent CDMA operators on their 2G spectrum (800 MHz) without any extra cost.

The spectrum in 800 MHz allocated to the CDMA operators²⁹ prior to auction of November 2012/March 2013 was not liberalized i.e. not technologically neutral. However the CDMA operators were allowed to deploy EVDO technology (a 3G service) using existing spectrum. They could be allowed to do so only after conversion of their entire existing spectrum holding in 800 MHz band into liberalized spectrum. Incidentally, it was confirmed (November 2013) by Bharat Sanchar Nigam Limited (BSNL) that they were providing EVDO services with the existing 800 MHz spectrum since 2006. Further, Reliance Communications Limited (RCL)/Reliance Telecommunications Limited (RTL) and Tata were also providing EVDO services with the available 800 MHz spectrum since 2008/2009 which was in violation of the licence conditions of the operators.

Hence, before allowing them to provide EVDO service using the existing spectrum, an amount of ₹ 9,626 crore³⁰ was liable to be recovered from these CDMA operators providing EVDO services based on the bid/reserve price of the 2013 auction³¹ for pan India 800 MHz spectrum for block size of 2 x 1.25 MHz, valid for 20 years as indicated in **Annexure-III.**

In response to the preliminary observations issued (November 2013) by audit, it was replied (March 2014) by DoT that

²⁹ RCL/RTL, Tata and BSNL have been providing EVDO service in 15, 19 and 20 Service areas respectively.

³⁰ As per the information available BSNL, Tata and Reliance had launched EVDO services during 2006 to 2009. In the absence of exact date of start of EVDO service, the amount has been calculated on conservative basis w.e.f. 01 September 2010 i.e. the date of right to commercially use 3G spectrum.

³¹ The reserve price of spectrum in 800 MHz band for 2013 auction was 54.33 *per cent* lower than the per MHz price of 3G spectrum in 2010 auction.

- EVDO service in CDMA is not akin to 3G service.

The contention of DoT was not correct as TRAI (September 2006 and January 2009), DoT (August 2008 and October 2009) and even EGoM (July-August 2009) were of the view that 800 MHz band, which would be used for EVDO services, was similar to the 3G spectrum in the 2.1 GHz band and should be priced on par.

- So far as non-liberalisation of 800 MHz band spectrum is concerned, TRAI in its recommendations of April 2012 has recommended for liberalization of existing spectrum in 1800 MHz band only and added that Government had taken a decision that existing CMTS/UAS/UL(AS) licencees can liberalize their existing spectrum holding in 1800 MHz band after payment of auction determined price and the same was incorporated in the NIA issued on 28 September 2012 and 30 January 2013. Since TRAI has not recommended for liberalization of existing spectrum in 800 MHz band, it was not done so.

It is correct that TRAI has not recommended for liberalization of 800 MHz band, but DoT, being the licensor and the administrator of the Spectrum should have referred back the matter to TRAI for getting their view on liberalisation of the spectrum in 800 MHz band also as EVDO services provided by CDMA operators are akin to 3G services given by GSM operators. Further, auction for spectrum in 800 MHz and 1800 MHz bands were conducted simultaneously during November 2012 and March 2013 but option for liberalization was available for 1800 MHz band only.

Thus, DoT adopted two different yardsticks for the GSM and the CDMA operators by not objecting to the provision of EVDO services by the CDMA operators with the available spectrum in the 800 MHz band which were similar to the 3G services. The fact that for giving similar facilities (3G services) GSM operators were required to participate in the auction and purchase the 3G spectrum confirms that the CDMA operators were given undue benefit by allowing them to provide EVDO services with the available 2G spectrum in 800 MHz band. Moreover, the decision of DoT not to auction the 800 MHz spectrum for EVDO services in 2010, inspite of TRAI's recommendations and approval of the EGoM, was also imprudent and had resulted in undue benefit of ₹ 9,626 crore to the CDMA operators.

The matter was referred by audit in April 2014 and the reply of DoT was still awaited (March 2015).

2.5 Undue favour to operators using dual/multiple technology

Pursuant to TRAI's recommendations (August 2007), DoT granted telecom licences for dual technology in October 2007 but failed to implement TRAI's recommendations to levy Spectrum Usages Charge for the combined total of spectrum allocated in different technology in specific bands resulting in undue benefit to the licencees to the extent of ₹ 882.06 crore (2009-10 to 2013-14).

In terms of National Telecom Policy (NTP)-1994, the first phase of liberalization in mobile telephone service started with issue of 8 licences for CMTS in the 4 metro cities of Delhi, Mumbai, Calcutta and Chennai to 8 private companies in November 1994. Subsequently, 34 licences for 18 Territorial Telecom Circles were also issued to 14 private companies during 1995 to 1998. In 1997 and 2000, licences were granted to MTNL and BSNL as 3rd operator. Based on competitive bidding, 17 new CMTS Licences were issued as 4th operator in 2001. Subsequently, 51 UAS licences were issued during 2004-07 on first come first served basis on the basis of application. In 2007-08, four telecom operators³² were also issued dual technology licences³³ on acceptance of TRAI's recommendations in August 2007.

Audit had pointed out in Para 4.8 of the Performance Audit Report on the "Issue of Licences and Allocation of 2G spectrum³⁴ that Dual Technology was introduced by DoT in October 2007 in a hasty and arbitrary manner and in-principle approval was given to three operators on a day prior to the announcement of the policy, which gave the perception of discrimination against other players in the field. It was also stated that the decision was in contravention of the Cabinet decision of 2003 resulting in additional spectrum being allotted to certain operators at 2001 price.

TRAI, in its recommendations dated 28 August 2007, had recommended that for licencees migrating to dual/multiple technology (GSM, CDMA and or any other) under the UASL framework, the slab of Spectrum Usage Charge (SUC) would be determined by the combined total of spectrum allocated in different technology specific bands, after a moratorium of one year from the date of assignment of spectrum for second technology. This would have been the same treatment as accorded to a merged entity from the merger of two licencees using different technologies.

Audit scrutiny (March 2013) of the records pertaining to allocation of spectrum revealed that though DoT accepted TRAI's recommendations regarding grant of dual technology licence and issued letters communicating 'in principle approval' for use of dual technology to the licencees within two months, the recommendation regarding the fixation

³² M/s Tata Teleservices, M/s Reliance Communications Ltd, M/s Shyam Telelink Ltd and M/s HFCL Infotel Ltd.

³³ A licensee using one technology is permitted on request, usage of alternative technology and allocation of dual spectrum.

³⁴ Report No. 19 of 2010-11

of SUC had not been implemented as of October 2014 without specifying any reasons on the record. DoT thereby gave undue benefit to four operators using dual/multiple technology (M/s Tata Teleservices Ltd, M/s Reliance Communications Ltd, M/s Shyam Telelink Ltd and M/s HFCL Infotel Ltd.), as these operators were paying SUC based on the separate allocated spectrum for different technology instead of spectrum usage charges based on combined total of spectrum.

Scrutiny of records pertaining to two major operators viz., M/s Reliance Communications and M/s Tata Teleservices Private Limited revealed that the spectrum for the second technology (GSM) was allocated to these operators during January 2008 and March 2008-April 2009 respectively. Non-implementation of TRAI recommendation to determine SUC for the combined total spectrum allocated in different technology in specific bands, resulted in undue benefit of ₹ 416.99 crore and ₹ 465.07 crore respectively to M/s Reliance Communications during FY 2009-10 to FY 2013-14 and M/s Tata Teleservices during FY 2010-11 to FY 2013-14 after considering one year moratorium from the date of assignment of spectrum for second technology (**Annexure-IV and V**).

Thus, due to non-implementation of TRAI recommendations to levy spectrum charge based on the combined total of spectrum allocated for licencees using dual/multiple technology, resulted in undue benefit of ₹ 882.06 (416.99+465.07) crore to M/s Tata Teleservices and M/s Reliance Communications.

The matter was referred by audit in January 2014 and the reply of DoT was still awaited (March 2015).

2.6 Inordinate delay in issue of demand letters to eight telecom licencees

Department of Telecommunications did not raise demands on eight licencees, whose telecom licencees were quashed and cancelled and who continued operations after 02 February 2012, despite the Hon'ble Supreme Court of India ruling that they should pay the reserve price fixed by the Government for the purpose of conducting auction in November 2012, leading to non realization of ₹ 2,117.88 crore from eight licencees. The licencees of those licencees who did not bid or did not win in the auctions were also not cancelled timely.

In terms of the Hon'ble Supreme Court (SC) judgment dated 2 February 2012, 122 licencees of nine telecom companies granted to the private respondents on or after 10 January 2008 pursuant to two press releases issued on 10 January 2008 and subsequent allocation of spectrum to the licencees were declared illegal and quashed. The direction was to be operative after four months. TRAI was also directed to make fresh recommendations for grant of licence and allocation of spectrum in 2G band in 22 service areas by auction. It was further ordered that the Central Government shall consider the

recommendations of TRAI and take appropriate decision within next one month and fresh licences be granted by auction.

The Hon'ble SC had, from time to time, extended the time for completion of the auction in view of exigencies reported by Department of Telecommunications (DoT). Hon'ble SC in its judgment dated 15 February 2013 directed that

- “Such of the licencees, who continued operation after 02 February 2012, whether or not they gave bid in the auction conducted on 12 November 2012 and 14 November 2012, shall pay the reserve price fixed by the Government for the purpose of conducting auction in November 2012.
- The licencees who did not give bid in the auction conducted on 12 November 2012 and 14 November 2012 or who remained unsuccessful shall forthwith discontinue their operations in the concerned circles/areas and the successful applicants should be allowed to operate in those circles/areas.”

During auction of 2G spectrum in 1800 MHz/800 MHz band held in 12/14 November 2012 and subsequently in March 2013, out of nine operators whose licences were quashed, only five operators participated and three of them won the spectrum in the auction as detailed below:-

Sl. No.	Name of Companies	No. of Licences quashed	Whether participated in the auction held in Nov'12	No of Service Area where licencees won spectrum in the auction in Nov'12	Whether participated in the auction held in Mar'13	No of Service Area where licencees won spectrum in the auction held in Mar'13
1	Unitech Wireless Ltd (UWL)	22	No	Nil	No	Nil
2	Telewings Communication Service Pvt. Ltd (TCSPL) ³⁵	Nil	Yes	6	No	Nil
3	Loop Telecom Ltd	21	No	Nil	No	Nil
4	Videocon Telecommunications Ltd (VTL)	21	Yes	6	No	Nil
5	Sistema Shyam Teleservices Ltd (SSTL)	21	No	Nil	Yes	8
6	Etisalat DB (Swan)	15	No	Nil	No	Nil
7	Idea Cellular Ltd (ICL)	9	Yes	7	No	Nil
8	S-Tel Pvt Ltd	6	Yes	Nil	No	Nil

³⁵ M/s Telewings Communication Service Pvt. Ltd (TCSPL) was incorporated as a company on 24 February 2012 and participated in the 2G auction held on 12-14 November 2012 as a “New Entrant”. Telenor Norway the principal beneficial owner of TCSPL, had earlier taken 67 per cent share in the Unitech (whose license was cancelled).

Sl. No.	Name of Companies	No. of Licences quashed	Whether participated in the auction held in Nov'12	No of Service Area where licencees won spectrum in the auction in Nov'12	Whether participated in the auction held in Mar'13	No of Service Area where licencees won spectrum in the auction held in Mar'13
9	Spice Communications Ltd (SCL)	4	Yes	Nil	No	Nil
10	Tata Teleservices Ltd (TTSL)	3	No	Nil	No	Nil
	Total	122		19		8

(Source: SC's judgment dated 2 February 2012 and DoT's records)

Audit observed that DoT had not raised any demand even after lapse of more than 19 months (till September 2014) from the order (February 2013) of the Hon'ble Supreme Court of India to realize the reserve price due from eight operators as indicated in **Annexure VI**. The total amount recoverable from the eight operators³⁶ who continued operations beyond 02 February 2012 in terms of the orders of the Hon'ble Supreme Court worked out to ₹ 2,117.88 crore calculated on the basis of reserve price fixed by the Government for the purpose of conducting auction in November 2012 as indicated in **Annexure-VI**.

Despite the direction of the Supreme Court that the licencees, who did not participate in the auction or who remained unsuccessful shall forthwith discontinue their operations in the concerned Service Areas, Unitech Wireless Ltd and Sistema Shyam Teleservices Ltd continued their operations in six³⁷ and 21³⁸ service areas respectively even after Supreme Court's judgment on 15 February 2013. Further, DoT had not initiated any action to cancel the licences and to withdraw the assigned spectrum from the operators who did not bid or did not win in the auctions as per the Hon'ble Supreme Court Order.

On (June 2013) queried about the action taken for cancellation of licence/withdrawal of spectrum from the quashed licencees and discontinuation of the operation by the licencees who did not participate in the auction, it was replied (July 2013) that "The action for disconnection of Point of Interconnection (POI) was processed and put up for legal vetting. Legal advisor opined that "it is gathered during discussion that the quashed licencees in question, have not yet been intimated of SC order dated 15 February 2013. At the first instance, we may intimate them and ascertain whether they have stopped operations forthwith in compliance of SC Order dated 15 February 2013." It was also stated that "In compliance of SC orders, it was discussed during the meeting that as the licencees were respondent in these matters, onus of compliance lies with them."

³⁶ One operator M/s Spice had not launched service in all four service areas where licenses were quashed by Hon'ble Supreme Court.

³⁷ Maharashtra, Gujarat, Andhra Pradesh, UP(West), UP(East), and Bihar

³⁸ All Service Areas except Rajasthan

Reply of DoT (July 2013) is not tenable as DoT, being not only the main respondent in the case but also being the licensor of telecom services, had the primary responsibility to comply with the Hon'ble Supreme Court order by taking necessary action for cancellation of licence/withdrawal of spectrum. It was therefore evident that no final decision was taken until July 2013³⁹ by DoT for cancellation/withdrawal of spectrum from the operators who did not participate in the auction. Demand letters for payment of the reserve price, to the operators who continued operation after 02 February 2012 whether they participated or not in the auction held in November 2012/March 2013, have not yet been issued by DoT (October 2014).

Further in September 2014 DoT stated that on reference of the case of one of the quashed licencees, Attorney General of India had advised DoT to issue show-cause notices and to give personal hearing. It further added that show-cause notices were under issue to all the quashed licencees and levy of reserve price would be decided thereafter.

Thus, inaction of DoT to raise demands based on reserve price on eight licencees in accordance with the 15 February 2013 ruling of Hon'ble Supreme Court of India for more than a year and half has led to non-realization of reserve price of the spectrum of ₹ 2,117.88 crore besides those licencees who did not bid/did not win the spectrum have been allowed to continue inspite of Hon'ble Supreme Court's judgement to the contrary.

2.7 Short recovery of Pension contribution

DoT failed to observe the prescribed rules relating to pension contribution in respect of absorbed employees in M/s BSNL which resulted in short recovery of ₹ 707.00 crore from the Company for period from 01 December 2011 to 31 March 2014

Pension Contribution is made to the Government of India on behalf of a Government Servant (at prescribed rates every month) by a Non- Government employer when the Government servant is working on Foreign Service under the Non-Government employer to maintain his claim for Pension from the consolidated fund of India. The Pension Contribution was prescribed (February 1984) based on the maximum of the Pay Scale at the time of proceeding on Foreign Service or to which he may receive on pro-forma promotion while on Foreign Service.

On implementation of 6th Pay Commission⁴⁰ from 1 January 2006, Pension Contribution per month in respect of Government employees was revised (November 2009) from maximum of the pay to existing pay at the time of proceeding on foreign service i.e. on

³⁹ Demand letter has not been issued as yet (October 2014).

⁴⁰ Sixth Pay Commission merged 32 pay scales into four elongated pay bands in the Government of India

basic pay (pay in the pay band plus grade pay) or to which he may receive on pro-forma promotion while on foreign service at the prescribed rates under Fundamental Rules. However, there was no change in the existing methodology for those employees governed by Industrial Dearness Allowance (IDA) Scales.

M/s Bharat Sanchar Nigam Limited (BSNL) was created on 1 October 2000 by converting part of Department of Telecom (DoT). At the time of formation of BSNL, Rule 37(A) was incorporated in CCS (Pension) Rules- 1972, under which a permanent Government Servant who is absorbed as an employee of a PSU shall be eligible for pension and other benefits based on the combined service, which shall be paid by the Government of India on payment of Pension Contribution by the Company as provided for under existing FR-116 and 117.

BSNL has two categories of employee's viz. (1) those officials, who were not absorbed in BSNL and remained as Government servants on "deemed deputation" drawing salary under Central Dearness Allowance (CDA) scales and (2) those officials who got absorbed in BSNL drawing salary under Industrial Dearness Allowance (IDA) scales of pay. The revised methodology of Pension Contribution at the rate on 'existing pay' i.e. on pay in the pay band and grade pay was applicable to officials governed under scale for Govt. Servants whereas the Pension Contribution in respect of absorbed employees of BSNL was to be paid at the prevailing rules and rates on the 'maximum of scale' as their scales of pay were not merged into pay bands. Controllers of Communication Accounts (CCAs) of DoT located in the circles are responsible for collection of the Pension Contribution from the respective BSNL circles.

Scrutiny of records in BSNL and DoT (February/March 2014) revealed that BSNL was paying Pension Contribution (up to November 2011) for its erstwhile DoT employees absorbed in BSNL at prescribed rates on the 'maximum ' of pay under FR 116 and 117. From 1 December 2011, the Management of BSNL decided to pay the Pension Contribution on the existing pay i.e. basic pay in the Industrial Dearness Allowance (IDA) scale to DoT though the instructions issued in OM dated 19 November 2009 by the Department of Personnel and Training relates to the employees drawing pay in the Central Dearness Allowances (CDA) scales i.e. basic pay in pay band plus grade pay. This had resulted in short recovery of ₹ 707 crore on account of Pension Contribution.

Simultaneously, BSNL took up matter repeatedly with DoT to extend the benefit of payment of Pension Contribution as per the revised methodology at 'existing' pay available to Government Employees, the same has however been turned down by DoT in consultation with MOF (DoE), DoPT, DoP and PW etc., in February 2010 and subsequently in (November 2013) on the premise that the OM dated 19 November 2009 applicable to Govt. employees was not applicable to employees of BSNL as the Pension

Contribution of BSNL employees was to be paid as per prevailing rules at the prescribed rates on the maximum of scale under Rule 37 (A) incorporated in CCS (Pension) Rules 1972.

On being pointed out, DoT in its reply admitted (October 2014) that the matter was taken up with DoPT and DoE in 2011 and 2012 and final reply from DoE was still awaited. However, BSNL and CCA units of DoT were directed to recover full pension contribution in case of retiring employees before finalization of their terminal benefits pending final decision on the issue.

Thus, DoT has thereafter failed to recover Pension Contribution in respect of DoT employees absorbed in BSNL as per prescribed Rules at the 'maximum' of the scale applicable to Non-Government employees under FR-116 and 117. This has resulted in short-recovery of Pension Contribution amounting to ₹ 707 crore for the period between 1 December 2011 to 31 March 2014 along with interest due thereon as prescribed under SR-307.

2.8 Lack of due diligence in auction of spectrum for Broadband Wireless Access (BWA) Services

The NIA for BWA Auction suffered from deficiencies in scope of usage of spectrum for different class of Licencees. The UAS/CMTS and ISP operators were allowed to bid for the same BWA spectrum while the usage of spectrum was governed by their respective licencees. This led to post-auction demand by M/s Infotel for network codes which would have enabled them to provide voice services beyond the scope of their ISP licence. DoT facilitated the request by permitting them to migrate to Unified Licence after the auction. This migration, allowed at prices discovered in 2001, resulted in undue advantage of ₹ 3,367.29 crore to M/s Reliance Jio Infocomm (formerly M/s Infotel). It was also seen that even after four years of auction the roll out of BWA services has been negligible.

Introduction

Notice Inviting Applications (NIA) was released by DoT in February 2010, calling for response from eligible bidders for participation in the auction of 3G and Broadband Wireless Access (BWA) spectrum to be held separately. The important objectives of the auction were:-

- Obtain market determined price for the spectrum through a transparent process;
- Ensure efficient use of spectrum and avoid hoarding;
- Stimulate competition in the sector;

- Promote roll out of 3G and Broadband services
- Maximize revenue proceeds

Clauses regarding eligibility/reserve price/spectrum availability in the NIA

The eligibility criteria/reserve price and frequencies of spectrum available for auction of BWA spectrum were as shown below:-

Eligibility for participation	Any entity holding Unified Access Services (UAS)/ Cellular Mobile Telephone Service (CMTS) licence or *Internet Service Provider (ISP) (category 'A' or 'B') licence
Reserve price	Total ₹ 1750 crore for a Pan India block (22 circles) of 20 MHz (unpaired) of BWA spectrum in 2.3 MHz.
Spectrum Blocks available for auction	2 Pan India Blocks (22 circles);BSNL along with MTNL were already allotted a Pan India slot in 2.5 GHz in 2008 with the condition that they will pay the winning price in the auction.

** Any entity that held a UAS/CMTS/ISP (Category A or B) licence or gives an undertaking to obtain a UAS/ISP(Category A) licence through a New Entrant Nominee UAS/ISP licensee, before starting telecom operations, as per DoT guidelines, was also eligible to participate in the auction.*

2.8.1 Deficiencies in Notice Inviting Applications (NIA)

Audit scrutiny (September-November 2013) of the records relating to the auction of BWA spectrum, TRAI recommendations and action thereon taken by DoT revealed the following infirmities in formulation of the NIA :

2.8.1.1 Absence of financial parameters in the eligibility criteria for the bidders

NIA prescribed minimum reserve price of ₹ 1,750 crore for Pan India BWA spectrum allocation. Subsequent rollout of infrastructure required additional investments. In view of large capital requirements it was imperative that NIA should have prescribed a definite set of financial parameters to ensure that entities bidding for providing BWA services had requisite financial strength and capacity.

While recommending (in 2006) that the ISP category A and B are eligible for bidding for the BWA spectrum, TRAI had also added a word of caution that:

“Given that spectrum is a valuable and scarce resource, it is necessary to ensure that only serious and long-term players have access to it. This is especially true since ISP licences are for only Re. 1 and non-serious players might be able to delay allocation or hoard spectrum. Hence, it is necessary to ensure that only serious and well-established ISPs acquire spectrum, because only they will probably have the capacity to invest in and deploy BWA networks.”

However, NIA failed to prescribe any financial parameter in eligibility criteria for the prospective bidders. In fact DoT added another category of bidders by stipulating that *“any entity that gives an undertaking to obtain a UASL/ISP category ‘A’ licence through new entrant nominee UAS/ISP licence before starting telecom operations was also eligible to participate in the auction for BWA spectrum.”*

The only financial requirement for the bidders was deposit of an EMD of ₹ 252.50 crore for Pan India licence (22 circles). The EMD was fixed for each circle and bidders were to deposit EMD according to number of circles they were bidding for. While NIA had prescribed submission of financial details of the bidder in the prescribed application format for BWA auction which included Equity details, Paid-up capital, Net-worth and Promoters/Partners/Shareholders in the Company, these details were not used for assessing the financial strengths of the applicant, which was necessary to judge the capability of the successful bidders to meet the roll-out obligations prescribed in the NIA.

Subsequent to the release of NIA, all 11 applicants (nine Indian & two foreign companies) were found eligible by DoT to participate in the auction. Of the nine Indian companies, four bidders were UAS licencees, two UAS licencees promoted ISP licencees, two ISP licencees and one new Indian company. While the eight bidders (4 UASL bidders, two UASL promoted ISP licencees, one ISP licencee and one foreign company) submitted their bid for 22 circles, three other bidders (1 ISP licencee, 1 new Indian company and one foreign company) submitted their bids for some of the circles only. Their details as on 31 March 2009 were as under:

Table-1

(₹ in crore)

Sl. No.	Pre-approved applicants	Status/Licence held	Paid up capital	Net worth (NW)	EMD	Percentage of EMD of NW
1	Augere (Mauritius) Ltd (Augere)	New Entrant (Foreign)	0.037	-0.076	67.50	-88,816
2	Spice Internet Service Provider Pvt Ltd-(Spice)	New Entrant (Indian)	0.01	0.01	42.00	4,20,000
3	Infotel Broadband Service Private Ltd-(Infotel)	ISP	2.51	2.49	252.50	10,141
4	Tikona Digital Networks Private Ltd- (Tikona)	ISP	133.30	126.40	161.25	127.57
5	Aircel Ltd (Aircel)	UASL/ISP	243.24	2,056.87	252.50	12.276
6	Tata Communications Internet Services Ltd (Tata)	ISP promoted by a UASL	285.00	6,590.36	252.50	3.83
7	Vodafone Essar Limited (Vodafone)	UASL/ISP	414.09	1,912.87	252.50	13.20
8	Idea Cellular Limited- (Idea)	UASL	3,100.10	11,070.38	252.50	2.28
9	Bharti Airtel Ltd (Bharti)	UASL/ISP	1,898.48	34,840.13	252.50	0.725
10	Reliance WiMax Limited (Reliance)	ISP promoted by a UASL	1,032.01	42,511.36	252.50	0.594
11	Qualcomm incorporated	New Entrant (Foreign)	40,800.37	97,598.06	252.50	0.26

It may be seen from above that three of the bidders had net worth of less than ₹ 5 crore. The eligibility conditions, therefore, did not ensure requisite financial strength on part of bidders even though substantial investments were required for rollout of BWA services.

DoT responded to the above audit observations stating the following:

- (i) The NIA for the auction of BWA spectrum was prepared based on TRAI recommendations and views of Ministry of Finance and had the approval of the Inter Ministerial Committee.
 - The fact remains that there was no criteria to assess the financial strength of bidders and to draw assurance about their capabilities to meet rollout obligations.
- (ii) The condition in the NIA on obtaining EMD in the form of BG was an effective deterrent for non-serious players in the auction.

- The reply of DoT was not acceptable as furnishing of EMD in the form of BG was a one-time measure with reference to auction. EMD provision was not enough to provide assurance on financial capability of the bidders regarding payment of price of spectrum and rollout of network infrastructure as per the given timeline. Further in fact, as seen from the table that this provision of NIA was rendered redundant with many low net worth companies furnishing EMDs hundred times their net worth. Therefore this provision was not sufficient to judge the financial strength of a company.
- (iii) DoT further stated that the eligibility criteria and other conditions of the NIA were shown to CAG as well as CVC.
- As regards DoT's assertion that the eligibility criteria and other conditions were shown to CAG as well as CVC, presence of a representative of the CAG in the mock/demo presentation session on invitation, in-midst of a large gathering cannot be construed as an approval of eligibility criteria and other conditions of the NIA by CAG. The very fact that by that time, bidders had already been pre-approved by the IMC and final list of eligible bidders had already been announced on DoT website, makes it clear that it was more of an exposure session on auction process for Government officials.

2.8.1.2. Absence of lock-in provision

DoT had allowed three categories of bidders viz., UAS/CMTS licencees, ISPs and new entrants to participate in the auction. UASL/CMTS licences had provision of lock-in period whereas ISP licence did not have any such provision and new entrants were required to obtain the licence only after winning the spectrum. However, in spite of having three different categories of bidders, the NIA did not prescribe any uniform provision regarding lock-in period for the winners from all the categories.

DoT in its reply stated (July 2014) that lock-in period was only to ensure that the licencee is a serious player.

The admission by DoT confirms the need for lock-in period. The fact that ISP Category 'A' and 'B' licencees did not have any provision regarding lock-in period and that the new entrants winning the spectrum could take either UASL or the ISP licence, did not provide an assurance that the roll out obligations would be honoured. M/s Qualcomm who was a new entrant won spectrum in four Service Areas and subsequently sold (18 October 2013) the Company without any roll-out. Hence, in the absence of provision for lock-in period, DoT could not ensure that the winning ISP and new entrants would be fulfilling their obligations.

2.8.1.3 Disparity in scope of usage of BWA spectrum

DoT issued guidelines for auction and allotment of spectrum for BWA services (August 2008) which stipulated that “*Spectrum shall be auctioned in the 2.5 GHz and 2.3 GHz bands for data service*”, despite TRAI recommendation of July 2008, wherein it had acknowledged that triple play⁴¹ was technically feasible on most of the BWA technologies. However, the NIA for the auction of BWA spectrum (February 2010) allowed both the UAS/CMTS and ISP operators to bid for BWA spectrum but the usage of spectrum was governed by the scope of the licence of the bidder. Thus, while UAS/CMTS operators were permitted to provide voice services on this spectrum, ISP licencees were not allowed to offer the same due to limitation of their licence conditions.

As NIA allowed voice services on BWA spectrum, provided the licence of the bidder permitted it, this implied different returns from the same spectrum for different class of bidders due to different type of services permitted for them as per their licences. The disparity was there in spite of the fact that all the bidders had paid the same amount for the same spectrum as per the auction discovered price.

Audit’s view is also confirmed by the post-auction demand (August 2011) by M/s Infotel, (later known as Reliance Jio Infocomm Limited⁴²), an ISP holding BWA spectrum, for Mobile Country Code (MCC) and Mobile Network Code (MNC)⁴³ Codes to enable them to provide various data and multimedia BWA services using Long Term Evolution (LTE) technology. This was objected to by Telecommunication Engineering Centre (TEC). TEC held (March 2012) that,

“the capability of LTE technology (to be used for providing services using BWA Spectrum) are much wider in scope than what is permitted in the ISP licence and are beyond the scope of the services permitted in the ISP licence. In the scope of the ISP licence, connections to the PSTN/PLMN are not permitted, which essentially means that an ISP licencee cannot connect to a network offering services on PSTN/PLMN network. But the ISP licence is not clear if a licencee can itself set a PSTN/PLMN network for providing only internet services and other services⁴⁴ within the scope of ISP licence. Since LTE is a technology, which can be used for providing full-fledged mobile services along with high speed data services, it is possible for an ISP licencee to use LTE for both internet services as well as full-fledged mobile services using LTE subscriber terminal. Currently full

⁴¹ Triple play – voice, video and data

⁴² Infotel Broadband Services Private Limited (IBSPL) was a private limited company. It had infusion of additional equity from M/s Reliance Industries Limited, leading to RIL’s majority stake in the Infotel. Subsequently it was converted into Public limited company with name Infotel Broadband Services Limited on 19 July 2010. This company was then renamed as Reliance Jio Infocomm Limited (RJIL) on 22 January 2013.

⁴³ A Mobile Country Code (MCC) is used in combination with a Mobile Network Code (MNC) to uniquely identify a mobile phone operator.

⁴⁴ Such as voice services

mobile services were permitted under UAS licence category only. Therefore these aspects may be examined by DoT”.

On being pointed out in Audit, DoT replied (July 2014) that although allocation of MCC and MNC codes can technically enable an operator to set up a Public Land Mobile Network (PLMN), no operator could have offered services beyond the scope of respective licence.

This argument of DoT is not tenable since the ISP licensee was seeking MCC and MNC codes and it would have enabled the licensee to provide voice services which were beyond the scope of the ISP licence as also stated by TEC. Further, there have been past instances where operators have provided services beyond the scope of their licence e.g. WLL service providers providing full mobility and CDMA operators providing EVDO⁴⁵ services with 2G spectrum in violation of their respective licence conditions.

Thus, to allow ISPs to obtain BWA spectrum at prices equal to that paid by UAS operators, when the services which could be provided by UAS operators were much wider than the scope of services by ISPs, was not justified.

2.8.1.4 Lack of intermediate milestones in rollout targets

TRAI observed (September 2006) ‘BWA technologies are new in the market, and the authority’s emphasis is on encouraging the quick and cost effective deployment. The one time entry fee for 20 years spectrum licence might be difficult for some operators to pay upfront and is contrary to the goal of keeping the cost of these services low. Based on the foregoing , the authority recommends that the BWA spectrum licences should be for five year’s duration, renewable up to 20 years upon payment of the spectrum acquisition fee every five years, and satisfaction of the relevant licence terms and conditions.’

Further, TRAI had stipulated (September 2006) stiff roll out obligations to facilitate fast expansion of broadband services in rural and remote areas as follows:

Timeline	Licence Area/coverage		
	Metros	Category A,B,C	Local Operators/Captive networks
2 years		25% Rural SDCAs	
5 years	90 %	50% Rural SDCAs	90% area

TRAI (September 2006) also recommended incentive in case of fulfillment of the roll out obligation which included return of Performance Bank Guarantee (PBG) furnished by

⁴⁵ EVDO – Evolution Data Optimized

operators and allowing them to continue operations. However, in case of failure, PBG had to be encashed and the assigned spectrum was to be cancelled.

DoT, however in the NIA for the auction of BWA spectrum had specified the right to use the BWA spectrum for 20 years from the effective date of allotment, unless revoked or surrendered earlier. This revision of the right to use spectrum for 20 years, with a liberal roll out obligation of 5 years has resulted in BWA spectrum remaining largely unutilised without any significant services roll-out by any of the spectrum holders since allotment of spectrum in 2010. (Details in para No. 2.8.4).

2.8.1.5 Fixation of lower rate of Spectrum Usage Charges for BWA spectrum

DoT vide its 3G/BWA NIA dated 25 February 2010 and subsequent amendment in the UAS licence of 1 September 2010, mandated licencees using BWA spectrum to pay 1 *per cent* of applicable Adjusted Gross Revenue (AGR) as annual Spectrum Usage Charges (SUC).

While taking this decision, DoT did not consider potential of BWA technology to provide voice services as pointed out by TRAI in its July 2008 recommendation. The Government, therefore while allowing voice telephony on BWA spectrum had not prescribed the matching SUC with what was being paid by the UASL/CMTS operators who were providing voice telephony. While UAS/CMTS licencees were paying 3 *per cent* to 5 *per cent* depending on the quantum of spectrum held by them, BWA spectrum winners were asked to pay just 1 *per cent* of its AGR as per conditions of NIA. This relaxation would result in significant loss of revenue to the Government over 20 year licence period, since the BWA spectrum had potential to provide voice services also in addition to data services.

DoT stated (July 2014) that the SUC rate @ 1 *per cent* of AGR was notified for BWA spectrum in the NIA of the auction and hence any increase in SUC rates subsequently would have resulted into post-facto change of the provisions of NIA, violating the binding terms of contract by the Government.

This confirms that DoT did not do due diligence in fixing the SUC for BWA spectrum. The reduced rate of SUC did not take into account the potential of providing voice services on BWA spectrum and thus resulted in undue advantage to BWA spectrum holders providing voice services.

2.8.2 Lack of action on the suspected breach of confidentiality clause of NIA

Clause 4.1.1 of the NIA relating to the Confidentiality inter alia prescribed that “...*Bidders shall also not be permitted to disclose the status of their participation, including whether*

they continue to bid in any or all service areas, in any of the auctions, until the completion of the relevant auction”.

An article published in Economic Times on 10 June 2010 mentioned about the probable takeover of M/s Infotel by Reliance Industries Limited as All India BWA spectrum prices had touched ₹ 12,257 crore and M/s HFCL (M/s Infotel was a group company of HFCL) may not have funds to bid for more. DoT should have taken cognizance of the newspaper report as it breached the confidentiality clause of the NIA. Audit observed that DoT did not take any immediate action or even afterwards when this was confirmed by subsequent developments.

DoT in their reply (July 2014) stated that there was no evidence of release of confidential information with an intention of modifying the bidding behaviour and there was no question about vitiating the sanctity and transparency of the auction process.

The reply of DoT is not acceptable since the news item was related to the auction being conducted by DoT and it referred to the bidding status of one of the bidders in the auction. Hence DoT should have done its due diligence to see that there was no breach of confidentiality clause.

2.8.3 Migration to Unified Licence (UL) by ISP holding BWA spectrum

It was observed that M/s Infotel, an ISP operator, outbid most of the UAS operators in the auction of BWA spectrum in spite of the fact that it did not have permission for voice services on BWA spectrum as per their licence. This was in contrast to UAS operators who could have provided voice services in addition to data services on this spectrum as per their licence.

In August 2011, M/s Infotel (ISP licensee) requested for allocation of MCC and MNC codes which was objected to by TEC⁴⁶ in March 2012 due to possibility of provision of voice services using these codes which was beyond the scope of the ISP licence of M/s Infotel.

A High level committee was also formed in November 2012 under chairmanship of Advisor (Technology), DoT to examine the issues related to allocation of MCC & MNC codes to ISPs holding BWA spectrum but the issue was not finalized.

DoT had, in the interim, requested (October 2011) TRAI to recommend the UL guidelines including inter alia recommendations on entry/eligibility, PBG, modalities and guidelines for enabling existing UAS/CMTS/ISP/NLD/GMPCS licensees including IP-1 providers to migrate to National/Service Area level UL.

⁴⁶ As discussed in para 2.8.1.3.

TRAI furnished (April 2012) recommendations on Guidelines for Unified Licence/Class Licence and migration of existing licencees. The recommendations inter alia provided that the current licensing framework should be replaced by a new Unified Licence regime with following categorisation of licencees:

- UL covering UASL/CMTS, NLD, ILD, Internet, IP-1 and GMPCS
- Class licence covering VSAT services
- Licensing through Authorisation covering PMRTS, Radio Paging and Voice Mail/Audio Tex/Unified Messaging Service and
- Broadcasting licencees.

This was deliberated (April 2012) by a DoT Committee under the Chairmanship of Member (Technology) and subsequently by the Telecom Commission. It was decided that clarification may be sought regarding process for liberalization of the spectrum won through auction for 3G and BWA as well as for separate guidelines for migration from respective licence to UL.

TRAI's clarifications dated 12 May 2012 on this issue was again deliberated (starting 16 May 2012) by DoT committee under chairmanship of Member (Technology). DoT Committee held (August 2012) that 3G/BWA spectrum was not sold as a liberalized spectrum and held that had the Spectrum Blocks been specified and declared as liberalized spectrum blocks, the bidders would have taken informed decision for putting up their bids and the market discovered price would have been different and post auction decisions of such nature will not be appropriate.

These recommendations were considered by the Telecom Commission and it was decided (September 2012) that, given the complexities of UL regime, further detailed analysis and deliberations were required. It was felt that there were serious implications in the implementation of the framework recommended by TRAI due to complexities including eligibility requirements for new entrants as well as for migration of existing licencees for services other than access service. Accordingly, a committee under Adviser (T) was constituted on 18 September 2012 to go into the issue and suggest the way forward. On 25 January 2013, it was decided to expand the existing committee by including all the fulltime members of the Telecom Commission in DoT including Secretary (T) along with AS (T) and Sr. DDG (TEC) so as to expedite the process. Necessary order for the same was issued on 11 February 2013 made effective retrospectively from 25 January 2013.

The Committee under the Chairmanship of Secretary (T), on the issues pertaining to migration of ISPs to UL in their report (13 February 2013), felt that there was no bar or any issue in migration of an ISP Licence to the new UL subject to the fulfillment of

eligibility criteria. The Committee took the note of the fact that an ISP licensee which migrates to UL including access service would be entitled to provide voice services and recommended that:

“for migration of ISP licensee with BWA spectrum to UL with authorisation of providing access services, which would enable them to provide mobile voice service using BWA spectrum, an additional fee equal to the difference between the entry fee for UASL and entry fee of ISP Category ‘A’ should be levied, apart from the entry fee as applicable for migration of ISP licensee to UL”.

The aforesaid recommendation was approved by the Telecom Commission on 18 February 2013 and by Hon’ble Minister of Communications & Information Technology on 5 March 2013. Accordingly, “Guidelines for grant of Unified Licence” were issued on 19 August 2013.

It was observed that Reliance Jio Infocomm Limited (formerly, M/s Infotel) was the first to take benefit of this scheme and paid UL entry fee of ₹ 15 crore and additional migration fee of ₹ 1,658 crore in August 2013. Reliance Jio Infocomm Limited (RJIL) was granted Unified Licence (UL) on 21 October 2013 and was given authorization (October 2013) to provide voice services also.

The decision to grant permission to an ISP licensee with BWA spectrum to operate in the voice telephony space also helped the ISP to circumvent the restrictions imposed by their licence at the time of auction, which were known to the ISP at the time of bidding for BWA spectrum. This decision was taken ignoring the following important factor:

The entry fee of ₹ 1,658.57 crore was discovered in 2001 through the bidding for the 4th Cellular licences⁴⁷ and this price did not reflect the Present Value (PV) as on August 2013. Taking into account the cost inflation in the economy for the period from 2001 to 2013 the value of licence would have been at least ₹ 5,025.29 crore⁴⁸. The calculation of PV is at **Annexure-VII**. M/s Infotel (now RJIL) got undue advantage of ₹ 3,367.29 crore due to non-accounting of time value of money in spite of gap of 12 years.

In reply (July 2014), DoT stated that as per provisions of the UL guidelines, ₹ 1,658 crore has been taken from M/s RJIL to shift from ISP ‘A’ to UL and it was without allocation of any bundled spectrum. The discovered price of ₹ 1,658 crore in 2001 was with bundled 4.4 MHz paired spectrum. It further stated that ISP without spectrum could migrate to UL

⁴⁷ During 1994, 8 CMTS licenses, two each, awarded in 4 Metro cities. During 1995-96, 34 CMTS licenses (Maximum 2) awarded to 14 operators in 18 circles. These operators were referred as 1st and 2nd Cellular mobile operators in the Circles. BSNL and MTNL entered the mobile services as third operator in 1999. Based on competitive bidding, 17 new CMTS Licenses were issued as 4th operator in 2001 in the 4 Metro cities and 13 Telecom Circles

⁴⁸ This is obtained by calculating the Present Value (PV) of ₹ 1658 crore as on August 2013. The average PLR of 11.09 per cent up to 2009-10 as adopted by TRAI in its recommendations of May 2010 has been used as discount rate. For the subsequent years RBI replaced the PLR with base rate system in July 2010. Hence, the minimum rates of 8.25 per cent for 2010-11, 10 per cent for 2011-12 and 9.7 per cent for 2012-13 had been adopted as discount rate. This has been factored up to March 2013.

by paying difference of licence fee while M/s RJIL had obtained spectrum through open auction and had to pay entry fee of ₹ 1,658 crore without having any bundled spectrum, that too for a licence available for entry fee of ₹ 15 crore for all India.

DoT's contention that UASL fee of ₹ 1,658 crore included 4.4 MHz spectrum is not correct as this was the price for the UAS licensee to be eligible for administrative allocation of start-up spectrum, without any guarantee of allotment of spectrum. There were many UAS licensees who had paid ₹ 1,658 crore and were still waiting for allotment of spectrum⁴⁹ in a service area. Even Clause 3.3. of NIA mentioned that *"the prospective new entrants must note that this Notice does not imply in any way that such bidders, if successful in winning 3G/BWA spectrum and in obtaining a UAS licence will also be awarded 2G start-up spectrum"*. Further DoT's reply was silent on not applying the time value of money on the price of ₹ 1,658 crore as discovered in 2001.

2.8.4 Status of Rollout of BWA services

The roll-out status (as on October 2014) of service by the successful bidders in BWA auction is as detailed below:

Table-2

Bidder	Aircel	Bharti	Qualcomm	Tikona	Infotel (RJIL)	Augere
No of Service Areas (SAs) won	8	4	4	5	22	1
Bid price (in Rs. crore)	3438.01	3314.36	4912.54	1058.20	12847.77	124.66
Status	No Roll out	Service rolled out in few cities of 4 Service areas	Sold the company to Airtel on 18 October 2013	No Roll out	No Roll out	No Roll out

The status of roll out of service shows that the winners of BWA spectrum were nowhere near their roll-out obligations even after four years of winning the spectrum. Thus, one of the prime objectives of the auction i.e. to promote early roll out of broadband services had largely remained unachieved.

Conclusion

There were deficiencies in NIA for BWA auction viz., absence of financial parameters in the eligibility criteria for the bidders, absence of clause relating to lock-in period, disparity in scope of usage of BWA spectrum for different class of licensees, lack of intermediate

⁴⁹ Datacom, Unitech, Spice, Loop and TTSL (applied during February/March 2008 and not allocated spectrum in Delhi service area till 25 September 2011 and thereafter spectrum was allocated through auction).

milestones in rollout targets and lower rate of SUC for BWA spectrum operators. Further, allowing UAS/CMTS and ISP operators to bid for BWA spectrum while the usage of spectrum was restricted to services covered by their respective licences led to post-auction demand (August 2011) by M/s Infotel (later M/s RJIL), an ISP holding BWA spectrum, for seeking of MCC/MNC codes which would have enabled them to provide voice services, which was permitted. M/s RJIL took Unified Licence after paying an entry fee of ₹ 1,658 crore only, which was discovered in 2001 and this resulted in undue advantage of ₹ 3,367.29 crore due to non-accounting of time value of migration fee after lapse of 12 years.

Further, the liberal roll out obligations have not been achieved by any of the six winners even after four years since the award of spectrum. BWA services have been started only in a few select cities by one operator only. BWA services have not been rolled out in rural areas which was one of the prime objectives of the auction.

These deficiencies have therefore led to lack of efficient use of spectrum, resultant hoarding of spectrum in view of absence of rollout of BWA services and non-realisation of the expected revenue share in form of SUC even after more than four years of allocation of spectrum.