PSeGS invites bids on GeM portal from interested bidders for supply, installation and commissioning of rack servers and hypervisor with comprehensive onsite warranty to be installed in the State Data Center of Punjab situated at Mohali.

Additional terms and conditions:

1. All bidders including MSEs and startups are required to submit EMD / PBG.

2. The hardware being proposed must be current and based on latest technology. The bidder must submit Product Life Cycle certificate from OEM for atleast 7 years. Further, the OEM shall ensure the availability of spares during this period. (Document: letter from OEM).

3. The bidder must submit data sheet of the proposed product.

4. The bidder must submit signed and stamped copy of this ATC document along with technical bid.

5. Hardware equipment should be covered under 5 years onsite comprehensive warranty from OEM. (Document: letter from OEM)

6. During the warranty period the bidder will carry out Preventive Maintenance (PM) of the equipment at least once in six months or as and when required. Half yearly PM reports should be submitted to PSeGS in January and July of each year. This shall be a pre-requisite for processing of yearly payments.

7. The OEM must ensure 24 * 7 * 365 service support during warranty period. (Document: letter from OEM). The complaints must be resolved (including the cases where the equipment is required to be replaced) within 6 hours of lodging of complaint. In case of non-compliance, a penalty @ Rs. 1,000 per hour of delay beyond 6 hours (or part thereof) shall be applicable. This rate of penalty shall be doubled after every 24 hours incase the equipment is not made functional. These penalties shall be recovered from the pending payment (if any) or from the PBG.

8. Installation and commissioning will be done by the OEM. (Document: letter from OEM).

9. 97.5% payment will be made after delivery, installation and commissioning of the equipment. Remaining 2.5% payment will be made on annual basis spread over five years (i.e. 0.5% payment after completion of each year from the date of commissioning).

10. The bidder should not have offered lesser price for any of the line items to any government / semi-government organization of Centre or any State (of same specification as in tender). If such a case is discovered for any line item then the lesser price offered to the other organization shall be automatically applicable for those line items in this tender.

11. For rack servers, fully loaded SFPs are required for both switch and server from day 1.

12. The specifications of hypervisor mentioned in the bid are amended as under:-

SN	Specification Name	Bid Requirement (Allowed Values)
1.	No. of days training provided at site (for maximum batch of 10)	5
2.	Server Virtualization features	1. Virtualisation layer installed directly on the bare metal server hardware with no dependence on a general purpose OS. 2. Capability of all virtual machines running on the servers to migrate another physical server in case of one server failure and live migration of virtual machines with no disruption. 3. Capability to Hot Add resources(for live Virtual Machines) like CPU, memory, devices for windows as well as linux Virtual machines. 4. Comprehensive, universal API support across all cloud platforms enabling full management of all system objects through the API. 5. Capability for seamless migration of virtual machines across different CPUs, clusters and hybrid cloud. 6. Secure boot provision for protection of hypervisor and guest operating system by ensuring virtual machines are not tampered. 7. Captures host-level configuration settings and saves them as a template to configure other virtualization hosts. 8. Centralized management with web based / client interface capabilities 9. Capablities of analytics, reporting and to identify over-provisioned resources. 10. Capability to provide deep visibility into resource consumption trends 11. Provide integrated smart alerts for health,

		performance and capacity degradation. 12. Provide real-time, integrated dashboards of performance and capacity to enable a proactive management approach.
3.	Capability to protect virtual environments by integrating Hypervisor Introspection via Direct Inspect APIs from	1. Malware 2. Antivirus 3. Root kit exploits 4. Zero day attacks
4.	Performance monitoring capability for physical host / VM	1. Monitoring Of CPU 2. Monitoring Of Memory 3. Monitoring Of Disk 4. Monitoring Of Network 5. Monitoring Of Power 6. Monitoring Of Storage Adapter 7. Monitoring Of Storage Path 8. Monitoring Of Cluster Services 9. Monitoring Of Virtual Machine Data Stores
5.	Capability to provide automation and orchestration solution without any manual intervention for	1. IaaS (Infrastructure as a service) 2. PaaS (Platform as a service) 3. XaaS / SaaS (Anything/Software as a service)

13. The proposed hypervisor product should have the following facilities:

a) Capability of native backup and restoration of the management server.

b) Support user role and permission assignment (RBAC) and Virtual Machine image like Virtual disk format, OVF, RAW (.img, .raw), ISO.

c) Virtualization management software console shall maintain a record of significant configuration changes and the administrator who initiated them.

d) Heterogeneous Guest OS support and certification for namely Windows, Red Hat & SUSE Linux Enterprise. This support and certification should be from OS as well as hypervisor OEM.

e) Capability similar to virtual volumes which enables abstraction for external storage (SAN and NAS) devices making them virtualization aware and it should allow common management across storage tiers and dynamic storage class-of-service automation via a policy-driven control plane.

f) Virtualization software should provide integration of 3rd party endpoint security to secure the virtual machines with offloaded antivirus, antimalware solutions without the need for agents inside the virtual machines.

g) Network virtualization, Cloud virtualization and storage virtualization should be supported.

14. The bidders requiring any clarification on the bid document may submit their queries via email to smanager.dgr@punjab.gov.in and saroj.semt@punjab.gov.in by 2:30 PM on 13.04.2020 in the following format in a spreadsheet file:

SN	Tender / ATC Clause No.	Page No.	Tender / ATC Clause detail	Amendment Sought / Suggestion	Justification

15. Date and time of pre-bid meeting: 3:00 PM on 13.04.2020.