



SERVICE LEVEL AGREEMENT (SLA)

FOR

NMEICT PROJECT

BETWEEN

BHARAT SANCHAR NIGAM LIMITED

&

PATNA UNIVERSITY

PATNA

BIHAR TELECOM CIRCLE, PATNA

Service Level Agreement

To ensure an acceptable level of quality of service, BSNL/MTNL proposes to offer following terms in service level agreement.


A. General Conditions

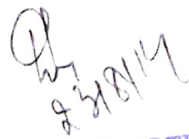
1. The service window is from 1000hrs to 1800 hrs on all working days (i.e. except Sundays and Gazetted holidays). Best efforts would be made for booking /fault rectification outside the service window also but the period will not be considered for calculation of rebate.
2. Causes of downtime of circuits/links include but are not limited to:
 - a. Leased Circuit equipment (i.e. NTU) failures, supplied by BSNL/MTNL to CUSTOMER
 - b. Circuit Outage (at BSNL/MTNL end only)
 - c. Leased Circuit device hardware failure/malfunction
 - d. Power outages (in BSNL/MTNL)
 - e. Human error (in BSNL/MTNL)
 - f. Process failure (in BSNL/MTNL)
 - g. Local Loop failure between the BSNL/MTNL MPLS node and Customer's premises, wherever applicable

Downtime ends upon the successful transmission of data to and from such site or Circuit.

B. Customer's Responsibility

1. Any fault duration (i.e. downtime) shall be calculated from the time the fault is reported and a fault docket number is issued to customer.
2. The institute will ensure availability of staff (especially during the service window) who are capable of dealing with the MPLS Circuit equipment/ Router. The period in which CUSTOMER premises is found closed or no staff is available when BSNL/MTNL staff visits the premises for testing or want to test the circuit from BSNL/MTNL location, will be excluded from fault duration.
3. The CUSTOMER shall provide all necessary assistance and access to its facilities for preventive and corrective maintenance to BSNL staff all the time.
4. In addition to the above following shall be **excluded** from fault duration:
 - I. Unavailability of circuit due to power failure at CUSTOMER end.
 - II. Unavailability of circuit due to mishandling of BSNL equipment (NTU) or any cables attached to such equipment at CUSTOMER end.



26/3/14
महाप्रबंधक (नेटवर्क योजना)-जीएफए
General Manager (Network Ptg.)-CFA
डीएसएनएल,बिहार परिपटल कार्यालय
BSNL,Bihar Circle Office
पटना / Patna-800011


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- III. Unavailability of circuit due to fault in CUSTOMER Premise equipment (CPE)/ network.
- IV. Unavailability of circuit due to the faults in the outdoor network of BSNL by third parties.
- V. Unavailability of circuit due to the force majeure.
- VI. Fault duration outside service window, if fault is booked after service window period.
- VII. Unavailability of circuit due to Planned Service Outages or Routine Maintenance not more than 4 hours in a month. BSNL/MTNL shall provide advance notice prior to conducting any scheduled maintenance.
- VIII. Interruptions during any period when the Customer chooses / elects not to release the Service for testing or repair and continues to use the Service on an impaired basis.
- IX. Interruptions not more than 4 hours in a month during any period when the customer has not released the Service to BSNL/MTNL for maintenance or for the implementation of a Customer Service Request.
- X. Interruptions caused by the Negligence of the customer including the provision of inaccurate information.

C. PROCEDURE OF FAULT BOOKING

1. CUSTOMER shall book the fault on assigned number of MPLS NOC viz., '1800-425-1957' (prescribed number for MPLS faults/complaints). (Date and time of booking of fault shall be taken as reference for the purpose of calculation of duration of non-availability of circuit).
2. Where the CUSTOMER is unable to find a BSNL/MTNL representative on the number assigned above, the fault can be booked on 080- 2580 4444/2580 7777, which will work as alternate number in such emergency. Status/fault report generated by BSNL/MTNL MPLS network (to the extent provided by the system) shall be taken, as reference if situations where there is ambiguity about the timing and nature of fault.
3. Normally a fault docket number will be provided to the CUSTOMER from BSNL/MTNL on booking of fault.
4. Call centre number 1500 shall be utilized for booking of faults pertaining to VPNoBB or internet.
5. For faults pertaining to campus LAN in the universities, separate contact nos. of the LAN vendor will be provided to the individual coordinators.


 महाप्रबंधक (नेटवर्क योजना)-सीएफओ
 General Manager (Network Plan)-CFA
 बीएसएनएल,बिहार परिमंडल कार्यालय
 BSNL,Bihar Circle Office
 पटना / Patna-800001

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D. SLA Conditions

1. SLA for MPLS VPN

1. BSNL/MTNL shall ensure proper functioning of MPLS VPN circuits for an uptime of 99% on per link per year basis.
2. Uptime is defined as below:

$$\text{Uptime (in\%)} = \frac{(\text{Total no.of Hours in the year} - \text{Total Downtime(in hours)})}{\text{Total No. of Hours in the year}} * 100$$

Total No. of Hours in the year

3. The **Latency** measured as the Round Trip Time from anywhere to anywhere within the BSNL/MTNL MPLS core network shall be within **150 ms**.
4. The **Packet Loss** within the BSNL/MTNL MPLS Core network shall be $\leq 1\%$.
5. The **Jitter** within the BSNL/MTNL MPLS Core Network shall be $\leq 50\text{ms}$.

For the purpose of measurement, "downtime" or "fault duration" constitutes any period of time during which the MPLS Circuit is unavailable for the utilization of the customer due to the reasons assignable to BSNL/MTNL MPLS network.

2. VPN over Broadband

A download speed of 512kbps would be assured.

- Upload of 512Kbps also would be provided.
- The above-mentioned bandwidth would be maintained for at least eighteen hours in a day.
- The above bandwidth would be assured up to BSNL/MTNL server only and it will not be binding on the BSNL/MTNL to provide the same bandwidth from servers outside the network. This means that the customer would not insist on the speed mentioned above for the downloads from the servers located outside BSNL/MTNL's network-whose performance BSNL/MTNL has no control over.

3. Internet Bandwidth

1. **Throughput:** The BSNL/MTNL shall guarantee a throughput of an uncontended bandwidth (1:1) as measured on physical layer. **Starting from 5 Gbps, it would reach up to 30 Gbps progressively.** A throughput of bandwidth on 1:1 Full Duplex (both ways) on 24 hours x 7 Days basis would be provided by BSNL/MTNL. BSNL/MTNL would ensure that the defined bandwidth to nearest BSNL/MTNL server is available for 95% of the time.
2. **Round Trip Delay (RTD):** shall be measured by computing the average RTD for one thousand (1000) pings (with acknowledge for each previous packet received) of sixty-four (64) bytes each. In case of International Internet Bandwidth, this


महाप्रबंधक (नेटवर्क योजना)-सीएफए
General Manager (Network Plg.)-CFA
बीएसएनएल,बिहार परिमंडल कार्यालय
BSNL,Bihar Circle Office
पटना / Patna-800001


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will be measured from BSNL/MTNL gateway router to the Tier-1 ISP in USA, Europe or Asia Pacific where the BSNL/MTNL link will be terminated.

RTD Summary

S. No.	Location	From BSNL Gateway Router International Internet Bandwidth
[1]	USA	350 msec
[2]	Europe (UK)	275 msec
[3]	Asia Pacific (Hong Kong)	200 msec
[4]	Asia Pacific (Singapore)	150 msec
[5]	Asia Pacific (Japan)	250 msec


3. **Packet Loss:** shall be measured by computing the percent packet loss of one thousand (1000) pings (with acknowledge for each previous packet received) of sixty four (64) bytes each. At any point of time during the contract period, the packet loss shall be less than 1%. In case of International Internet Bandwidth, this will be measured from BSNL/MTNL gateway router to the Tier 1 ISP in USA, Europe, Asia Pacific where the BSNL/MTNL link will be terminated.

The service shall be assumed to be unavailable or down for – with the occurrence of first Severely Errored Second (SES) of 10 consecutive SES.

- Internet Bandwidth/ IP Port in India, if any or a combination of the three parameters namely **throughput, RTD and packet loss** is not met continuously for a period of thirty minutes, Each slab of down time or unavailability of thirty minutes or part thereof observed over a period shall be taken into account for calculating the liquidated damages for service degradation.

Planned Outage

The planned outages will be aimed only to maintain and/ or to improve the network performance and/ or to enhance and/ or to upgrade the network as a whole or any part of it.


महाप्रबंधक (नेटवर्क योजना)-सीएफए
General Manager (Network Ptg.)-CFA
ओएसएनएल,बिहार परिसंजल कार्यालय
BSNL,Bihar Circle Office
पटना / Patna-800001


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PATNA-800005

The planned outages per site will not exceed four hours in any month. Any excess outage beyond 4 hours shall be included in service unavailability for the purpose of calculating liquidated damages.

The outages due to planned engineering works shall be excluded from the scope of penalties

4. Connectivity to National Knowledge Network(NKN)

- As the connectivity is proposed via 1Gbps MPLS links, SLA terms of MPLS links would be applicable here.


5. LAN setup in Universities and colleges

- **Uptime:** The uptime for active components would be 95% for the LAN network provided in colleges & universities.
- Faults in the wiring etc. would be attended within 48 hours of reporting.
- The life span of routers, switches etc. would be 5 years & for passive components in the network, lifespan would be 12 years. BSNL/MTNL shall ensure these life spans, via vendors employed for maintenance of LAN network.
- Any new provisioning requirement would be completed within *five* working days.
- **Spares:** Adequate spares for switches (not less than one) would be maintained for any emergency /maintenance requirements in each location.

E. PROCESS TO BE CARRIED OUT BY BSNL/MTNL

Restoration of Fault

- On receipt of complaint, BSNL/MTNL shall make its best efforts to localize the fault and restore the same at the earliest. The CUSTOMER shall provide all necessary support for enabling testing of the circuit at any hour of the day.
- In case the CUSTOMER is unable to provide necessary facilities to BSNL/MTNL, BSNL/MTNL will test the circuit on its network to the last point feasible and clear the fault docket after rectification of the fault. Circuit shall be presumed to be restored when BSNL/MTNL has tested the circuit and cleared the fault docket after finding that the circuit is capable of working properly. The fault duration shall accounted accordingly.
- Faults should be booked within the '**Service Window**'. Faults booked within the Service Window shall normally be attended on the same day. However, for faults booked beyond the Service window, BSNL/MTNL will make all efforts (from the NOC / Node, other field units) to restore the circuit during the night, to the extent feasible, the fault restoration work shall in any case be resumed during the '**Service window**' on the next day.


 महाप्रबंधक (नेटवर्क प्रो.कम) बिहार
 General Manager (Network Pro.) Bihar
 बीएसएनएल, बिहार परिषद का कार्यालय
 BSNL, Bihar Circle Office
 पटना / Patna-800001


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 PATNA UNIVERSITY
 PATNA-800006

iv. **Escalation matrix** for the faults would be as follows:

- a. Level 1: Call centre nos. as provided above
- b. Level 2: Account Manager in each SSA under overall charge of SSA Head
- c. Level 3: GM In charge of Broadband at each Circle headquarter.

F. Penalty

- o The maximum rebate shall be limited to 5% of the annual rental of each service for the lowest of the bandwidths availed during the period of SLA.

MPLS-VPN/Internet Bandwidth


- o If the service uptime for the applicable year is below the uptime guaranteed, then a rebate of 0.2% of the rental of the service per month shall be given for every 10 hours or part thereof downtime in excess of 88 hours in one year. For this purpose the number of days in a year is taken as 365 leading to a total duration of 8760 hours per year provided the billing will be pro-rata i.e., consumer will be charged only proportionately to the service provided in a month.
- o **VPN over Broadband**
- Faults for the purpose of penalty calculation would be counted if the same are not attended within 3 days; beyond this period, a rebate of 0.33% per day shall be applicable.

LAN Maintenance

- For active components, per day rebate of 0.2% of the AMC charge beyond guaranteed uptime will be provided.
- For wiring faults extending beyond 2 days and affecting more than 10% of the nodes in a particular site, per day rebate of 0.2% of the AMC charge will be provided.

FORCE MAJEURE

Neither BSNL/MTNL nor the CUSTOMER shall be liable to each other for any delay in or failure of performance of their respective obligation under the agreement caused by occurrences beyond the control of BSNL/MTNL or the CUSTOMER including but not limited to fire (including failure or reductions), acts of God, acts of the public enemy, war, insurrections, riots, strikes, lockouts, sabotage, any law, statute or ordinance, thereof of any other local authority, or any compliance therewith or any other causes, contingencies of circumstances similar to the above. Either party shall promptly but not later than thirty days thereafter notify the other of the commencement, and cessation of such contingencies, and if such contingencies continue beyond three months, both parties


महाप्रबंधक (नेटवर्क योजना)-सीएफए
General Manager (Network Plg.)-CFA
बीएसएनएल, बिहार परिमंडल कार्यालय
BSNL, Bihar Circle Office
पटना / Patna-800001


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agree upon the equitable solution for termination of this agreement or otherwise decide regarding course of action to be adopted.

Arbitration

In the event of any dispute or difference relating to the interpretation and application of this Agreement/MoU or the breach, termination or invalidity thereof the parties shall at first instance endeavour to amicably resolve/reconcile by mutual discussion/reconciliation in good faith. If the dispute or difference, breaches and violation arising from or related to the Agreement/MoU cannot be resolved within 60 (sixty) days of commencement of reconciliation/discussions, in such case, the same shall be referred by either party for arbitration to the sole Arbitrator in the Department of Public Enterprises to be nominated by the Secretary to the Government of India, in charge of Department of Public Enterprises. The Arbitration and Conciliation act 1996 shall not be applicable to the Arbitration under this clause. The award of the arbitrator shall be binding upon the Parties, provided, however, any party aggrieved by such award may make a further reference for setting aside or revision of award to the Law Secretary, Department of Legal Affairs, Ministry of Law and Justice, Government of India. Upon such reference, the dispute shall be decided by the Law Secretary, whose decision shall bind the parties finally and conclusively. The parties in the dispute will share equally the cost of arbitration as intimated by the Arbitrator.

IN WITNESS whereof the Parties by the hand of duly authorized representative signed

- These presents of on the day month and year mentioned above.

Sushama
26/3/14

(GM, Circle. महाप्रबंधक (नेटवर्क योजना)-सीएफए
General Manager (Network Plg.)-CFA
of M/s BSNL, बिहार परिमंडल कार्यालय
BSNL, Bihar Circle Office
पटना / Patna-800001

Witness: 1.

W. Ahmed
26/3/14

SDE (Sales), CFA-Section
of the CGMT, Bihar Circle
Patna

(Vice Chancellor/Director)

Name of University/ Institute

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PATNA UNIVERSITY
PATNA-800 006.

23/8/14

OJC/Nodal Office
P.U. Computer Centre