

5/15/10

GOVERNMENT OF INDIA (BHARAT SARKAR)
MINISTRY OF RAILWAYS (RAIL MANTRALAYA)
(RAILWAY BOARD)

No.2005/Tele/RCIL/1/Pt.

New Delhi,
Dated: 15.4.10

Chief Signal & Telecom Engineer,
All Indian Railways.

The Managing Director,
RailTel Corporation of India Ltd.,
10th Floor, Bank of Baroda Building,
Parliament Street,
New Delhi-110001.

Sub: Memorandum of Understanding

In terms of Para 11.10 of the Revised Agreement between RailTel and Ministry of Railways, a separate Memorandum of Understanding needs to be entered between Zonal Railways and RailTel for maintenance of OFC. In this regard, a MoU document duly approved by ML with the concurrence of Finance Dte. of Railway Board is sent herewith for further necessary action. Zonal Railways are advised to enter the MOU with RailTel quickly.

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(R.C. Adwal) 15/4/10
Exec. Director (Telecom)
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**MEMORANDUM OF UNDERSTANDING/AGREEMENT BETWEEN
____ RAILWAY AND RAILTEL CORPORATION OF INDIA LTD. on
OPERATION AND MAINTENANCE OF OPTIC FIBRE NETWORK to
ensure expected uptime and availability**

THIS MoU is signed in pursuance of Clause 11.10 of the revised agreement between Indian Railways and RailTel Corporation of India, this ---- day of --- 2008 at New Delhi between The General Manager _____ Railway, acting through The Chief Signal and Telecom Engineer (CSTE), or an officer _____ nominated by the CSTE of ----- Railway, hereinafter referred to as the “-----RAILWAY” and RailTel Corporation of India Limited, a company incorporated under the Companies Act, 1956, having its registered office at 10th Floor, Bank of Baroda Building, 16, Sansad Marg, Parliament Street, New Delhi-110001 hereinafter referred to as “RailTel”.

1. The objective of this MOU is to define the following:
 - the service levels (uptime & availability etc.) which RailTel shall be required to maintain and the incentive/disincentive in case these levels are not achieved/exceeded for the Optical Fibres of _____ Railway which Railtel maintains.
 - the role and responsibilities of Railway's and Railtel in maintenance of railway's OFC fibers, and
 - reporting system and accountal procedure.
2. The Chief Signal and Telecom Engineer (CSTE), or an officer nominated by the CSTE not below the rank of a SAG officer of the zonal railway will be the nodal officer from Railway's side while Regional General Manager (RGM)/RailTel or his nominated officer, not below the rank of GM/RailTel will be the nodal officer from RailTel's side for implementation of this MOU in each zone.
3. The nodal officers shall take all necessary steps to ensure unhindered working by Railtel maintenance team. The nodal officers are authorized by this MOU
 - a. to jointly decide and implement the procedures for access of Railtel contractors or customers to OFC/Telecom assets, methods of reporting of failures, maintenance of records etc.
 - b. to jointly decide and issue working instructions at zonal level for successful working of the Network. These instructions should cover all day-to-day aspects of maintenance including all maintenance schedules, procedures for reporting of faults, monthly tests and reports to be submitted.
4. RailTel will maintain the OFC through AMCs. The details of AMC, i.e. the headquarter location of the AMC team, their beat and their terms and

conditions etc. etc. will be advised by RailTel to Railways for their information.

5. The maintenance of tiny OFC routes, like exchange to exchange connectivity in a local area or OFC laid for LAN and similar smalls spur links, which are not handed over to RailTel will be the responsibility of Railways.
6. Wherever OFC has been laid by railways and handed over to RailTel, the nodal officers of RailTel shall ensure that within six months of signing of this MOU RailTel has checked that the depth at which cable is buried and quality of joints etc. etc. is in order and that the route plans are correct. Based on the joint inspection, all shortcomings and deficiencies in the work and in correctness of route plans etc. should be clearly brought out and reported to the CSTE of the railway concerned, RailTel head office in Delhi and Railway Board. After this period it shall be assumed that all works are in order unless it can, at a later date, be clearly and undisputedly proved otherwise. In case, the work is found to be below standard on Railways' account, RailTel will seek it to be exempted from calculation of penalty till quality improvement work is done on each such case. If approved by Railway Board, repair wherever possible will be carried out at Railway's cost. Railway board's view on this will be final
7. Vide Para 3.1.9 of the revised agreement dated 21.09.2006, Railway shall pay RailTel proportionate maintenance charges for maintenance of 4 fibers or 2 fibers (as the case may be) centrally through a nominated railway. **Rate of maintenance charges shall be as under:-**

(i) The proportionate fibre maintenance charges payable by Railways to RailTel will be Rs. 71/- (Rupees seventy one only) plus service tax per Km per month per pair of fibre for the year 2006-07; and

(ii) Rs.77/- (Rupees seventy seven only) plus service tax per Km per month per pair of fibre for the year 2007-08.

Rate revision shall be carried out for subsequent years as communicated by the Board.

For a newly commissioned section, maintenance charges shall become payable from the 1st of the month following the date of handing over of the fiber pair to Railways by RailTel and signing of the handing over/taking over between nominated officers of Railways and RailTel. Since the payment to RailTel for OFC maintenance will be released through the nominated railway based on the record maintained by zonal railways, CSTE's of the zonal railways will ensure that proper record of fiber handing over dates are maintained and send the verified records duly vetted FA&CAO to the nominated railway for arranging payment.

8. Railway agrees that the notified nodal officer of Zonal Railway shall:
 - a. provide round the clock access to authorized personnel of RailTel and their contractor's representative maintaining OFC cable and equipment in a given section to operate, maintain and test the fibers, electronics and associated equipment.

- b. be responsible for carrying out the shifting/relocation and will also bear the costs involved in case shifting/relocation of OFC/indoor electronic equipment is required on Railway account. Similarly RailTel shall be wholly responsible to carry out the shifting/relocation at its own cost in case shifting/relocation of OFC/indoor electronic equipment is required on RailTel account. If any additional incidental work is involved, the same would also be done and paid for by the party on whose account the work is being done.
- c. coordinate with all the railway offices and organizations with regard to railway works so as to ensure that cables are protected when cable affecting works are carried out by the agencies working under their supervision.
- d. ensure the compliance of joint procedure order no. 2004/Sig./G/7 dated 16.12.2004 issued by Railway Board for executing the work in the vicinity of underground Signalling, Electrical and Telecom cables to avoid damages while executing the works along the Railway track.
- e. ensure that he or his representative will coordinate with the representative of RailTel in all day-to-day matters to ensure high MTBF and low MTTR for the OFC network. He will also ensure proper maintenance of records in the form of NMS reports and other records such as log book, etc., so that details of occurrence and restoration of faults, their duration and reasons for occurrence, etc. are made available on a monthly basis. ***Down time calculations shall be based on NMS record as well as on paper record. The version of NMS shall be specified in the MOU and in case of upgradation/change in NMS software during currency of MOU . The MOU shall be updated accordingly.***
- f. ensure that he or his representative will coordinate with RailTel for periodic measurements of OFC cable or in the installation of additional hardware or software.
- g. ensure that he or his representative will coordinate at the division/sub-division level with P-way, Signalling and Electrical departments to ensure that all cable affecting works are noticed and properly monitored so as to protect the OFC cable. He shall also coordinate for shifting of cable or equipment as and when required by other Railway departments due to their planned works.
- h. lodge FIR with RPF in case of thefts or attempted thefts of cable wherever OFC has been laid and commissioned as 2/4 fibers in the OFC cable are the property of Indian Railways. He will also coordinate and follow up such cases with RPF.
- i. carry out preventive maintenance activities on quad cable (preferably between 00-00 hours to 06-00 hours) after giving due notice of at least 24 hours and will inform RailTel at least 12 hrs. in advance before taking up planned maintenance activity on 6 Quad cable, if laid in the same trench in which OFC cable is also laid.
- j. Ensure 80% payment of the penalty per cut to RailTel wherever

recovered as per board's guidelines issued vide letter no. 2003/Tele/RCIL/1/Pt.IX dated 04.05.2007. Recovery of penalty will be ensured by DRM in each case of cable cut wherever due and shall be paid to RailTel.

9. RailTel agrees that RailTel shall:
 - a. Maintain the OFC cable, where 2/4 fibers (as the case may be) are owned by Railways, as per an uptime of 97.5%, beat/section-wise, averaged quarterly. Wherever circuits are leased from RailTel with RailTel's own end to end protected circuits, the circuit efficiency will be 99.5%. A list of circuits which are not protected end to end will be jointly prepared by the respective representative of RailTel and Zonal Railways and will be updated half yearly.
 - b. ensure restoration of OFC cuts/breaks within 06 hours during day time and 8 hours during night time for each beat length independently. Beat length will be approximately 150-250 KMs depending upon the terrain/section and will be pre-defined. In case the cable is not restored within this period, delayed restoration will attract penalty. In case the cable is not restored within 8 hrs. during day time and 12 hrs. during the night time, delayed restoration of every hour or part thereof, will have two time weightage for calculation of OFC uptime. The duration of failure for above purpose will be reckoned from the time of occurrence of fault as noticed by NMS centre and reported by Railways, to the time when fibers are spliced and link is restored as per STM-1 NMS records where working and where not working as per test room records. The downtime will be calculated in minutes, rounded up to the nearest minute.
 - c. take preventive action on noticing conditions such as weakening of bridge approaches, soil erosion due to rain or any other reason, attempted thefts etc. When such cable affecting activity is noticed the nominated staff concerned will also advise section-in-charge of Railway by first available means.
 - d. ensure that terminations in fiber termination boxes and fiber distribution frames are maintained with minimum loss and all connectors are free of dust. The locations/rooms where the equipments are kept shall be periodically cleaned and kept free of clutter.
 - e. carry out, as far as possible, preventive maintenance activities between 00-00 hours to 06-00 hours after giving due notice of at least 24 hours and will inform Railways at least 12 hrs. in advance before taking up planned maintenance activity on OFC cable.
 - f. provide protection at E-1 level (similar to Radio patch) wherever feasible as per provision in the revised agreement so as to ensure least down time for Railway's important circuits.
10.
 - a. The following interruptions will not be counted while calculating the efficiency. Interruption due to:
 - (i) Programmed maintenance block of OFC system.

- (ii) Force majeure conditions will not be counted for this.
 - (iii) Night hours(6 PM to 6 AM) will not be counted towards outage in Notified section in disturbed areas jointly agreed by Railways and RCIL.
 - (iv) Inaccessibility due to flood and water logging.
- b. In the sections mentioned under unprotected list, a separate exercise would be carried out to decide whether 97.5% fiber efficiency can be relied upon for the existing communication needs *after* leasing from alternate service provider *or* laying of OFC will be required in future.
- c. In sections other than those mentioned in unprotected list where RailTel provided end to end protected circuits are available, zonal railways will not enter into any lease agreement with any other service provider including BSNL. In case any lease in these sections is continuing presently, the same should not be renewed.
11. Payment:-

- a. **Payment to RailTel shall be based on the fibre availability. Therefore, payment of maintenance charges mentioned in Para-7 shall be regulated as under:-**

<i>S.No.</i>	<i>Uptime/Availability of (in %age)</i>	<i>Payment rate of maintenance charges (in %age)</i>
<i>1.</i>	<i>100%</i>	<i>103%</i>
<i>2</i>	<i>99% to <100%</i>	<i>102%</i>
<i>3</i>	<i>97.5% to <99%</i>	<i>101%</i>
<i>4</i>	<i>97.5%</i>	<i>100%</i>
<i>5</i>	<i>97% to <97.5%</i>	<i>99%</i>
<i>6..</i>	<i>Below 97%</i>	<i>Reduction of each 1% of availability will reduce payment by 2%.</i>

- b. **Similar to fibre, payment for the leased circuits from RailTel shall be regulated as under (provided the circuit is end to end protected by RailTel):-**

<i>S.No.</i>	<i>Link Availability (in %age)</i>	<i>Payment rate of lease charges (in %age)</i>
<i>1</i>	<i>100%</i>	<i>103%</i>

2	>99.5% to <100%	101%
3	99.5%	100%
4	99 % to < 99.5%	99.5%
5.	98% to <99%	98%
6.	Below 98%	<i>Reduction of each 1% of availability will reduce payment by 2%.</i>

11. **VALIDITY OF AGREEMENT:** This MOU is co-terminus with the Revised Agreement dated 21.09.2006 between RAILWAYS and RailTel remains valid as per terms as set out in the main Agreement and will be extended in line with extension of agreement between Railways and RailTel.
12. **NOTICES: Communications**
- a. All communications between the parties with respect to this MOU shall be in writing and forwarded to the address set forth below or, to such other address as a party may from time to time designate.

RailTel
Regional General Manager
RailTel Corporation of India Limited,

RAILWAYS
The Chief Communication Engineer
----- Railway

13. **ARBITRATION:** In the event of any dispute or difference between the parties hereto, such dispute or difference shall be resolved amicably by mutual consultation. In any such case the decision of ministry of Railways will be final and binding.

IN WITNESS WHEREOF the parties have set their respective hands the day and year first before written.

Signed by Shri

Signed by Shri

Chief Communication Engineer,

.....Railway.

For and on behalf of

The General Manager,

.....Railway.

Regional General Manager

For and on behalf of

RAILTEL Corporation of India

Ltd.

Witnesses:

Name:

Address:

Name :

Address: