

M.P. State Electronics Development Corporation Ltd.
(A Govt. of M.P Undertaking.)

TENDER DOCUMENT
For
Procurement of Alternate Point to Point Bandwidth for Madhya Pradesh SWAN
(Tender no. MPSEDC/MKT/2011/ 206)

(All pages of this document except for Commercial-bid to be submitted in original duly signed on each page along with the technical bid envelope. The Commercial bid in original is to be enclosed in a separate sealed envelope)

M.P. State Electronics Development Corporation Ltd.

147, Zone-I, M.P. Nagar, Bhopal-462011 (M.P.)

Ph.0755-2769816, 2769823

Fax: 0755-2769824

www.mpsedc.com

Technical Bid

INVITATION FOR BIDS

Addl. Chief General Manager, MPSEDC Ltd., Bhopal invites sealed bids, under two envelopes system, from bidders for Procurement of alternate point to point bandwidth for MP SWAN of Madhya Pradesh. Interested bidders may obtain further information from the office of MPSEDC Ltd., Bhopal Bids are invited for the work mentioned hereunder:

Sn	Items	Description
A	Scope of Work	Procurement of alternate point to point bandwidth for MP SWAN of Madhya Pradesh
B	Cost of bid document	Rs.1000.00 (non-refundable) by Demand Draft/Cash
C	Postal charges	Rs.100.00(MPSEDC LTD. shall not be responsible for any postal delay)
D	Sale of bid documents	Date 27.10.11 to 17.11.11 (Between 10.30 AM to 5.30 PM)
E	Pre Bid Meeting	11.11.11 at 3.00 PM
F	Last date of submission of bid	Date 18.11.11 up to 3.00 PM.
G	Date of opening of technical bid	Date 18.11.11 at 4.00 PM.
H	EMD	Rs.1,00,000/- in the form of Demand Draft payable to MPSEDC Ltd at Bhopal
I	Place of opening of bids:	Office of MPSEDC LTD., 147, Zone-1, Maharana Pratap Nagar, BHOPAL (M.P.)
j	Address for communication:	MPSEDC LTD., 147, Zone-1, Maharana Pratap Nagar, BHOPAL (M.P.)

Note; Tender can be downloaded from the website **www.mpsedc.com**. In case tender form has been downloaded from the website, the tenderer will have to enclose a Demand Draft of Rs.1000/- (Rupees One thousand only) of any scheduled bank in favor of MPSEDC Ltd. payable at Bhopal along with the tender.

***Any future Corrigenda/Information shall be posted only on our website www.mpsedc.com**

Letter for Submission of tender

To
MPSEDC
147 Zone I, M P Nagar
Bhopal (M P)

Dated ----- ,2011.

Ref: "Procurement of alternate point to point bandwidth for MP SWAN of Madhya Pradesh against tender No MPSEDC /MKT/2011/ 206 dated 27.10.11 due for opening on 18.11.11

Dear Sir,

Having examined the tender document relating to the Procurement of alternate point to point bandwidth for MP SWAN of Madhya Pradesh as detailed in your tender, Terms & Conditions and scope of procurement, Specifications etc., and having understood the provisions and requirements relating to the procurement and all other factors governing the tender, We hereby submit our offer for the band width in accordance with terms and conditions and confirm our acceptance to execute the order within the time period specified in the tender document, at the rates quoted by us in the accompanying Technical & commercial Bid.

If, after the tender document is accepted, we fail to complete the commissioning of the items as per the order. We agree that, M/s. MPSEDC LTD. Bhopal shall have full authority to forfeit the earnest money and cancel our order with no obligation on their part.

We confirm having deposited earnest money of Rs 1,00,000/- (Rupees One lakh only) by Demand Draft No..... dated drawn on Bank Branch attached here to, and general information required is as per annexure attached.

We further confirm that –

- 1) We have successfully executed orders of similar nature and we have sufficient experience and financial strength in handling orders of this value.
- 2) We have sufficient qualified manpower and necessary materials and after sales support to execute the order efficiently in the specified time schedule.
- 3) The quoted rates shall be valid till the completion of the order but not less than 90 days.
- 4) We further confirm that all chapters of the tender documents have been read, understood and signed and there is no deviation/discrepancy We hereby certify that we as a company and products quoted by us have not been blacklisted by any government departments/agencies.

Signature of the Tenderer
With stamp and date

GENERAL INFORMATION AND EMD DETAILS

1	EMD Details DD No and date: Amount in Rs. Name of the Bank:	
2	Name and Address of the Tenderer:	
3	Contacts:	
4	Telephones:	
5	Fax:	
6	E-mail:	
7	Mobile No:	
8	Category of the Bidder (Whether company, partnership firm or Proprietary concern)	
9	Name of Chief Executive Officer and Telephone No.	
10	Year of Establishment	
11	Sales Tax/Commercial Tax/ CST nos.	
12	Income Tax PAN/GIR No.	
13	Yearly Turn over of the Last 2 years.	
14	Name and Address of the Banker	
15	List of major Clients and the size of orders executed	

Note: Separate sheets may be attached wherever necessary.

Signature of the Bidder
With stamp and date

Terms and Conditions

Contents of Bidding Documents for Procurement of alternate point to point bandwidth for MP SWAN of Madhya Pradesh, the bidding procedures and the terms of contract are prescribed here in under:

1) **Eligibility Criteria:**

Bidder must be a service provider having NLD, ISP Class A and IP1 licenses.

2) **Amendment in Bidding Document by the Competent Authority**

- a. At any time prior to the deadline for the submission of bids, the competent authority may, for any reason, whether on it's own or in response to a clarification requested for by a prospective bidder, modify the bidding document by way of amendment(s).
- b. The prospective bidders having received the bidding documents will be notified of the amendment(s) so made in writing or by Fax and such amendments shall be binding on them.
- c. In order to allow reasonable time to the prospective bidders for taking into account such amendment(s), in the preparation of their bids, the competent authority, at its discretion, may extend the deadline for the submission of bids.

3) **Bid Price**

- a. The bidders shall indicate on the prescribed Price Schedule, including item-wise and final Bid Price of the items listed
- b. Prices quoted by the Bidder shall be fixed during the Bidder's performance of the contract and shall not be subject to variation on any account.
- c. A bid submitted with an adjustable price will be treated as non-responsive and rejected.

4) **The EMD may be forfeited:**

- a. If a Bidder withdraws its bid during the period of bid validity specified by the bidder on the bid Form: or In case of a successful Bidder, if the Bidder fails:
- b. To accept the order
- c. To furnish performance security
- d. If the supplier, after accepting the purchase order fails to deliver the material/services as per the order.
- e. Any alterations, erasures or overwriting shall be valid only if the person or persons signing the bid initial them.

5) **Technical requirements**

The technical specifications are the minimum configuration required. Higher specifications may be considered but no price weightage for higher specifications shall be considered.

6) **Service support requirement**

The service support requirement shall be as per the service level parameters given in the document.

SUBMISSION OF BIDS

8. Sealing and Marking of Bids

The bidders shall submit EMD, technical bid (containing the technical specifications offered and original copy of commercial bid in separate sealed, envelopes all the above envelopes shall be sealed in one main envelope. All the envelopes should be distinctly marked EMD, technical bid, and commercial bid.

9. Deadline for Submission of Bids

Bids must reach to the competent authority at the address specified but not later than the time and date specified in the invitation of Bids. In the event of the specified date for the submission of bids being declared a holiday for the office of the competent authority, the bids will be received up to the appointed time on the next working day.

9. Late Bid

Any bid received after the deadline for submission of bids prescribed by the competent authority, will not be accepted and returned unopened to the bidder.

BID OPENING AND EVALUATION OF BIDS

10. Opening of Bids

Since it is a Two-bid system, Technical and EMD envelope will be opened first by the Committee constituted for this purpose. If the technical bid specifications offered, EMD and deviations asked (if any) are found in order, the Committee will open commercial bid only for the eligible bidders. The Committee will open the bids, in the presence of Bidders' representatives who choose to attend on the date specified at the following location:
Additional Chief General Manager

M.P. State Electronics Dev. Corpn. Ltd.
147, Zone-I, Maharana Pratap Nagar, BHOPAL-462011

Prospective Bidder representatives shall sign a register evidencing their attendance. In case, the commercial bid is not opened on the same or next day of opening of technical bid the Committee may decide to open the commercial bid on subsequent dates. In such case the date, time and place of opening of commercial bid will be intimated to the bidders or their representatives.

13. Preliminary Examination

Before starting evaluation, the bids will be examined to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the bids are generally in order. In case of computational error the basic price will prevail.

If bid is determined as not substantially responsive, the competent authority will reject it and only the substantially responsive commercial bids will be considered.

The process of evaluation of bid is as follows:

- a) The Committee, appointed by the MPSEDC LTD, will first verify that the Bank Draft for Bid Security is in order and as per requirement of the bid. The Committee will examine the bid on Eligibility Criteria as specified. The scrutiny of technical proposals will be based on the Evaluation Criteria determined.
- b) The commercial bid will be opened only for the proposals, which are found eligible and technically acceptable by the Committee and approved. On the day specified for the opening of bid, the Committee, appointed by the MPSEDC LTD., will open the commercial bids of eligible bidders and scrutinize the same minutely.

- c) After scrutiny, the MPSEDC LTD. after having examined the proposal may accept the same or accept the bid price of any other bidder found suitable or reject all or any proposal. The decision of the MPSEDC LTD. in this regard shall be final and binding.

14. Payment:

Payment shall be released by MPSEDC on quarterly basis at the end of each quarter after deduction of any penalty as applicable.

15. Performance Security

The successful bidder shall be required to submit performance guarantee equivalent to 10% of the order value for the satisfactory performance/completion of the complete order (Including warranty period), in the form of bank guarantee with MPSEDC LTD.

16. Contacting the Competent Authority

Any effort on part of a Bidder to influence the Competent Authority or members of Technical/Monitoring committee, in its decisions on bid evaluation; bid comparison or contact award may result in rejection of the bidder's bid.

17. General

- a) Bid form shall be duly filled in, signed and complete in all respects
- b) The price should be inclusive of all expenses and cost of terminal equipment and exclusive taxes and local levies if any.
- c) The rates should be free from all escalation. However, all Tax and duty benefits if applicable should be passed on to us.
- d) Commissioning period should not exceed 60 days for all circuits from Bhopal to CHQ & CHQ to DHQ and 90 days for all other circuits from the date of order. The MPSEDC LTD. reserves the right to extend the delivery period, in the interest of the concerned deptt.
- e) The inner and outer envelopes shall be addressed to the competent authority at the following address:

The Additional Chief General Manager
M.P. state Electronics Dev. Corpn. Ltd
147, Zone-I, Maharana Pratap Nagar, BHOPAL-462011
- f) The envelopes shall also indicate the name and address of the Bidder to enable the bid to be returned unopened in case it is declared "late."
- g) If the outer envelope is not sealed and marked, the competent authority will assume no responsibility for the bids, misplacement or premature opening.
- h) Telex; cable facsimile or fax bids will be rejected.
- i) Conditional bids are liable to be rejected.
- j) MPSEDC LTD. does not bind themes elves to accept the lowest or any other tender and reserve the right to accept or reject any or all the tender in full or in part without assigning any reason.

SERVICE PROVIDER AUTHORIZATION FORM

Ref No:

Dated:.....

To,
The Additional Chief general manager
M.P. State Electronics dev. Corpo. Ltd
147, Zone-I, Maharana Pratap Nagar, BHOPAL-462011

Tender No:..... Due Date:

Dear Sir,

We _____ who are established and reputed Service provider of _____ having office at _____

_____ (Address of the factory) do hereby authorize M/s _____ (Name & Address of agent) to submit a bid, and subsequently negotiate and sign the contract with you against the above tender.

We hereby extend our full guarantee, warranty and support and also in meeting warranty obligations by providing necessary spares in time for the services offered by the above firm against this tender, as per standard as well as MPSEDC warranty terms.

Yours faithfully

(Name of the Manufacturer)

Note: This letter of authority should be on the letterhead of the service provider and should be signed by a person competent and having a power of attorney to bind the service provider. The bidder in its bid should include it.

SCOPE OF WORK

MPSEDC is in the process of establishing MP Sate Wide Network (MPSWAN) wherein, Points of Presence (PoPs) are being established at all District, Tehsil and Block Head Quarters of the State. A total 360 Nos. of PoPs are proposed to be established out of which 320 are already operational. M/s Tulip Telecom has been awarded the Contract for establishment of MPSWAN and its Operation and Maintenance for a period of 5 years. The primary back bone for connectivity between these locations has been done through Point to Point leased circuits. Various Government Offices are being provided connectivity from the nearest PoP locations.

In order to provide, redundant circuits for the back bone MPSEDC desires to have Point to Point leased line from all Block/Tehsil Head Quarters (BHQ) to respective District Head Quarters (DHQ) and all DHQs to Commissionery Head Quarter (CHQ) and CHQ to Network Operation Centre (NMC, SHQ) at Bhopal. Wired connectivity would be the preferred media; however, wireless connectivity can be extended wherever the Bandwidth Service Provider (BSP) is not able to provide wired connectivity. A 30 meter high Guyed Rope Antenna Mast has been installed at all the PoPs. The BSP would be permitted to use the Antenna for installing their equipments and will be provided UPS power for these equipments. The BSP shall be allowed to install any other equipment for their own commercial use without affecting the operations of MPSWAN. However, he will not be provided power for these equipments. He will be provided space in the PoP Room of MPSWAN but he has to arrange for his own UPS and DG Backup as required. The BSP should clearly indicate whether, he wishes to use the infrastructure of MPSWAN as allowed above for his own commercial use and offer discount for availing such facility.

The Ports available for termination at SHQ, DHQ and BHQs are as follows:

Table-1

S.No	Tier	Router	Type of Port	Free Ports available
1	SHQ Bhopal	Cisco 7609	Ch STM	2
			Gigabit Ethernet on L3 Switch	28
2	CHQ & DHQ, All District HQs	Cisco 7206 VXR	Ch STM	1
			Ch E1	0
			Gigabit Ethernet WAN Port	0
			Gigabit Ethernet LAN port on Managed Switch	28
3	BHQ, All Tehasil & Block HQs	Cisco 2821	E1	0
			Gigabit Ethernet WAN Port	1
			Gigabit Ethernet LAN port on Managed Switch	28

The BSP shall be required to provide the Termination as per the Table given above and any equipment required to be installed (CPE) for matching with the above interfaces shall be provided by them. The cost of all such equipments should be included in the cost of Bandwidth.

The Bandwidth is required for a period of 5 years; however, initial order shall be placed for a period of One year. The order will have a provision of extension on yearly basis on the same rates and Terms & Conditions subject to satisfactory performance. Initially, leased circuits are being asked for Vertical Connectivity only. MPSEDC in future may consider providing redundant circuits for Horizontal Connectivity also. Therefore, in the Financial Bid format rates have been invited

based on Distances also. These rates can also be used for Vertical Connectivity for additional PoPs which may be established in future.

A brief introduction of MPSWAN alongwith the Service Level requirements and penalties is given below

INTRODUCTION

The National e-Governance Plan (NeGP) of Government of India has a clear focus on improving delivery of government services to citizens, e-Governance is noted to play a very active role in this endeavor. NeGP recognizes that creation of basic IT and service delivery infrastructure by the States is essential for effective and cost efficient deployment of e-Governance, with this view, NeGP recognizes to undertake three core projects of State Wide Area Network (SWAN), State Data Centre (SDC) and Common Service Center (CSC) are being established in every State. Department of Information Technology, Government of India is providing support for these projects to the state.

The role of Information Technology has been well established in the State of Madhya Pradesh. The State has a well- defined IT policy and has been working towards making the State as a preferred destination for the IT related service industry. Also, there are various activities initiated by the Government to bring better governance to the citizens.

Majority of the departments in Government of Madhya Pradesh (GoMP) have already developed or designed their e- Governance systems for better governance of their systems and to serve the citizens efficiently. Missing link in the total system was a common road, which interconnects every department to each other and the departmental offices to each other vertically.

As part of the Government of Madhya Pradesh (GoMP) e-Governance initiative, the Madhya Pradesh State Electronics Corporation (MPSEDC) has implemented a State Wide Area Network (SWAN) to address the information communication requirements of the State Government and its Departments. The Madhya Pradesh State Wide Area Network (MPSWAN) is providing a reliable, resilient and a secure backbone to meet the information requirements and associated services.

Madhya Pradesh State Wide Area Network (MPSWAN)

SWAN (State Wide Area Network) is envisaged as the converged backbone network for data, voice and video communications throughout the State and is expected to cater to the information communication requirements of all the departments. Key focus of the SWAN project is on high service delivery.

SWAN is planned to be a high speed, high capacity, reliable intra-state and inter-state network planned to deliver G2G, G2B and G2C services. The network would require having minimum bandwidth 4 Mbps connectivity between the states head quarters and the district head quarters and 2/4 Mbps connectivity between the district head quarters and the block head quarters the network would provide high uptime, redundancy, backup etc. Strict Service Levels agreements are signed between the stakeholders to ensure that the service levels are maintained.

The SWAN deployment takes place both vertically and horizontally, the main backbone of SWAN connects the State Head quarters PoP with the PoPs at Commissioner Head Quarters (CHQ) which in turn are connected to the respective PoPs at District HQs. The DHQ PoPs are connected to Sub district/ block level headquarters (BHQ). Moreover the various state offices are also connected or proposed to be connected horizontally with the closest respective PoPs. Typical equipments deployed at these PoPs and maintained by the implementing agency includes routers, switches, modem, racks, RAS, AAA, NMS, Servers, VoIP Phone, Desktops, UPS, Generators, Air Conditioners, LAN cabling, Voice Gateway, IP EPABX (Soft Switch) etc.

Project owner –	Government of Madhya Pradesh.
Implementing Agency –	Madhya Pradesh State Electronics Corporation.
State Consultant –	STPI
Network Operator–	TULIP
Third Party Audit (TPA) Agency –	KPMG

Current Bandwidth Service Provider – BSNL
Bandwidth Service Provider 2 – To be chosen separately by the GoMP – Scope of this RFP

MPSWAN Network Architecture

The primary services provided by MPSWAN, are envisaged for the departments located at State level, Divisional level, District level and Taluka level respectively. Therefore, MPSWAN is deployed in a Four-Tier Architecture at State Level (herein after referred as "Tier-1"), Divisional Level (herein after referred as "Tier-2") District Level (herein after referred as "Tier-3") and Taluka Level (herein after referred as "Tier-4"), which is inline with the way GoMP has been organized administratively.

Tier-1 POP -- NMC at Bhopal: 01
Tier-2 POP -- all Divisional HQ: 09 (Excluding State HQ)
Tier-3 POP -- all District HQ: 40
Tier-4 POP -- at Block/Tehsil HQ: 310

SWAN Backbone is through conventional lease lines and all MPSWAN backbone lease lines are terminated on the Routers placed at every SWAN POPs.
Network is divided into 4 tiers i.e. Tier1, Tier2, Tier3 & Tier4 with each layer representing following segments:

Tier1=State NMC having Core Routers, Switches & other G/w level devices
Tier2=Distribution/Access Routers & other devices at Divisional HQ POP's.
Tier3=Distribution/Access Routers & other devices at District HQ POP's.
Tier4=Access Routers & other devices at Block Level POP's

The state NMC is located at **Bhopal** the Madhya Pradesh state capital.

The network architecture is sub divided into two levels as **Vertical Connectivity (VC)** and **Horizontal Connectivity (HC)**.

Vertical Connectivity – consists of following types of connectivity:

From Block POPs (Tier-4) to District POPs (Tier-3)
From District POPs (Tier-3) to Commissioner POPs (Tier-2)
From Commissioner POPs (Tier-2) to NMC (Tier-1)

Horizontal Connectivity – consists of connectivity to every Departmental Offices to the MPSWAN Control Rooms at various tiers at State, Divisional, Districts and Talukas.
All MPSWAN POPs will be equipped with VoIP Phone and VC equipment (Desktop Camera) with central controlling at NMC.

In addition to above router, a mid-level router is also located at State NMC for terminating the Internet bandwidth and running BGP as the inter-domain routing protocol. In addition to this a **Central Call Manager/ Call server** catering to entire MPSWAN VoIP traffic is also located here forming a Hub and Spoke topology. Also a central **Video Conferencing MCU** is located at State NMC catering to the entire MPSWAN Video Conferencing traffic forming a Hub and Spoke topology. An **Intrusion Prevention System (IPS)** is installed at State NMC taking care of securing the entire traffic to and fro from Internet to MPSWAN. In addition to this there are five servers in NMC. For following applications one server each is used:

- AAA Server
- Web Server
- DNS Server
- Proxy server
- Email Server
- NMS/ EMS Server

The Bandwidth Service provider shall ensure that all the Terminal End Equipments (MUX or Modem) at all the MPSWAN PoPs and remote offices are monitored by their NMS so that link uptime / downtime and performance parameters are captured till that point. It is desired to have

all the links for end-to-end connectivity to be managed through NMS of the Bandwidth Service Provider. For all the nodes that are not managed by the NMS, the Bandwidth Service Provider should clearly specify those nodes and subsequent plans to convert these nodes into "Managed Nodes".

Note: The bandwidth service provider shall ensure that the links are monitored from the currently deployed NMS i.e. CA

Helpdesk

There is a helpdesk at state NMC for providing support services to entire SWAN network users. Helpdesk have following components:

Helpdesk management module of NMS.

Helpdesk service desk

The bandwidth service provider shall ensure co-ordination of their service desk with the existing service desk of MP SWAN for issue reporting and follow-up for progress status

SERVICE LEVEL AGREEMENT

SLA Calculation Principles

The prime objective of the MPSWAN project is to provide secure and high-quality data, voice and video services to GoMP Offices and Departments. In order to ensure that the required bandwidth for services of MPSWAN are available round the clock, in a efficient manner, a Service Level Agreement (SLA) is to be signed between MPSEDC/ GoMP and the successful bidder. Therefore, the SLA would be critical in implementation of bandwidth, as the remuneration of the bidder shall open the same.

This section describes the service level parameters and how they are measured and calculated, the subsequent section describes the penalty calculations. The term 'Levels' used in the document is defined as:

Level-1 Link: Point-to-Point leased line circuit from SHQ to CHQ

Level-2 Link: Point-to-Point leased line circuit from CHQ to DHQ

Level-3 Link: Point-to-Point leased line circuit from DHQ to BHQ

Service Level Objectives

The Bandwidth Service Provider shall meet service level objectives and corresponding parameters as mentioned below at any given point of time. Service level **objectives** and parameters are categorized according to:

Reliability

- 1) Availability of Links.
- 2) Quality of Links

Manageability

Serviceability parameters – Service Turnaround time

Capability & Capacity

Deployment Time

Reliability

Reliability of the link means the availability and quality of the links. The availability of the links is defined according to the type of links, i.e. Level-1 & 2 and Level-3.

Availability of the Links

The successful bidder is expected to maintain the high percentage of uptime on the network and provide bandwidth for various services. The successful bidder shall monitor the links continuously

using their own NMS to ensure the availability of services as per the agreed service levels.

Links between MPSWAN PoPs and remote offices at each level-1&2 and level-3 would be considered "available" when all the three services, viz. Voice, Video and Data are available on the network. Availability of every link at Level-1&2 and Level-3 are calculated on the basis of uptime/downtime of the link.

It is also understood that small amount of down time is unavoidable and therefore, service levels and the penalty calculations allow for such down times. The downtime allowable will be small level-1&2 and will be more lenient as we move down to level-3 and then to Block level as mentioned in subsequent sections.

The government also realizes that most of the Government work happens during the prime business hours and therefore, the down time during extended business hours will be counted more leniently for the purpose of penalties.

The uptime requirement of every link under the mentioned levels is given below:

Uptime Requirement

- Level-1 & 2 Links - 99.5%
- Level-3 Links - 99.0%

Note: The methodology to calculate Uptime & Downtime is described in the following sections.

Quality of Links

Quality of any link is measured in terms of latency, packet loss and jitter. The terms are defined as follows:

Latency

"Latency" refers to the average time required for round-trip packet transfers between two-end points on the selected portions of the MPSWAN Backbone. The MPSWAN Bandwidth Service Provider is expected to give end-to- end latency of less than 30ms at all the Levels as mentioned below in this section.

Packet Loss

"Packet Loss" refers to the percentage of voice/video packets lost over a period of time over a network segment. The MPSWAN Bandwidth Provider is expected to ensure that maximum end-to-end packet loss will be less than 1% at all the Levels as mentioned below in this section.

Jitter

"Jitter" is calculated as the variance of the round-trip delay measurements by sending out multiple packets over a network segment with equal time spacing between each interval. This is measured using UDP jitter packets or any other methodology used by the bidder. MPSWAN Bandwidth Service Provider is expected that the end-to-end jitter will be not more than 10ms (millisecond) at all the Levels and is to be monitored constantly.

Qualities of links and performance parameters for all the links at all the Levels are as below:

Table-2

S. No.	Parameters	Minimum Performance Required	Breach of SLA
1.	Latency	30 ms	>30ms
2.	Jitter	<10 ms	>= 10ms
3.	Packet Loss	1%	>1%

Note: In case any of the above parameters for any link are falling under "Breach of SLA" mentioned above, it will be treated as downtime. The methodology to calculate downtime is described in the section below.

Calculation of Downtime

- 1) Downtime of a link shall be calculated based on the data collected by the monitoring tools (NMS) of the Bandwidth Service Provider. Following principles apply for the calculation of the downtime:
- 2) Output port of the Terminal End Equipments at the MPSWAN PoPs or at the remote offices will be monitored by the Bandwidth Service Provider for the purpose of uptime / downtime of the link.
- 3) A link shall be down when a "Ping" test to the remote router at the MPSWAN PoPs or remote offices fails due to the link failure or failure of the Terminal End Equipment which are supplied by the Bandwidth Service Provider.
- 4) Downtime with regards to quality of the link as mentioned will be calculated as follows:
- 5) In case any of the quality parameters are falling under "Breach of SLA" (as mentioned in section above), alerts will be generated by the NMS of the Bandwidth Service Provider or through "trouble ticket" generated by the Bandwidth Service Provider NMS or Call Centre arrangement.
- 6) Start of the downtime will be the time the alerts or any call is registered as mentioned above.
- 7) Polling will be done for all the above performance parameters at the interval of 5 minutes to check the compliance with the minimum performance requirements (as mentioned in section above).
- 8) The link will be considered down till the performance parameters are within the minimum performance requirements specified in section above.
- 9) All the downtimes shall be added together for each link every month to arrive at the downtime for that particular link for that month.

Downtime of all the links will be categorized according to the levels and business hours according to the following table:

Table-3 – Downtime Calculation Template for a link

S. No.	Uptime of Link	Level-1 & 2 Links	Level-3 Link
1.	During Prime Business Hours	Uptime >=99.5%, no penalty.	Uptime >=99%, no penalty.
		If Uptime is less than 99.5% but more than equal to 99.0%, then for every 0.01% drop in the uptime percentage, a penalty of 0.5% of the current quarterly bandwidth charges payable shall be levied as a penalty to a max of 20% of current quarterly bandwidth charges payable for the link as per the agreement	If Uptime is less than 99.0% but more than equal to 98.0%, then for every 0.02% drop in the uptime percentage, a penalty of 0.5% of the current quarterly bandwidth charges payable shall be levied as a penalty to a max of 20% of current quarterly bandwidth charges payable for the link as per the agreement

		If Uptime is less than 99.0% but more than equal to 98.0%, then for every 0.01% drop in the uptime percentage, a penalty of 0.75% of the quarterly bandwidth charges shall be levied as a penalty to a max of 40% of current quarterly bandwidth charges payable for the link as per the agreement	If Uptime is less than 98.0% but more than equal to 96.0%, then for every 0.02% drop in the uptime percentage, a penalty of 0.75% of the quarterly bandwidth charges shall be levied as a penalty to a max of 40% of current quarterly bandwidth charges payable for the link as per the agreement
		If Uptime is less than 98.0%, no payment for that link for that quarter.	If Uptime is less than 96.0%, no payment for that link for that quarter.
2.	During Extended Business Hours	Downtime of a link = (Actual Downtime of a link/2)	Downtime of a link = (Actual Downtime of a link/2)

Calculation of Uptime

'Uptime' refers to availability of bandwidth across each Level. Uptime for each link shall be calculated based on the following formula for every month:

Uptime (In percentage) =

$100 \times \left[\frac{\text{Total Available time per quarter} - \text{Downtime of a Link}}{\text{Total Available time per quarter}} \right]$

1. Total Available time per quarter = (24 hrs * N days) – SLA Exclusion Time
2. **N** = Number of working days
3. Downtime of a link = Downtime of a particular link according to the Table 4.3

SLA Exclusion Time – as mentioned in the tender.

Manageability

Manageability defines the initial response and issue resolution time taken by the Bandwidth Service Provider to resolve an issue reported. The Bandwidth Service Provider shall meet the initial response and issue resolution time as given in table-4.4 below.

Table-4 – Initial Response/Issue Resolution Time

S. No.	Initial Response & Issue Resolution Time	Level-1 & 2 Links	Level-3 Links
1.	Initial Response Time	-	-
	During Prime Business Hours	15 min.	20 min.
	During Extended Business Hours	30 min.	30 min.
2.	Issue Resolution Time	-	-
	During Prime Business Hours	60 min.	80 min.
	During Extended Business Hours	120 min.	120 min.

Penalties

Based on the SLA objectives & parameters defined above, the penalty structure has been defined against breach of service level agreement. Though the SLA parameters will be calculated on a monthly basis, the penalties will be calculated on a quarterly basis before the quarterly

payments. Penalties will be calculated All the SLA parameters are translated into following penalty structures:

Downtime of a link

Downtime / Uptime for each individual link in one month will be added together in a quarter for levying the total penalty for each link for a quarter. For calculation of penalties, any four consecutive quarters taken together will be taken as one year.

Additional Penalties clauses applicable for all links

The services of the State Headquarter/District Headquarter/ shall not be unavailable/down due to downtime of the link for a continuous period of 3 hrs or more in a quarter during the Prime Business Hours. Beyond two hours of continuous downtime during the Prime Business Hours, for every 60 minutes or part thereof, 0.25% of the quarterly charges will be levied as penalty, subject to a maximum of 10% of the quarterly charges.

In the event of any link being run at maximum penalty for any two quarters of a year, an additional 100% penalty will be levied on the quarterly charges for the second defaulting quarter. Further, if the bandwidth provider is unable to improve the performance of such a link during the course of that year, GoMP/MPSEDC may terminate the Agreement.

There shall not be more than 30 incidents in a month where downtime of every link is less than 5 minutes. The incidents more than 30 in a month for every link will cause the penalty of 0.75% of the quarterly bandwidth charges of all the links.

Initial Response/Issue Resolution Time

Penalties shall be levied on the Bandwidth Service Provider for delayed responses and resolutions based on the structure given in table 4.

Table-5 – Penalty for Delay in Initial Response/Issue Resolution Time

S. No.	Performance Parameter	Penalty for Breach	Stipulated period for mitigating performance breach conditions	Enhanced Penalty
1.	Initial Response Time as mentioned in table 4	Rs. 500 (Rupees five hundred only) per 15 min. of delay	1 hour	Rs. 1000 (Rupees one thousand only) per 15 min. of delay
2.	Issue Resolution Time as mentioned in table 4	Rs. 1000 (Rupees one thousand only) per hour of delay	2 hours	Rs. 2000 (Rupees two thousand only) per hour of delay

Delay in Implementation Period

The penalties due to delay in the implementation are given as below:

- 1) No Penalty: If bandwidth service provider is meeting the SLA parameters for implementation period, no penalty shall be levied on the quarterly bandwidth charges.
- 2) Penalty: Delay in implementation period at any Level, the penalty structure is given in table 5.

Table-6 – Penalty for Delay in Implementation

S. No.	Performance Parameter	Penalty for Breach	Stipulated period for mitigating performance breach conditions	Enhanced Penalty
1.	Implementation of bandwidth according to Schedule	1% of the quarterly bandwidth	2 weeks	2% of the quarterly bandwidth charges shall be levied per week of delay

Calculation of Penalty

Penalties for the quarter will be calculated for each link depending on the Level – 1&2 or Level 3 as described in table. Total Penalty for an individual link will be the sum of the penalties for Prime Business Hours and Extended Business Hours.

All the penalties calculated shall be added to the above penalties to arrive at the Total penalties in a quarter.

SLA Exclusion Time

1. Downtime caused by failure of Equipment maintained by the MPSWAN BOOT Operator will not be attributed to the Bandwidth Service Provider.
2. Power outage: Downtime caused due to non-availability of power for the CPE equipments installed by the bandwidth service provider is not attributed to the Bandwidth Service Provider
3. Scheduled Preventive Maintenance activity of the network equipments at all MPSWAN PoPs is not attributed to Bandwidth Service Provider.
4. Any scheduled and approved preventive maintenance activity of Bandwidth equipments at all MPSWAN PoPs is not accountable for calculations of penalties.

Co-ordination with MPSWAN Network Operator and TPA

The MPSWAN Network Operator (TULIP) is responsible for maintaining the network equipment at all the centers of MPSWAN. Any link outages noticed from the MPSWAN Network Operations Center and/or any of the MPSWAN PoPs will be reported to the Bandwidth Service Provider from MPSWAN Network Operator. It shall be the responsibility of the Bandwidth Service Provider to ensure that the link is made up and running within the agreed service levels, failing which penalties shall be levied on the Bandwidth Service Provider.

Bandwidth Service Provider will also provide necessary support to Third Party Audit (KPMG) for proactive monitoring of links and calculation of any sort of penalty levied on bandwidth service provider in case of bandwidth service provider fault.

Diagnostic Procedure for MPSWAN Link Issue Resolution

In case of some issues between Network operator and bandwidth service provider for down time and QoS, the below mentioned mechanism may be considered for resolution. The diagnostic procedure detailed takes into consideration some common issues that may happen in MPSWAN and is not meant to be exhaustive.

Table – 7 - Diagnostic Procedure for downtime of BSP Link

S. No	Procedure	Diagnosis data to be used
1	1. BOOT engineer to check for Power at the SHQ. 2. Power to be checked by BOOT operator engineer by calling up Remote offices (identified person at remote office)	If power is available, go to next step. Otherwise, BOOT operator engineer to address the power issue.
2	BOOT engineer to check If Router is Switched ON.	If the Router is ON, go to next step. Otherwise, BOOT engineer to address power issue
3	BOOT engineer to check if CPE is switched ON.	If the CPE is on, go to next step. Otherwise, BOOT engineer to address CPE power issue. If the issue is of power supply at the PoP, then BOOT operator will address the issue. Else, Bandwidth service provider (BSP) shall address the issue (assuming the problem is because of CPE).
4	Div Headquarter, District Headquarter and Block Headquarter engineers to check respective Routers and interfaces linking with each other. BOOT engineer to TELNET the respective Router and check the parameters: 1. Line Protocol (Indicate service provider link) 2. Line (Indicate Router to CPE status)	If the Line Protocol is down, forward the ticket to BSP. Line status can indicate multiple issues: 1. CPE power off - BOOT operator shall handle. 2. CPE failure - BOOT operator / bandwidth service provider shall handle. 3. Cable (connecting CPE and Router failure - BOOT operator shall handle). 4. Router interfaces failure - BOOT operator shall handle

Table – 8 - Diagnostic Procedure for QoS

S. No	Procedure	Diagnosis data to be used
1	The procedure for detailed root cause analysis and data attached to the ticket for QoS shall be carried out.	Based on the diagnosis data, the root cause and the party responsible (BSP or NO) shall be identified in the ticket. Responsibility of monitoring QoS and initiating the diagnosis is with Network operator.

1. The diagnosis procedure may be followed for all tickets by Network operator before forwarding a ticket to bandwidth service provider.
2. The diagnosis data (textual description is a must and where required additional files) attached to the tickets as a proof of diagnosis carried out and also the decision to transfer the ticket to BSP or NO as the case may be.
3. Failure of attaching diagnostic data to a ticket to support the final decision taken on root cause and responsibility (NO or BSP) shall result in the respective party (not updating the ticket) to own up the ticket and any penalty on this ticket.
4. The above is applicable for issue resolution during PBH, EBH, all PoP, Special nodes, Remote offices and other offices where SLA is applicable.
5. This shall be applicable for both network downtime and Quality of Service issues.
6. Bandwidth service provider shall provide detailed textual description of the diagnosis in the

ticket for the first month. After one month, BSP shall come up with a solution to attach files to support diagnosis work done by their engineers. During this period, a protocol shall also be developed for data parameters to be provided and also the mode of provision of this data in the ticket. This exercise should be undertaken both by the network operator and bandwidth service provider, separately as well as jointly. This shall be facilitated by TPA.

Appendix A – Implementation Timeline

Implementation and deployment timeline for the complete bandwidth is as per the following table:

Table-9- Timelines for implementation

S. No.	Level	Duration for Implementation	Duration Permitted for scaling up of the bandwidth
1	Level-1&2	60 days	15 days
2	Level-3	90 days	21 Days

Selected Bidder is expected to adhere to the above or mutually agreed timeline for the implementation. Penalty clauses are applicable for delay in implementation and commissioning of the links. Bidders should submit approach, plan and timeframe for scalability.

Financial Bid

1. Charges for Point to Point Circuits for 2 Mbps Bandwidth:

Sr. No.	End "A" (PoP Location)	End "B" (PoP Location)	Amount per Anum (In Rs)	Tax (In Rs)	Total Amount (In Rs)
1	NMC Bhopal	SDM Office, Berasia			
2	NMC Bhopal	Collectorate, Sehore			
3	Collectorate, Sehore	SDM Office, Ashta			
4		SDM Office, Ichhawar			
5		SDM Office, Nasrullaganj			
6		SDM Office, Budhni			
7		Tehsil Office, Rehti			
8		Tehsil Office, Shyampur			
9	NMC Bhopal	Collectorate, Raisen			
10	Collectorate, Raisen	Janpad Office, Sanchi			
11		Janpad Office, Silwani			
12		Tehsil Office, Udaipura			
13		Janpad Office, Badi			
14		Janpad Office, Obedullaganj			
15		Janpad Office, Gairatganj			
16		Tehsil Office, Goharganj			
17		Tehsil Office, Begamganj			
18		Tehsil Office, Bareli			
19	NMC Bhopal	Collectorate, Rajgarh			
20	Collectorate, Rajgarh	SDO Office, Biora			
21		SDO Office, Narsingarh			
22		SDM Premises, Khilchipur			
23		Tehsil Office, Jirapur			
24		Tehsil Office, Sarangpur			
25		Tehsil Office, Pachour			
26	NMC Bhopal	Collectorate, Vidisha			
27	Collectorate, Vidisha	Tehsil Office, Basoda			
28		Tehsil Office, Kurwai			
29		Tehsil Office, Sironj			
30		Tehsil Office, Lateri			
31		Tehsil Office, Nateran			
32		Tehsil Office, Gyaraspur			
33		Tehsil Office, Shamshabad			
34		Tehsil Office, Tyoda			
35	NMC Bhopal	Collectorate, Indore			
36	Collectorate, Indore	Tehsil Building, Mhow			
37		SDO Office, Sanwer			
38		Tehsil Building, Depalpur			

39		Tehsil Office, Hatod			
40	Collectorate, Indore	Collectorate, Khandwa			
41	Collectorate, Khandwa	BRC, Chhegaon Makhan			
42		Janpad Panchayat Office, Punasa			
43		SDO Revenue Office, Pandhana			
44		SDO Revenue Office, Chhanera			
45		Block Resource Centre, Khalwa			
46		Janpad Panchayat Office, Baldi			
47	Collectorate, Indore	Collectorate, Dhar			
48	Collectorate, Dhar	Janpad Panchayat Office, Nalchha			
49		Janpad Panchayat Office, Tirla			
50		Tehsil Office, Manawar			
51		Vipnan Sankhyiki Office, Bakanar (Umarban)			
52		Tehsil Office, Gandhwani			
53		SDM Office, Kukshi			
54		Higher Sec. School, Nisarapur			
55		Vipnan Sankhyiki Office, Bagh			
56		Janpad Panchayat Office, Dahi			
57		SDO Revenue Office, Sardarpur			
58		Tehsil Office, Badnawar			
59		Women & Child Welfare Office , Dharampuri			
60	Collectorate, Indore	Tehsil Office, Jhabua			
61	Tehsil Office, Jhabua	Janpad Panchayat, Rama			
62		Tehsil Office, Thandla			
63		Tehsil Office, Petlawad			
64		Tehsil Office, Ranapur			
65		Tehsil Office, Meghanagar			
66	Collectorate, Indore	Collectorate, Alirajpur			
67	Collectorate, Alirajpur	Janpad Panchayat, Sondawa			
68		Janpad Panchayat, Katthiwada			
69		Tehsil Office, Jobat			
70		Janpad Panchayat, Udaigarh			
71		Tehsil Office, Bhavra			
72	Collectorate, Indore	Collectorate, Khargone			
73	Collectorate, Khargone	Block Office, Gogawan			

74		Tehsil Office, Bhagwanpura			
75		Tehsil Office, Segaon			
76		SDM Office, Bhikangaon			
77		Tehsil Office, Jhiranya			
78		SDM Office, Mandleshwar			
79		Tehsil Office, Maheshwar			
80		SDM Office, Badwah			
81		SDM Office, Kasrawad			
82	Collectorate, Indore	Collectorate, Badwani			
83	Collectorate, Badwani	Block Office, Pati			
84		Tehsil Office, Thikri			
85		Tehsil Office, Rajpur			
86		Tehsil Office, Pansemal			
87		SDO Revenue Office, Sendhawa			
88		Tehsil Office, Niwali			
89		Tehsil Office, Anjar			
90	Collectorate, Indore	Zila Panchayat Office, Burhanpur			
91	Zila Panchayat, Burhanpur	Tehsil Office, Khaknar			
92		Tehsil Office, Neapanagar			
93	NMC Bhopal	Collectorate, Gwalior			
94	Collectorate, Gwalior	Tehsil Office, Ghatigaon			
95		Tehsil Office, Dabra			
96		Tehsil Office, Bhitwar			
97		Tehsil Office, Chinor			
98	Collectorate, Gwalior	Collectorate, Shivpuri			
99	Collectorate, Shivpuri	SDM Office, Karera			
100		SDM Office, Kolaras			
101		SDM Office, Pohari			
102		SDM Office, Pichhore			
103		Tehsil Office, Narwar			
104		Tehsil Office, Khaniyadhana			
105		Block Office, Badarwas			
106	Collectorate, Gwalior	Collectorate, Guna			
107	Collectorate, Guna	Block Office, Bamori			
108		Tehsil Office, Aron			
109		SDM Office, Raghogarh			
110		SDM Office, Chachoura			
111		Tehsil Office, Kumbhraj			
112		Tehsil Office, Maksudangarh			
113	Collectorate, Gwalior	Tehsil Office, Ashoknagar			
114	Tehsil Office, Ashoknagar	Tehsil Office, Mungaoli			
115		Tehsil Office, Chandari			

116		Tehsil Office, Isagarh			
117		Tehsil Office, Shadoura			
118	Collectorate, Gwalior	Tehsil Office, Datia			
119	Tehsil Office, Datia	Tehsil Office, Sewda			
120		Tehsil Office, Bhandar			
121	NMC Bhopal	Collectorate, Morena			
122	Collectorate, Morena	Tehsil Office, Ambah			
123		Janpad Panchayat, Porsa			
124		Tehsil Office, Joura			
125		Janpad Panchayat, Pahadgarh			
126		Tehsil Office, Sabalgarh			
127		Tehsil Office, Kailaras			
128	Collectorate, Morena	Collectorate, Bhind			
129	Collectorate, Bhind	SDM Office, Ater			
130		Tehsil Office, Gohad			
131		SDM Office, Mehgoan			
132		Tehsil Office, Lahar			
133		Tehsil Office, Ron			
134		Tehsil Office, Mihona			
135	Collectorate, Morena	Collectorate, Sheopur			
136	Collectorate, Sheopur	SDO Revenue Office, Vijaypur			
137		Tehsil Office, Karahal			
138	NMC Bhopal	Collectorate, Ujjain			
139	Collectorate, Ujjain	Tehsil Office, Ghatiya			
140		Tehsil Office, Badnagar			
141		Tehsil Office, Khachrod			
142		Tehsil Office, Nagda			
143		Tehsil Office, Mahidpur			
144		Tehsil Office, Tarana			
145	Collectorate, Ujjain	Tehsil Office, Ratlam			
146	Tehsil Office, Ratlam	Tehsil Office, Sailana			
147		Tehsil Office, Jaora			
148		Tehsil Office, Alot			
149		Tehsil Office, Piploda			
150		Tehsil Office, Bajna			
151	Collectorate, Ujjain	Collectorate, Neemuch			
152	Collectorate, Neemuch	Tehsil Office, Manasa			
153		Tehsil Office, Jawad			
154	Collectorate, Ujjain	Collectorate, Dewas			
155	Collectorate, Dewas	SDM Office, Sonkatch			
156		SDM Office, Bagli			
157		SDM Office, Kannod			
158		Tehsil Office, Tonkkurd			
159		Tehsil Office, Khategaon			
160		Tehsil Office, Hatpipalya			

161		Tehsil Office, Satwas			
162	Collectorate, Ujjain	Collectorate, Shajapur			
163	Collectorate, Shajapur	Tehsil Office, Shujalpur			
164		Tehsil Office, Agar			
165		Tehsil Office, Susner			
166		Tehsil Office, Gulana			
167		Tehsil Office, Moman Badodia			
168		Tehsil Office, Badod			
169		Tehsil Office, Kalapipal			
170		Tehsil Office, Nalkheda			
171		Collectorate, Ujjain	Collectorate, Mandsour		
172	Collectorate, Mandsour	Tehsil Office, Garoth			
173		Tehsil Office, Malhargarh			
174		Tehsil Office, Sitamau			
175		Tehsil Office, Suwasra			
176		Tehsil Office, Bhanpura			
177		Tehsil Office, Shamgarh			
178		Tehsil Office, Dalouda			
179	NMC Bhopal	Collectorate, Sagar			
180	Collectorate, Sagar	Tehsil Office, Rahatgarh			
181		Block Office, Jaisinagar			
182		Tehsil Office, Rehli			
183		Tehsil Office, Garhakota			
184		Tehsil Office, Deori			
185		Tehsil Office, Keshli			
186		Tehsil Office, Banda			
187		Block Office, Shahgarh			
188		Tehsil Office, Khurai			
189		Block Office, Malthone			
190		Tehsil Office, Bina			
191	Collectorate, Sagar	Collectorate, Damoh			
192	Collectorate, Damoh	Tehsil Office, Pathariya			
193		Tehsil Office, Jabera			
194		Tehsil Office, Tendukheda			
195		Tehsil Office, Hatta			
196		Tehsil Office, Patera			
197		Tehsil Office, Batiyagarh			
198	Collectorate, Sagar	Collectorate, Panna			
199	Collectorate, Panna	Tehsil Office, Ajaygarh			
200		Tehsil Office, Gunnaor			
201		Tehsil Office, Pawai			
202		Tehsil Office, Shahnagar			
203		Tehsil Office, Repura			
204		Tehsil Office, Amanganj			
205		Tehsil Office, Devendra Nagar			
206	Collectorate, Sagar	Collectorate, Chhatarpur			

207	Collectorate, Chhatarpur	Tehsil Office, Rajnagar			
208		Tehsil Office, Nowgaon			
209		Tehsil Office, Laundi			
210		Tehsil Office, Bijawar			
211		Tehsil Office, Badamalhara			
212		Block Office, Bakswah			
213		Tehsil Office, Gaurihar			
214		Tehsil Office, Maharajpur			
215		Tehsil Office, Chandala			
216	Tehsil Office, Dhuwara				
217	Collectorate, Sagar	Tehsil Office, Tikamgarh			
218	Tehsil Office, Tikamgarh	Tehsil Office, Niwari			
219		Tehsil Office, Jatara			
220		Block Office, Prithvipur			
221		Block Office, Palera			
222		Block Office, Baldeogarh			
223		Tehsil Office, Orcha			
224		Tehsil Office, Khargapur			
225	NMC Bhopal	Collectorate, Jabalpur			
226	Collectorate, Jabalpur	Block Office, Panagar			
227		CEO Janpad Panchayat, Kundam			
228		SDM Office, Sihora			
229		Tehsil Office, Majholi			
230		SDM Office, Patan			
231		Tehsil Office, Shahpura			
232	Collectorate, Jabalpur	Collectorate, Katni			
233	Collectorate, Katni	Block Office, Bahoriband			
234		Block Office, Rithi			
235		Block Office, Vijayraghavgarh			
236		Block Office, Badwara			
237		Block Office, Dhimarkheda			
238		Tehsil Office, Barhi			
239	Collectorate, Jabalpur	Collectorate, Narsinghpur			
240	Collectorate, Narsinghpur	SDM Office, Gotegoan			
241		SDM Office, Gadarwara			
242		Block Office, Saikheda			
243		Block Office, Babai Chichali			
244		Block Office, Kareli			
245		Tehsil Office, Tendukheda			
246		Block Office, Chawarpatha			
247	Collectorate, Jabalpur	Collectorate, Mandla			

248	Collectorate, Mandla	CEO Janpad Panchayat, Mohgaon			
249		CEO Janpad Panchayat, Ghughri			
250		SDM Office, Nainpur			
251		SDM Office, Bichhiya			
252		CEO Janpad Panchayat, Mawai			
253		SDM Office, Niwas			
254		CEO Janpad Panchayat, Narayanganj			
255		CEO Janpad Panchayat, Bijadodi			
256	NMC Bhopal	Collectorate, Chhindwara			
257	Collectorate, Chhindwara	SDO Office, Amarwara			
258		SDO Office, Parasia			
259		CEO Janpad Panchayat, Mohkheda			
260		SDO Office, Jamai (Junardev)			
261		SDO Office, Saunsar			
262		CEO Janpad Panchayat, Pandhurna			
263		Tehsil Office, Bichhua			
264		Tehsil Office, Tamia			
265		Tehsil Office, Churai			
266		CEO Janpad Panchayat, Harrai			
267	Collectorate, Chhindwara	Collectorate, Balaghat			
268	Collectorate, Balaghat	Tehsil Office, Baihar			
269		Block Office, Parswada			
270		Block Office, Birsa			
271		SDM Office, Waraseoni			
272		SDM Office, Lanji			
273		Tehsil Office, Kirnapur			
274		Tehsil Office, Khairlanji			
275		Tehsil Office, Lalbarra			
276		Tehsil Office, Katangi			
277	Collectorate, Chhindwara	Collectorate, Seoni			
278	Collectorate, Seoni	Tehsil Office, Barghat			
279		Tehsil Office, Keolari			
280		Tehsil Office, Lakhnadon			
281		Block Office, Chhapara			
282		Tehsil Office, Ghansaur			
283		Block Office, Dhanaura			
284		Tehsil Office, Khawasa (Kurai)			
285		NMC Bhopal	Collectorate, Hoshangabad		
286	Collectorate, Hoshangabad	SDM Office, Pipariya			
287		SDM Office, Seoni Malwa			

288		Janpad Panchayat, Sohagpur			
289		SDM Office, Itarsi			
290		Janpad Panchayat, Keshla			
291		Tehsil Office, Bankhedhi			
292		Tehsil Office, Babai			
293	Collectorate, Hoshangabad	Collectorate, Harda			
294	Collectorate, Harda	Tehsil Office, Timarni			
295		Tehsil Office, Khirkiya			
296		Tehsil Office, Sirali			
297		Tehsil Office, Rehatgaon			
298	Collectorate, Hoshangabad	Collectorate, Betul			
299	Collectorate, Betul	Block Office, Ghoradongari			
300		Block Office, Chicholi			
301		SDM Office, Shahpur			
302		SDM Office, Bhainsdehi			
303		Block Office, Bhimpur			
304		Janpad Panchayat, Aathner			
305		SDM Office, Multai			
306		Block Office, Prabhat Pattan			
307		Block Office, Amla			
308	NMC Bhopal	Collectorate, Rewa			
309	Collectorate, Rewa	Tehsil Office, Raipur(Korch)			
310		Tehsil Office, Gurh			
311		Tehsil Office, Mauganj			
312		Tehsil Office, Hanumana			
313		CEO Office, Naigarhi			
314		SDM Office, Teonthar			
315		SDM Office, Jawa			
316		SDM Office, Sirmour			
317		SDM Office, Gangew			
318		Tehsil Office, Mangawa			
319	Collectorate, Rewa	Collectorate, Sidhi			
320	Collectorate, Sidhi	Tehsil Office, Churhat			
321		Tehsil Office, Majholi			
322		Tehsil Office, Sihawal			
323		Tehsil Office, Rampur Naikin			
324		Tehsil Office, Kusmi			
325	Collectorate, Rewa	Tehsil Office, Singrauli			
326	Tehsil Office, Singrauli	Tehsil Office, Chitrangi			
327		Tehsil Office, Devsar			
328	Collectorate, Rewa	Collectorate, Satna			
329	Collectorate, Satna	Tehsil Office, Maihar			
330		Tehsil Office, Amarpatan			
331		Tehsil Office, Rampur Baghelan			

332		Tehsil Office, Nagod			
333		Tehsil Office, Ramnagar			
334		Tehsil Office, Uchehara			
335		Tehsil Office, Majhgawa			
336		Tehsil Office, Kothar			
337		Tehsil Office, Birsinghpur			
338	NMC Bhopal	Collectorate, Shahdol			
339	Collectorate, Shahdol	Tehsil Office, Jaitpur			
340		Block Office, Goparu (Pali 2)			
341		Tehsil Office, Beohari			
342		Tehsil Office, Jaisinghnagar			
343		Sub Tehsil Office, Burhar			
344		Collectorate, Shahdol	Collectorate, Dindori		
345	Collectorate, Dindori	CEO Janpad Panchayat, Amarpur			
346		CEO Janpad Panchayat, Samnapur			
347		CEO Janpad Panchayat, Karanjiya			
348		CEO Janpad Panchayat, Bajag			
349		CEO Janpad Panchayat, Mehadwani			
350		Tehsil Office, Shahpura			
351	Collectorate, Shahdol	Collectorate, Umaria			
352	Collectorate, Umaria	Janpad Panchayat, Pali			
353		Tehsil Office, Manpur			
354		Janpad Panchayat, Karkeli			
355		Chandiya			
356	Collectorate, Shahdol	Collectorate, Anuppur			
357	Collectorate, Anuppur	Block Office, Kotma			
358		Block Office, Pushprajgarh			
359		Tehsil Office, Jaithari			

2. Charges for Point to Point Circuits for 4 Mbps Bandwidth:

Sr. No.	End "A" (PoP Location)	End "B" (PoP Location)	Amount per Anum (In Rs)	Tax (In Rs)	Total Amount (In INR)
1	NMC Bhopal	Collectorate, Sehore			
2		Collectorate, Raisen			
3		Collectorate, Rajgarh			
4		Collectorate, Vidisha			
5	NMC Bhopal	Collectorate, Indore			
6	Collectorate, Indore	Collectorate, Khandwa			
7		Collectorate, Dhar			
8		Tehsil Office, Jhabua			
9		Collectorate, Alirajpur			
10		Collectorate, Khargone			
11		Collectorate, Badwani			
12		Zila Panchayat Office , Burhanpur			
13	NMC Bhopal	Collectorate, Gwalior			
14	Collectorate, Gwalior	Collectorate, Shivpuri			
15		Collectorate, Guna			
16		Tehsil Office, Ashoknagar			
17		Tehsil Office, Datia			
18	NMC Bhopal	Collectorate, Morena			
19	Collectorate, Morena	Collectorate, Bhind			
20		Collectorate, Sheopur			
21	NMC Bhopal	Collectorate, Ujjain			
22	Collectorate, Ujjain	Tehsil Office, Ratlam			
23		Collectorate, Neemuch			
24		Collectorate, Dewas			
25		Collectorate, Shajapur			
26		Collectorate, Mandsour			
27	NMC Bhopal	Collectorate, Sagar			
28	Collectorate, Sagar	Collectorate, Damoh			
29		Collectorate, Panna			
30		Collectorate, Chhatarpur			
31		Tehsil Office, Tikamgarh			
32	NMC Bhopal	Collectorate, Jabalpur			
33	Collectorate, Jabalpur	Collectorate, Katni			
34		Collectorate, Narsinghpur			
35		Collectorate, Mandla			
36	NMC Bhopal	Collectorate, Chhindwara			
37	Collectorate, Chhindwara	Collectorate, Balaghat			
38		Collectorate, Seoni			
39	NMC Bhopal	Collectorate, Hoshangabad			
40	Collectorate, Hoshangabad	Collectorate, Harda			

41		Collectorate, Betul			
42	NMC Bhopal	Collectorate, Rewa			
43	Collectorate, Rewa	Collectorate, Sidhi			
44		Tehsil Office, Singrauli			
45		Collectorate, Satna			
46	NMC Bhopal	Collectorate, Shahdol			
47	Collectorate, Shahdol	Collectorate, Dindori			
48		Collectorate, Umaria			
49		Collectorate, Anuppur			

3. Charges for Point to Point Circuits for 8 Mbps Bandwidth:

Sr. No.	End "A" (PoP Location)	End "B" (PoP Location)	Amount per Anum (In Rs)	Tax (In Rs)	Total Amount (In Rs)
1	NMC Bhopal	Collectorate, Indore			
2		Collectorate, Gwalior			
3		Collectorate, Morena			
4		Collectorate, Ujjain			
5		Collectorate, Sagar			
6		Collectorate, Jabalpur			
7		Collectorate, Chhindwara			
8		Collectorate, Hoshangabad			
9		Collectorate, Rewa			
10		Collectorate, Shahdol			

4. Charges for Point to Point Circuits for unspecified Locations (Future Expansion)

Sr. No.	Distance between End A & End B (In Km)	Bandwidth Requirement	Amount per Anum (In Rs)	Tax (In Rs)	Total Amount (In Rs)
1	0.1 to 5	2 Mbps			
2	5.1 to 10	2 Mbps			
3	10.1 to 15	2 Mbps			
4	15.1 to 20	2 Mbps			
5	20.1 to 25	2 Mbps			
6	25.1 to 50	2 Mbps			
7	51 to 100	2 Mbps			
8	101 to 150	2 Mbps			
9	151 to 200	2 Mbps			
10	201 to 250	2 Mbps			
11	251 to 300	2 Mbps			
12	301 to 350	2 Mbps			
13	351 to 400	2 Mbps			
14	401 to 450	2 Mbps			
15	451 to 500	2 Mbps			
16	Above 500	2 Mbps			
17	0.1 to 5	4 Mbps			
18	5.1 to 10	4 Mbps			
19	10.1 to 15	4 Mbps			
20	15.1 to 20	4 Mbps			
21	20.1 to 25	4 Mbps			
22	25.1 to 50	4 Mbps			
23	51 to 100	4 Mbps			
24	101 to 150	4 Mbps			
25	151 to 200	4 Mbps			
26	201 to 250	4 Mbps			
27	251 to 300	4 Mbps			
28	301 to 350	4 Mbps			
29	351 to 400	4 Mbps			
30	401 to 450	4 Mbps			
31	451 to 500	4 Mbps			
32	Above 500	4 Mbps			

Note:

Item no 1 of Financial Bid shall be ordered immediately subject to readiness of site (At present 321 sites are ready). Order for other items shall be given as per requirement in future. However total of all the rates shall be used for evaluation of financial bid

Signature of the Bidder
With stamp and date