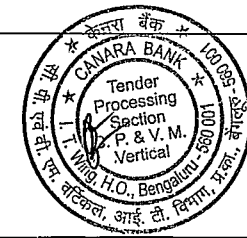
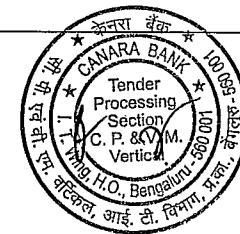


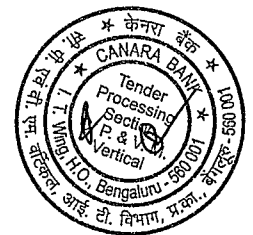
| Pre-Bid Queries   |          |  |   |   |  |   |
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| GeM Bid Ref No. GEM/2024/B/4610850 dated 12/02/2024 - Selection of Internet Service Provider for availing Internet Links with Volumetric AntiDDoS Solution Pool of Public IP Addresses and related services for a period of 5 years |          |  |   |   |  |   |
| Sl. No.   | Page No. | Section  | RFP Clause  | Clause/Technical Specification  | Bidder's Query   | Bank's Reply  |
| 1   | 68       | Annexure 8                                       | Scope of Work   | 1. The bidder has to Provision, Commission, Integrate, Monitor and Maintain the internet link, managed network service conversion of IPv6 protocol to IPv4 with Volumetric DDoS Protection with support for a period of Five years from the date of acceptance of order at Bank Bangalore and Mumbai offices. | For Managed Network Service, who will provide the termination CPE (Bidder / Canara Bank)?<br>If Bank, Please share CPE make, Model and configuration support required                                  | CPE device where internet link is going to terminate will be provided by bank.<br>However, CPE device for managed network service conversion of IPv6 to IPv4 will be provided by bidder |
| 2   | 70       | Annexure 8                                       | Scope of Work   | 32. Internal cabling which may be required from the service provider mux to the router has to be laid by the bidder. Dual Fibre cable should be laid.   | Please clarify if this is 1 Cross Connect per Last Mile  | Bidder to provide and manage the cross connect for the contract period.   |
| 3   | 71       | Annexure 8                                       | Scope of Work   | 40. The bidder must support routing of the Bank's network number(s) for multi homed configurations, if at latter stage Bank decides to be Multi-Homed Network.  | What is banks network number?<br>Will Bank provide their Public ASN and Public IP Pools for Muti - homed network configurations?<br>What will be the IP Pool Subnet for IPV4 and IPV6 provided by Bank | Details will be shared with successful bidder.  |
| 4   | 73       | Annexure 9 Functional and Technical Requirements | A. Specification of Internet Link                               | S.No.3<br>The bidder must provide static /24 IPv4 for 2 Gbps of Link and /25 and /28 for 2 number of 1 Gbps of link Public IP each at Bangalore and Mumbai office and /48 IPv6 Global IPs routable on Internet.   | Can you confirm if /48 IPV6 Global IP's are required on each links (i.e 1 X 2Gbps and 2 X 1 Gbps links at Mum and BLR respectively)  | Refer Annexure-17 Bill of Material  |
| 5   | 73       | Annexure 9 Functional and Technical Requirements | A. Specification of Internet Link                               | S.No.8<br>Latency must not be more than 10 Milliseconds from Bank (CE) router to Internet gateway provided to Bank by the service provider.   | Can the latency from CE to IGW be modified to < 15 - 20 ms   | Bidder has to comply with RFP terms   |
| 6   | 73       | Annexure 9 Functional and Technical Requirements | A. Specification of Internet Link                               | S.No.9<br>Jitter - 10 milliseconds maximum.   | Can this be removed  | Bidder has to comply with RFP terms   |
| 7   | 73       | Annexure 9 Functional and Technical Requirements | A. Specification of Internet Link                               | S.No.9<br>Average Round Trip Delay (Latency) to U.S.A. <=300, Average Round Trip Delay (Latency) to Singapore <=80 msec   | Can the latency to Singapore be modified to 80 to 100 ms to T1 to T3 cities<br>Can the latency to USA be modified to 325 to 350 ms to T1 to T3 cities  | Bidder has to comply with RFP terms   |
| 8   | 74       | Annexure 9 Functional and Technical Requirements | A. Specification of Internet Link                               | S.No.22<br>IV. Packet loss: less than 0.05%.  | Can we modify to packet loss < 1%  | Bidder has to comply with RFP terms   |
| 9   | 74       | Annexure 9 Functional and Technical Requirements | A. Specification of Internet Link                               | S.No.21<br>V. Minimum Time to Restore (MTTR): Maximum 2hrs.   | Can we modify MTTR to 4 Hrs  | Bidder has to comply with RFP terms   |
| 10  | 75       | Annexure 9 Functional and Technical Requirements | B. Managed Network Service Conversion of IPv6 protocol to IPv4. | S.No.1<br>The Bidder must provide managed IPv6 internet services at Bangalore and Mumbai office for the proposed Internet link in High availability.  | Please share details of CPE (HA/Non-HA) from which IPV6 services to be managed   | Bidder has to provide CPE device in HA.   |



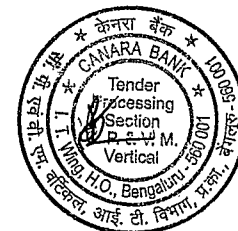
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| 11 | 21 | SECTION C - DELIVERABLE AND SERVICE LEVEL AGREEMENTS | 8. Scope involved during Contract period | 8.1.The selected bidder shall provide end to end support for maintenance of Internet Links with Volumetric Anti-DDoS Solution and related services (including Hardware, OS and software license) and Other Items supplied should be available for a minimum period of 5 years, covering all parts, maintenance and support.   | Kindly confirm if Bank is looking for volumetric ISP cloud base protection or on-prem DDOS/Hybrid protection solution   | Refer Annexure-17 Bill of Material  |
| 12 | 69 | Annexure 8   | Scope of Work                            | 12.The bidder must ensure to provide DDoS protection for the Bank owned IP advertise with any service provider with no extra cost to Bank.  | Kindly confirm if Bank would enable the netflow for cloud signaling and also support to create GRE tunnel, as this is the pre request for solution implementation | Refer Annexure-8 Scope of Work point no: 6. Pre-requisite for solution implementation with successful bidder.                   |
| 13 | 69 | Annexure 8   | Scope of Work                            | 12.The bidder must ensure to provide DDoS protection for the Bank owned IP advertise with any service provider with no extra cost to Bank.  | is it a greenfield implementation or brown field project which requires migration from existing service provider and On premises appliances                       | Bidder has to comply with RFP terms   |
| 14 | 31 | SECTION E - SELECTION OF BIDDER                      | 1.Selection of successful Bidder         | 7.1.The L1 bidder will be determined on the basis of the lowest price quoted after the completion of Reverse Auction in GeM portal.   | Kindly confirm if this is a L1 or Revised Auction Bid   | The L1 bidder will be determined on the basis of the lowest price quoted after the completion of Reverse Auction in GeM portal. |
| 15 | 39 | 4.Human Resource Requirement                         | 4.Human Resource Requirement             | 4.1.The selected bidder shall provide a contingent of well trained personnel and extend necessary mentoring and operational support to the intermediary network of agents, etc. as part of the solution/service.  | Kindly confirm if On-site FMS resources are required during the entire contract period . If yes please confirm the number of Resource and service window          | On site support not in the scope of RFP   |
| 16 | 69 | Annexure 8   | Scope of Work                            | 6.The proposed Solution/System must integrate with Bank existing on Premises Arbor Network DDoS protection device for supporting signalling to upstream ISP or managed Service provider who is providing the volumetric Anti DDOS services.   | Kindly confirm what is the current Arbor capacity   | Details will be shared with successful bidder.  |
| 17 | 69 | Annexure 8   | Scope of Work                            | 15.The bidder should arrange for required System, tools, resources and should test the infrastructure by using a red team / blue team approach with the goal to identify the weakness to enable Bank to identify how the infrastructure will respond when under attack, and prepare in case a real-life attack occurs after taking approval from bank. Thereafter, bidder to submit detailed report to Bank.  | Need Clarification  | The Clause is self explanatory. Bidder to comply with RFP terms and conditions.   |
| 18 | 69 | Annexure 8   | Scope of Work                            | 25. The bidder must ensure at most 15 minute mitigation response from time of receiving a phone request or E-mail from bank.  | Need Clarification  | The Clause is self explanatory. Bidder to comply with RFP terms and conditions.   |
| 19 | 71 | Annexure 8   | Scope of Work                            | S.No.51<br>51.2. In the event of failure of the bidder to render the Service, without prejudice to any other right the Bank shall have as per this Agreement, the Bank at its sole discretion may make alternative arrangements for getting the Services from any other source. And if the Bank gives a prior notice to the bidder before availing such service from any other alternative source, the bidder shall be liable to reimburse the expenses, if any incurred by the Bank in availing such services from the alternative source. | Need Clarification  | The Clause is self explanatory. Bidder to comply with RFP terms and conditions.   |



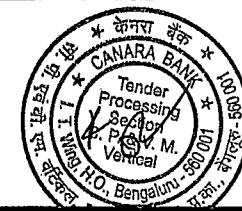
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| 20 | 73 | Annexure 9 Functional and Technical Requirements | A. Specification of Internet Link                               | 7. The bidder must provide services for "resolving" or "caching" DNS servers that Bank may use for domain name look-ups.  | Need Clarification   | The Clause is self explanatory. Bidder to comply with RFP terms and conditions.           |
| 21 | 73 | Annexure 9 Functional and Technical Requirements | A. Specification of Internet Link                               | 10. The bidder must ensure Guaranteed Packet Delivery >99%  | Need Clarification   | The Clause is self explanatory. Bidder to comply with RFP terms and conditions.           |
| 22 | 74 | Annexure 9 Functional and Technical Requirements | A. Specification of Internet Link                               | 17. The bidder must have the capacity to increase and decrease the bandwidth on demand and such changes in bandwidth must be provisioned within 7 days on own Last Mile and other party Last Mile. In case the network equipment's supplied at bank end does not support such increase then the same must be provisioned with 4 weeks for own Last Mile and 6 weeks' time on other party Last Mile. | Need Clarification   | The Clause is self explanatory. Bidder to comply with RFP terms and conditions.           |
| 23 | 74 | Annexure 9 Functional and Technical Requirements | A. Specification of Internet Link                               | 23. Confirmation of availability of on-line fault detection mechanism of circuits/CPE at the service provider's NOC should be given along with the proposal/solution by the service provider.   | Need Clarification   | The Clause is self explanatory. Bidder to comply with RFP terms and conditions.           |
| 24 | 74 | Annexure 9 Functional and Technical Requirements | A. Specification of Internet Link                               | 24. Service Provider should have a centralized trouble ticketing tool for call logging, Proactive monitoring and troubleshooting purpose. Service provider shall provide Toll free number for docket booking, NOC contact and the escalation matrix acceptable to the Bank.   | Need Clarification   | The Clause is self explanatory. Bidder to comply with RFP terms and conditions.           |
| 25 | 74 | Annexure 9 Functional and Technical Requirements | A. Specification of Internet Link                               | 25. Voice/Video port/Protocol for Video Conferencing/Multimedia applications should be enabled as per the needs of the Bank.  | Need Clarification   | The Clause is self explanatory. Bidder to comply with RFP terms and conditions.           |
| 26 | 75 | Annexure 9 Functional and Technical Requirements | A. Specification of Internet Link                               | 26. The bidder should own responsibility for liaising with government agencies or other Departments to provide any licenses, approvals etc. that may be required.   | Need Clarification   | The Clause is self explanatory. Bidder to comply with RFP terms and conditions.           |
| 27 | 75 | Annexure 9 Functional and Technical Requirements | B. Managed Network Service Conversion of IPv6 protocol to IPv4. | 2. The bidder/ISP should translate /convert IPv6 to IPv4 (Public/Private IP) in their Data Centre or should provision a device at bank premises and after converting forward the traffic to Bank. The Device should have at least 2 Gbps of throughput which should be scalable on demand.  | Will the CPE be provided by Bank or ISP?                             | Bidder has to provide CPE device in HA.   |
| 28 | 76 | Annexure 9 Functional and Technical Requirements | B. Managed Network Service Conversion of IPv6 protocol to IPv4. | 4. The bidder must maintain syslog and ship the logs for both Bangalore and Mumbai location to Bank on monthly Basis.   | For managed service can the SP have complete access to the CE router | Since, it is a managed service. Hence, Service provider only has to manage the CE device. |
| 29 | 78 | Annexure 9 Functional and Technical Requirements | D. REPORTING  | 5. During mitigation events, ongoing status messages can be provided anytime on demand basis.   | Kindly elaborate the requirement here                                | The Clause is self explanatory. Bidder to comply with RFP terms and conditions.           |



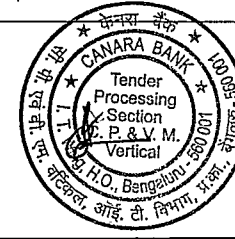
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| 30 | 79 | Annexure 9 Functional and Technical Requirements     | D. REPORTING                    | Real-time traffic flow reports on Bank network<br>a) Sub-network's traffic relationships.<br>b) Top talkers.<br>c) Application layer top traffic trends.<br>d) Transport layer top traffic trends.<br>e) Port level top traffic trends.<br>f) Packet size report of top traffic trends.<br>g) Traffic anomaly reports specific to Bank network.<br>h) Historical network traffic reports should be available on the portal                      | Which OEM CPE will be used, accordingly we comment on reporting options   | Details will be shared with successful bidder. |
| 31 | 18 | SECTION C - DELIVERABLE AND SERVICE LEVEL AGREEMENTS | 6. Penalties/Liquidated Damages | 6.1.1. Non-compliance of the Supply, Installation, Configuration, Integration, Testing and Commissioning of the solution as per clause 1.3 will result in the Bank imposing penalty of 0.50% on the total cost mentioned in Table-A on delay in delivery per week or part thereof by the Bank   | Penalty is very high. Needs to be reduced to 0.1%   | Bidder has to comply with RFP terms            |
| 32 | 18 | SECTION C - DELIVERABLE AND SERVICE LEVEL AGREEMENTS | 6. Penalties/Liquidated Damages | 6.1.2. However, the total Penalty/LD to be recovered under above clauses 6.1.1 shall be restricted to 10% of the total cost mentioned   | Penalty is very high. Needs to be reduced to 5 %  | Bidder has to comply with RFP terms            |
| 33 | 19 | SECTION C - DELIVERABLE AND SERVICE LEVEL AGREEMENTS | 6. Penalties/Liquidated Damages | 6.2.2. The maximum penalty levied under above clause 6.2.1 shall not be more than 50% of Yearly cost mentioned-as per Bill of Material (Annexure-17).   | Penalty is very high. Needs to be reduced to 10 %   | Bidder has to comply with RFP terms            |
| 34 | 16 | SECTION C - DELIVERABLE AND SERVICE LEVEL AGREEMENTS | 1. Project Timelines            | 1.3. The selected bidder has to complete the Supply, Installation, Configuration, Integration, Testing and Commissioning of Internet Links with Volumetric Anti-DDoS Solution, Pool of Public IP Addresses and related services as per RFP and Go-Live of the proposed solution within eight (08) weeks from the date of acceptance of the Purchase Order or nine (09) weeks from the date of issuance of the Order for each ordered locations. | Delivery timelines need to be increased to 12 weeks   | Bidder has to comply with RFP terms            |
| 35 | 16 | SECTION C - DELIVERABLE AND SERVICE LEVEL AGREEMENTS | 1. Project Timelines            | 1.3. The selected bidder has to complete the Supply, Installation, Configuration, Integration, Testing and Commissioning of Internet Links with Volumetric Anti-DDoS Solution, Pool of Public IP Addresses and related services as per RFP and Go-Live of the proposed solution within eight (08) weeks from the date of acceptance of the Purchase Order or nine (09) weeks from the date of issuance of the Order for each ordered locations. | Request some relaxation on the delivery timeline, As we have to provide one HW at Bank's premises to convert IP-V6 to IP-V4, hence request you to change delivery time line from 8 weeks to 12 weeks from the date of PO. | Bidder has to comply with RFP terms            |



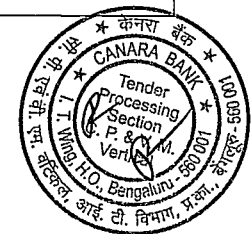
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| 36 | 18 | SECTION C - DELIVERABLE AND SERVICE LEVEL AGREEMENTS | 6. Penalties/Liquidated Damages   | <p>6.1.Penalties/Liquidated damages for delay in Supply, Installation, Configuration, Integration, Testing and Commissioning of Solution would be as under:</p> <p>6.1.1.Non-compliance of the Supply, Installation, Configuration, Integration, Testing and Commissioning of the solution as per clause 1.3 will result in the Bank imposing penalty of 0.50% on the total cost mentioned in Table-A on delay in delivery per week or part thereof by the Bank.</p> <p>6.1.2.However, the total Penalty/LD to be recovered under above clauses 6.1.1 shall be restricted to 10% of the total cost mentioned in Table-A.</p> | <p>Kindly relax the penalty clause as "6.1.1.Non-compliance of the Supply, Installation, Configuration, Integration, Testing and Commissioning of the solution as per clause 1.3 will result in the Bank imposing penalty of 0.50% of MONTHLY RECUURING CHARGES on delay in delivery per week or part thereof by the Bank.</p> <p>6.1.2.However, the total Penalty/LD to be recovered under above clauses 6.1.1 shall be restricted to 10% of MONTHLY RECUURING CHARGES "</p> | Bidder has to comply with RFP terms  |
| 37 | 59 | Annexure-2 Pre-Qualification Criteria                | 11. Bidder must have Disaster Recovery (DR) arrangement & support infrastructure. | <p>Documents to be submitted<br/>In compliance with Pre-Qualification Criteria:</p> <p>A valid document on DR arrangements / An undertaking to submit DR document within two months of date of Purchase Order</p>  | <p>Here we are assuming that the Bank is looking for DR option for Scrubbing Firm only, kindly clarify.</p>   | Bidder should have DR set up for the entire souldtion including support infrastructure.Bidder to comply with RFP terms and conditions                |
| 38 | 69 | Annexure 8   | Scope of Work   | 18. The bidder should help, support and advice Bank in optimizing network security, implementing security control for the risk advised by regulators, Govt of India etc.   | Request more clarity on this ask/ scope   | The Clause is self explanatory. Bidder to comply with RFP terms and conditions.  |
| 39 | 71 | Annexure 8   | Scope of Work   | 40.The bidder must support routing of the Bank's network number(s) for multi homed configurations, if at latter stage Bank decides to be Multi-Homed Network.  | Request more clarity on this ask/ scope.  | The Clause is self explanatory. Bidder to comply with RFP terms and conditions.  |
| 40 | 71 | Annexure 8   | Scope of Work   | 41. The bidder may do Proof of Concept of proposed solution to showcase the functionality.   | <p>Here we are assuming that bidder need to provide a POC on Internet along with L3/L4 DDoS, not for IP-V6 to IPV4 converter? Kindly check &amp; confirm.</p> <p>Kindly note,during POC, Bank will be taking care of red team / blue team approach to test the POC infrastructure</p>   | Bank may take decision of conducting Proof of Concept depending on solution which is proposed by bidder.Ref:Annexure:8 Scope of Work point number:15 |
| 41 | 73 | Annexure 9 Functional and Technical Requirements     | A. Specification of Internet Link   | 2. The link must have dual last mile from different POPs (one from own and another from different Service Provider) however the bidder will be responsible to maintain and monitor the end-to-end connectivity on 24x7 basis so as to meet the committed SLA.  | <p>Here we are assuming that Canara Bank is looking for the mentioned Un-Managed Internet Port with dual last mile (through different lastmile provider) solution as an Active-Active port from same ISP? Kindly correct our understanding.</p> <p>Incase of Active-Passive, then request Bank to add one more clause that Bank will not use both port as an Active-Active &amp; should not cross the allocated BW at any point of time.</p>                                  | Bank may use either active-active or active-passive under allocated bandwidth only.  |
| 42 | 74 | Annexure 9 Functional and Technical Requirements     | A. Specification of Internet Link   | 9. Jitter - 10 milliseconds maximum.<br>Average Round Trip Delay (Latency) to U.S.A. <=300, Average Round Trip Delay (Latency) to Singapore <=80 msec  | Kindly remove this clause as same is not applicable for Internet services   | Bidder has to comply with RFP terms  |



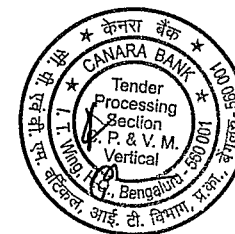
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| 43 | 74 | Annexure 9 Functional and Technical Requirements | A. Specification of Internet Link | 9. Jitter - 10 milliseconds maximum.<br>Average Round Trip Delay (Latency) to U.S.A. <=300, Average Round Trip Delay (Latency) to Singapore <=80 msec   | Request some relaxation on RTD to USA as " $\leq 315ms$ "  | Bidder has to comply with RFP terms                |
| 44 | 74 | Annexure 9 Functional and Technical Requirements | A. Specification of Internet Link | 9. Jitter - 10 milliseconds maximum.<br>Average Round Trip Delay (Latency) to U.S.A. <=300, Average Round Trip Delay (Latency) to Singapore <=80 msec   | Request some relaxation on RTD to Singapore as " $\leq 85ms$ "   | Bidder has to comply with RFP terms                |
| 45 | 74 | Annexure 9 Functional and Technical Requirements | A. Specification of Internet Link | 11. Internet link must be delivered up to Bank router on Ethernet Multimode Fiber optic link.   | Kindly use Single Mode Fiber LC in place of Multi Mode   | Bidder has to comply with RFP terms                |
| 46 | 75 | Annexure 9 Functional and Technical Requirements | A. Specification of Internet Link | 22. I.Availability: 99.99% or above on monthly basis.   | Request some relaxation on availability, kindly make it 99.90%   | Bidder has to comply with RFP terms                |
| 47 | 75 | Annexure 9 Functional and Technical Requirements | A. Specification of Internet Link | 22. IV.Packet loss: less than 0.05%.  | Request some relaxation on packet drop, kindly make it $\leq 1\%$  | Bidder has to comply with RFP terms                |
| 48 | 75 | Annexure 9 Functional and Technical Requirements | A. Specification of Internet Link | 22. V.Minimum Time to Restore (MTTR): Maximum 2hrs.   | Request some relaxation on MTTR & its as 4Hrs for all P1 tickets   | Bidder has to comply with RFP terms                |
| 49 | 70 | Annexure 9 Functional and Technical Requirements | A. Specification of Internet Link | 27.The bidder should ensure Real time event correlation for Multi Vector attack.  | Assuming Canara Bank will integrate their existing SOAR/ SOC/ Threat intelligent service to meet this use case, Kindly confirm.  | Bank may integrate the proposed solution with SOC. |
| 50 | 75 | Annexure 9 Functional and Technical Requirements | A. Specification of Internet Link | 33. The link will be used for load balancing /sharing with the primary / secondary links.   | Here Service Provider's scope will be limited to provide the mentioned Internet Bandwidth using dual last mile, and where Bank will be taking care to provide & manage the required CPE to manage this use case for both Day-1 & Day-2.  | Bidder has to comply with RFP terms                |
| 51 | 74 | Annexure 9 Functional and Technical Requirements | A. Specification of Internet Link | 23. Confirmation of availability of on-line fault detection mechanism of circuits/CPE at the service provider's NOC should be given along with the proposal/solution by the service provider.       | Assuming Bank will provide Read-only SNMP access to monitor the circuit.   | SNMP flows will be shared with successful bidder.  |
| 52 | 74 | Annexure 9 Functional and Technical Requirements | A. Specification of Internet Link | 21. The bandwidth to be provided by the bidder should meet the network security requirement as defined by Bank from time to time e.g. would be able to support IPsec, 3 DES, AES256 encryption etc. | Here scope is limited to Internet Link delivery at Bank's DC-Bangalore & DR-Mumbai for Telecom Service Provider, where anything related of NW security will be under Canara bank's scope, any device is required to meet this use case then same will be arrange as well as managed by the Canara Bank. Kindly clarify this point. | Bidder has to comply with RFP terms                |



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| 53 | 69 | Annexure 8                                       | Scope of Work   | 15. The bidder should arrange for required System, tools, resources and should test the infrastructure by using a red team / blue team approach with the goal to identify the weakness to enable Bank to identify how the infrastructure will respond when under attack, and prepare in case a real-life attack occurs after taking approval from bank. Thereafter, bidder to submit detailed report to Bank.   | Do we to need factor a third party tool as one time basis to meet this use case? Kindly confirm.  | Bidder has to comply with RFP terms  |
| 54 | 75 | Annexure 9 Functional and Technical Requirements | B. Managed Network Service Conversion of IPv6 protocol to IPv4. | 1. The Bidder must provide managed IPv6 internet services at Bangalore and Mumbai office for the proposed Internet link in High availability.   | Here we are assuming that the Telecom Service Provider will be responsible to provide the Un-Managed Internet Services with IP-V6 over dual last mile to address high availability, where Bank will be taking care to provide as well as manage the desired CPE in HA mode to meet this "High-Availability" use case. Kindly confirm. | Refer Annexure 7 Bill of Material line item 8. bidder has to provide and Manage CPE device in HA mode. |
| 55 | 75 | Annexure 9 Functional and Technical Requirements | B. Managed Network Service Conversion of IPv6 protocol to IPv4. | 2. The bidder/ISP should translate /convert IPv6 to IPv4 (Public/Private IP) in their Data Centre or should provision a device at bank premises and after converting forward the traffic to Bank. The Device should have at least 2 Gbps of throughput which should be scalable on demand.  | Assuming Bank is looking for IP-V6 to IP-V4 conversion through an appliance that will be deployed at Bank premises, if its yes, then kindly confirm against which link this would be required.  | Bidder has to comply with RFP terms  |
| 56 | 75 | Annexure 9 Functional and Technical Requirements | B. Managed Network Service Conversion of IPv6 protocol to IPv4. | 3. The bidder/ISP should ensure network security for Bank's IPV4 & IPV6 traffic by deploying suitable network security devices at their infrastructure (e.g. firewall, PS etc.) and should enable standard policies for IPV4 & IPV6 protocol (Prevention of DDOS attacks, Prevention of network reconnaissance and attacks, Prevention of IPV6/IPV4 address spoofing etc.) for both Bangalore and Mumbai. For the entire Internet traffic towards Bank network. | Assuming that Bank will be taking care of any use case which is related to NW Security, because here Telecom service scope is limited to provide Unmanaged ILL along with DDOS against this link only. Kindly confirm.  | Bidder has to comply with RFP terms  |
| 57 | 76 | Annexure 9 Functional and Technical Requirements | B. Managed Network Service Conversion of IPv6 protocol to IPv4. | 4. The bidder must maintain syslog and ship the logs for both Bangalore and Mumbai location to Bank on monthly Basis.   | As TSP will provide only NW links as Internet, hence all this use case related to log management will be taking care by the Bank's SOC team, kindly confirm   | Bidder has to comply with RFP terms  |
| 58 | 76 | Annexure 9 Functional and Technical Requirements | B. Managed Network Service Conversion of IPv6 protocol to IPv4. | 5. The bidder must provide daily utilization report and flow report separately for IPv6 Traffic.  | As TSP will provide only NW links as Internet, hence all this use case related to daily utilisation will be taking care by the Bank's SOC team, kindly confirm  | Bidder has to comply with RFP terms  |
| 59 | 76 | Annexure 9 Functional and Technical Requirements | B. Managed Network Service Conversion of IPv6 protocol to IPv4. | 6. The bidder must manage and maintain all the conversion/Translation data in their syslog server for a period of at least three months.  | As TSP will provide only NW links as Internet, hence all this use case related to conversion/Translation data in their syslog server will be taking care by the Bank's SOC team, kindly confirm   | Bidder has to comply with RFP terms  |
| 60 | 76 | Annexure 9 Functional and Technical Requirements | B. Managed Network Service Conversion of IPv6 protocol to IPv4. | 7. The bidder must provide syslog data which should contain the date, Time, source, Destination, IPv6 IP, IPv4 IP address of each event.  | As TSP will provide only NW links as Internet, hence all this use case related to conversion/Translation data in their syslog server will be taking care by the Bank's SOC team, kindly confirm   | Bidder has to comply with RFP terms  |

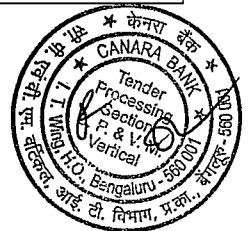


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| 61 | 75    | Annexure 9 Functional and Technical Requirements | B. Managed Network Service Conversion of IPv6 protocol to IPv4. | 8. The bidder should ship all the syslog Data to Bank SFTP server/Physical media at Bangalore and Mumbai office on monthly/Daily basis as per Bank requirement.   | As TSP will provide only NW links as internet, hence all this use case related to syslog Data to Bank SFTP server/Physical media at Bangalore and Mumbai office on monthly/Daily will be taking care by the Bank's SOC team, kindly confirm  | Bidder has to comply with RFP terms |
| 62 | 77    | Annexure 9 Functional and Technical Requirements | C. Anti-DDoS Solution   | 17. The System must have options for Blacklist and Whitelist of IPv4 and IPv6 as required by Bank.  | Assuming Bank will allow Service Provider threat intelligent platform to meet this use case. Kindly confirm  | Bidder has to comply with RFP terms |
| 63 | 77    | Annexure 9 Functional and Technical Requirements | C. Anti-DDoS Solution   | 20. The solution must be able to protect all internet protocols used including http, http/s, dns, smtp, ftp, ipsec etc.   | As its mentioned to protect "http, http/s, dns, smtp, ftp, ipsec etc.", is there ask on the Application layer (L7) protection also? If yes, then Kindly confirm.   | Bidder has to comply with RFP terms |
| 64 | 77-78 | Annexure 9 Functional and Technical Requirements | C. Anti-DDoS Solution   | 21. Solution should provide protection against different types of attack including following: <ul style="list-style-type: none"> <li>• TCP SYN Flood</li> <li>• Spoofed TCP-SYN flood</li> <li>• SYN/ACK Reflection Flood</li> <li>• TCP ACK flood</li> <li>• Smurf attack</li> <li>• Ping flood</li> <li>• ping of death</li> <li>• ICMP Echo request flood</li> <li>• Teardrop attack</li> <li>• low rate denial of service attack</li> <li>• Mydoom</li> <li>• UDP Flood</li> <li>• Nuke</li> <li>• HTTP/HTTPS flood attack</li> <li>• DNS amplification attack</li> <li>• IP fragmented attack etc.</li> </ul> System must be able to detect and block ICMP, DNS Floods, Botnets and any other type of DDOS attacks or similar attacks. | <p>All this are comes under L7/ Application layer protection. Assuming below use case are not applicable here, kindly confirm:</p> <ul style="list-style-type: none"> <li>• HTTP/HTTPS flood attack</li> <li>• DNS amplification attack</li> <li>• IP fragmented attack etc.</li> </ul> System must be able to detect and block ICMP, DNS Floods, Botnets and any other type of DDOS attacks or similar attacks. | Bidder has to comply with RFP terms |
| 65 | 78    | Annexure 9 Functional and Technical Requirements | C. Anti-DDoS Solution   | 24. Regular testing of service and base lining must be undertaken in conjunction with the Bank at least half yearly to validate the operation of DDoS mitigation services.  | <p>This use case is applicable incase of on-premises solution framework/ appliance, assuming this scope will be managed Canara Bank? Kindly confirm.</p> <p>Incase of Cloud DDoS platform, then service provider will manage by them in the cloud. Hope this methodology is okay.</p>  | Bidder has to comply with RFP terms |

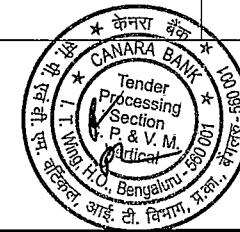




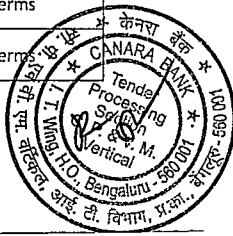
|    |    |   |                                   |   |  |  |
|----|----|---|-----------------------------------|---|--|--|
| 66 | 78 | Annexure 9<br>Functional and<br>Technical<br>Requirements     | C. Anti-DDoS Solution             | 25. Enforce baseline protection by building ongoing, always learning models of network behaviour. The DDoS mitigation solution should have the learning mode to easily identify anomalies in the network.   | This use case is applicable incase of on-premises solution framework/ appliance, assuming this scope will be managed Canara Bank? Kindly confirm.<br><br>Incase of Cloud DDoS platform, then service provider will manage by them in the cloud. Hope this methodology is okay.   | Bidder has to comply with RFP terms  |
| 67 | 16 | SECTION C -<br>DELIVERABLE AND<br>SERVICE LEVEL<br>AGREEMENTS | 1. Project Timelines              | 1.3. The selected bidder has to complete the Supply, Installation, Configuration, Integration, Testing and Commissioning of Internet Links with Volumetric Anti-DDoS Solution, Pool of Public IP Addresses and related services as per RFP and Go-Live of the proposed solution within eight (08) weeks from the date of acceptance of the Purchase Order or nine (09) weeks from the date of issuance of the Order for each ordered locations. | We request for the Extension of Delivery timelines as secondary link needs to be provided from the other Service Provider for the complete redundancy and also the Hardware need to be provided at Bank's premises to convert IP-V6 to IP-V4, hence request you to change the clause as : "The selected bidder has to complete the Supply, Installation, Configuration, Integration, Testing and Commissioning of Internet Links with Volumetric Anti-DDoS Solution, Pool of Public IP Addresses and related services as per RFP and Go-Live of the proposed solution within fourteen (14) weeks from the date of acceptance of the Purchase Order or Fifteen (15) weeks from the date of issuance of the Order for each ordered locations." | Bidder has to comply with RFP terms  |
| 68 | 71 | Annexure 8  | Scope of Work                     | 45. The bidder may do Proof of Concept of proposed solution to showcase the functionality.  | Here we are assuming that bidder need to provide POC test on Internet aong with L3/L4 DDoS, not for IP-V6 to IPV4 converter? Kindly check & confirm.   | Bank may take decision of conducting Proof of Concept depending on solution which is proposed by bidder  |
| 69 | 73 | Annexure 9<br>Functional and<br>Technical<br>Requirements     | A. Specification of Internet Link | 9. Jitter - 10 milliseconds maximum.  | Kindly remove this caluse as same is not applicable for Internet services  | Bidder has to comply with RFP terms  |
| 70 | 73 | Annexure 9<br>Functional and<br>Technical<br>Requirements     | A. Specification of Internet Link | 11. Internet link must be delivered up to Bank router on Ethernet Multimode Fiber optic link.   | Kindly use Single Mode Fiber LC in place of Multi Mode   | Bidder has to comply with RFP terms  |
| 71 | NA | NA  | NA                                | NA  | Our understanding is that CPE for the termination of asked ILL in the RFP will be provided by Canara Bank, Kindly Confirm.   | CPE for the termination of ILL will be provided by Canara Bank.however,for managed IPV6-IPV4 services required devices to be provisioned by the bidder.  |
| 72 | NA | NA  | NA                                | NA  | Our understanding is that Rack Space , Power , UPS, Access Permission and In-Building Cabling Permission will be provided by Canara Bank for the MUX Installation and Fiber Extension at Bank's Premises, Kindly Confirm.  | Bank will provide Rack Space , Power , UPS, Access Permission and In-Building Cabling Permission will be provided by Bank. However, it is the responsibility of the bidder to complete cabling, installation of MUX and Fiber extension. |



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| 73 | 18 | SECTION C - DELIVERABLE AND SERVICE LEVEL AGREEMENTS | 6. Penalties/Liquidated Damages        | 6.1.1. Non-compliance of the Supply, Installation, Configuration, Integration, Testing and Commissioning of the solution as per clause 1.3 will result in the Bank imposing penalty of 0.50% on the total cost mentioned in Table-A on delay in delivery per week or part thereof by the Bank.  | Request bank to change the clause as "Non-compliance of the Supply, Installation, Configuration, Integration, Testing and Commissioning of the solution as per clause 1.3 will result in the Bank imposing penalty of 0.50% of Monthly Recurring Charges of the delayed link per week or part thereof by the Bank."   | Bidder has to comply with RFP terms |
| 74 | 22 | SECTION C - DELIVERABLE AND SERVICE LEVEL AGREEMENTS | 14. Subcontracting                     | 14.2. The selected bidder shall not subcontract or permit anyone other than its personnel to perform any of the work, service or other performance required of the selected bidder under the contract without the prior written consent of the Bank.  | We request BANK to allow the subcontracting / Outsourcing the field work of Fiber Laying / MUX installation, Last mile work to Authorised Service Partner   | Bidder has to comply with RFP terms |
| 75 | 16 | SECTION C - DELIVERABLE AND SERVICE LEVEL AGREEMENTS | 1. Project Timelines                   | 1.3. The selected bidder has to complete the Supply, Installation, Configuration, Integration, Testing and Commissioning of Internet Links with Volumetric Anti-DDoS Solution, Pool of Public IP Addresses and related services as per RFP and Go-Live of the proposed solution within eight (08) weeks from the date of acceptance of the Purchase Order or nine (09) weeks from the date of issuance of the Order for each ordered locations.   | Request some relaxaation on the delivery timeline, As we have to provide one HW at Bank's premises to convert IP-V6 to IP-V4, hence request you to change delivery time line from 8 weeks to 12 weeks from the date of PO.  | Bidder has to comply with RFP terms |
| 76 | 73 | Annexure 9 Functional and Technical Requirements     | A. Specification of Internet Link      | 11. Internet link must be delivered up to Bank router on Ethernet Multimode Fiber optic link.   | Kindly use Single Mode Fiber LC in place of Multi Mode  | Bidder has to comply with RFP terms |
| 77 | 42 | Section G - General Conditions                       | 13. Confidentiality and Non-Disclosure | 13.1.The bidder shall take all necessary precautions to ensure that all confidential information is treated as confidential and not disclosed or used other than for the purpose of project execution. Bidder shall suitably defend, indemnify Bank for any loss/damage suffered by Bank on account of and to the extent of any disclosure of the confidential information. The bidder shall furnish an undertaking as given in Annexure-10.<br>13.2.No media release/public announcement or any other reference to the RFP or any program there under shall be made without the written consent of the Bank, by photographic, electronic or other means. | This clause has to be mutual and applicable for both Parties  | Bidder has to comply with RFP terms |
| 78 | 68 | Annexure 8   | Scope of Work                          | 1. The bidder has to Provision, Commission, Integrate, Monitor and Maintain the Internet link, managed network service conversion of IPv6 protocol to IPv4 with Volumetric DDoS Protection with support for a period of Five years from the date of acceptance of order at Bank Bangalore and Mumbai offices.   | Request you to consider: Unlimited volumetric protection.<br><br>The bidder has to Provision, Commission, Integrate, Monitor and Maintain the Internet link, managed network service conversion of IPv6 protocol to IPv4 with unlimited Volumetric DDoS Protection with support for a period of Five years from the date of acceptance of order at Bank Bangalore and Mumbai offices. | Bidder has to comply with RFP terms |



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| 79 | 69 | Annexure 8                                       | Scope of Work                     | 22. The bidder must handle at least 25 Gbps of attack and also ensure that DDoS infra itself does not go down and become unavailable to Bank. Further it should be scalable to handle any volume of attack as and when demanded by Bank.  | We request you to kindly amend the clause:<br>The bidder must handle at least 100 Gbps of attack and Scrubbing Centre should have atleast mitigate 10+ Tbps mitigation capacity of DDoS multi vector attacks. it should be scalable to handle any volume of attack as and when demanded by Bank.  | Bidder has to comply with RFP terms |
| 80 | 69 | Annexure 8                                       | Scope of Work                     | 24. Anti-DDoS solution Service provider must provide alert within 15 minutes of detecting DDoS attack.  | Being into Banking Domain request to consider below:<br>Time to Notify:- 3-5 Minutes<br>Time to Divert:- Automatic Diversion 2 Minutes & Manual Diversion 15 Minutes.<br>Time to Mitigate:- 1 Minute for UDP, ICMP, Syn Flood, TCP Flag Abuses, DNS Reflection, DNS Flood Attack etc.<br>Consistency of Mitigation :- Not less than 95%   | Bidder has to comply with RFP terms |
| 81 | 73 | Annexure 9 Functional and Technical Requirements | A. Specification of Internet Link | 3. The bidder must provide static /24 IPv4 for 2 Gbps of Link and /25 and /28 for 2 number of 1'Gbps of link Public IP each at Bangalore and Mumbai office and /48 IPv6 Global IPs routable on Internet.  | Request you to change the clause:<br>The bidder must provide static /24 IPv4 for 2 Gbps for 2 number and 1 Gbps of link Public IP each at Bangalore and Mumbai office and /48 IPv6 Global IPs routable on Internet.<br>Justification: Internet works on /24 network and ISP DDoS also works on /24 network and banks will get full protection to all 3 location without any problem.                                  | Bidder has to comply with RFP terms |
| 82 | 76 | Annexure 9 Functional and Technical Requirements | A. Specification of Internet Link | 2. The proposed solution must have the mitigation capacity of at least 25 Gbps and should be scalable/burstable to handle any volume of DDOS attack traffic and should do on demand mitigation as and when required by Bank. Bidder shall have ability for infra to handle mentioned size of attacks to ensure that DDoS infra itself does not go down and become unavailable to Bank for mitigation. | We request you to kindly amend the clause as per below:<br>The bidder must handle at least 100 Gbps of attack and Scrubbing Centre should have capacity to mitigate 10+ Tbps of attacks that DDoS multi vector attacks. it should be scalable to handle any volume of attack as and when demanded by Bank.<br>Justification: Considering the recent trend of massive DDoS attacks 25 Gbps attack capacity is too low. | Bidder has to comply with RFP terms |
| 83 | 76 | Annexure 9 Functional and Technical Requirements | A. Specification of Internet Link | 5. The proposed cloud mitigation service provider must have mitigation centers distributed across the world.  | Request you to amend the clause:<br>The proposed DDoS cloud mitigation service provider must have mitigation centres distributed across the world and have atleast 2 Scrubbing centres in India for redundancy. Purpose   | Bidder has to comply with RFP terms |
| 84 | NA | NA   | NA                                | NA  | Request you to kindly mention that ISP DDoS should be able to mitigate encrypted attacks  | Bidder has to comply with RFP terms |
| 85 | NA | NA   | NA                                | NA  | Request you to kindly mention DDoS service uptime 99.999%   | Bidder has to comply with RFP terms |
| 86 | NA | NA   | NA                                | NA  | The proposed DDOS solution should be SOC II Type 2 compliant  | Bidder has to comply with RFP terms |



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|----|----|----|----|----|---|-------------------------------------|
| 87 | NA | NA | NA | NA | We request you to kindly mention that:- The DDoS solution should be able to mitigate Layer7 attacks including volumetric attacks. | Bidder has to comply with RFP terms |
| 88 | NA | NA | NA | NA | The Proposed DDoS solution should provide monitoring portal for Canara Bank.  | Bidder has to comply with RFP terms |

Date:04/03/2024  
Place:Bengaluru

  
Deputy General Manager

