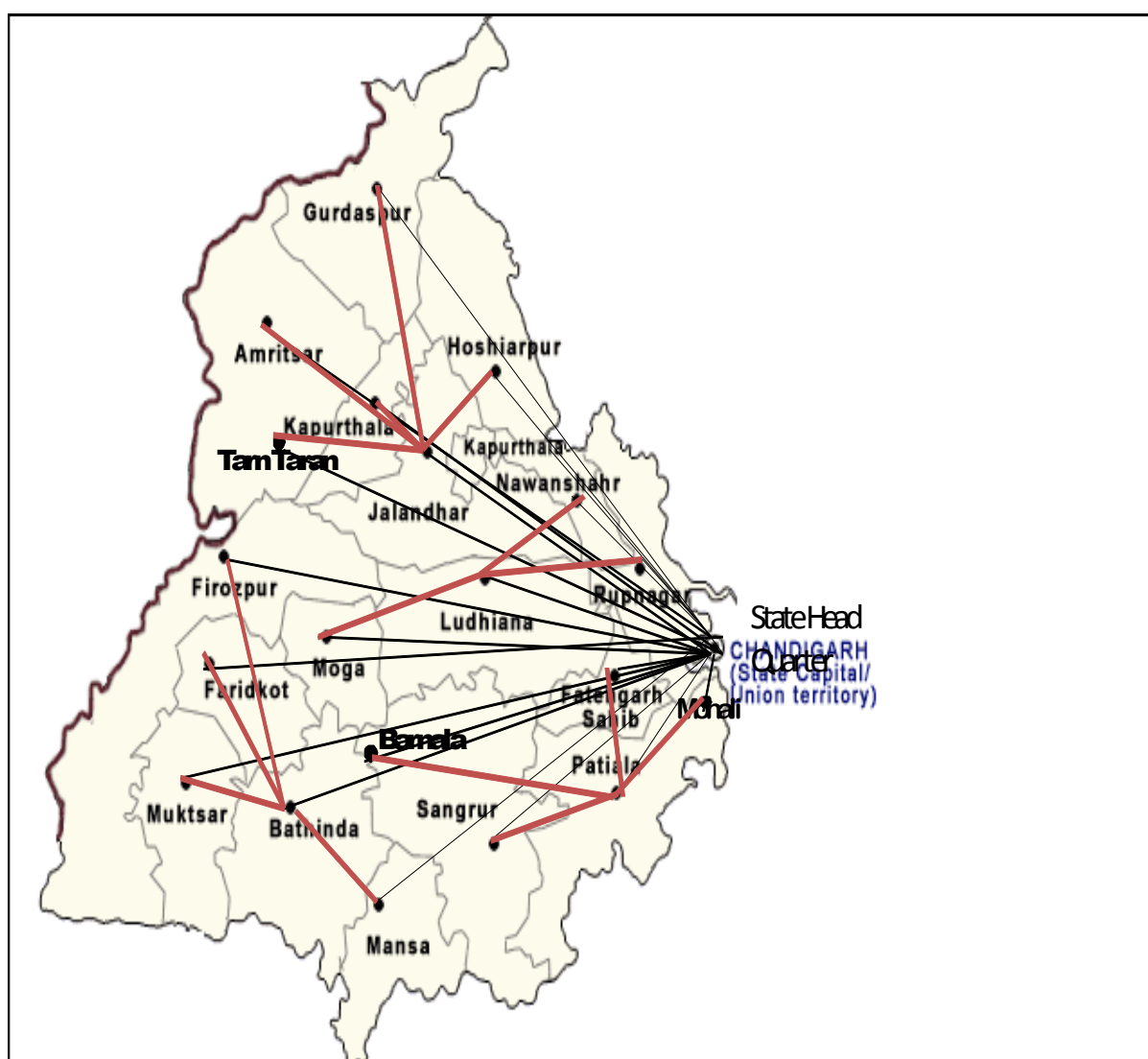




**Request for Proposal
for
Provisioning of Connectivity for Horizontal Offices in Punjab
Under
State Wide Area Network - PAWAN**

RFP No. PSEGS/PAWAN/Horizontal/2008-09/

Dated: _____

IMPLEMENTING AGENCY

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1. Section I: Invitation to Bidders

- i. Government of Punjab is considering the appointment of a BOOT Operator (herein after referred to as “bidder”) to implement and maintain the last mile connectivity from PAWAN PoPs to the departmental office, referred to as horizontal offices, in an efficient and effective manner on an appropriate Public Private Partnership (PPP) model. Bidder has to quote for the implementation and management of the Horizontal offices which will be based on the Build, Own, Operate and Transfer (BOOT) model, for duration of five years.
- ii. The bidders are advised to study the tender document carefully. Submission of bids shall be deemed to have been done after careful study and examination of the tender document with full understanding of its implications. This section provides general information about the Issuer, important dates and addresses and the overall eligibility criteria for the bidders.

➤ **Issuer**

Punjab State E-Governance Society (PSEGS)

Government of Punjab, SCO 193-195, Sector 34-A, Chandigarh- 160 034

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➤ **Address for Bid Submission and Correspondence**

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1.1. Key Events & Dates

Event	Target Date
Non-refundable Tender cost	Rs.5000/- through demand draft/bankers pay order from a scheduled bank, drawn in favour of "Member Secretary., PSEGS", payable at Chandigarh.
Sale of tender	25.11.2008 (from 11.00 hrs) till 2.1.2009 (upto 13.00 hrs)
EMD	Rs. 5,00,000/- in the form of Demand Draft in favor of PSEGS payable at Chandigarh from a scheduled bank.
Last date to send in requests for clarifications on the tender	2.12.2008 (upto 17.00 hrs)
Date and Time for Pre- Bid Conference	4.12.2008 (15.00 hrs)
Last date for submission of bids	2.1.2009 (upto 14.00 hrs)
Opening of Pre qualification bids	2.1.2009 (15.00 hrs)
Tender Evaluation (Pre-Qualification) and notification of bidders qualifying Pre-Qualification round	12.1.2009
Opening of Technical Bids	19.1.2009 (11.00 hrs)
Presentation on technical bid by short-listed bidders	27.1.2009
Declaration of short-list of bidders for commercial bid	30.1.2009
Opening of commercial bids	30.1.2009
Language of the bid	This bid should be filled in English language only. If any supporting documents are to be submitted, in any other language other than English, then translation of the same in English language, attested by the bidder should be attached.

2. Section II: Eligibility Criteria

The invitation to bid is open to all bidders who qualify the eligibility criteria as given below:

S. No.	Clause	Documents required *
1.	The bidder should be a company registered under the Companies Act, 1956 since last 5 years.	Certificate of incorporation.
2.	Bidder (in case of consortium, the lead bidder) should be an established Information Technology company/IT System Integrator and should have been in the business for a period exceeding three years as on 31.03.2008.	Work Orders confirming year and area of activity. Memorandum and Articles of Associations.
3.	The bidder (in case of consortium, the lead bidder) should have experience in setting up atleast 5 networks with 100 WAN nodes/8 networks with 50 WAN nodes/12 networks of 25 WAN nodes during the last three years.	Copy of work order/client certificates.
4.	The bidder(in case of consortium, the lead bidder) should have a valid ISO 9001:2000 certification for system integration at the time of bidding.	Copy of the certificate.
5.	The bidder(in case of consortium, the lead bidder) should have positive net worth and a turnover of more than Rs. 25 crores for each of the last two Financial Years ending on 31.03.2008.	Chartered Accountant certificate for Net-worth. Copy of the audited profit and loss account of the company showing turnover of the company for last two years.
6.	The bidder(in case of consortium, the lead bidder) must have on its roll at least 30 Certified Network Engineers.	Engineer's details with their contact information, educational qualification, experience details along with the projects they have handled and their association with the

S. No.	Clause	Documents required *
		organization must be enclosed.
7.	The bidder (prime) should furnish, as part of its bid, an Earnest Money Deposit (EMD) of Rs. 5,00,000/- (Five lakh only). The EMD should be denominated in Indian Rupees, and should be in the form of a Demand Draft/Cheque issued by a Nationalized/Scheduled Bank, in favor of Member Secretary, PSEGS.	
8.	The Bidders shall not be under a Declaration of Ineligibility for corrupt or fraudulent practices or blacklisted with any of the Government agencies.	Declaration in this regard by the authorized signatory of the prime bidder.
9.	The bidder (prime) should submit valid letter from the OEMs confirming following: • Authorization for bidder • Confirm that the products quoted are not end of life products • Undertake that the support including spares, patches for the quoted products shall be available for next 6 years.	
10.	The bidder should have an office in the state/Chandigarh. However, if the local presence is not there in the state, the bidder should give an undertaking for establishment of an office, within two months of award of the contract.	Relevant Documents or Undertaking.
11.	The Bid can be submitted by an individual or a consortium. In case of consortium, the consortium shall be evaluated based on the lead bidder's strength.	In case of consortium applicant consortia shall submit a valid Memorandum of Understanding (MOU)/ agreement among all the members signed by the

S. No.	Clause	Documents required *
		Authorized Signatories of the companies dated prior to the submission of the bid. The MoU/agreement shall clearly specify the stake of each member and outline the roles and responsibilities of each member. The MoU/agreement shall be exclusively for this project and shall be responsible in case of failure by any member. Please Note: A organization acting as a system integrator can be independently or be a part of only one Consortium. In the event an organization in the capacity of SI is part of more than one Bid, all these bids will be rejected.
12	All pages of the documents should be duly stamped and signed.	
13	Complete set of documents should be properly indexed.	

*Where ever necessary, proofs should be submitted.

3. Section III: Project Profile

3.1. PAWAN Overview

Government of Punjab is in process of establishing the Punjab State Wide Area Network (PAWAN). This Wide Area Network (WAN) will act as a backbone network for data, voice and video communications throughout the State and become a vehicle for effective implementation of Electronic Governance (e-Governance) across the state.

The National e-Governance Plan (NeGP) has identified various Mission Mode Projects, which are to be implemented in a phased manner over the next 3-4 years by the Line Ministries/Departments concerned at the Central and State level, as applicable, in addition to the various other e-Governance initiatives being taken by the respective States and Central Ministries. Punjab State Wide Area Network (PAWAN) has been identified as an element of the core infrastructure for supporting these e-Governance initiatives. The Government of Punjab views NeGP to take its e-Governance vision to greater heights.

To specifically handle e-Governance projects and take the Government of Punjab's e-Governance vision forward, the PSEGS (Punjab State e-Governance Society) was formed. The primary objective of the Punjab State e-Governance Society (PSEGS) is to administer the implementation of E-Governance projects for the overall benefit of the citizens by setting up the necessary administrative, financial, legal and technical framework, implementation mechanism and resources in the State of Punjab.

Various departments in Punjab have separate applications pertaining to their specific usage and purpose, for providing services to the citizens. A typical government department having an e-governance application requires the following:

- A delivery platform for e-Governance applications.
- A mechanism for fast internal communication.
- Increased accessibility to services for the citizens and multiply usage.
- Carry progressively increasing data and applications.
- Speed up the transfer of information between employees in different locations and to allow them to share common files.
- Carriage of voice and data in an integrated manner rather than having separate networks for voice and data.
- Have a secure and reliable channel to transfer data across locations.

To fulfil these requirements, implementation of a State Wide Area Network is required.

PAWAN is expected to cater to the information communication requirements of the entire state government and its departments. Through PAWAN, GoP wishes to achieve the following:

- Provide reliable, vertical and horizontal connectivity within the state administration to make the Government more productive.
- Reduce communication cost.
- Provide a secure backbone for encouraging electronic transactions.
- Provide efficient service management.
- Strengthen Disaster Management Capacity.
- Provide the Government agencies, the ability to leverage a robust infrastructure to provide a complete array of Government services and information.
- Ensure that every citizen in the state has access to Government services and information whenever and wherever they need it.
- Move toward the provisioning of converged communication Services (voice, data and video) and the inter-connections and inter-operations of network platforms.

A number of e-Governance initiatives have been developed by GoP. PAWAN would enable cost effective and state-wide rollout of these e-Governance initiatives to take shape and transform the state of Governance in Punjab by providing timely and valuable information and help to the common people.

PAWAN follows a 3-Tier structure through Point of Presence (PoP) across the various levels:

- State Head Quarter or State Network Centre (SNC) – Tier I
- District Head Quarter or District Network Centre (DNC) – Tier II
- Sub Divisional Head Quarter or Sub Division Network Centre (SDNC) and the Block Head Quarters or Block Network Centres (BNC) – Tier III

The existing minimum bandwidth for PAWAN at each tier is of 2Mbps. PAWAN has been implemented on a Build, Own, Operate and Transfer (BOOT) model.

In order to achieve the above e-Governance road map, Departmental offices of Government of Punjab shall now be connected to these Points of Presence (PoP) of PAWAN as Horizontal Office. PAWAN is based on open standards, scalable with high capacity network to carry data, video and voice traffic between different offices of the Government of Punjab at the State, District and Block level. With the connectivity of the Horizontal offices, PAWAN

is also expected to help in the rollout of central applications covered under NeGP through interconnection with the national backbone as envisaged by Gol.

GoP now wishes to connect the head quarter/DHQ/BHQ/Sub-division/block level offices of various departments to the PAWAN backbone, so that there is a seamless integration for voice, video and data services. It is through these field offices that services to the citizens will be rendered. In order to have a robust network, GoP wishes to engage an Horizontal BOOT operator, who will not only connect the various offices but also act as a service provider to ICT services to these offices. This RFP will work as a master service agreement between the boot operator and PSEGS under which various orders will be released for connecting departmental offices in the head quarter/DHQ/BHQ/Sub-division and also provide service to various departments connected through these agreements.

4. Section IV: Scope of Work

PSEGS through this tender wishes to identify a BOOT operator for providing equipments and services to the horizontal offices which will be connected. This RFP will work as a master service agreement between the successful bidder and PSEGS, to connect various departmental offices in the SHQ, DHQ, SDHQ, Blocks & Mini PoPs, for which order will be issued separately under this agreement.

The minimum specified scope of work to be undertaken by the bidder is given below:

- i. Feasibility study for each horizontal office and finalize the type of connectivity, liaison with the Bandwidth service provider for provisioning the last mile connectivity if required or/and lay the fiber.
- ii. With a view to provide a better understanding to the bidders and enable them to distinguish between the types of possible connectivity, the horizontal offices can be categorized in to four categories viz: Type - I, Type - II, Type -III & Type – IV.
 - a. **Type I: CAT 5/6 Ethernet** – Offices within the range of 100 meters from PoP would be connected through Ethernet extension. Extensions can be given either from router Ethernet ports or from the switches.
 - b. **Type II: Fibre** - Offices with a distance of more than 100 meters and less than 500 meters from PoP shall be connected through this method. Also offices within 100 mts., where it has to cross a public area like road etc, the offices will be connected through fiber.
 - c. **Type III: Leased line** – Offices beyond 500 meters distance would from PoP connect through leased lines.
 - d. **Type IV: - Mini PoP-** Once an office is connected by the PoP it becomes a part of the PAWAN network. It is to be noted that once the connectivity to PAWAN reaches a particular location, the offices near by the existing PAWAN connection will not be connected directly to the PAWAN. Instead these offices will be connected to the existing point of presence. In such a scenario a place from where the PAWAN will be extended, the equipment will be upgraded to support atleast 10 such connections. This upgraded location will be called a Mini PoP.
- iii. Having decided upon the type of connectivity the bidder shall supply, install, commission & maintain all the active and passive components installed for providing the horizontal connectivity. For integration of the horizontal offices with PAWAN, it will be the responsibility of the PAWAN operator to provide adequate port/any other infrastructure at the PoP. Based on the current information a list of sites to be

- covered has been prepared presented as Appendix A. This list can undergo change in terms of number of locations, address etc.
- iv. To create departmental/Local LAN where required and to provide support and take over departmental/Local LAN which is already existing, as and when asked for. The bidder is required to quote the cost of creating the LAN, per Node. For the existing LAN, the O & M charges may be quoted which will be paid quarterly along with the QGR.
 - v. The bidder shall design and engineer the horizontal connectivity of all offices mentioned in this section after understanding the requirements of PAWAN, details mentioned in this RFP and should provide turn-key solution for the entire horizontal connectivity including any missing item(s) notwithstanding the detailed Bill of Material (BoM) given in RFP for the successful end to end implementation as well as five years project management of the infrastructure.
 - vi. Under the Master Service Agreement, when an order to connect a particular office of a department in SHQ, DHQs, SDHQ, Blocks, Mini PoP is given, the successful bidder is required to conduct site survey and shall submit the project plan that should include the following:
 - a. Site survey report.
 - b. Horizontal connectivity diagrams for SHQ, DHQs, SDHQ, Blocks, Mini PoP.
 - c. Survey of the Mini PoP's including the feasibility of BSNL.
 - d. Document giving the details of methodology using the best practices of the industry for the connectivity and optimized configuration for network devices to be installed and configured under this project with existing equipment of PAWAN.
 - e. Details about Project Management to be used for Project Management, Network & System Management, Help/Service Desk and Service Level Management.
 - vii. This RFP will work as a Master Service Agreement between the successful bidder and PSEGS. The order to connect various departmental offices in the head Quarter/district/Blocks/ sub divisions etc. will be issued separately under this agreement. Once a order to connect certain offices of a department is received by the bidder, the successful bidder is required to submit design document as per what is mentioned above within 15 days for the approval of the tenderer along with, detailed bill of material, location where the equipments will be placed etc. and also IP addressing scheme (The IP addressing scheme should be worked out with the System Integrator; i.e.; M/s. HCL Infosystems Ltd. responsible for setting up of

PAWAN). The design document offered by the successful bidder shall be further discussed by the tenderer. The recommendations of the tenderer, if any, pertaining to the modification of the design, bill of material, as well as IP addressing scheme, shall be suitably incorporated by the successful bidder who would subsequently resubmit the design for approval and the same shall be approved by the tenderer within fifteen days. The successful bidder shall be fully responsible to ensure that the work pertaining to the horizontal connectivity of horizontal offices be carried out in accordance to the designs approved by the tenderer.

4.1. Scope of Supply

- (i) The successful bidder shall supply all Network components (Active as well as passive) for horizontal offices as per specifications & configurations mentioned in Section-5 of this RFP.
- (ii) Further, the successful bidder must not bid/supply any equipment that is likely to be declared end of sale within one year from the date of supply. The successful bidder would be required to replace all such equipment with latest and at least of equivalent configuration. The successful bidder shall submit an undertaking from OEM in this regard to the tenderer.
- (iii) All the passive components need to be of the same make across the entire horizontal connectivity to ensure standardization and Certification from the manufacturers.
- (iv) The successful bidder shall be responsible for end-to-end implementation of horizontal connectivity and its integration with PAWAN and shall quote and provide/supply any item(s) of latest make and model not included in the bill of materials, but required for successful implementation and commissioning of the network as well as its management. For such item(s), which have not been quoted by the successful bidder in the bid, but are required for successful completion of the project, the tenderer shall not pay for the same.
- (v) The supply of all the installation material/accessories/consumables necessary for the installation of the systems.

4.2. Scope of Installation, Commissioning & System Integration

The scope of installation, commissioning & system integration shall mean to install, configure and integrate the following (but not limited to), adhering to essential security measures.

4.2.1. Networking solution

- (i) Carry out installation of all the equipment supplied under this RFP as per standards for successful integration and implementation of the horizontal

- connectivity, as well as successful integration with PAWAN for seamless connectivity.
- (ii) The horizontal connectivity so configured should operate on multiple bandwidth service providers as well support identification of original packets.
 - (iii) Carry out installation of active components, passive components and accessories as per standards for successful integration and implementation of the access network at the DHQs,SDHQ,Blocks,Mini PoP and various departments located at SHQ, DHQs,SDHQ,Blocks,Mini PoP on leased lines, Internet connectivity and configuring associated security systems like firewalls, IDS/IPS etc. wherever required.
 - (iv) Configuring and fine-tuning of subsystems to achieve overall optimal network performance and highest security.
 - (v) The components to be installed and configured shall include but not limited to:
 - Routers
 - Layer-2 switches
 - Lease line modems
 - Racks, patch panels, I/O outlets & other passive components
 - Electrical system
 - (vi) All patches and updates shall be provided by the successful bidder during the currency of the contract.
 - (vii) All the existing/being established LANs in the departments and field offices, shall be seamlessly integrated with the switches, routers, etc. being procured under this RFP and shall further integrate with PAWAN. For the said integration, the bidder shall be responsible for studying the network to take care of the configuration issues.
 - (viii) Carrying out all general tests such as Power-on test on delivery, pre-installation checks to ensure correct connections, completeness of system documentation etc.
 - (ix) The successful bidder shall not cause any damage to Government buildings/other premises/property. If any damage occurs, the successful bidder will perform restoration. Trenches, path/road cutting, etc. will be filled back and restored to the original condition immediately after laying of the conduit/cable and also the successful bidder will take the required permission for under taking any construction work. The successful bidder shall also plug conduits and entrance holes with suitable sealing material, where the cable has been laid.
 - (x) The system shall be subjected to inspection at various stages. The successful bidder shall follow all Safety Regulations and practices.

- (xi) Bidders shall spell out various tests that are being proposed to be carried out for demonstrating the functionality of the solution.
- (xii) The Successful Bidder shall provide warranty for all the components including hardware, software, etc. as per RFP for a period of Five Years from the date of the issuance of Final Acceptance Certificate, for each agreement signed separately under the master service agreement. Network active components shall have a warranty of 5 years and passive components shall have a performance warranty of 20 years. Any delay for acceptance caused by the successful bidder will result in automatic extension of the total warranty period as well as the facility management period by the same period.
- (xiii) The bidder shall further provide the rates for the comprehensive AMC of the entire equipment including software supplied under this RFP for Sixth, Seventh and Eighth year and shall be considered separately from the commercial evaluation and will be separately negotiated.
- (xiv) The requisite connectivity shall be arranged and paid for by the PSEGS/Government of Punjab (GoP) directly. The successful bidder will however coordinate/liaison with the service provider(s) for the timely commissioning and maintenance of the circuits. A tripartite agreement between PSEGS/ GoP, bandwidth service provider and the successful bidder shall be signed to take care of the connectivity issue.

4.2.2. Civil works:

- (i) The requisite space for Mini PoP, shall be provided by PSEGS/ GoP at all locations and would probably be a lockable space. If by any circumstances the place available is not lockable the required arrangements would be made by the bidder.
- (ii) Civil works, if any, required for passive-cabling systems will be the responsibility of the successful bidder.
- (iii) It will be the responsibility of the bidder for security of equipments at all the locations at DHQ,SDHQ, Blocks,Mini PoP etc.

4.2.3. Electrical works:

- (i) Electrical cabling from the Mains, Genset room, UPS Room to WAN room shall be the responsibility of the concerned department.
- (ii) Provisioning of electricity from mains, tap points etc. shall be bidder's responsibility.

- (iii) Recurring cost of electricity will be borne by user department for normal connectivity and for Mini PoP it will be borne by the Horizontal BOOT Operator.

4.3. Scope of Video Conferencing (VC):

- (i) PEGS through this tender also wishes to avail the Services for Video Conferencing. Under this as and when PSEGS places an order for Video Conferencing equipments, the bidder will not only have to supply, install and maintain the equipment, but will also have to provide his services at the time of conducting the VC.
- (ii) It will be the bidders responsibility for providing point to point or point to multipoint (through exiting MCU) Video conferencing, as required by GoP.

4.4. Project Management

4.4.1. During installation & commissioning

- (i) For on-site project management of the project during the installation & commissioning period, the successful bidder shall depute a nodal officer as a single point of contact. The said nodal officer shall remain deputed till the acceptance of the horizontal connectivity. This Nodal officer so deputed shall be B.E. with MBA or B.E. with Project Management Professional (PMP) and having minimum seven years experience in system integration, Networking, FMS, etc. and should have appropriate authority to take decisions for smooth and early completion of work.
- (ii) The successful bidder shall also submit a list of staff responsible for the installation along with their experience and skills details. Considering the magnitude of the project, the successful bidder shall be required to size the team appropriately. The successful bidder shall only provide OEM certified engineers with at least 3-4 years of networking experience for implementing the project. The successful bidder shall ensure that the engineers would be assigned on full time basis for the project to ensure proper implementation.

4.4.2. After the Acceptance of the Horizontal Connectivity

- (i) The successful bidder will be responsible for management, maintenance & service of all the equipments from the time of issuance of Final Acceptance Test certificate from PSEGS, till the completion expiry of the master service agreement between the bidder and PSEGS. During the currency of the contract, the successful bidder will be responsible for the smooth working of the equipment installed at all the locations. The bidder will also quote for the management of horizontal connectivity for sixth, seventh and eighth year and

decision in this regard shall be taken by GoP/PSEGS. The total period of the contract will be for 5 years and the payment will be made in 20 QGR's. If a particular office is added later, then the number of QGR will be reduced so that the final date remains the same. New work orders will be issued only in the first three years of the agreement. After the expiry of the first three years, if a order is placed for connecting a office in District/Block, then GoP/PSEGS, may finalize the rate after negotiation with the bidder taking the market value of the equipments supplied at that time.

- (ii) Scope of Project Management is not just limited to infrastructure pertaining to the connectivity but also to suppliers/vendors management. The successful bidder shall develop all the relevant procedures for call management/fault registration, change management, etc. and submit the same to the tenderer and shall enforce adherence of the same. The adherence to these procedures is liable to be audited by the tenderer. The successful bidder shall execute a non-disclosure agreement with the tenderer and would ensure compliance of the same. Under the project management and operations, the successful bidder is required to perform but not limited to the following tasks using the existing PAWAN Infrastructure:

- Round the clock Network Monitoring.
- Network Performance Management.
- SLA Management.
- Router Configuration Management.
- Network Fault Management, Link Management.
- Operational Liasoning with Bandwidth Service Providers.
- MIS and Report generation, Preventive maintenance, etc.

- (iii) The equipment quoted should be such that the successful bidder is able to generate all possible reports on Network Management System, help desk, asset management, service level agreement (SLA) management tools, etc. using the existing infrastructure of PAWAN. Additional licenses of NMS, etc. if any may be indicated in the technical as well as commercial bid as all the active equipments installed by the operator need to be monitored.
- (iv) The successful bidder shall depute a team of trained network engineers. The ratio of manpower to the number of connections should be minimum of one person for every 5 offices in a given tier i.e. District/Block/Sub Division; i.e. to operate, configure, maintain and manage the horizontal connectivity infrastructure round the clock on 24X365 basis.

- (v) The Successful bidder shall further provide necessary tools which include PCs/ Laptops, Printers, media, mobile phones, etc. at his cost to each of his staff. The bidder shall provide the comprehensive plan with regard to the manpower deployed for the above along with the bid.
- (vi) The Successful Bidder should have satisfactory arrangement to receive complaints during the currency of the Contract, which includes online complaint receiving system. Successful bidder shall record each and every complaint received verbally, telephonically, through e-mail or on website, etc. and action taken thereof in a logbook to be maintained at a location to be decided in consultation with the tenderer or agency so authorized which can verify the said register at any point of time/interval.

4.5. Scope of Training

- (i) The bidder shall provide comprehensive training for operation and management of infrastructure provided for horizontal connectivity under this RFP to minimum 5 designated officials from each department located at Chandigarh and their field offices.
- (ii) The successful bidder shall impart hands on training with detailed course material on the installed network covering at least the following:-
 - System configuration and network architecture
 - Operations & Monitoring
- (iii) The training shall be carried out in two batches for a period of two weeks for which the detailed training programme shall be submitted by the successful bidder either at SHQ or any one DHQ. However the exact location/venue of the training and the course content shall be finalized by the successful bidder in consultation with the tenderer. All the expenses towards training excluding related to travel, boarding, lodging of the trainees so deputed by the respective departments shall be borne by the successful bidder.

4.6. Scope of Documentation

- (i) The Selected bidder shall document all the installation and commissioning procedures and provide the same to the GoP within one week of the commissioning of particular office.
- (ii) The Selected bidder shall submit a complete cabling system layout (as installed), including cable routing, office connectivity, etc. The layout shall detail locations of all equipment and indicate all wiring pathways.

- (iii) Manufacturer's technical documentation on all devices used in the system including user Manuals for configuration of switches, routers, etc. shall be provided by the selected operator.
- (iv) The selected bidder shall be responsible for documenting configuration of all devices and keeping the back up of all configuration files, so as to enable quick recovery in case of failure of devices.
- (v) Process documentation: The bidder shall be responsible for preparing process documentation relating to operation and maintenance of each and every service as mentioned in this section. The prepared process document shall be formally signed by PSEGS/GoP before completion of final acceptance test.
- (vi) Each process map shall clearly define the roles and responsibilities, detailed steps for execution the defined task, detailed configuration steps, detailed connectivity chart etc.

4.7. Scope of Acceptance Testing

- (i) For acceptance tests of horizontal connectivity the bidder shall submit a detailed plan and get it approved by PSEGS/GoP.
- (ii) The above said acceptance test shall be conducted at each site by a committee comprising of officers from GoP, PSEGS, third party agency and Head of the respective site or any officer or person as duly authorized by the tenderer.
- (iii) The successful bidder shall prepare detailed Acceptance Testing Plan (ATP) including test parameters, commitments, etc. which shall be acceptable to the tenderer for each of the horizontal connectivity components and submit the same to the tenderer along with the technical bid. The test parameters, commitments, etc. as decided & approved by the tenderer shall be final and binding on the successful bidder.
- (iv) The successful bidder shall ensure that the cabling and crimping/termination is done in accordance with the industry standards and supported by the Original Equipment Manufacturer (OEM). Also it should be fully tested and certified for operations for a minimum period of 20 years.
- (v) All the functionalities, features and configurations relevant to the horizontal connectivity shall be documented by the successful bidder for the Network equipment and shall be demonstrated to the tenderer.
- (vi) All the features and functionalities of the Network Management System, help service desk, service level agreement management, etc. to monitor/manage/control the horizontal connectivity infrastructure as well as for managing the Quality of Service (QoS) on the LAN/WAN links shall also be documented as well as demonstrated by the successful bidder.

5. Section V: Technical Requirements

- (i) The RFP specifies the indicative requirements at horizontal offices to be integrated with PAWAN. The technical specifications specified are the minimum suggestive specifications and these should be taken as guidelines for design and implementation of horizontal connectivity. The bidder can offer suggestions as well as indicate missing components, if any, that may be considered necessary in his bid to implement and operate the facility to meet the required objectives of the PAWAN project.
- (ii) The bidder will offer equipment that will best accommodate and meet the present and future requirements for expansion of horizontal connectivity of such departments.
- (iii) Bids not meeting these minimum suggestive technical specifications are liable to be rejected. In case the equipment quoted exceeds/differ with the RFP technical specifications, the same should be clearly mentioned along with the justifications.
- (iv) One set of service and operation/instruction manual is required to be supplied with each equipment.
- (v) Successful bidder shall maintain necessary inventory of spares for smooth uninterrupted operations of horizontal connectivity.
- (vi) The successful bidder shall provide patches and updates of all the supplied software free of cost for five years.
- (vii) All the equipments should be new and of the prevailing/current standard production of the manufacturer at the time of the proposal.
- (viii) The successful bidder is required to supply the latest version of software, providing all the features enumerated in this specification, at the time of award of contract. Equipment must be compatible with other Network vendor equipment. The principal vendor of products/equipment supplied under this project should have relevant quality certifications such as ISO 9001 and all the products should be certified by the original manufacturers.

5.1. Tentative Bill of Material

All the equipment for Horizontal Offices at SHQ, DHQs, SDHQ, Blocks, Mini PoP should be rack mountable. The suggestive Bill of Material is as under:-

Sr. No.	<u>Equipment Name</u>	Approx Qty.	Sec.
1. Bill of material for Horizontal connectivity			
a) Offices within 100 mtrs. from respective PoPs		642	
1.	CAT5/ CAT6	As required	

2.	Switches	642	5.2.3
3.	Appropriate Rack to accommodate above	642	5.2.1
4.	UTP cables, patch cords, I/Os, PVC conduit, Shielded Cables, Patch Panels, etc. as required for successful installation commissioning and working	As required	
5.	UPS 1KVA* with 3 hrs backup	642	5.2.2
6.	IP Phone with license	642	5.2.7
A) Total for offices within 100 mts.			
b) Offices between 100 mts and 500 mtrs. from respective PoPs		720	
1.	Fibre Cable	As required	
2.	Switches	720	5.2.3
3.	Appropriate Rack to accommodate above	720	5.2.1
4.	UTP cables, patch cords, I/Os, PVC conduit, Shielded Cables, Patch Panels, etc. as required for successful installation commissioning and working	As required	
5.	UPS 1KVA* with 3 hrs backup	720	5.2.2
6.	IP Phone with license	720	5.2.7
B) Total for offices within 100 and 500 mts			
c) Offices Beyond 500 mtrs. from respective PoPs			
1.	Router	2735	5.2.4
2.	Switches	2735	5.2.3
3.	Leased line Modem pairs	2735 X 2	5.2.5
4.	21u Racks 600mm * 800mm	2735	5.2.1
5.	UPS 1KVA* with 3 hrs backup	2735	5.2.2
6.	CAT-6, UTP cables, patch cords, I/Os, PVC conduit, Shielded Cables, Patch Panels, etc. as required for successful installation commissioning and working	As required	
7.	IP Phone with license	2735	5.2.7
C) Total for offices above 500 mts			
d) Mini PoP Configuration			
1.	Router	100	5.2.6

2.	Switches	100	5.2.3
3.	Leased line Modem pairs	100X 2	5.2.5
4.	21u Racks 600mm * 800mm	100	5.2.1
5.	UPS 1KVA* with 3 hrs backup	100	5.2.2
6.	CAT-6, UTP cables, patch cords, I/Os, PVC conduit, Shielded Cables, Patch Panels, etc. as required for successful installation commissioning and working	As required	
7.	IP Phone with license	100	5.2.7
D) Total for Mini PoP			
2) Video Conferencing Facility			
1.	IP compatible Video Conferencing unit as per the specifications	40	5.2.8
2.	COLOR TV as per the specifications.	40	5.2.8
3.	Heavy Duty Roll about Trolley for 29" TV	40	
4.	1 KVA UPS - On Line, SNMP enabled, with 3 hr backup	40	5.2.2

5.2. Technical Specifications

5.2.1. Rack

- Rack Size: 21u 600mm * 800mm.
- Width * Depth: 600mm * 800mm.
- Well painted steel Body.
- Completely covered & have security locks.
- Uninhibited access to all mounting points inside the racks.
- Properly ventilated with minimum two fans.
- All covers can be removed & can be operated from all sides.
- Power cable management.
- Two Power strips having five 5A/15A sockets each.
- Adjustable shelf & accessories to accommodate equipments.

5.2.2. Uninterrupted Power Supply (1KVA)

- True ONLINE (Double Conversion UPS) with battery backup.
- 1KVA rated at 0.8 p.f. or better.
- Single Phase.
- Electronic Overload Sensing and circuit breaker protection.
- Other protections for overheating, Output short circuit, low battery, etc.
- Battery should be sealed lead Maintenance free VRLA Type (Lead Calcium SMF batteries will not be accepted).
- Minimum of 3 hrs backup on rated load.
- Automatic bypass on overload or UPS Failure.
- Monitoring panel with LCD display should be provided.
- RS 232 serial interface.
- SNMP/Web based monitoring & management over Network/Web should be available.

5.2.3. Horizontal Office Switches:

- Layer 2 switch.
- 12/24/48 No 10/100 ports.
- 2 Nos. 10/100/1000.
- Non-blocking architecture
- 8 Gbps switching fabric and 6 Mpps forwarding rate.
- Support IGMP Snooping with Broadcast Control IGMP v3
- Support for minimum 8000 MAC addresses.
- Ethernet, Fast Ethernet support.
- Spanning tree/Rapid Spanning Tree support
- Per VLAN Spanning Tree

- The switch must support dynamic VLAN Registration
- Dynamic Trunking Protocol or equivalent.
- VLAN Trunking Protocol or equivalent.
- Traffic classification should be based on user-definable application types: TOS, DSCP, Port based, Mac address, IP address, TCP/UDP port number.
- Multicast filtering per port should be supported.
- Prioritization support.
- 802.1X network admission control.
- Minimum 250 vlans.
- SNMP and Telnet support.
- Web-based and CLI management.
- Four RMON groups (1, 2, 3 & 9).
- Additional features: Advanced QoS, Rate limiting.
- Mounting: 19" Rack mountable.
- Source power supply: 230 V AC Single phase 50Hz.

5.2.4. Router for Horizontal Offices beyond 500 mtrs

1. General Architecture

- Should be chassis based and modular architecture
- Rack mountable configuration.
- Health LED for all modules to indicate status
- Cables and accessories: All accessories including data cables, connectors, etc to be provided

2. Memory Requirement

- Flash memory: The bidder should provide adequate memory to accommodate all OS features required at present or in future.
- DRAM: The memory proposed for all routers should satisfy the present performance requirement and should be upgradeable for future needs.

3. IP Routing Protocols

- RIP Ver1, RIP Ver2, RIPng.
- OSPF Version 2 as per RFC 1583 and OSPF on Demand as per RFC 1793.
- IP Version 6 routing support (along with IPv6 RIP, OSPFv3, IS-IS for IPv6.) as and when required.

4. WAN Protocols support

- PPP as per RFC 1661.
- Multilink PPP as per RFC 1717/ECMP.
- HDLC.

5. Multimedia and QoS support

- A class-based scheduling/queuing mechanism that provides configurable minimum bandwidth allocation to each class for assigning priority to critical traffic.
- RSVP: Resource Reservation Protocol (RSVP) as per RFC 2205 /DiffServ.
- Policy Routing support: It shall be possible to affect the normal routing process for specific mission critical traffic through specified alternate routes in the network.
- IGMP/PIM.
- The router should support Application recognition and should be able to frame policies based on applications.
- Should support compression of real time application packet headers (RFC 2508).
- Weighted fair queuing.
- Multicast Routing support such as MBGP/DVMRP, PIM-SM.
- Congestion avoidance algorithm (Weighted Random Early Detection) with Selective Packet Discard based on IP precedence or DSCP.

1 Security

- The router should support access control mechanisms on all interfaces. The access list parameters may be any combination of source and destination IP or subnet, protocol type (TCP/UDP/IP etc), source and destination port. The Access List configuration should support generating logs both on failures as well as on success for security analysis and management purpose.
- Control SNMP access through the use of SNMP v3 with authentication.
- AAA (authentication, authorization & accounting) support using standard protocols like RADIUS or TACACS.
- The router should support multiple levels of access or role based access mechanisms.
- Support for PAP / CHAP.
- Support for Network Analysis of RMON 1 & 2 groups as and when required.
- Support for IPsec 3DES & AES VPN services.
- Shall support Network address translation (NAT), GRE Tunneling.

2 Management

- The router should be manageable from any open NMS platform.
- Support for telnet client and server functionality.
- Support for FTP/TFTP and web enabled management.
- Support for SNMP V1, V2, V3 and RMON.
- Support of MIB to all protocols mentioned in the above specifications.
- Shall support In-band and Out-of-band management.

- Shall support Console port for local management and Auxiliary port for remote management purposes.
- Should have debugging facility through console.
- Support for NTP.

3 Performance

- Minimum 60 Kpps Packet Forwarding Speed.

4 Interface Requirement

- E1 Interface: 2.
- 100BaseTX: one.
- Minimum Free Slots: one.

5.2.5. 2 Mbps leased line modems:

- Visual indication and RS232 port for setup, control and monitoring.
- Complies with G.SHDSL according to ITU-T G.991.2.
- Control of remote unit (both from CO to RT and from RT to CO) by embedded operation channel or in-band management.
- Support of framed and unframed E1.
- Interface should be G.703 balanced and unbalanced.
- The RT unit should have the facility to change interface such as V.35, V.36, X.21, RS-530, V.24 (RS232) within the same unit.
- In some cases the RT unit should support 10/100BaseT (optional).
- Should have support of both 2 wire and 4 wire option for better reach.
- Feature of remote power feeding.
- Feature of remote auto configuration.
- Support of dual 48V DC and AC power supply.
- Features of link performance monitoring and time based statistics should be available.
- Should be SNMP enabled.

5.2.6. Router for Mini PoP

S.N.	Feature	Description
1.	Required Port Density/Connector Support	• 48 Ethernet 10/100 auto sensing ports and 4 SFP-based Gigabit Ethernet uplink ports / slots. • Support for 1000 BaseT, 1000 BaseSX, 1000 BaseLX and 1000 BaseZX SFP based GBIC's, CWDM. • Redundant Power Supply support and RJ-45 console port Support.

2.	Required Switch Performance & Throughput	• 32 Gbps minimum forwarding bandwidth at Layer 2 and Layer 3 switching. • Forwarding rate of 13 Mpps for 64-byte packets. • Minimum 128 MB DRAM and 16 MB Flash memory. • Support for 12,000 MAC addresses, 11,000 unicast routes, 1000 IGMP groups and multicast routes. • Support for 9018 bytes (Jumbo frames) for bridging on Gigabit Ethernet ports, and up to 1546 bytes for bridging and routing on Fast Ethernet ports.
3.	Required Redundancy and Fault Backup Support	• Support for IEEE 802.1w Rapid Spanning Tree Protocol (RSTP). • Hot Standby Router Protocol (HSRP). • Uni-Directional Link Detection (UDLD). • Equal-cost and un-equal routing for load balancing and redundancy. • Bandwidth aggregation up to 8 Gbps through Gigabit EtherChannel technology and up to 800 Mbps through Fast EtherChannel.
4.	Required VLAN / Spanning Tree Support	• Support IEEE 802.1Q VLAN, Voice VLAN with over 1000 VLAN's and 4000 VLAN IDs. • Support for over 100 instances of Spanning Tree in the Switch.
5.	Required Protocol and Standards Support	• IEEE 802.1Q, 802.1p, 802.1D, 802.3x, 802.3ad, 802.1w, 802.1s. • IEEE 802.3u 100BASE-TX specification. • IEEE 802.3ab 1000BASE-T specification. • IEEE 802.3z 1000BASE-X specification. • 1000BASE-X (SFP), 1000BASE-SX, 1000BASE-LX/LH, 1000BASE-ZX. • RMON I and II standards. • SNMPv1, SNMPv2c, SNMPv3. • IGMP, DiffServ Code Point field (DSCP). • RIP v1/v2. • Should be upgradeable to BGPv4, OSPF. • IPv6 in Hardware. • Web Cache Communication Protocol (WCCP).
6.	Required Security Features	• IPv6-routing in hardware with MAC address notification & MAC address Locking. • Per-port broadcast, multicast, and unicast storm control prevents faulty end stations from degrading overall systems performance. • DHCP interface tracker, Security wizard, Access control lists, Private VLAN edge. • Port security, SNMPv3, SSH, VLAN ACLs (VACLs) and Port-based ACLs (PACLs). • Switched Port Analyzer (SPAN) with 802.1x Port based network access control. • IEEE 802.1x with VLAN assignment allows a dynamic VLAN assignment for a specific user regardless of where the user is connected. • Dynamic ARP Inspection. • Time based ACL.

		• Bridge Protocol Data Unit (BPDU) and Spanning Tree Root Guard (STRG). • VLAN Membership Policy Server (VMPS) & 1000 access control entries (ACEs). • Support for Terminal Access Controller Access Control System Plus (TACACS+) and Remote Authentication Dial-In User Service (RADIUS).
7.	Required Management Features	• Support Web View, Telnet, SNMP, Console, RMON, CLI, Remote Switch Port Analyzer (RSPAN), Remote Monitoring (RMON) with 4 RMON groups (history, statistics, alarms, and events). • IEEE 802.1s, IEEE 802.1w, IEEE 802.1x, IEEE 802.3ad, IEEE 802.3x full duplex on 10BASE-T, 100BASE-TX, and 1000BASE-T ports. • IEEE 802.1D Spanning-Tree Protocol, IEEE 802.1p CoS Prioritization. • IEEE 802.1Q VLAN and IEEE 802.3 10BASE-T specification. • One IP address and configuration file for entire stack. • Free, Web based Network Management Software. • Require Support for managing up to 16 geographically dispersed switches simultaneously with one IP address for activities such as fault detection, virtual LAN creation and modification, security, and QoS controls.

5.2.7. IP Telephone

- 10/100BASE-T Ethernet connection through an RJ-45 interface for LAN connectivity.
- Differentiated Services Code Point (DSCP) tagging.
- Software upgrade supported using a FTP/TFTP server.
- Voice activity detection, silence suppression, comfort-noise generation, and error concealment.
- H.323/SIP/SCCP Support.
- Online Power (7.5W), 802.1af POE (15.4W) and Power Adapter Options for power.
- Online power and optional AC to DC power adapter.
- Pixel-based display.
- IP Phone has to be provided along with the user license.

5.2.8. Video Conferencing End Equipments

1 System Component

- 41 inch Colour LCD/Plasma, Wireless remote control, built-in camera, microphone, cables and codec

2 User Interface

- It should be possible to customize the user interface.

- The system should allow display of only the necessary buttons or dialing locations
- It should be possible to install the system through setup wizards which make installation totally hassle free.
- Speed Dial
- Kiosks Mode with scrolling marque.

3 Both near and far site video on one monitor

- It should be possible to see both the near and far site on one Screen thus making most efficient use of a single display area.
- In addition, there should be a choice of 4:3 or 16:9 display aspect ratios for the display
- The system should be capable of supporting a second monitor through an additional interface is required

4 Integrated main camera

- 1 x S-Video; 4-pin mini DIN (Document camera, VCR or second camera)
- 1x RS232 Port for custom integration with remote devices such as Crestron and AMX Control. The port can also be used for transmitting Serial data.

5 Video outputs

- Integrated main camera
- 2 x S-Video 4 PIN Mini DIN
- 1x VGA H015
- The system should give flexibility on the choice of display TV or XGA

6 Live video resolutions

- 2SIF (704 x 480)
- 2CIF (704 x 576)
- SIF (352 x 240)
- CIF (352 x 288)

7 Audio features

- The system should support Superior wideband audio of 14 kHz of crystal clear audio. the audio should be comparable to CD-quality sound for solid audio performance and should help reduce meeting fatigue associated with the strain to hear meeting conversation
- Should support Audio error concealment which Reduces audio drop-out on busy IP networks and smooth, consistent verbal communications without interruptions
- Audio add in over ISDN

8 Microphone features

- The microphone should be omni directional with integrated mute button
- The system should support atleast 1 microphone with 360 degrees voice pickup.

5.2.9. Network Management System (NMS)

The Bidder is expected to deploy a network management system at Chandigarh for managing and monitoring the Horizontal Links.

- The proposed network Management solution should include the required hardware and software.
- The proposed hardware system should meet the high availability requirement.
- The proposed solution should be able to monitor all the parameters of the Service level agreement.
- Shall provide SNMP based functionality and support for SNMP.
- The proposed NMS should ensure that the 3rd party monitoring agency appointed by PSEGS/GoP can effectively monitor the performance and SLAs of the network.
- The offered solution should be able to manage atleast 3000 nodes

The proposed Network Management system should facilitate:

- The system must be capable of automatically discovering manageable elements connected to the network and mapping the connectivity between elements, including port-level connectivity
- The solution should have the capability to discover Layer2 & Layer3 Devices & connectivity.
- The system must be able to support mapping and modeling of the infrastructure grouped by network connectivity, physical location of equipment and user groups or departments
- The system must provide visualization tools to display network topology and device to device connectivity. The system must also be able to document connectivity changes that was discovered since the last update
- The system should provide vendor-specific device support for the managed network devices in the network using information gathered from MIB2 and vendor-specific extensions
- The system must be designed for Multi-vendor network environment and operation.
- Should provide detailed software and hardware inventory reporting including memory, slots, software versions, etc (Asset Management system)
- The system must provide a real time business services Dashboard that will allow the viewing of the current health of required services inclusive of real-time graphical reports

- The NMS should be able to detect the number of active and faulty links and other devices on the network at any time.
- NMS should be able to accept traps and alarms from the devices & display appropriate message on NMS console.
- NMS should be able to show the MIB Variables of all managed devices and should be able to show the changes in their values in real time.
- NMS should allow management support for new devices added to the network.
- Should be able to monitor IP-VPN deployment should be able to monitor IP Telephony and IP video conferencing system.
- The NMS should detect, make a log, and notify users of, and (to the extent possible) automatically fix network problems to keep the network running effectively.
- The system must be able to 'filter-out' symptom alarms and deduce the root cause of failure in the network automatically.
- Real-time link Status, performance monitoring, configuration management and reporting
- The NMS system should be capable of monitoring network and system configuration information so that the effects on network operation of various versions of hardware and software elements can be tracked and managed.
- Should support router and switch fault troubleshooting

1 Management

- It should be possible to manage the complete network from a single point & GUI based interaction for the user.
- Web-based front-end must also be available in addition to the remote access client application
- The system needs to support concurrent multi-user access to the management system, enabling multiple read-write access to different areas of the management domain.
- NMS must provide facilities for creating different username with passwords and different privileges.
- The security must be able to permit or restrict operator access to different areas of information based on user security rights assigned by the administrator.
- Should generate E-mail notification within a defined time period of a network hardware failure or an out-of-service condition.

2 Help Desk Integration

- Should be capable of integrating with help desk system. NMS and Help desk solution preferably should be a integrated solution.

- The system must support bi-directional outgoing notification integration to helpdesk or trouble ticketing system

3 SLA Monitoring/Reports

Below mentioned are the minimum reports that GOP will be expecting from the Horizontal Operator:

- NMS should offer tabular information giving % of uptime of individual offices on quarterly basis.
- Bandwidth utilization report.
- NMS should provide the statistical report regarding resource utilization and Faults in network. (e.g – CPU and memory utilization for routers and switches)
- The following Engineering reports available for troubleshooting, diagnosis, analysis and resolution purposes must conform the following:
 - Trend Report
 - At A Glance report
 - Top N report
 - Custom report
- The system must provide a historical reporting facility that will allow for the generation of on-demand and scheduled reports of Business Service related metrics with capabilities for customization of the report presentation.
- The network reports should be customizable from the web browser
- Should facilitate detailed Inventory report (hardware/software)
- SLA violation alarms must be generated to notify whenever an agreement is violated or is in danger of being violated.
- The system must provide the capability to designate planned maintenance periods for services and take into consideration maintenance periods defined at the IT resources level. In addition the capability to exempt any service outage from impacting an SLA must be available.

5.2.10. Help Desk and Trouble ticket management system

This would be an online system deployed centrally and would be used by the selected BOOT operator extensively for management of network support activity. Service desk is an application that facilitates the end-to-end service support.

- The proposed system should include required hardware and software.
- This proposed software system is expected to facilitate the following:

➤ **User Interface**

The proposed system should have an easy to use user interface (preferably a browser based), so that users across the state can lodge any complaints and service requests. It should have integration with the mailing solution also. The solution would have a reporting interface with a consolidated view of the network status.

➤ **Integration of NMS and Service desk**

Network Management System is a network management platform that uses SNMP protocol for devices such as routers, bridges and hubs as well as computer systems, printers and applications. Integration of NMS with the Service Desk provides the complete problem detection and resolution process.

➤ **Complete incident and problem management**

Service desk should address both Incident Management and Problem Management. The application should maintain a classification system that will distinguish the single occurrence trouble tickets or incidents needing immediate resolution from in-depth root cause analyses that may require longer term to resolve a problem.

The flow of events at the helpdesk should be:

- ✓ Event is triggered and forwarded to service desk
- ✓ Service desk submits and updates the trouble ticket
- ✓ Update the status of the ticket back to NMS.

Tasks expected:

- ✓ Automatic forwarding of trouble tickets: NMS should automatically forward the events to the service desk.
- ✓ Manual submission of trouble tickets: NMS operator should be able to generate the ticket.
- ✓ Ticket mapping and allocation: According to the severity, the ticket should be given the priority level. Also it should map the ticket to the appropriate personnel for the resolution.
- ✓ Updating the status: Update the status of ticket back to NMS.
- ✓ It should be able to log and escalate user interactions and requests.
- ✓ It should have an updateable knowledge base for technical analysis and further help end-users to search solutions for previously solved issues.
- ✓ It should support tracking of SLA (service level agreements) for call requests within the helpdesk through service types.

Reports expected

- √ It should provide status of registered calls to end-users over email and through web.
- √ Status of registered calls.
- √ Historical report indicating number of calls, time to resolve, status etc for a specified period of time.

Features Expected

- √ Integration with different products
- √ Data consistency and reliability
- √ ITIL compatibility
- √ Flexibility and extensibility

5.2.11. Present NMS Details

The present BOOT operator for PAWAN has deployed CA's tool as NMS. It has deployed Spectrum version 8.1 and eHealth Suite version 6.0 It has licenses for universal elements for 9000 elements and life health upgrade elements for 6000 elements.

6. Section VI: Service Level Agreement & Penalties

- (i) The purpose of this Service Level Agreement (hereinafter referred to as SLA) is to clearly define the levels of service which shall be provided by the Horizontal operator to PSEGS, for the duration of this contract.
- (ii) The SLA is a great vehicle to communicate the expectations. The SLA defines the term of the operator's responsibility in ensuring the performance of Horizontal Network based on the agreed Performance Indicators as defined in the Agreement. This section defines various Service Level Indicators for Horizontal Network, which can be considered by PSEGS/GoP in the Service Level Agreement with the operator.

Following are excluded from downtime calculations:

- i. Scheduled downtime.
- ii. All failures due to source power unavailability and power conditioning, etc. beyond control of Agency.
- iii. Link failures.

6.1. Service Window

Sr. No.	Service Metrics Parameters	Service window
S1	Mini PoP, Horizontal Office Network	24*7
S2	Local LAN	24*7
S3	Desk top calls	7am to 7pm (Monday to Friday)
S4	Upgrade, shifting and preventive maintenance	7am to 7pm (Monday to Friday)

6.2. Network Management Services

SLA Parameter	Target	Penalties in case of breach in SLA	
		Availability	Penalty
Mini PoP Equipment and Horizontal Office equipments (Including all active and passive equipments)	>=99%	Less than 99 % (Less by 1%)	1.5 % of the QGR for that office
		Less by >1% but <2%	Additional 1% of the QGR
		Less by >2% but <5%	Additional 1% for every %age
		Less by >5% but <20%	Additional 2.5% for every %age
		>20%	No Payment
LAN Equipment and cabling (Including all active and passive equipments)	>=99%	Less than 99 % (Less by 1%)	1.5 % of the QGR
		Less by >1% but <2%	Additional 1% of the QGR
		Less by >2% but <5%	Additional 1% for every %age
		Less by >5% but <20%	Additional 2.5% for every %age
		>20%	No Payment

6.3. Desk top Management:

SLA Parameter	Target	Penalties in case of breach in SLA	
		Availability	Penalty
Local LAN availability	>=99%	Less than 99 % (Less by 1%)	1.5 % of the QGR
		Less by >1% but <2%	Additional 1% of the QGR
		Less by >2% but <5%	Additional 1% for every %age
		Less by >5% but <20%	Additional 2.5% for every %age
		>20%	No Payment

6.4. Help Desk**Response time**

SLA Parameter	Target	Penalties in case of breach in SLA	
		Availability	Penalty
Mini PoP, Horizontal Office	Within 30 minutes of call logged	> 60 minutes of call logged	.05% of the QGR
		>60 but less than 120 minutes	Additional .1% of the QGR

SLA Parameter	Target	Penalties in case of breach in SLA	
equipments		>120 but less than a day	Additional .25% of the QGR
		> a day	Additional 0.05% for every day thereafter
Dept. LAN	Within 120 minutes of call logged	> 240 minutes of call logged	.05% of the QGR
		>240 but less than 360 minutes	Additional .1% of the QGR
		>360 but less than a day	Additional .25% of the QGR
		> a day	Additional 0.5% for every day thereafter
		> 360 minutes of call logged	.005% of the QGR
Desk top calls	Within 180 minutes of call logged	>360 but less than 540 minutes	Additional .01% of the QGR
		>540 but less than a day	Additional .25% of the QGR
		> a day	Additional 0.5% for every day thereafter

6.5. Resolution time

SLA Parameter	Target	Penalties in case of breach in SLA	
	Availability	Availability	Penalty
Mini PoP, Horizontal Office Network equipments	30 minutes resolution of call logged	> 60 minutes of call logged	.05% of the QGR
		>60 but less than 120 minutes	Additional .1% of the QGR
		>120 but less than a day	Additional .25% of the QGR
		> a day	Additional 0.5% for every day thereafter
Departmental LAN	120 minutes resolution of call logged	> 240 minutes of call logged	.05% of the QGR
		>240 but less than 360 minutes	Additional .1% of the QGR
		>360 but less than a day	Additional .25% of the QGR
		> a day	Additional 0.5% for every day thereafter
Desk top calls	3 hours resolution	> 6 hours of call logged	.05% of the QGR
		>6 hours but less than 8 working hours	Additional .1% of the QGR
		> a day but less than 2 days	Additional .25% of the QGR
		>2 days	Additional 0.5% for every day thereafter

6.6. Reporting

SLA Parameter	Target	Penalties in case of breach in SLA	
		Availability	Penalty
Weekly, Monthly and Quarterly	Within 2 day after completion of week, month and Quarter	Greater than 7 day after completion of week, month and Quarter	.05% of the QGR
		>7 but less than a week	Additional .1% of the QGR
		>a week but less than 2 Weeks	Additional .25% of the QGR
		> 2 Weeks	Additional 0.5% for every week thereafter

6.7. Penalties for delay in implementation

- (i) For each work order released under the Master Service Agreement, if the HORIZONTAL BOOT Operator fails to complete the Partial Acceptance Test within the time period(s) specified in the implementation plan, GoP/PSEGS may, without prejudice to its other remedies under the Agreement, levy as Penalties, a sum equivalent to 0.25% of the arithmetic sum of the guaranteed revenue for 75% of the overall site for the five years payable under the Agreement, for each week or part thereof of delay, until actual delivery of performance. The maximum penalty for delay shall not exceed 5% of the arithmetic sum of five years Guaranteed Revenue for 75% of overall site. If the delay continues beyond 18 weeks, GoP may terminate the Agreement and also cancel the Master Service Agreement.
- (ii) For each agreement released under the Master Service Agreement, if the HORIZONTAL BOOT Operator fails to complete the Final Acceptance Test as specified in the implementation plan, GoP may, without prejudice to its other remedies under the Agreement, levy as Penalties, a sum equivalent to 0.25% of the arithmetic sum of the guaranteed revenue 95% of the overall site for the five years payable under the Agreement, for each week or part thereof of delay, until actual delivery of performance. The maximum penalty for delay shall not exceed 5% of the arithmetic sum of five years Guaranteed Revenue for overall site. If the delay continues beyond 10 weeks, GoP may terminate the Agreement and also cancel the Master Service Agreement.

6.8. Operational Penalties

- (i) In the event the HORIZONTAL BOOT operator is unable to meet any one of the SLA parameters defined in this RFP for any of the work orders released under the MSA, for more than a cumulative sum of 20% of the sites for two or more consecutive

quarters, then GoP with out any prejudice will deduct an additional penalty (besides the normal penalty for that site) of 2%, of the total QGR's released under the MSA, for each quarter and if the number of such non-performing consecutive quarters exceeds 4 quarters, then GoP reserves the right to terminate the contract.

6.9. Penalties for misuse

- (i) In case of misuse of bandwidth/Internet at the instance of HORIZONTAL BOOT Operator, the penalty imposed on the HORIZONTAL BOOT Operator, without prejudice to GoP's other remedies under the Agreement, shall be 200% of the quarterly guaranteed revenue under the Agreement for all the centres. If the misuse continues for two quarters, GoP may terminate the Agreement.
- (ii) The HORIZONTAL BOOT operator shall realize returns on the costs incurred on creating the whole asset (Capital Cost), the operations cost for operating these assets (Operations Cost), for maintaining these assets (Maintenance Cost) and for providing the horizontal connectivity. The payments shall be released by the Government on a Quarterly basis based on compliance of the services provided by the HORIZONTAL BOOT operator against the SLA's entered into.

6.10. Force Majeure

- (i) Penalties shall not be levied on the HORIZONTAL operator in case the SLA violation is the result of an event of Force Majeure.

7. Section VII: Payment Terms

7.1. Payment to the Operator

- (i) The selected HORIZONTAL BOOT operator engaged shall be responsible to invest in the project to implement and operate the facilities, for a term of 5 years and on expiry of 5 years, the ownership of the Infrastructure will be transferred to GoP. During this period of 5 years, the HORIZONTAL BOOT operator shall have full responsibility for the delivery of the services, including all operational, maintenance, and management activities, etc.
- (ii) The HORIZONTAL BOOT Operator shall be paid Minimum Guaranteed Revenue on quarterly basis based on the number of offices connected and work order given departmental wise.

Sr. No	Horizontal Office
1	Type I Office
2	Type II Office
3	Type III Office
4	Mini PoP
5	Creation of LAN, per node
6	Video Conferencing Facility

- (iii) The HORIZONTAL BOOT Operator's request for payment shall be made at the end of each quarter by invoices along with the following supporting documents:
 - a. Performance statistics.
 - b. Log of network parameters along with Service Down time calculation and Uptime percentage.
 - c. Any other document necessary in support of the service performance acceptable to GoP.
- (iv) The Third Party Agency shall verify all the supporting documents as prescribed and acceptable to GoP. On receipt of such invoice after verification by the Third Party Agency and after deducting Income Tax, other taxes and any Penalties, GoP shall pay the amount within a period of 15 days. The HORIZONTAL BOOT Operator shall furnish all tax payment receipts to GoP.

7.2. Lease Line Charges:

- (i) Leased line Charges shall be borne by PSEGS.

7.3. Period of Validity

- (i) The charges quoted by successful bidder for horizontal office, shall remain valid for the entire service period (5 yrs) and GoP reserves the right to ask the successful bidder to provide the mentioned equipments/services during the entire service period.

7.4. Quarterly Payment for horizontal connectivity

- (i) Payment for inclusion of every new horizontal office/addition of VC facility, shall be due from the date of final acceptance by third party.
- (ii) Payment for the accepted horizontal offices/VC facility shall accrue along with the next QGR.

7.5. Currency of Payments

- (i) Payment shall be made in Indian Rupees (INR) only.

7.6. Enhancement of Equipment / Additional Equipment

- (i) GoP at their discretion during the currency of the Agreement, may arrange or request the Horizontal BOOT Operator to enhance the equipments or to provide additional equipment (if required), to take care of increased bandwidth demand/redundancy/application requirements, etc. GoP shall bear the cost of the additional equipment required.
- (ii) In case the additional equipment is been provided by PSEGS, then the enhancement/additional equipment shall be installed and be made operational within 10 days of equipment being made available to the Operator by PSEGS. Any delay by the operator shall render the operator liable to the imposition of appropriate penalties.
- (iii) PSEGS shall pay 3% of the cost of the aforesaid equipment to the Operator as operating charges per year which shall be added to the Quarterly Guaranteed Revenue.

8. Section VIII: Instruction to Bidders

8.1. Advice to the bidders

Bidders are advised to study this RFP document carefully before participating. It shall be deemed that submissions of Bid by the bidder have been done after their careful study and examination of the RFP document with full understanding to its implications.

8.2. Sale of bid document

A complete set of this RFP documents can be purchased from Punjab State E-Governance Society (PSEGS) Government of Punjab, SCO 193-195, Sector 34-A, Chandigarh - 160 034.

- (i) By the bidders in person against a non-refundable amount of Rs. 5000/- through Demand Draft/Bankers Pay Order from a scheduled bank, drawn in favour of "Member Secretary, PSEGS", payable at Chandigarh.
- (ii) Bids not submitted in prescribed form will be rejected.
- (iii) RFP document will be sold from 11:00 am to 5:00 pm on all working days starting from 25.11.08 till 2.1.09(upto 13.00hrs)
- (iv) The bids can also be downloaded from the web site of www.doitpunjab.gov.in
- (v) In case the bid is downloaded, then at the time of submission of the bid, the bidder will have to submit an additional non refundable Demand Draft(Besides the EMD) of Rs.5000/- through Demand Draft/ Banker Pay Order from a scheduled Bank, drawn in favour of 'Member Secretary, PSEGS', payable at Chandigarh.

8.3. Procedure for Submission of Bids

8.3.1. Cover Systems

It is proposed to have a **Two Cover System** for this tender:

- Technical Bid (3 copies) in one cover & the same information on CD in the same cover.
- Commercial Bid (3 copies) in one cover & the same information on CD in the same cover.

Each copy of Technical Bid and Commercial Bid of the Tender should be covered in separate sealed covers super-scribing "**Technical Bid**" and "**Commercial Bid**" respectively. Each copy in each bid should also be marked as "Original", "First copy" and

"Second copy". All the three copies of each bid should be put in a single sealed cover super-scribing "Technical Bid" and "Commercial Bid" as the case may be. **Please Note that Prices should not be indicated in the Technical Bid and should only be indicated in the Commercial Bid.**

The cover containing three copies of Technical Bid and the cover containing three copies of Commercial Bid should be put in another single sealed envelope clearly marked **"Appointment of an BOOT operator for design, procure, install, commission, maintain & operate Horizontal Offices for Punjab State E-Governance Society (PSEGS) Government of Punjab, SCO 193-195, Sector 34-A, Chandigarh- 160 034"** This envelope is to be super scribed with Tender Number, Due Date, Item and the wordings **"DO NOT OPEN BEFORE xx.00 hours on xxth xxxx 2009"**

The cover thus prepared should also indicate clearly the name, address and telephone number of the bidder, to enable the Bid to be returned unopened in case it is declared **"Late"**.

Each copy of the tender should be a complete document and should be bound as a volume. The document should be page numbered and appropriately flagged and must contain the list of contents with page numbers. Different copies must be bound separately. **Any deficiency in the documentation may result in the rejection of the Bid.**

As part of the bid, Bidder should also provide the technical and commercial bid in soft copy format, in the form of a non-re-writeable CD (Compact Disc) as follows:

- Three (3) copies of CD each containing the technical bid - The CDs containing technical bid should be sealed along with the hard copies of the respective technical bids.
- Three (3) copies of CD each containing the commercial bid - The CDs containing commercial bid should be sealed along with the hard copies of the respective commercial bids.

All CDs submitted by the Bidder must be in sealed covers. The sealed covers as well as the CD media must be duly signed by the Bidder using a "Permanent Pen/Marker", should be super scribed with "Technical Bid"/"Commercial Bid" (as the case may be) and should bear the name of the Bidder.

Bidder must ensure that the information furnished by him in respective CDs is identical to that submitted by him in the original paper bid document. In case of any discrepancy observed by PSEGS, in the contents of the CDs and original paper bid documents, the information furnished on original paper bid document will prevail over the soft copy.

Bidder must ensure that Technical Bid CDs do not contain any Commercial items/prices.

The original and all copies of the bid shall be typed or written in indelible ink. The original and all copies shall be signed by the Bidder or a person or persons duly authorized to bind the Bidder to the Contract. All pages of the bid, except for un-amended printed literature, shall be initialed and stamped by the person or persons signing the bid.

The bid shall contain no interlineations, erasures or overwriting except as necessary to correct errors made by the Bidder, in which case such corrections shall be initialed by the person or persons signing the bid.

The Bidder shall duly sign and seal its bid with the exact name of the firm/company to whom the contract is to be issued.

All out-station tenders, if sent by post, should be sent under registered cover.

Telex/Telegraphic/Telefax/Xerox/Photocopy bids will not be considered.

8.3.2. Transferability of the RFP document

This RFP document is non-transferable.

8.3.3. Misplacement of the RFP document

PSEGS shall not be responsible for any postal delay about non-receipt/non-delivery of the documents.

8.3.4. Pre bid discussions - Place, time and date:

Punjab State E-Governance Society (PSEGS)

Government of Punjab,

SCO 193-195, Sector 34-A,

Chandigarh - 160 034.

At **3.00 pm on 4.12.2008.**

8.3.5. Address at which the bids are to be submitted:

Punjab State E-Governance Society (PSEGS)

Government of Punjab,

SCO 193-195, Sector 34-A,

Chandigarh - 160 034.

8.3.6. Last time and date for receipt of bid:

Upto 2.00 pm on 2.1.2009

8.3.7. Place, time and date of opening of pre-qualification bid:

Punjab State E-Governance Society (PSEGS)

Government of Punjab,

SCO 193-195, Sector 34-A,

Chandigarh - 160 034.

At 3.00 pm on 2.1.2009

8.3.8. Earnest money deposit (EMD)

- a. All bids must be accompanied by an earnest money of Rs. 5,00,000/- (Rs. Five Lacs only) in the form of Demand draft from a scheduled bank in India and shall be valid for at least six months, in favour of 'PSEGS' payable at Chandigarh. No interest shall be paid on the earnest money under any circumstances.

8.3.9. Pre-bid conference

- a. Tenderer shall hold a pre-bid conference (PBC) after the sale of the RFP document. In this PBC, tenderer would address the clarifications sought by the bidders with regard to the RFP document and the project. The bidders would be required to submit their queries to the tenderer in writing at least 5 (five) days prior to the PBC. Queries not submitted within this deadline may not be taken up at the PBC.
- b. These bidders would be required to register for the PBC at PSEGS. No clarifications shall be issued after the PBC.
- c. Tenderer reserves the right not to respond to any/all queries raised or clarifications sought if, in their opinion and at their sole discretion, they consider that it would be inappropriate to do so or do not find any merit in it. No extension to any deadline referred to in this document will be granted on the basis or grounds that tenderer should respond to any queries to provide any clarification.

8.3.10. Cross checking

- a. Tenderer reserves the right to contact and verify bidder's information, references and data submitted in the bid proposal without further reference to the bidder.

8.3.11. Absence of specifications

- a. The absence of specifications/details regarding any equipment to be supplied under this RFP implies that best general practices will prevail and that first quality material and workmanship will be applied as per the discretion of tenderer. Certification standards, when available, for the to-be-installed equipments and materials, will prevail.

8.4. Cost to Bid

- a. The Bidder shall bear all costs associated with the preparation and submission of its bid, including cost of presentation for the purposes of clarification of the bid, if so desired by the PSEGS, Government of Punjab. PSEGS, Punjab will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the Tendering process.

8.5. Earnest money refund

- a. The draft of earnest money to the bidder(s), who fail(s) to qualify for the technical bid, will be returned back by tenderer to the authorized representative of the bidder against a proper receipt or will be sent by the registered post at the mailing address of the bidder as specified in the bid within four weeks of opening of the pre-qualification bid.
- b. The draft of earnest money to the bidder(s), who fail(s) to qualify for the commercial bid, will be returned back by tenderer to the authorized representative of the bidder against a proper receipt or will be sent by the registered post at the mailing address of the bidder as specified in the bid within eight weeks after completion of technical bid evaluation.
- c. The draft of earnest money to the bidder(s), who qualify(s) for the commercial bid, but do not get the order for the project will be returned back by tenderer to the authorized representative of the bidder against a proper receipt or will be sent by the registered post at the mailing address of the bidder as specified in the bid within one month after signing of contract agreement between tenderer and the successful bidder.

8.6. Clarification on Tender Document

A prospective Bidder requiring any clarification on the Bidder Document may submit his queries, in writing, at PSEGS to the mailing address and as per schedule indicated in "Invitation to Bids / Important dates". The queries must be submitted in the following format only to be considered for clarification:

S. No	Section No.	Clause No.	Reference/ Subject	Clarification Sought
..	..	..	..	..

The queries not adhering to the above mentioned format shall not be responded to.

PSEGS will respond in writing, to any request for clarification to queries on the Tender Document, received not later than the dates prescribed in Invitation to

Bids/Important Dates. Copies of the clarifications (including the query but without identifying the source of inquiry) will be sent to all prospective Bidders, through e-mail and will also be put up on the website.

8.7. Language of Bids

The Bids prepared by the Bidder and all correspondence and documents relating to the bids exchanged by the Bidder and PSEGS shall be written in English language, provided that any printed literature furnished by the Bidder may be written in another language so long the same is accompanied by an English translation in which case, for purposes of interpretation of the bid, the English translation shall govern.

8.8. Documents Comprising the Bids

The bid prepared by the Bidder shall comprise of the following components:

8.8.1. Technical Bid

The Technical Bid, besides the other requirements of the Tender, shall comprise of the following:

- 1 Checklist
- 2 Earnest Money Deposit (EMD) in the form of a Demand Draft
- 3 Power of Attorney executed by the Bidder in favour of the Principal Officer or the duly Authorized Representative, certifying him as an authorized signatory for the purpose of this Tender.
- 4 The RFP document in original duly signed on each page acknowledging the terms of RFP.
- 5 Sealed envelope containing the Technical Bid
- 6 Sealed envelope containing the Commercial Bid

8.9. Bid Prices

- a. The Bidder shall indicate in the Performa prescribed, the unit rates and total Bid Prices of the equipment/services, it proposes to provide under the agreement. Prices should be shown separately for each item as detailed in Tender Documents.
- b. In absence of above information as requested in Clause “a” above, a bid may be considered incomplete and be summarily rejected.
- c. The Bidder shall prepare the bid based on details provided in the tender documents. It must be clearly understood that the Scope of Work is intended to give the Bidder an idea about the order and magnitude of the work and is not in

any way exhaustive and guaranteed by PSEGS. The Bidder shall carry out all the tasks in accordance with the requirement of the tender documents & due diligence and it shall be the responsibility of the Bidder to fully meet all the requirements of the tender documents. If during the course of execution of the project any revisions to the work requirements like Technical specifications, Equipment sizing, etc. are to be made to meet the goals of PSEGS; all such changes shall be carried out within the current price without any impact to PSEGS.

8.10. Firm Prices

- a. Prices quoted in the bid must be firm and final and shall not be subject to any upward modifications, on any account whatsoever. However, PSEGS reserves the right to negotiate the prices quoted in the bid to effect downward modification. The Bid Prices shall be indicated in Indian Rupees (INR) only.
- b. The Commercial bid should clearly indicate the price to be charged without any qualifications whatsoever and should include all taxes, duties, fees, levies, works contract tax and other charges as may be applicable in relation to the activities proposed to be carried out. It is mandatory that such charges wherever applicable/payable should be indicated separately. However, should there be a change in the applicable taxes; PSEGS reserves the right to negotiate with the Bidder.
- c. Prices in any form or by any reason before opening the Commercial Bid should not be revealed, failing which the offer shall be liable to be rejected. If price change is envisaged due to any clarification, revised Bid in a separate sealed cover shall be submitted with prior written permission of PSEGS.

8.11. Bidder Qualification

- a. The "Bidder" as used in the tender documents shall mean the one who has signed the Tender Form. The Bidder may be either the Principal Officer or his duly Authorized Representative, in either case he/she shall submit a certificate of authority. All certificates and documents (including any clarifications sought and any subsequent correspondences) received hereby, shall, as far as possible, be furnished and signed by the representative and the principal.
- b. It is further clarified that the individual signing the tender or other documents in connection with the tender must certify whether he/she signs as the Constituted attorney of the firm, or a company.

- c. The authorization shall be indicated by written power-of-attorney accompanying the bid.
- d. The power or authorization and any other document consisting of adequate proof of the ability of the signatory to bind the Bidder shall be annexed to the bid.
- e. Any change in the Principal Officer shall be intimated to PSEGS in advance.

8.12. Period of Validity of Bids

- a. Bids shall remain valid for 180 days after the date of opening of Technical Bids prescribed by PSEGS. A bid valid for a shorter period may be rejected as non-responsive.
- b. In exceptional circumstances, PSEGS may request the Bidder(s) for an extension of the period of validity. The request and the responses thereto shall be made in writing (or by fax). The validity of EMD shall also be suitably extended.

8.13. Modification and Withdrawal of Bids

- a. The Bidder may modify or withdraw its bid after the bid's submission, provided that written notice of the modification or withdrawal is received by PSEGS prior to the last date prescribed for receipt of bids.
- b. The Bidder's modification or withdrawal notice shall be prepared, sealed, marked and dispatched in accordance with the provisions of the tender. A withdrawal notice may also be sent by fax but followed by a signed confirmation copy, post marked not later than the last date for receipt of bids.
- c. No bid may be altered/modified subsequent to the closing time and date for receipt of bids. Unsolicited correspondences from Bidders will not be considered.
- d. No bid may be withdrawn in the interval between the last date for receipt of bids and the expiry of the bid validity period specified by the Bidder in the Bid. Withdrawal of a bid during this interval may result in the Bidder's forfeiture of its EMD.

8.14. Opening of Technical Bids

- a. An evaluation committee will be formed for evaluation of the bids. Decision of the committee would be final and binding upon all the Bidders.
- b. PSEGS will open the Technical Bid, in the presence of the representatives of the Bidders who choose to attend, at the time, date and place, as mentioned in Invitation for Bids/Important Dates.

- c. The Bidder's names, modifications, bid withdrawals and the presence or absence of the requisite EMD and such other details considered appropriate will be announced at the bid opening.

8.15. Evaluation of Bids

- a. The evaluation process of the tender proposed to be adopted by PSEGS is indicated under this clause. The purpose of this clause is only to provide the Bidders an idea of the evaluation process that PSEGS may adopt. However, PSEGS reserves the right to modify the evaluation process at any time during the Tender process, without assigning any reason, whatsoever, and without any requirement of intimating the Bidders of any such change.

8.15.1. Preliminary Examination:

- a. PSEGS will examine the bids to determine whether they are complete, whether the documents have been properly signed and whether the bids are generally in order. Any bids found to be non-responsive for any reason or not meeting the minimum levels of the performance or other criteria specified in the various sections of this RFP will be rejected and not included for further consideration.

8.15.2. Pre-Qualification of Bidders:

- a. The bidder should be a company registered under the Companies Act, 1956 since last 5 years and should submit Certificate of incorporation.
- b. Bidder(if Consortium then the lead bidder) should be an established Information Technology company/IT System Integrator and should have been in the business for a period exceeding three years as on 31.03.2008 so a Work Orders confirming year and area of activity Memorandum and Articles of Associations.
- c. The bidder(if Consortium then the lead bidder) should have experience in setting up atleast 5 networks with 100 WAN nodes/8 networks with 50 WAN nodes/12 networks of 25 WAN nodes during the last three years a Copy of work order/client certificates should be submitted.
- d. The bidder(if Consortium then the lead bidder) should have a valid ISO 9001:2000 certification for system integration at the time of bidding a copy of the certificate should be submitted
- e. The bidder (if Consortium then the lead bidder) should have positive net worth and a turnover of more than Rs. 25 crores for each of the last two Financial Years ending on 31.03.2008. (Chartered Accountant certificate for Net-worth and copy of the audited profit and loss account of the company showing turnover of the company for last two years should be provided).

- f. The bidder (if Consortium then the lead bidder) must have on its roll at least 30 Certified Network Engineers. Engineer's details with their contact information, educational qualification, experience details along with the projects they have handled and their association with the organization must be enclosed.
- g. The bidder (prime) should furnish, as part of its bid, an Earnest Money Deposit (EMD) of Rs. 5,00,000/- (Five lakh only). The EMD should be denominated in Indian Rupees, and should be in the form of a Demand Draft/Cheque issued by a Nationalized/Scheduled Bank, in favor of Member Secretary, PSEGS.
- h. The Bidder shall not be under a Declaration of Ineligibility for corrupt or fraudulent practices or blacklisted with any of the Government agencies so a declaration in this regard by the authorized signatory of the prime bidder should be enclosed
- i. The bidder (prime) should submit valid letter from the OEMs confirming following:
 - Authorization for bidder
 - Confirm that the products quoted are not end of life products
 - Undertake that the support including spares, patches for the quoted products shall be available for next 6 years.
- j. The bidder should have an office in the state/Chandigarh. However, if the local presence is not there in the state, the bidder should give an undertaking for establishment of an office, within two months of award of the contract.
- k. The Bid can be submitted by an individual or a consortium. In case of consortium, the consortium shall be evaluated based on the lead bidder's strength. In case of consortium applicant consortia shall submit a valid Memorandum of Understanding (MOU)/ agreement among all the members signed by the Authorized Signatories of the companies dated prior to the submission of the bid. The MoU/agreement shall clearly specify the stake of each member and outline the roles and responsibilities of each member. The MoU/ agreement shall be exclusively for this project and shall be responsible in case of failure by any member.
- l. Please Note: An organization acting as a system integrator can be independently or be a part of only one Consortium. In the event an organization in the capacity of SI is part of more than one Bid, all these bids will be rejected.
- m. All pages of the documents should be duly stamped and signed.
- n. Complete set of documents should be properly indexed.

8.15.3. Technical Evaluation of Bids:

- a. The bidders short listed in the pre-qualification stage will have to present their solution to PSEGS as per the schedule decided by PSEGS.
- b. Pursuant to the pre-qualification criterion, bidders will be short – listed for the technical bid. Technical bids will be opened only for the bidders who succeed the pre-qualification stage. The technical bids for the disqualified bidders will be returned unopened at the address mentioned on the envelopes containing the technical bids.
- c. An important component for evaluating the proposed solution would be the satisfactory completion and running of similar network including components proposed as part of the proposed solution. Proposed technical components should have a track record of successful implementation of network(s) similar in size and scope.
- d. PSEGS will review the technical bids of the short listed bidders to determine whether the technical bids are substantially responsive. Bids that are not substantially responsive are liable to be disqualified at PSEGS's discretion.
- e. The evaluation will also take into consideration if the equipments to be used for PAWAN by the HORIZONTAL BOOT operator are as per the scope of work defined by this RFP are from the leading industry players.
- f. The tenderer may conduct clarification meetings with each or any Bidder to discuss any matters, technical or otherwise.
- g. Any effort by the bidder to influence the tenderer in the process of evaluation of technical Bids, bid comparison or the tenderer's decisions on acceptance or rejection of bids may result in rejection of the bidder's bid.
- h. The bidders will also be required to make a detailed presentation covering various aspects on technical parameters defined in this RFP for the said horizontal connectivity, services supports, maintainability, implementation schedule, upgradeability and its integration with PAWAN.
- i. The tenderer may also ask the bidders to arrange visits of officers to the network sites already established and claimed in the bid.
- j. No further discussion/interface will be held with the bidder whose bid has been technically disqualified /rejected.
- k. The technical bids shall be verified based on the criteria as mentioned in **section 8.16**

8.16. Technical Evaluation Criteria

S. No	Criteria	Point System	Maximum Points
A. Organizational Strength			40
1	The bidder should have experience in setting up atleast: (a) 5 networks with 100 WAN nodes (b) 8 networks with 50 WAN nodes (c) 12 networks of 25 WAN nodes during the last three years.	For a 5Network=3; 6Network=5; 7Network=7; >7Network=9 Or For b 8Network=3; 9Network=5 10Networks=7;>10Networks=9 Or For c 12Networks=3; 13Network=5;14Networks=7;>15 Networks=9	9
2.	The bidder should have experience in providing Facility management services to WAN with atleast 20 nodes	1Project= 3 2Projects=4 3Projects= 5 4 or more Projects= 6	6
3.	The bidder must have on its roll at least 30 technically qualified professionals in networking, systems integration, as on 31-03-08 .	No. Of Technical Manpower 30= 2 30-40= 3 40- 50= 4 50>=5	5
4.	At least five resources should be CCNA/Equivalent certified with two years of Experience.	No of Resources: 5= 3 5-10=4 >10=5	5
5.	The bidder should have experience in Networking Projects on BOOT model with atleast 20 nodes.	1Project= 2 2Projects=3 3Projects= 4 4 or more Projects= 5	5
6.	The bidder should have positive net worth and a turnover of more than Rs. 25 crores for each of the last		5

	two Financial Years ending on 31.03.2008.		
7.	The bidder should have an office in the state. However, if the local presence is not there in the state, the bidder should give an undertaking for establishment of an office, within two months of award of the contract.		5
B. Technical Solution Offered			60
1.	Solution/Design Description	Marks to be awarded on the basis of solution offered: ➤ Solution meeting the requirements ➤ Clarity of the solution offered ➤ Any improvements/innovations/ suggestion in the proposed solution	10
2.	Helpdesk services		5
3.	Compliance with standards like ISO 9001:2000		7
4.	Core Project team including Number and Quality of People proposed for operations		15
5.	Solution Scalability		4
6.	Test plan and procedures for Acceptance Test		4
7.	Any time saving proposed in the Time Schedule.		4
8.	SLA Implementation and Management Methodology Proposed		10
9.	Training		1

- a. PSEGS will assign points (quality of services score) to the technically qualified bidders based on the technical evaluation criterion approved by PSEGS.
- b. Bidders scoring at least 70% in the technical evaluation shall be considered for further commercial evaluation.

8.16.1. Clarification

- a. When deemed necessary, during the tendering process, PSEGS may seek clarifications or ask the Bidders to make Technical presentations on any aspect

from any or all the Bidders. However, that would not entitle the Bidder to change or cause any change in the substance of the tender submitted or price quoted.

8.16.2. Evaluation of Commercial Bids

- a. Commercial bids of those bidders who qualify the technical evaluation will be opened. The operator will be decided based on the L1 criteria.
- b. The bidder's names, the Bid Prices, the total amount of each bid, and such other details as the Tendering Authority may consider appropriate, will be announced and recorded by the Tenderer at the opening.

8.16.3. Correction of Errors

- a. Proposals will be checked by the committee for any arithmetic errors during the evaluation of the Financial Proposal. Errors will be corrected by the committee as follows:
 - i. Where there is a discrepancy between the amounts in figures and in words, the amount in words will govern; and
 - ii. Where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will govern, or between sub totals and total price, the unit or sub total price shall prevail and the total price shall be corrected.
- b. The amount stated in the Financial Proposal will be adjusted by the committee in accordance with the above procedure for the correction of errors and shall be considered as binding upon the Bidder. If the Bidder does not accept the corrected amount of Financial Proposal, its Proposal will be rejected (and EMD forfeited) and the Bidder will be liable for other appropriate action as decided by committee.

8.17. Post Qualification and Award Criteria

- a. An affirmative determination will be a prerequisite for award of the Contract to the Bidder. A negative determination will result in rejection of the Bidder's bid, in which event; PSEGS will proceed to the next best evaluated bid to make a similar determination of that Bidder's capabilities to perform satisfactorily.
- b. PSEGS is not bound to accept the best evaluated bid or any bid and reserves the right to accept any bid, wholly or in part.

8.18. PSEGS

8.18.1. Right to Vary Scope of Contract at the time of Award

- a. PSEGS may at any time, by a written order given to the Bidder, make changes to the scope of the Contract as specified.
- b. If any such change causes an increase or decrease in the cost of, or the time required for the Bidder's performance of any part of the work under the Contract, whether changed or not changed by the order, an equitable adjustment shall be made in the Contract Value or time schedule, or both, and the Contract shall accordingly be amended. Any claims by the Bidder for adjustment under this Clause must be asserted within thirty (30) days from the date of the Bidder's receipt of PSEGS's changed order.

8.18.2. Right to Accept Any Bid and to Reject Any or All Bids

- a. PSEGS reserves the right to accept any bid, and to annul the Tender process and reject all bids at any time prior to award of Contract, without thereby incurring any liability to the affected Bidders or any obligation to inform the affected Bidders of the grounds for PSEGS's action.
- b. PSEGS reserves the right to negotiate the commercials with the selected Bidder and seek revised commercial bid.

8.19. Notification of Award

- a. Prior to the expiration of the period of bid validity, PSEGS, will notify the successful Bidder in writing by registered letter or by fax, to be confirmed in writing by registered letter, that its bid has been accepted.
- b. The notification of award will constitute the formation of the Contract.
- c. Upon the successful Bidder's furnishing of Bank Guarantee for contract performance the PSEGS may notify each unsuccessful Bidder and will discharge its EMD.

8.20. Signing of Contract

- a. At the same time as PSEGS notifies the successful Bidder that its bid has been accepted, PSEGS will send the Bidders the Performa for Contract provided in the Tender Document, incorporating all agreements between the parties.
- b. Within 7 days of receipt of the Contract, the successful Bidder shall sign and date the Contract and return it to PSEGS.

8.21. Bank Guarantee for Contract Performance

- a. Within 15 days of the receipt of notification of award from PSEGS, the successful Bidder shall furnish the performance security in accordance with the Terms & Conditions of Contract, in the Contract Performance Guarantee Bond prescribed in the tender.
- b. Failure of the successful Bidder to comply with the requirement shall constitute sufficient grounds for the annulment of the award and forfeiture of the EMD. In case of exigency, if PSEGS gets the work done from elsewhere, the difference in the cost of getting the work done will be borne by the successful Bidder.

8.22. Confidentiality of the Document

This Tender Document is confidential and PSEGS shall ensure that anything contained in this Tender Document shall not be disclosed in any manner, whatsoever.

8.23. Rejection Criteria

Besides other conditions and terms highlighted in the tender document, bids may be rejected under following circumstances:

8.23.1. General Rejection Criteria

- a. Bids submitted without or improper EMD
- b. Bids which do not confirm unconditional validity of the bid as prescribed in the Tender
- c. If the information provided by the Bidder is found to be incorrect / misleading at any stage / time during the Tendering Process
- d. Any effort on the part of a Bidder to influence the bid evaluation, bid comparison or contract award decisions
- e. Bids received by PSEGS after the last date prescribed for receipt of bids.
- f. Bids without signature of person (s) duly authorized on required pages of the bid
- g. Bids without power of authorization and any other document consisting of adequate proof of the ability of the signatory to bind the Bidder.

8.23.2. Technical Rejection Criteria

- a. Technical Bid containing commercial details.
- b. Revelation of Prices in any form or by any reason before opening the Commercial Bid.
- c. Failure to furnish all information required by the Tender Document or submission of a bid not substantially responsive to the Tender Document in every respect.

- d. Bidders not quoting for the complete scope of Work as indicated in the Tender documents, addendum (if any) and any subsequent information given to the Bidder.
- e. Bidders not complying with the Technical and General Terms and conditions as stated in the Tender Documents.
- f. The Bidder not confirming unconditional acceptance of full responsibility of providing services in accordance with the Scope of work and Service Level Agreements of this tender.
- g. If the bid does not confirm to the timelines indicated in the bid.

8.23.3. Commercial Rejection Criteria

- a. Incomplete Price Bid.
- b. Price Bids that do not conform to the Tender's price bid format.
- c. Total price quoted by the Bidder does not include all statutory taxes and levies applicable.
- d. If there is an arithmetic discrepancy in the commercial bid calculations PSEGS shall rectify the same. If the Bidder does not accept the correction of the errors, its bid may be rejected.

8.24. Concessions permissible under statutes

- a. Bidder, while quoting against this tender, must take cognizance of all concessions permissible under the statutes including the benefit under Central Sale Tax Act, 1956, failing which it will have to bear extra cost where Bidder does not avail concessional rates of levies like customs duty, excise duty, sales tax, etc. PSEGS will not take responsibility towards this. However, PSEGS may provide necessary assistance, wherever possible, in this regard.

8.25. Income tax liability

- a. The bidder will have to bear all Income Tax liability both corporate and personal tax.
- b. Proprietary rights.
- c. The bidder/supplier shall indemnify the tenderer against all third party claims of infringement of patent, copyright, trademark and trade designs arising from use of the goods or any part thereof in India.
- d. Patent rights.

- e. The Bidder shall indemnify the tenderer against all third-party claims of infringement of patent, trademark or industrial design and intellectual property rights arising from the use of the Goods or any part thereof.
- f. Additional information/clarification.
- g. Tenderer reserves the right to ask for any additional information, as it may deem necessary to evaluate the bid proposal. Bidders that fail to submit additional information or clarification as sought by evaluation committee within 10 days of the receipt of tenderer's letter requesting for such additional information and/or clarification, their bids will be evaluated based on the information furnished along with the bid proposal.

9. Section IX: General Conditions of the Contract

This CONTRACT is made and entered into on thisday of by and between Punjab State E-Governances Society (hereinafter referred to as “PSEGS” which expression shall include its successors, administrators, executors and assignees) on the one part and M/s, a company registered under the companies Act with its Registered office at referred to as the “HORIZONTAL BOOT Operator” (which expression shall include its successors, administrators, executors and permitted assignees) on the other part.

Whereas PSEGS is desirous of (description of services) for carrying out PSEGS operations conforming to specifications as set forth in the Scope of Work at Section III.

And Whereas the HORIZONTAL BOOT Operator represents that it has the necessary experience for carrying out PSEGS operations as referred to herein and has submitted a bid for providing the required services against PSEGS Tender No..... all in accordance with the terms and conditions set forth herein and any other reasonable requirements of PSEGS from time to time.

And Whereas PSEGS has accepted the bid of the HORIZONTAL BOOT Operator and has placed Fax order/Letter of Intent/Notification of Award vide its letter dated.... On the IMPLEMENTATION AGENCY.

Now it is hereby agreed to by and between the parties as under:

9.1. Use of RFP document and other Information:

- (i) Successful bidder shall not, without the tenderer's prior written consent, disclose the contract agreement, or any provision thereof, or any specification, pattern, sample or information furnished by or on behalf of tenderer in connection to any person other than a person employed by the tenderer in the performance of the contract agreement and the scope of work. Disclosure of document/information to any such employed person shall be made in confidence and shall extend only as far as may be necessary for such performance.
- (ii) Successful bidder shall not, without the tenderer's prior written consent make use of any document or any information specified in (i) above, except for the purpose of performing the contract agreement and the scope of work.

- (iii) Any document other than this contract agreement shall remain the property of the tenderer

9.2. Change in the minimum specified work

- (i) Tenderer may at any time by written intimation to the successful bidder, make changes in the minimum specified work.
- (ii) The successful bidder shall not perform changes in the minimum specified work, until tenderer gives permission for such change in writing on the basis of estimate provided by the successful bidder.
- (iii) Mutually agreed change in the minimum specified work shall constitute as a part of the contract agreement and all the provisions and contract agreement shall apply on the said change.
- (iv) Any change in the minimum specified work that may be required for the successful implementation of the project and not involving any significant additional costs shall be carried out by the successful Bidder at no additional cost or expense to the tenderer.
- (v) In the event of withdrawal or discontinuance of any item or items and consequent ceasing of or reduction in demand the successful bidder shall not be entitled to any compensation. Tenderer will, however, make all reasonable endeavors to give warning of any impending complete withdrawal or of any reduction seriously affecting quantities likely to be required under contract.
- (vi) If during the currency of the contract, the specifications of any item or items to be supplied become obsolete, the successful bidder shall continue to comply with demands for the supply of the said item or items in accordance with the new specifications at rate not higher than already agreed rates at the time of contract, and the successful bidder will not be entitled for any compensation also.

9.3. Project Milestones

- (i) For each order released under the Master Service Agreement, the final acceptance of horizontal connectivity must be completed within three months from the date of award of contract, for that particular office.
- (ii) The milestones of the project are mentioned below:-

Sr.No.	Milestone	To be achieved
1	Supply, delivery at site, installation & commissioning of equipment of	Within 2.5 months from the date of award of contract for a particular

	horizontal offices located at State headquarter Chandigarh, at all the SHQ,DHQs,SDHQ,Blocks,Mini PoP and subsequent integration with PAWAN.	office.
2	First Acceptance test of the sites mentioned at 1 above.	Within 2.5 months from the date of award of contract for a particular Department
3	Training of officials	Within 3 months from the date of award of contract for a particular Department.
4	Final Acceptance test	Within 3 months from the date of award of contract for a particular Department.

- (iii) If the successful bidder fails to deliver end to end services as prescribed above the same shall be subject to 0.5% penalty per week of the contract value subject to a maximum of 5% of the total value of the project.
- (iv) The above penalty, if any, shall be recovered from the 1st payment to be made to the successful bidder under this project or recovery will be made from amount of Earnest Money or Bank Guarantee submitted by the successful bidder to the tenderer.
- (v) No recovery of penalty will be made, if tenderer accepts the delays by extending the milestones up to two weeks by recording in writing that the exceptional circumstances were beyond the control of the successful bidder and there was no loss to GoP.
- (vi) Where the delay on the part of successful bidder is more than 2 weeks subject to maximum of 4 weeks, the matter of extension of Time frame for accomplishing the particular delayed activity will be referred to the Committee appointed by tenderer with related documents that there are genuine reasons for delay on the part of successful bidder and that no loss will result to GoP in case extension is allowed. In case the time frame for the activity as mentioned in the milestones above is extended, no penalty during the extended period shall be recovered from the successful bidder.

- (vii) The unexcused delay in performing of any services as mentioned in the milestones by the successful bidder in the prescribed period may render him liable to any or all of the following penalties:-
 - a. The penalty as mentioned at clause no. 6.4 (iii) above.
 - b. Forfeiture of earnest money and revoking of Security (Performance Bank Guarantee).
 - c. Termination of the contract as default.

9.4. Responsibilities of Successful bidder

- (i) The successful bidder is responsible to execute all but not limited to the work specified under scope of work as specified in section-2 of this RFP.
- (ii) The successful bidder shall maintain the network under this RFP and located at respective departments and other agencies of GoP, for the implementation and operation of the project and allied services.
- (iii) The successful bidder shall handle all the technical and implementation matters including timely commissioning and maintenance of the MPLS/leased lines/wireless on behalf of the tenderer with Bharat Sanchar Nigam Limited (BSNL) or and any other service provider(s) as the case may be. A tripartite agreement between GoP, bandwidth service provider and the successful bidder shall be signed to take care of the connectivity issue.
- (iv) The successful bidder is required to coordinate the testing and installation with the BSNL or and any other service provider(s) on need basis.
- (v) Responsibility of Electricity earthing and its testing according to the norms at each location while installation of equipments is of successful bidder. If at any location the earthing is not working properly or there is no-earthing, then the successful bidder will arrange/repair the same. Successful bidder shall submit a test report for each site. If any equipment starts malfunctioning due to improper earthing during the currency of the contract, the same equipment will be replaced/repared by the successful bidder at his own cost and the successful bidder will not be compensated for the same.
- (vi) To lay down the whole data cabling upto each point and the power cabling up-to and from the Uninterrupted Power Supply (UPS), near each equipment supplied by the successful bidder under this RFP is the responsibility of the successful bidder.
- (vii) Inputs/guidelines for the preparation of site as per standard norms shall be submitted by the successful bidder after site visit.
- (viii) Civil works, if any, required for passive-cabling systems will be the responsibility of the successful bidder.

9.5. Responsibilities of Tenderer:

- (i) To provide the data transmission medium at the site, which include all the required MPLS-VPN/leased lines connectivity at each site as per the requirements of the project.
- (ii) To provide appropriate environmental conditions, necessary power facilities for the system, access to the premises, a secure equipment storage area, and suitable conditions for the successful bidder's officials.

9.6. Duration of the contract:

- (i) The CONTRACT shall remain valid for a period of 5 years from the date of signing of contract or 5 years from the date of final acceptance test whichever is later.

9.7. Contract Performance Guarantee

- (i) Within 7 days after the receipt of notification of award of the Contract from PSEGS, the successful Bidder shall furnish Contract Performance Guarantee to PSEGS which shall be equal to 10% of the value of the Contract and shall be in the form of a Bank Guarantee Bond from a Nationalized Bank in the Performa given at Volume II, Annexure III – Performa.

9.8. Price fall

- (i) The prices charged for the Items/services supplied under the contract by the successful bidder shall in no event exceed the lowest price at which the successful bidder sells the goods or offers to sell Items of identical description to any persons/organizations including the tenderer, Department of the Central or State Government or any Statutory undertaking of the central or State Government, as the case may be, till the signing of the contract.
- (ii) If, at any time during the said period the successful bidder reduces the sale price, sells, or offers to sell such goods to any person/organization including tenderer or any Department of State or Central Government or any statutory Undertaking of the Central or State Government as the case may be, at a price lower than the price chargeable under the contract, the successful bidder shall forthwith notify such reduction, or sale or offer to sell to the tenderer and the price payable under the contract for the supply of material after the date of coming into force of such reduction or sale or offer to sell shall stand correspondingly reduced.

9.9. Inspection/tests of the items/equipments

- (i) Inspection committee constituted shall have the power to inspect the items including routers, modems, switches, servers, wireless equipment, IP phones, firewalls, UPS, etc. before, during or after installation and to reject the same or any part or portion, if he/they be not satisfied that the same is not at par or according to the specifications submitted by the successful bidder. The hardware equipment if required can be put to the operational as well as burning test for a minimum period of 72 hours.
- (ii) The successful bidder shall not be paid for supplies rejected as specified at (i) above.
- (iii) Successful bidder shall neither claim nor be entitled to payment for any damage that rejected supplies may suffer from any harm whatsoever incidental to a full and proper examination and test of such supplies.
- (iv) Tenderer shall be under no liability whatsoever for rejected items and the same will be at the successful bidder's risk.
- (v) Rejected supplies shall be removed by the successful bidder at his own expense within 10 days after notice has been issued to him of such rejection, and failing such removal of rejected goods will be at successful bidder's risk.
- (vi) Super inspection of already inspected may be carried out at the discretion of the tenderer after installation, by such officer or team of officers as may be authorized by tenderer. The provisions of conditions mentioned at (i) to (v) above will also apply to the Super Inspection.

9.10. Site visit

- (i) Bidders desirous of making site visits to such offices and facilities of the GoP are required to submit requests for the same to tenderer at least 10 (ten) working days prior to the closing date of the tenders. Tenderer may give the permission letter for such site visits, which would extend to certain offices and facilities of the GoP as necessary for the bidder to implement the project. The cost of the visit will be borne by bidder himself; tenderer is not liable to provide any facility to the bidder(s) for such visits.
- (ii) Tenderer on its own discretion can cancel such permissions at any moment without any notice to the bidder(s).

9.11. Warranty

- (i) Successful bidder will also be responsible for providing comprehensive onsite warranty during the period of contract for all the equipment and their related accessories supplied under this RFP.

- (ii) Warranty shall be deemed to commence from the date of the successful completion and acceptance of the final acceptance by the technical committee constituted by GoP.
- (iii) During the warranty period, it will be the responsibility of the successful bidder to rectify any defect and update the System and the software by incorporating necessary patches, upgrades and updates as and when released by the original supplier or found necessary by tenderer so as to ensure that the Solution is functioning to provide the best performance.
- (iv) Successful bidder shall make available to tenderer the necessary manpower at all times to incorporate changes either in the reports or statements and changes in the business rules for the supplied modules. It is also his responsibility to install the software changes to all systems.
- (v) Successful bidder shall undertake the preventive maintenance of all supplied equipments including active and passive components supplied under this RFP once in every quarter during the currency of contract so as to ensure the smooth functioning of the system and he will have to strictly adhere to this Schedule.

9.12. Boot Operators Team

- (i) Successful Bidder shall depute Project Manager to function as a single point of contact. The said project manager should be supported by trained network engineers to maintain and manage the horizontal connectivity. The bidder shall further provide necessary tools which include PCs/Laptops, Printers, media, mobile phones, etc. at his cost to each of this staff. The bidder shall provide the comprehensive plan along with the bid with regard to the manpower deployed for the above.
- (ii) The network and the systems supplied are considered as operational when the entire horizontal sites at all the places are working, providing all/specified services in full capacity at all locations in the network. The service(s) at a site is considered as available, when that service(s) in full capacity can be used from all the service positions at that particular site.
- (iii) During this period of project management, the successful bidder will attend/rectify the defects at all sites within 24 hours from the time/date, complaints are reported to the successful bidder or its representatives. In case the reported problem is not resolved within 24 hours at such locations, a fine of Rs.1000/- per day per router/switch/MCU, etc. shall be charged. If the successful bidder does not attend/rectify the defect/problem, PSEGS at its own discretion will have the right to arrange repairs/replacement at the cost and risk of the successful bidder and in such case at the end of the warranty period, the

warranty will be extended for duration equivalent to the total time during which the system remains out of order.

- (iv) The scope of project management include, but not limited to:
1. Network administration.
 2. Maintaining and managing the horizontal connectivity including the passives like racks, cabling, and patch panel.
 3. Supporting the provision of last mile access.
 4. All necessary stationery items, media, etc.
 5. Sufficient spares to be kept for the smooth and uninterrupted end to end operation of connectivity as per the defined SLAs.
 6. Interacting with the bandwidth providers for the sustained connectivity for the backbone network.
- (v) Bidder is required to mention the skill level (i.e. certified Hardware/Software Engineers having minimum qualification of B.E./B.Tech with relevant experience). Tenderer reserves the right to verify the technical credential of the manpower to be deputed by the bidder.

9.13. Third Party Agency

- (i) Tenderer is going to appoint a third party agency for a period of six years, which shall be involved for the inspection, installation, auditing & monitoring the PAWAN including horizontal connectivity during implementation, commissioning and project management. The said agency shall also be involved in conducting the acceptance test as mentioned in clause no. 6.16 as per the technical requirements and shall also be involved in the issuance of acceptance certificate subsequent to the completion of final acceptance test. The successful bidder shall cooperate with this third party agency and shall allow the use of monitoring tools.

9.14. Spares

- (i) The successful bidder will ensure that supplies of necessary maintenance equipment and spare parts including active and passive components be made available for the life of the machines or at least for contract duration on continuing basis. For active components especially routers/switches etc, their OEM should have their spares depot in India and should be able to deliver the spares, the next business day. However, it has no bearing on the uptime and related clauses/sections as specified in this RFP.

9.15. Dispatch Documents

- (i) With every dispatch of goods or materials under the contract, the successful bidder will prepare Delivery Challan in triplicate. The original delivery challan is to be sent by the successful bidder to the tenderer.
- (ii) The second copy of Delivery Challan to be returned to the successful bidder by the respective designated officers at each site with the quantities or numbers received duly noted and signed thereon. The said duly signed Delivery Challan received by the successful bidder from the respective intending officers shall also be forwarded to tenderer for further necessary action.
- (iii) The third copy to be sent by the successful bidder to the user for record in its office.

9.16. Condition of items supplied

- (i) This is subject to the condition that the materials are securely packed by the successful bidder in sound containers and the consignment is accepted by the carriers without any adverse remarks as to the packing or the condition of the containers. In case of any adverse remarks, the responsibility for the losses in transit will rest with the successful bidder.
- (ii) The successful bidder will not be entitled to charge or be paid for supplies broken, lost or damaged in transit. Such supplies shall be removed by the successful bidder at his own expense. The decision in this regard taken by tenderer shall be binding and final.

9.17. Acceptance tests

Acceptance Test shall be conducted in two steps:

- (i) The first acceptance test shall involve successful supply, delivery at site, installation & commissioning of the horizontal offices at SHQ, respective DHQs and at all the blocks/sub-divisions and all co-located & remote offices and Mini PoP. The said acceptance test shall further include the integration of these horizontal offices/departments with PAWAN.
- (ii) The Final acceptance test shall include the total commissioning of all the horizontal offices with PAWAN as per the requirement of the RFP. The successful bidder shall demonstrate the complete end-to-end services of all the locations as mentioned in the RFP.
- (iii) In the event the successful bidder is not able to complete the installation linking horizontal offices at SHQ, all DHQs, all blocks/sub-divisions and Mini PoP as defined by tenderer due to non availability of bandwidth from the basic service providers or site not ready and/or non availability of horizontal connectivity by

GoP, the successful bidder and Tenderer may mutually agree to redefine the milestones so that successful bidder can complete installation and conduct the First Acceptance Test/Final Acceptance Test within the redefined milestones for such sites. However, non-availability of bandwidth or site not ready, etc. shall have no bearing on the release of payment as per the original milestones.

- (iv) On the successful completion of both the First and Final Acceptance Tests and after the committee so constituted including third party agency engaged by the tenderer to conduct the said acceptance tests are satisfied with the working of the system, the acceptance certificate signed by the authorized representative(s) of tenderer, authorized representative(s) of GoP and the third party, will be issued by the tenderer to the successful bidder. The date on which such certificate is issued shall be deemed date of the successful commissioning of the horizontal connectivity. Any delay by the successful bidder in the performance of its contracted obligations shall render the successful bidder liable to the imposition of appropriate penalties, unless agreed otherwise by tenderer.
- (v) Any delay by the successful bidder in the Partial/Final Acceptance Testing shall render the Successful bidder liable to the imposition of appropriate Penalties.

9.17.1. Methodology

- (i) All hardware and software equipment must be installed at particular site as per the minimum specifications mentioned in Section III of this document and are integrated as per the design plan as approved by the tenderer.
- (ii) After installation and configuration of each and every subsystem, integrating various systems and providing various services, tests shall be conducted for system performance as a whole. Commissioning shall mean end-to-end commissioning of the network.
- (iii) Successful bidder will arrange the test equipment required for performance verification. The bidder shall furnish the list of test diagnostics programs for hardware and software along with the test schedules and will also provide documented test results.
- (iv) The successful bidder shall be required to demonstrate all the features/facilities/functionalities as mentioned in the RFP.
- (v) The successful bidder shall be responsible for the security audit of the network to be carried out by a certified agency other than the successful bidder.
- (vi) Both the First and Final acceptance involves the operations of the complete system/network for two consecutive weeks as per the prepared acceptance test procedure.

- (vii) In case of failures, acceptance test will be restarted, provided the maximum number of restarts shall not exceed three in number.
- (viii) The acceptance tests shall include all reasonable exercises which the combination of the equipment and the software can be expected to perform in actual usage. The tests shall include, but not limited to, the demonstration of the proper functioning of all hardware and software.
- (ix) The acceptance test duration will be 14 working days of 24 hrs per day. The uptime availability of the system during this time will be calculated as per the Uptime requirement defined.
- (x) However, if the system does not meet the availability criteria laid down as above within 4 weeks from date of commissioning, tenderer shall have the right to reject the system and ask for its replacement. If so deemed necessary, the bidder shall replace the whole or part of the system as suggested by tenderer within six weeks from the date of rejection notice. If the bidder fails to replace the system as required, the tenderer reserves the right to initiate any contingent measures as deemed necessary in the interest of the project.
- (xi) All active/passive components shall be submitted for factory acceptance test by the Tenderer. Tests shall include, but not limited to, power-on test of all equipment, port testing of all active devices, interface testing, etc.
- (xii) Training part of the project should be completed.

9.18. Handing Over

- (i) The whole horizontal connectivity infrastructure facility shall be handed over to the tenderer after the 60 months (to be calculated from the date of issue of final acceptance certificate).
- (ii) The successful bidder shall hand over the horizontal connectivity infrastructure in good running condition and supported by all reports, documents, updates/upgrades, record pertaining to software's for networking equipment, Help/Service Desk, tools deployed for service level management, project management, configuration management, etc. The successful bidder shall also provide complete inventory record of all the equipment including necessary tools installed and operational along with their maintenance record at the time of transfer of the project. The said inventory record should be generated through asset management control tools.
- (iii) The successful bidder shall comply with all other requirements as may be prescribed under Applicable Laws to complete the divestment and assignment of all the rights, title and interest of the successful bidder in the RFP free from all Encumbrances absolutely and free of any charge or tax to GoP or its nominee.

- (iv) The liabilities of the successful bidder for the said project shall not be transferred to the tenderer or GoP and the successful bidder shall be fully responsible for any litigation arising out of it at any time before or after the transfer.

9.19. Insurance

- (i) The HORIZONTAL BOOT operator shall, at his own expense, arrange appropriate comprehensive insurance to cover all risks assumed by the operator under this CONTRACT in respect of its personnel deputed under this CONTRACT as well as equipment, tools and any other belongings of the Operator or their personnel during the entire period of their engagement in connection with this CONTRACT. PSEGS will have no liability on this account.
- (ii) Operator shall take out insurance policies against all risks of loss or damage caused to PSEGS property/equipments for property owned or hired by PSEGS and the works and part of the works taken over by PSEGS.
- (iii) Notwithstanding anything contained in any provision of this CONTRACT, save as specified above in this Clause PSEGS shall defend, indemnify and hold the HORIZONTAL BOOT Operator harmless from and against any losses, damages, cost or claims relating to PSEGS existing property except in case of gross negligence or willful misconduct of the Implementation Agency, or employees, in which case the BOOT Operator shall be liable to bear any loss or damage occurring to the Property of PSEGS as a result of its gross negligence or willful misconduct, provided however, that such liability shall be limited to 100% of the CONTRACT Price.
- (iv) "Gross Negligence" means: any act or failure to act (whether sole, joint or concurrent) by a person or entity which was intended to cause, or which was in reckless disregard of or wanton indifference to, avoidable and harmful consequences such person or entity knew, or should have known, would result from such act or failure to act. Notwithstanding the foregoing, Gross negligence shall not include any action taken in good faith for the safeguard of life or property, "willful misconduct" means: "intentional disregard of good and prudent standards of performance or proper conduct under the CONTRACT with knowledge that it is likely to result in any injury to any person or persons or loss or damage of property.
- (v) Certificate of Insurance: Before commencing performance of the CONTRACT, HORIZONTAL BOOT Operator shall upon request furnish PSEGS with certificates of insurance indicating (1) kinds and amounts of insurance as required herein (2) insurance PSEGS or companies carrying the aforesaid

coverage (3) effective and expiry dates of policies (4) that PSEGS shall be given thirty (30) days written advance notice of any material change in the policy (5) waiver of subrogation endorsement has been attached to all policies and (6) the territorial limits of all policies. If any of the above policy expire or/are cancelled during the term of this CONTRACT and DCO fails for any reason to renew such policies, then PSEGS may replace same and charge the cost thereof to IMPLEMENTATION AGENCY. Should the relapse in any insurance required to be carried out by DCO hereunder for any reason; losses resulting there from shall be to the sole account of the IMPLEMENTATION AGENCY. Such insurance shall be affected within Insurance Company incorporated and registered in India or jointly with a company of International repute and an Insurance Company incorporated and registered in India.

9.20. Sub-contracting of the project

In the event successful bidder intends to use Sub-contractor for any part of the Project, the following shall be adhered to:

- (i) The sub-contracting of the entire project shall not be allowed. Further, the successful bidder will be solely responsible for the whole project and all of the conditions of the project, even if he sub-contracts any part of the project to any other party. In other words sub-contracting would not absolve the successful bidder from the responsibility for the complete project and its conditions. However, sub-contracting of Facility Management Services, system integration would not be allowed under this RFP and shall be the sole responsibility of the successful bidder.
- (ii) The successful bidder may subcontract a part of project after informing the tenderer for the same. However, the successful bidder will be solely responsible for the implementation of any part of the project sub contracted to the satisfaction of tenderer.
- (iii) Evidence that all obligations imposed by the RFP on the Bidder have been fully understood and accepted where applicable by the Sub-contractors.

9.21. Change in company structure

- (i) The Membership/Board structure of the bidder, if changed after the bidder is selected, the successful bidder shall accordingly inform the tenderer of such changes.

9.22. Compliance with laws, permits

- (i) The successful bidder shall comply with all local, state rules, regulations, ordinances, codes, and laws relating to the work or the conduct thereof and shall secure and pay for any permits and licenses necessary for the execution of the work and successful bidder shall be responsible for the same.

9.23. Forfeiture of earnest money

- (i) If the bidder withdraws his bid before the expiry of validity or after the acceptance of the bid, the earnest money deposited by the successful bidder will be forfeited.
- (ii) If the successful bidder fails to comply with any of the terms, conditions or requirement of this contract and the technical specifications for the equipment requirement as indicated in various sections of the RFP document, the earnest money deposited by the bidder will be forfeited.
- (iii) In case successful bidder fails to comply with the project milestones as specified in the RFP, the earnest money deposit will be forfeited.
- (iv) In case of issue of the Letter of Intent, if the bidder fails to:
 - a. accept the Letter of Intent by returning a duly signed copy within the time limit specified; and / or
 - b. execute the contract agreement; and / or
 - c. Furnish the performance bank guarantee as specified in this Document.
 - d. The earnest money deposit will be forfeited.

9.24. Force Majeure

- (i) Neither party shall be responsible to the other for any delay or failure in performance of its obligations due to any occurrence commonly known as Force Majeure which is beyond the control of any of the parties, including, but without limited to, fire, flood, explosion, acts of God or any Governmental body, public disorder, riots, embargoes, or strikes, acts of military authority, epidemics, strikes, lockouts or other labour disputes, insurrections, civil commotion, war, enemy actions. If a Force Majeure arises, the Bidder shall promptly notify Tenderer in writing of such condition and the cause thereof. Unless otherwise directed by Tenderer, the successful bidder shall continue to perform his obligations under the contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event. The successful bidder shall be excused from performance of his

obligations in whole or part as long as such causes, circumstances or events shall continue to prevent or delay such performance.

9.25. Termination of the contract

- (i) In the event of the bidder failing duly and properly to fulfill the contract or committing breach of any of the terms and conditions of this contract or repeatedly supplying goods liable to rejection hereunder or failing, declining, neglecting or delay to comply with any demand or requisition or otherwise not executing the same in accordance with terms of this contract or not achieving the milestones mentioned at clause no 6.4 or if the bidder or his agent or servants being guilty of fraud in respect of this contract or any of his partners or representatives found directing, giving, promising or offering any bribes, gratuity, gift loan, perquisite, reward or advantage pecuniary or otherwise to any person in the employment of Government in any way relating to such officers or person or persons, officer or employment or if the bidder or any of his partners become insolvent or apply for relief as insolvent debtor or commence any insolvency proceedings or make any composition with his/their creditors or attempts to do so, then without prejudice to tenderer rights and remedies otherwise, tenderer shall be entitled to terminate this contract forth with and may claim back all or part of the money already paid to the bidder.
- (ii) The termination of this contract in whole or part under any conditions shall not be affected by the acceptance, meanwhile or subsequently, of supplies accepted or made at any station whether in ignorance of the termination or otherwise.
- (iii) If during the currency of the contract, the successful bidder becomes bankrupt or otherwise insolvent or is likely to become insolvent or bankrupt, tenderer may, at any time, terminate the contract agreement by giving written notice to the successful bidder. Notwithstanding the above, such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to tenderer.
- (iv) Further the tenderer shall also have the unfettered right to repudiate and rescind the Contract if there is any breach of the Contract by the Successful Bidder including but not limited to the occurrence of any of the following events or contingencies:
 - a) Minimum balance not maintained vide revolving guarantee.
 - b) Default achieving milestones affecting the overall time schedule
 - c) Quality of the network/servers/infrastructure facility/ software etc. not as per specifications/agreements.

9.26. Consequences of termination

- (i) Upon termination, the successful bidder shall deliver or cause to be delivered all works carried out for and on account of the GoP and all data and records required from or on account of the GoP.
- (ii) Termination of the contract agreement shall not affect any continuing obligations of the successful bidder under the contract agreement, which, either expressly or by necessary implication, are to survive its expiry or termination such as confidentiality obligations of the successful bidder
- (iii) Upon termination of the contract agreement for any reason whatsoever, the successful bidder shall return to the tenderer, any and all confidential information and any other property of the tenderer.
- (iv) Tenderer may procure services similar to those undelivered, upon such terms and in such manner, as it deems appropriate, at the risk and responsibility of the successful bidder and the successful bidder shall be liable for any additional costs for such services.
- (v) The successful bidder shall continue the performance of the contract agreement to the extent not terminated.
- (vi) Upon termination of the contract agreement for whatsoever, tenderer shall have the right to impose the following penalties:-
 - 1. Forfeiture of earnest money
 - 2. Revoking of performance bank guarantee by tenderer on advice of State Govt.
 - 3. Imposition of appropriate penalties.

9.27. Arbitration

- (i) In the event of any dispute or difference arising between the Successful Bidder and tenderer out of or in connection with the Contract or RFP or any of the terms and conditions contained therein or as to the interpretation or any other matter, both the parties shall resolve such dispute or difference first by mutual discussions. If any dispute or difference still persists, it shall be referred to Arbitration to be conducted in accordance with Arbitration and Conciliation Act 1996. The arbitration will be held in Chandigarh and the proceedings shall be conducted in English. The parties to the dispute will instruct the Arbitrator(s) to render a decision within 30 days of the date of their appointment and such a decision shall be binding on both the parties.
- (ii) This RFP and the Contract shall, in all respects, be governed by and construed in all respects in accordance with the laws of the Republic of India.

- (iii) In relation to any legal action or proceedings to enforce the Contract, the parties to the Contract irrevocably submit to the exclusive jurisdiction of the courts in Chandigarh to the exclusion of any other court or courts that may otherwise have had such jurisdiction and waive any objection to such proceedings on grounds of venue or on the grounds that the proceedings have been brought in an inconvenient forum.

9.28. Acquaintance with all conditions

- (i) The bidder acknowledges that he has made himself fully acquainted with all the conditions and circumstances under which the supplies required under the contract will have to be made or furnished and with all the terms, clauses, conditions, specifications and other details of the contract and the bidder shall not plead ignorance of any of those as excuse in case of complaint against or on rejection of supplies tendered by him or with a view either to ask for encashment of any rates agreed to in the contract or to evading any of his obligations under the contract.

9.29. Limitations of Liability

- (i) Further, bidder's cumulative liability for its obligations under contract shall not exceed the total contract value.

10. Section X: Special Conditions of the Contract

10.1. Exit Management Plan

- (i) The HORIZONTAL BOOT operator shall provide GoP/PSEGS or any third party appointed by GoP/PSEGS with a recommended exit management plan ("Exit Management Plan") which shall deal with at least the following aspects of exit management in relation to the "Contract" as a whole and in relation to the Project Plan, SLA and Scope of Work.
 - a. A detailed programme of the transfer process that could be used in conjunction with GoP/PSEGS or any third party appointed by GoP/PSEGS including details of the means to be used to ensure continuing provision of the services throughout the transfer process and of the management structure to be used during the transfer; and
 - b. Plans for the communication with such of the Horizontal operator's sub contractors, staff, suppliers, customers and any related third party as are necessary to avoid any material detrimental impact on GoP's/PSEGS's operations as a result of undertaking the transfer; and
 - c. Identification of specific security tasks necessary at termination; and
 - d. Plans for provision of contingent support to GoP/PSEGS or any third party appointed by GoP/PSEGS for a reasonable period after transfer for the purposes of seamlessly replacing the Services.
- (ii) The Horizontal operator shall re-draft the Exit Management Plan annually to ensure that it is kept relevant and up to date.
- (iii) Each Exit Management Plan shall be presented by the Horizontal operator to and approved by GoP/PSEGS or any third party appointed by GoP/PSEGS.
- (iv) In case of expiry or termination of contract, each Party shall comply with the Exit Management Plan.
- (v) During the exit management period, the Horizontal operator shall use its best efforts to deliver the services.
- (vi) Payments during the Exit Management period shall be made in accordance with the Terms of Payment Clause.
- (vii) This Exit Management plan shall be furnished in writing to GoP/PSEGS or any third party appointed by GoP/PSEGS within 90 days from the Effective Date of "Contract".

10.2. Buy Back Policy

- (i) In case of incorporation of new services or termination of any existing services, any of the deployed Horizontal network components may have to be discarded or be replaced. In such a situation bidder shall buy back all such equipments at the value which ever higher of the following values:
 - a. Future value of capital to be paid after deducting the paid principal through QGR
 - b. Depreciated value of the asset as per the straight line depreciation method considering the life of asset as 5 years
 - c. Current market price to be determined through independent quotes.
- (ii) GoP/PSEGS reserves its right to arrive at a value based on the nature of assets to be disposed and it will be binding on the bidder to accept the same.

10.3. Take Over

- (i) The client PSEGS or ANY agency authorized by PSEGS, may take over the operation of the activities on the mutually agreeable terms and conditions even before the expiry of 5 years.

11. Section XI - Annexure: A

11.1. Format 1: Warranty for equipments & accessories supplied under this project

Sr. No.	Equipment Name	Warranty
1. Equipment for Horizontal offices at SHQ and DHQs		
	a) Offices within 100 mts from respective PoPs	
	Switch	5 years
	Appropriate Rack to accommodate above	5 years
	CAT-5/6, UTP cables, patch cords, I/Os, PVC conduit, Shielded Cables, Patch Panels, etc. as required for successful installation commissioning and working	20 years
	b) Offices beyond 100 mts but within 500 mts from respective PoPs	
	Switch	5 years
	Fiber Cable	20 years
	Appropriate Rack to accommodate above	5 years
	CAT-6, UTP cables, patch cords, I/Os, PVC conduit, Shielded Cables, Patch Panels, etc. as required for successful installation commissioning and working	20 years
	c) Offices beyond 500 mts from respective PoPs	
	Routers for Departments	5 years
	Switch	5 years
	Leased line Modem pairs	5 yrs
	Appropriate Racks	20
	UPS 1KVA with two hour back up	5 years
	CAT-6, UTP cables, patch cords, I/Os, PVC conduit, Shielded Cables, Patch Panels, etc. as required for successful installation commissioning and working	20 years
	d) Mini PoP	
	Routers for Mini PoP	5 years
	Switch	5 years
	Leased line Modem pairs	5 years
	Appropriate Racks	20 years
	UPS 1KVA with two hour backup	5 years

Sr. No.	Equipment Name	Warranty
	CAT-6, UTP cables, patch cords, I/Os, PVC conduit, Shielded Cables, Patch Panels, etc. as required for successful installation commissioning and working	20 years

11.2. Format 2: Of Performance Bank Guarantee in favour of PSEGS

In consideration of **Punjab State E-Governance Society (PSEGS)**, Government of Punjab, SCO 193-195, Sector 34-A, Chandigarh - 160 034.

which expression unless the context otherwise requires, shall include its successors and permitted assigns (the "PSEGS") having agreed to accept from [] (the name of the Successful bidder) a company incorporated, organized and subsisting under the Companies Act, 1956 (1 of 1956) and having its registered office at [-----] which expression unless the context otherwise requires, shall include its successors and permitted assigns (the "Successful bidder") under the terms and conditions of an agreement dated the [.....] day of [.....] between the PSEGS and the Successful bidder for Supply, Installation & Commissioning of WAN Equipment for Horizontal Offices in Punjab under State Wide Area Network - PAWAN as specified in the RFP Document for the same. Security deposit for the due fulfillment by the Successful bidder of the terms and conditions contained in the Contract Agreement on production of an interest free bank guarantee ("Performance Bank Guarantee") of 10% of the total project value of Rs. _____ (_____ rupees only) amounting to Rs. _____ (_____ rupees only) in favour of the PSEGS to be renewed annually up to the currency of the contract Agreement. The guarantee amount for such annual renewal shall be calculated on the basis of the balance amount of the total project cost.

1. We, [] (name of the, Bank) do hereby guarantee and undertake to indemnify and pay and keep indemnified the PSEGS in terms of the Contract Agreement to the extent of this Bank Guarantee value of Rs. _____ (_____ rupees only).
2. We, [] (name of the Bank) further agree that if a demand is made by the PSEGS for honoring the Performance Bank Guarantee we, [] (name of the Bank) having no right of decline to cash the same for any reason whatsoever. The fact that there is a dispute between the PSEGS and the Successful bidder is no ground for us [] (name of the Bank) to decline to honour the Performance Bank Guarantee.
3. We, [] (name of the Bank) further agree that a mere demand by the PSEGS is sufficient for us [] (name of the Bank) to pay the amount covered by the Performance Bank Guarantee without reference to the Successful bidder and any protest by the Successful bidder cannot be valid for us [] (name of the Bank) to decline payment to the PSEGS.

4. We, [] (name of the Bank) further agree that the PSEGS shall have the fullest liberty, without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the Contract Agreement or to extend time of performance by the Successful bidder from time to time or to postpone for any time or from time to time, any of the powers exercisable by the PSEGS against the Successful bidder and to forbear or enforce any of the terms and conditions relating to the Contract Agreement and we shall not be relieved from our liability by reasons of any such variation or extension being granted to the Successful bidder or for any forbearance, act or omission on the part of the PSEGS or any indulgence by the PSEGS to the Successful bidder or any such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us [] (name of the Bank).
5. We, [] (name of the Bank) lastly undertake not to revoke this Guarantee during its currency except with the previous consent of the PSEGS in writing.

DATED THE [] DAY OF []

Signature: _____

Name: _____

Designation: _____

For, [Name of the Bank]

(Seal of the Bank)

12. Section XII – Performa

12.1. Performa 1: Bid Proposal Sheet

Bidder's	Proposal	
Reference No. and Date	:	
Bidder's Name and		
Address	:	
Bidder's Correspondence	:	
address		
Name of contact Person	:	
Designation	:	
Telephone No.(s)	:	
Fax No.(s)	:	
Mobile No.	:	
Email ID	:	

To,

**Member Secretary
Punjab State E-Governance Society (PSEGS)
Government of Punjab,
SCO 193-195,
Sector 34-A,
Chandigarh - 160 034.**

Subject : Proposal for Supply, Installation & Commissioning of WAN Equipment for Horizontal Offices in Punjab State Wide Area Network - PAWAN.

Dear Sir,

1. We, M/s. _____, having read and examined in detail the specifications/requirements as mentioned in the RFP do hereby propose for Supply, Installation & Commissioning of WAN Equipment for Horizontal Offices under State Wide Area Network - PAWAN for the State of Punjab as specified in the RFP.

2. PRICE AND VALIDITY

All the prices mentioned in our proposal are in accordance with the terms as specified in bidding documents. All the prices and other terms and conditions of this proposal are valid for a period of 120 days from the opening of the commercial bid or six months from the last date of submission of the RFP, whichever is later.

3. EARNEST MONEY

We have enclosed the earnest money in the form of Bank Draft amounting to **Rs. 5 Lakhs**. It is liable to be forfeited in accordance with the provisions of RFP document.

4. ASSURANCE

We declare that all the services shall be performed strictly in accordance with the technical specifications and other terms and conditions covered in RFP document.

5. BID PRICING

We further declare that the prices stated in our proposal are in accordance with your terms & conditions in the bidding document.

6. QUALIFYING DATA

We confirm having submitted the qualifying data as required by you in your RFP document. In case you require any further information/documentary proof in this regard before evaluation of our bid, we agree to furnish the same, in time, to your satisfaction.

7. We hereby declare that in case the contract is awarded to us, we shall submit the Bank Guarantee as per terms of RFP document.
8. We hereby declare that our proposal is made in good faith, without collusion or fraud and the information contained in the proposal is true and correct to the best of our knowledge & belief. We further declare that we have read the provisions of this RFP and confirmed that these are acceptable to us.
9. Bid submitted by us is properly prepared and sealed so as to prevent any subsequent alteration and replacement.
10. We understand that you are not bound to accept the lowest or any bid by us.

Thanking you,

Yours faithfully,

(Authorized Signatory)

Date:

Name:

Designation:

Place:

Address:

Seal:

(To be enclosed with Pre-Qualifying Bid).

12.2. Performa 2: Particulars of Bidder & Manufacturers

FOR RFP NO. _____

1. Name of the Bidder			
2. Address of the Bidder			
	Tel.	Fax	
3. Year of establishment			
4. Bidder's proposal number and date			
5. Name, Designation and address of the officer to whom all references shall be made regarding this RFP			
	Tel:	Mobile:	
	Fax:	Email:	
6. Annual turnover of the firm for the last 3 successive years (in Rs.)	Year	Turn over	Profit
	2007-2008		
	2006-2007		
	2005-2006		
7. Details of Draft for Earnest money deposited	Draft No.		
	Bank Name:		

Signature: _____

Name: _____

Designation: _____

Date: _____

12.3. Performa 3: Manufacturer's Warranty

We, M/s. _____ warrant that everything to be supplied by us hereunder shall be brand new, free from all encumbrances, defects and faults in material. Workmanship and manufacturing shall be of the highest grade and quality and consistent with the established and generally accepted standards. Materials of the type ordered shall be in full conformity with the specifications, drawings or samples, if any and shall operate properly.

We, M/s. _____ also undertake that in case any item supplied by us found to be defected, faulty or used at any stage, it shall be replaced by us at our cost.

Signature of the Witness:

Name:

Address:

Signature of the Tenderer:

Name:

Address:

Seal:

12.4. Performa 4: Undertaking For Management

We, M/s. _____ undertake that we will provide the onsite project management for horizontal connectivity facility during the installation and commissioning period as per RFP.

We, M/s. _____ further undertake that we will manage the horizontal connectivity facility for a period of Five years as per the terms and conditions mentioned in the RFP document. The period of this facility management and operation will begin after the clearance of final acceptance test of the project and with effect from the date on which acceptance certificate for the successful commissioning of the system is issued.

We, M/s. _____ agree to extend the project management period for sixth, seventh and eighth year as per the terms and conditions mentioned in the RFP Document if required by the tenderer.

We, M/s. _____ also agree to hand over the whole horizontal connectivity infrastructure after the completion of project management period in accordance to the clause no.6.18 of this RFP.

Signature of the Witness:

Name:

Address:

Signature of the Tenderer:

Name:

Address:

Seal:

12.5. Performa 5: Undertaking For Network Installed In Complete Respect, Security, Training, etc.

We, M/s. _____ undertake

1. That the infrastructure for horizontal to be supplied, installed and commissioned shall be complete in all respects adhering to the requirements specified in the RFP.
2. That we will participate in the half yearly security audit of the horizontal connectivity being set up under this project along with PAWAN which is to be undertaken by any Certified Internet Security Auditor (CISA) or any authenticated agency of Government of India.
3. That the horizontal connectivity facility offered is in compliance with existing Government of India Policies/regulations applicable to the WAN.
4. That after the expiry of the project management period, we will hand over the total system in running condition with the same or improved specifications as was supplied by us.
5. That we will accordingly train the manpower of respective departments/GoP as per the scope of training under section II of RFP document, so that the concerned officers/officials of respective departments/GoP can handle the system, once the project management period is over.

Signature of the Witness:

Name:

Address:

Signature of the Tenderer:

Name:

Address:

Seal:

12.6. Performa 6: Affidavit (Manufacturer's Authorization Certificate)

From,

To,

Member Secretary,
Punjab State E-Governance Society (PSEGS)
Government of Punjab,
SCO 193-195, Sector 34-A, Chandigarh - 160 034.

_____ do hereby solemnly affirm and declare as
under:-

- (i) That this is to certify that M/s. _____ is our authorized dealer/distributor/agent and he is authorized to submit tender/quote the rates in the State of Punjab against RFP enquiry No. _____ due on _____ and to supply the material in original manufactured by us.
- (ii) That we shall have full responsibility of satisfactory supplies against the supply order/rate contract.
- (iii) That I am fully authorized to give this affidavit on behalf of M/s. _____

Deponent:

(To be enclosed with Pre-qualification bid on the official letter head of the bidding company).

12.7. Performa 7: Indemnification from Proprietary rights

From,

To,

Member Secretary,
Punjab State E-Governance Society (PSEGS)
Government of Punjab,
SCO 193-195, Sector 34-A, Chandigarh - 160 034.

We M/s._____ indemnify Tenderer (on behalf of Member Secretary,PSEGS) against all third party claims of infringement of patent, copyright, trademark and trade designs arising from use of the goods or any part thereof in India.

Signature of the Witness:

Name:

Address:

Signature of the Tenderer:

Name:

Address:

Seal:

(To be enclosed with Pre-qualification bid on the official letter head of the bidding company).

12.8. Performa 8: Indemnification from Patent rights

From,

To,

Member Secretary,
Punjab State E-Governance Society (PSEGS)
Government of Punjab,
SCO 193-195, Sector 34-A, Chandigarh - 160 034.

We M/s. _____ indemnify, Member Secretary, PSEGS, against all third-party claims of infringement of patent, trademark or industrial design and intellectual property rights arising from the use of the Goods or any part thereof.

Signature of the Witness:

Name:

Address:

Signature of the Tenderer:

Name:

Address:

Seal:

(To be attached with Technical Document).

12.9. Performa 9: Technical Deviations If Any

Subject: Technical Deviations for carrying out Supply, Installation & Commissioning of WAN Equipment for Horizontal Offices in Punjab State Wide Area Network - PAWAN for the State of Punjab.

Dear Sir,

Sr. No.	Clause No.	Page No.	Statement of deviations and variations
--------------------	-----------------------	---------------------	---

Date:

Signature:

Name:

Place:

Seal:

12.10. Performa 10: Financial Deviations If Any

Subject: Financial Deviations for carrying out Supply, Installation & Commissioning of WAN Equipment for Horizontal Offices in Punjab State Wide Area Network - PAWAN for the State of Punjab.

Dear Sir,

Sr. No.	Clause No.	Page No.	Statement of deviations and variations
--------------------	-----------------------	---------------------	---

Date:

Signature:

Name:

Place:

Seal:

12.11. Performa 11: Total Quarterly Guaranteed Revenue Payment Calculation (QGR)

* All in Indian Rupees

F1: Total QGR Payment Calculation

A	B	C	D	E	F	G	H	I
S. No.	Particulars	Form Reference	Capital cost QGR	O & M QGR	Total QGR (D+E)	Number of offices	Total QGR F*G	Total Cost in 5 Year H*20
I	Type I Office Cost	F2 & F3						
II	Type II Office Cost	F2 & F3						
III	Type III Office Cost	F2 & F3						
IV	Mini PoP	F2 & F3						
V	Creation of LAN per node	F2 & F3						
VI	NMS & Help Desk	F2 & F3						
VII	Video Conferencing Facility	F2 & F3						
**Total Pay outs in 5 years								

** Value to be compared for determining the lowest commercial bid (L1)

Form F2 : Capital Cost QGR Payment Computation

A	B	C	D	E	F
S. No.	Particular	Form No	Value	Total Cost	20 Equal QGR (E/20)
I	Type I Office	F4A			
II	Type II Office	F4B			
III	Type III Office	F4C			
IV	Mini PoP	F4D			
V	Creation of LAN per node	F4E			
VI	NMS & Help Desk	F4F			
VII	Video Conferencing Facility	F4G			

Form F3: Operations and Maintenance QGR Payment

A	B	C	D	E
S. No.	Particulars	Form Reference	O & M QGR	Total D * 20
I	Type I Expenses	F5A		
II	Type II Expenses	F5B		
III	Type III Expenses	F5C		
IV	Mini PoP	F5D		
V	Creation of LAN per Node	F5E		
VI	NMS & Help Desk	F5F		
VII	Video Conferencing Facility	F5G		

Form F4: Office wise Bill of Material and Capital Cost ComputationF4A – Type I Office

S. No.	Cost Item	Qty	Rate	Value
1	Item 1			
2	Item 2			
	Refer Technical section and quote for all including any other related equipment not mentioned in BoM but necessary for a complete solution.			
A	Total Equipment Cost			
1	Project Management Cost			
2	Equipment Implementation Costs			
3	Training Costs			
4	System Integration Cost			
B	Total Implementation Services Cost			
	Other Costs			
	Bidders can specify any other costs which they envisage to be incurred			
C	Total Other Costs			
	TOTAL COSTS (A+B+C)			

F4B – Type II Office

S. No.	Cost Item	Qty	Rate	Value
1	Item 1			
2	Item 2			
	Refer Technical section and quote for all including any other related equipment not mentioned in BoM but necessary for a complete solution.			
A	Total Equipment Cost			
1	Project Management Cost			
2	Equipment Implementation Costs			
3	Training Costs			
4	System Integration Cost			
B	Total Implementation Services Cost			
	Other Costs			
	Bidders can specify any other costs which they envisage to be incurred			
C	Total Other Costs			
	TOTAL COSTS (A+B+C)			

F4C – Type III Office

S. No.	Cost Item	Qty	Rate	Value
1	Item 1			
2	Item 2			
	Refer Technical section and quote for all including any other related equipment not mentioned in BoM but necessary for a complete solution.			
A	Total Equipment Cost			
1	Project Management Cost			
2	Equipment Implementation Costs			
3	Training Costs			
4	System Integration Cost			
B	Total Implementation Services Cost			
	Other Costs			
	Bidders can specify any other costs which they envisage to be incurred			
C	Total Other Costs			
	TOTAL COSTS (A+B+C)			

F4D – Mini PoP Office

S. No.	Cost Item	Qty	Rate	Value
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1	Item 1			
2	Item 2			
	Refer Technical section and quote for all including any other related equipment not mentioned in BoM but necessary for a complete solution.			
A	Total Equipment Cost			
1	Project Management Cost			
2	Equipment Implementation Costs			
3	Training Costs			
4	System Integration Cost			
B	Total Implementation Services Cost			
	Other Costs			
	Bidders can specify any other costs which they envisage to be incurred			
C	Total Other Costs			
	TOTAL COSTS (A+B+C)			

F4E – Creation of LAN

S. No.	Cost Item	Qty	Rate	Value
1	Item 1			
2	Item 2			
	Refer Technical section and quote for all including any other related equipment not mentioned in BoM but necessary for a complete solution.			
A	Total Equipment Cost			
1	Project Management Cost			
2	Equipment Implementation Costs			
3	Training Costs			
4	System Integration Cost			
B	Total Implementation Services Cost			
	Other Costs			
	Bidders can specify any other costs which they envisage to be incurred			
C	Total Other Costs			
	TOTAL COSTS (A+B+C)			

F4F – NMS & Help Desk

S. No.	Cost Item	Qty	Rate	Value
1	Item 1			
2	Item 2			

	Refer Technical section and quote for all including any other related equipment not mentioned in BoM but necessary for a complete solution.			
A	Total Equipment Cost			
1	Project Management Cost			
2	Equipment Implementation Costs			
3	Training Costs			
4	System Integration Cost			
B	Total Implementation Services Cost			
	Other Costs			
	Bidders can specify any other costs which they envisage to be incurred			
C	Total Other Costs			
	TOTAL COSTS (A+B+C)			

F4G – Video Conferencing Facility

S. No.	Cost Item	Qty	Rate	Value
1	Item 1			
2	Item 2			
	Refer Technical section and quote for all including any other related equipment not mentioned in BoM but necessary for a complete solution.			
A	Total Equipment Cost			
1	Project Management Cost			
2	Equipment Implementation Costs			
3	Training Costs			
4	System Integration Cost			
B	Total Implementation Services Cost			
	Other Costs			
	Bidders can specify any other costs which they envisage to be incurred			
C	Total Other Costs			
	TOTAL COSTS (A+B+C)			

Form F5: Office wise O & M Cost ComputationF5A – Type I Office

A	B	C	D	E
S. No.	Cost Item	Required Information	O & M QGR	Total Cost D * 20
1	Employee Cost	Provide assumptions on the cost		

2	Equipment Maintenance Costs	Provide information on the costs		
3	Software Maintenance Cost	Provide information on the costs		
4	Other Costs			
	Total operating Expenses			

F5B – Type II Office

A	B	C	D	E
S. No.	Cost Item	Required Information	O & M QGR	Total Cost D * 20
1	Employee Cost	Provide assumptions on the cost		
2	Equipment Maintenance Costs	Provide information on the costs		
3	Software Maintenance Cost	Provide information on the costs		
4	Other Costs			
	Total operating Expenses			

F5C – Type III Office

A	B	C	D	E
S. No.	Cost Item	Required Information	O & M QGR	Total Cost D * 20
1	Employee Cost	Provide assumptions on the cost		
2	Equipment Maintenance Costs	Provide information on the costs		
3	Software Maintenance Cost	Provide information on the costs		
4	Other Costs			
	Total operating Expenses			

F5D – Mini PoP Office

A	B	C	D	E
S. No.	Cost Item	Required Information	O & M QGR	Total Cost D * 20
1	Employee Cost	Provide assumptions on the cost		
2	Equipment Maintenance	Provide information on the costs		

	Costs			
3	Software Maintenance Cost	Provide information on the costs		
4	Other Costs			
	Total operating Expenses			

F5E – creation of LAN

A	B	C	D	E
S. No.	Cost Item	Required Information	O & M QGR	Total Cost D * 20
1	Equipment Maintenance Costs	Provide information on the costs		
2	Software Maintenance Cost	Provide information on the costs		
3	Other Costs			
	Total operating Expenses			

F5F – NMS & HELP DESK

A	B	C	D	E
S. No.	Cost Item	Required Information	O & M QGR	Total Cost D * 20
1	Equipment Maintenance Costs	Provide information on the costs		
2	Software Maintenance Cost	Provide information on the costs		
3	Other Costs			
	Total operating Expenses			

F5G – Video Conferencing Facility

A	B	C	D	E
S. No.	Cost Item	Required Information	O & M QGR	Total Cost D * 20
1	Equipment Maintenance Costs	Provide information on the costs		
2	Software Maintenance Cost	Provide information on the costs		
3	Other Costs			
	Total operating Expenses			

Signature of Authorized Signatory/Date

Seal of the company

12.12. Performa 12: Declaration by the Bidder

(To be enclosed with pre-qualification Bid)

NAME OF THE BIDDER: M/s. _____

The bidder is requested to sign and affix their seal on each page of this document and submit this duly signed original RFP document with pre-qualification bid in respective cover without fail.

The bidder is also requested to give the following declaration as per the format.

We M/s. _____ have gone through the terms and conditions and will abide by them (RFP containing Pre-qualification, Technical, Commercial Bid and all relevant Annexure and formats enclosed).

We M/s. _____ hereby confirm that our firm has not been blacklisted by any State Government/Central Government. We M/s. _____ further confirm that our firm has no legal case pending in any of the courts for winding up the company.

We M/s. _____ hereby declare that the particulars furnished by us in this offer are true to the best of our knowledge and we further understand and accept that, if at any stage, the information furnished is found to be incorrect or false, we are liable for disqualification from this tender and also are liable for any penal action that may arise due to the above.

Date:

Place:

Signature:

Name:

Designation:

Seal of Bidder:

13. Appendix - A : Detail of horizontal connectivity with respect to point of presence to be covered under this project in Punjab

Pop	District	Sub-Division	Block	Distance from PoP (Mtrs)			Total Offices	Pop
				<100	>100 & <500	>500		
1	(MGSIPAP), Chd			1	4	137	142	1
2	Gurdaspur			9	31	62	102	2
3			Dorangala	1	1	3	5	3
4			Dhariwal	3	1	9	13	4
5			Kahnuwan	3	3	4	10	5
6			Dinanagar	1	4	8	13	6
7		Pathankot		3	13	39	55	7
8			Sujanpur	1	1	9	11	8
9			Bamyal	3	1	1	5	9
10			Narot Jaimal Singh	4	3	4	11	10
11		Batala		2	8	24	34	11
12			Batala	4	2	5	11	12
13			Fatehgarh Churian	1	1	12	14	13
14			Shri har Gobindpur	2	3	5	10	14
15			Qadian	3	2	10	15	15
16		Dhar Kalan		1	1	8	10	16
17			Dhar Kalan	1	0	1	2	17
18		Dera Baba Nanak		0	2	7	9	18
19			Dera Baba Nanak	2	4	5	11	19
20	Amritsar			16	13	153	182	20
21			Majitha	2	3	8	13	21
22			Jandiala Guru	1	4	6	11	22
23		Baba Bakala		5	2	5	12	23
24			Rayya	1	3	7	11	24
25			Tarsikka	1	0	5	6	25
26		Ajnala		4	6	8	18	26
27			Ajnala	3	2	4	9	27
28			Chogawan	3	2	6	11	28
29			Harsa Chinna	1	1	3	5	29
30	Kapurthala			5	20	61	86	30
31			Dhilwan	1	3	2	6	31
32		Bholath		3	2	2	7	32
33			Nadala	2	1	2	5	33
34		Phagwara		3	4	23	30	34
35		Sultanpur Lodhi		4	4	10	18	35
36	Jalandhar			20	21	114	155	36
37			Jalandhar East	1	4	15	20	37
38			Adampur	1	2	3	6	38
39			Jalandhar West	2	0	11	13	39

40			Bhogpur	2	1	5	8	40
41		Nakodar		3	4	9	16	41
42			Nakodar	3	1	3	7	42
43		Shahkot		1	3	4	8	43
44			Shahkot	1	0	2	3	44
45			Lohian	1	0	3	4	45
46		Philaur		11	5	13	29	46
47			Nurmehar	1	2	5	8	47
48			Rurrka Kalan	2	0	6	8	48
49	Hoshiarpur			12	14	30	56	49
50		Hoshiarpur		3	3	20	26	50
51			Hoshiarpur 1	7	1	24	32	51
52			Hoshiarpur 2	5	10	6	21	52
53			Bhunga	5	1	10	16	53
54		Dasuya		4	5	15	24	54
55			Tanda	2	2	11	15	55
56		Garh Shankar		3	7	15	25	56
57			Mahilpur	2	2	7	11	57
58		Mukerian		2	3	8	13	58
59			Mukerian	5	1	4	10	59
60			Talwara	2	4	11	17	60
61			Hazipur	2	0	6	8	61
62	Nawan Shehar			9	10	37	56	62
63			Aur	1	0	6	7	63
64			Banga	1	3	9	13	64
65		Balachaur		4	4	9	17	65
66			Saroya	1	2	4	7	66
67	Rupnagar			30	20	34	84	67
68		Chamkaur Sahib		2	6	6	14	68
69		Anandpur Sahib		7	3	21	31	69
70			Anandpur Sahib	1	1	4	6	70
71			Noorpur Bedi	4	2	7	13	71
72			Morinda	1	1	5	7	72
73	Ludhiana			14	22	120	156	73
74			Ludhiana 1	4	2	18	24	74
75			Ludhiana 2	7	1	26	34	75
76			Jagraon	1	5	4	10	76
77			Samrala	1	1	5	7	77
78		Raikot		1	3	5	9	78
79			Raikot	2	0	2	4	79
80			Sudhar	1	0	3	4	80
81			Pakhowal	1	0	4	5	81
82		Khanna		3	3	17	23	82
83			Khanna	1	2	2	5	83
84		Samrala		2	4	17	23	84
85			Macchhiwara	2	3	3	8	85
86		Jagraon		2	8	11	21	86
87			Sidhwan Bet	1	4	2	7	87
88		Payal		2	2	5	9	88
89			Doraha	1	3	8	12	89

90			Dehlon	2	2	3	7	90
91	Sangrur			10	30	40	80	91
92			Sangrur	2	0	21	23	92
93			Bhawanigarh	3	2	5	10	93
94		Malerkotla		4	2	26	32	94
95			Malerkotla – 1	2	11	5	18	95
96			Malerkotla – 2	1	0	2	3	96
97		Dhuri		1	4	7	12	97
98			Dhuri	1	1	2	4	98
99			Sherpur	1	0	6	7	99
100		Sunam		2	2	18	22	100
101			Sunam	1	4	8	13	101
102		Moonak		0	1	18	19	102
103			Andana	2	0	1	3	103
104			Lehra Gaga	3	1	13	17	104
105	Patiala			15	20	148	183	105
106			Bhunarheri	2	0	3	5	106
107			Sanour	1	0	3	4	107
108		Rajpura		2	5	25	32	108
109			Rajpura	1	0	8	9	109
110			Ghanour	1	3	4	8	110
111		PATTRAN		0	3	12	15	111
112		Samana		4	3	8	15	112
113			Samana	1	0	4	5	113
114		Nabha		3	3	24	30	114
115			Nabha	1	0	9	10	115
116	Fatehgarh Sahib			21	12	13	46	116
117		Fatehgarh Sahib		2	3	6	11	117
118			Sirhind	6	3	19	28	118
119		Amloh		4	3	9	16	119
120			Amloh	1	0	1	2	120
121		Bassi Pathana		2	2	6	10	121
122			Bassi Pathana	0	0	3	3	122
123			Khera	0	1	2	3	123
124		Khamanon		0	1	7	8	124
125			Khamanon	2	0	2	4	125
126	Ferozpur			5	10	60	75	126
127		Ferozpur		0	9	28	37	127
128			Ferozpur	3	2	13	18	128
129			Ghall Khurd	3	1	5	9	129
130			Momdot	2	1	4	7	130
131		Fazlika		1	6	22	29	131
132		Jalalabad		2	4	6	12	132
133			Jalalabad	1	0	2	3	133
134			Guru Har Sahai	2	2	10	14	134
135		Abohar		8	4	19	31	135
136			Abohar	0	1	2	3	136
137			Khuian Sarwar	0	1	6	7	137
138		Zira		5	5	10	20	138
139			Makhu	1	0	7	8	139
140	Mukatsar			6	14	41	61	140

141			Mukatsar	0	0	5	5	141
142		Malout		1	0	13	14	142
143			Malout	1	0	6	7	143
144			Lambi	3	0	9	12	144
145		Giddarbaha		6	8	9	23	145
146			Kot Bhai	1	0	2	3	146
147	Moga			13	19	25	57	147
148			Moga I	2	4	7	13	148
149			Dharam Kot	0	0	14	14	149
150		Nihalsing wala		5	3	6	14	150
151		Baghapurana		2	1	6	9	151
152			Baghapurana	0	3	2	5	152
153	Faridkot			9	19	42	70	153
154			Faridkot	1	0	15	16	154
155		Jaitu		0	2	10	12	155
156			Kot Kapura	2	2	11	15	156
157	Bhatinda			25	27	55	107	157
158			Bhatinda	1	1	11	13	158
159			Nathana	1	2	8	11	159
160			Sangat	2	2	6	10	160
161		Talwindi Sabo		4	4	5	13	161
162			Talwindi Sabo	1	0	6	7	162
163			Mour	2	1	5	8	163
164		Rampura Phul		3	2	6	11	164
165			Rampura	1	0	5	6	165
166			Phul	2	2	6	10	166
167			Bhagta	1	0	4	5	167
168	Mansa			18	11	26	55	168
169			Mansa	3	0	6	9	169
170		Budhlada		4	2	12	18	170
171			Bhikhi	3	0	2	5	171
172			Budhlada	1	0	4	5	172
173		Sardulgarh		4	3	7	14	173
174			Jhunir	4	0	3	7	174
175	Mohali			10	5	74	89	175
176		Dera Bassi		4	5	12	21	176
177			Dera Bassi	1	1	7	9	177
178		Kharar		4	4	8	16	178
179			Kharar	1	0	4	5	179
180			Majri	3	0	7	10	180
181	Taran Taran			5	4	28	37	181
182		Taran Taran		0	3	7	10	182
183			Tarn Taran	0	6	8	14	183
184			Gandi Wind	3	1	3	7	184
185			Naushera Panuan	2	1	3	6	185
186			Cholla Sahib	2	1	3	6	186
187		Patti		6	5	18	29	187
188			Bhikhiwind	3	2	6	11	188
189			Valotha	3	1	3	7	189
190		Khadur Sahib		2	3	5	10	190

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191			Khadur Sahib	2	0	1	3	191
192	Barnala			7	6	22	35	192
193			Barnala	1	2	5	8	193
194			Mahal Kalan	1	2	5	8	194
195		Tapa		2	0	5	7	195
196			Shehna	1	2	4	7	196
	21	56	119	642	720	2735	4097	

* The no. of offices mentioned above are tentative and likely to be increase or decrease