



Annexure 12 – Project Details Scope of Work

1. Detailed Scope of Work:

The successful bidder shall supply and install network switches as per Bank requirement and provide maintenance support for a period of 5 years.

Description of the envisaged scope is enumerated below. However, the Bank reserves the right to change the scope of work considering the size and variety of the requirements and the changing business conditions.

The bidder needs to quote as per the Commercial format mentioned under Annexure 15. Technical Specifications details mentioned in the table given below are minimum, however, bidder may quote for the same or higher specifications.

Considering the enormity of the assignment, any service which forms a part of the Project Scope that is not explicitly mentioned in scope of work as excluded would form part of this RFP, and the Bidder is expected to provide the same at no additional cost to the Bank. The Bidder needs to consider and envisage all services that would be required in the Scope and ensure the same is delivered to the Bank. The Bank will not accept any plea from the Bidder later for omission of services on the pretext that the same was not explicitly mentioned in the RFP.

The brief scope of Work of the successful bidder is to Supply, Commission, Installation, Configuration and Maintenance of Network Switches as per Bank requirement. The services covered as part of the vendor includes, but not limited to the following:

- a) Service Provider should be capable of providing the Network Switches that is specified under Technical Specifications mentioned in RFP.
- b) The Network Switches must be capable of upgrading at a later stage as and when required by the Bank.
- c) Service Provider should supply, commission, install, test, configure and maintain the Network Switches at various locations identified by the Bank. Service Provider will also coordinate with existing MSP (Managed Services Provider) and/or networking vendors and ensure for successful installation, integration and functioning of Network connectivity.
- d) Break-fix support of supplied Network Switches.
- e) Bank's identified team will provide locations for delivery of Network Switches and configuration details & other inputs to the vendor for delivery, configuration, and support of the Network Switches.
- f) Service Provider should liaison with Bank's identified team / Managed Service Provider and should provide service & support of the Network Hardware. The service calls will be logged by the Bank's identified team / Managed Service Provider & the vendor need to support & service the same in coordination with them.
- g) Service Provider must provide Escalation Matrix and SPOC details for the delivery, installation and service support for the entire project and ensure timely completion of all the activities as per the schedule.



- h) The Bank reserves the right to shift the equipment to a suitable location depending upon the need. Service Provider will arrange to install and commission the same at the shifted location. The warranty / AMC of the equipment will continue from the new location as the case may be & Service Provider needs to provide service & support of the same from the new location.
- i) All the parts of items supplied would be covered under comprehensive warranty. If there is any gap between Bank's requirement and OEM warranty, then it will be the responsibility of Service Provider to fill up the gap.
- j) Service Provider should undertake to provide maintenance support to equipment and arrange for spare parts for a minimum period of 5 years for Network Switches from the date of its delivery.
- k) Service Provider should specify various infrastructure requirements which need to be provided for commissioning and smooth functioning of the equipment. This will include site requirements, power, UPS, environmental conditions, illumination etc.
- l) To ensure that the installation & configuration of the Network Switches supplied are in line with the bank's technical document.
- m) If any services, functions or responsibilities not specifically described in this scope but are an inherent, necessary or customary part of the services and are required for proper performance or provision of the services in accordance with the scope, they shall be deemed to be included within the scope of the services, as if such services, functions or responsibilities were specifically required and described in this scope and shall be provided by Service Provider at no additional cost to the Bank.
- n) For installation & commissioning work, it shall be the responsibility of Service Provider to arrange and provide requisite tools, testing & measurement equipment and all other things required for carrying out the installation job industry practice and safety norms.
- o) Service Provider shall ensure that no other equipment / structure / setup get damaged due to their activities. Any damages caused to Bank property due to Service Provider's negligence shall be passed on Service Provider's account
- p) Service Provider shall complete the entire work and make all the systems operational. Supply, Installation, Commissioning, Acceptance of the Network Switches and handing over to Bank within stipulated timeline mentioned in the delivery & installation section of this Contract.
- q) The OEM support shall be on 24*7*365 basis.

Network Switches should be delivered to the Bank's branches / offices across the country as per Bank's requirement.

Bank under the existing contract will have the right to order Network Switches & Routers for its sponsored Regional Rural Banks (RRBs) / Bank subsidiaries and Service Provider should be in a position to supply, install and support the Network Switches as per the requirement of Bank RRBs/subsidiaries



The scope of work mentioned above is indicative in nature and the bank may, at its discretion, ask Service Provider to carry out any other activity which is deemed to be necessary for delivery & installation of Network Switches.

2. Technical Specifications of Active Components:

The proposed product / solutions / appliance should comply with the following technical specifications requirement as mentioned under:

A. Switch: 48 Port (Requirement: 77 Nos.):

S#	Required Minimum Specifications	Bidder's Compliance (Yes/No)	Detail description how the solution /component would be compliant
1	Minimum of 48 port 10/100/1000 Mbps Ethernet auto sensing ports with 4*10 G uplink port from day one.		
2	The switch should have 176 Gbps of Switching Capacity and 130.9 Mpps Throughput Capacity		
3	The switch should be 1U and rack mountable in standard 19" rack.		
4	Full-Duplex Operation on Gig Ethernet		
5	The switch should have at least 4GB SDRAM and 4GB flash and have The switch should have Console Port, one OOBM port		
6	Switch should support stacking/MLAG and for stacking switch should have minimum 40 GBPS staking bandwidth		
7	Support for minimum of 32K MAC addresses		
8	Support for minimum of 750 active VLAN.		
9	The switch should have Internal redundant power supply and redundant Fan Tray from day one		
10	The Switch should support IEEE 802.3ad LACP supports up to 16 LAGs, each with up to 8 links per LAG and provide support for static or dynamic groups and a user-selectable hashing algorithm		
11	The Switch should support Rapid Per-VLAN Spanning Tree (RPVST+) or similar to allow each VLAN to build a separate spanning tree to improve link bandwidth usage.		
12	RADIUS or TACACS + Support		



13	The Switches must be able to generate Syslog Messages with timestamp and Severity codes, which can be exported to a Syslog Server.		
14	The Switches must be able to Build up its own inventory (like Device Name, Chassis Type, Memory, Flash, Software ver. Etc or equivalent fields)		
15	Support for Private VLAN to minimize broadcasts and maximize available bandwidth.		
16	Rack mounting kit for securing the switch in standard rack are to be provided.		
17	The switch should have minimum		
	At Least 2K Ipv4 Unicast Routes and 1K Ipv6 Unicast Routes		
	750 IGMP Groups		
	1500 pv4 ingress ACL Entries.		
Layer 2 Features: -			
1	The Switch should support AT LEAST 4K VLAN IDs		
2	The Switch should support Jumbo packet to improves the performance of large data transfers and support frame size of AT LEAST 9k bytes		
3	The Switch should support Rapid Per-VLAN Spanning Tree (RPVST+) to allow each VLAN to build a separate spanning tree to improve link bandwidth usage.		
4	The Switch should support Port mirroring duplicates port traffic (ingress and egress) to a monitoring port and support minimum 4 mirroring groups		
5	The Switch should support STP supports standard IEEE 802.1D STP, IEEE 802.1w Rapid Spanning Tree Protocol (RSTP) for faster convergence, and IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)		
6	The Switch should support Internet Group Management Protocol (IGMP) Controls and manages the flooding of multicast packets in a Layer 2 network.		
QoS Features: -			
1	Support for Classification and scheduling based on 802.1p/Q		



2	Support for 802.1p class-of-service (CoS). Ability to Mark/override 802.1P CoS per port		
3	Eight queues per egress port.		
4	DWRR/WRR for congestion avoidance or equivalent feature		
Multicast Support: -			
1	The Switch should support IGMP Snooping to allow multiple VLANs to receive the same IPv4 multicast traffic, lessening network bandwidth demand by reducing multiple streams to each VLAN		
2	The Switch should support Internet Group Management Protocol (IGMP)/IGMP Snooping / Any-Source Multicast (ASM) to manage IPv4 multicast networks; Integrate IGMPv1, v2, and v3		
Redundancy: -			
1	Link Aggregation		
2	Spanning Tree (802.1d) with support for spanning tree per VLAN		
3	Quick Failover over redundant links for improved network stability and reliability		
4	Support for IEEE rapid spanning tree.		
Security Features: -			
1	The Switch should support integrated trusted platform module (TPM) or similar for platform integrity. This ensures the boot process started from a trusted combination of switches.		
2	The Switch should support Access control list (ACL) support for both IPv4 and IPv6 to allow for filtering traffic to prevent unauthorized users from accessing the network, or for controlling network traffic to save resources. rules can either deny or permit traffic to be forwarded. rules can be based on a Layer 2 header or a Layer 3 protocol header		
3	The Switch should support ACLs filtering based on the IP field, source/ destination IP address/subnet, and source/ destination TCP/UDP port number on a per-VLAN or per-port basis		



4	The Switch should support Terminal Access Controller Access-Control System (TACACS+) delivers an authentication tool using TCP with encryption of the full authentication request to provide additional security		
6	The Switch should support multiple user authentication methods. Uses an IEEE 802.1X supplicant on the client in conjunction with a RADIUS server to authenticate in accordance with industry standards		
7	The Switch should support Web-based authentication provides a browser-based environment or similar to IEEE 802.1X, to authenticate clients that do not support IEEE 802.1X		
8	The Switch should support MAC-based client authentication		
9	The Switch should support Concurrent IEEE 802.1X, Web, and MAC authentication schemes per switch port accepts up to 32 sessions of IEEE 802.1X, Web, and MAC authentications		
10	The Switch should support Secure management access delivers secure encryption of all access methods (CLI, GUI, or MIB) through SSHv2, SSL, and/or SNMPv3		
13	The Switch should support Identity-driven ACL to enable implementation of a highly granular and flexible access security policy and VLAN assignment specific to each authenticated network user		
14	The Switch should support STP BPDU port protection to block Bridge Protocol Data Units (BPDUs) on ports that do not require BPDUs, preventing forged BPDU attacks		
15	The Switch should support Dynamic IP lockdown with DHCP protection to block traffic from unauthorized hosts, preventing IP source address spoofing		
16	The Switch should support ARP protection to blocks ARP broadcasts from unauthorized hosts, preventing eavesdropping or theft of network data		



17	The Switch should support STP root guard to protects the root bridge from malicious attacks or configuration mistakes		
18	The Switch should support Port security to allow access only to specified MAC addresses, which can be learned or specified by the administrator		
19	The Switch should support MAC address lockout to prevent particular configured MAC addresses from connecting to the network		
20	The Switch should support Secure shell to encrypt all transmitted data for secure remote CLI access over IP networks		
21	The Switch should support Secure Sockets Layer (SSL) to encrypts all HTTP traffic, allowing secure access to the browser-based management GUI in the switch		
22	The Switch should support Secure FTP to allow secure file transfer to and from the switch and protect against unwanted file downloads or unauthorized copying of a switch configuration file		
23	The Switch should support Critical Authentication Role to ensure that important infrastructure devices are allowed network access even in the absence of a RADIUS server		
24	The Switch should support MAC Pinning or static MAC address configuration to allows non-chatty legacy devices to stay authenticated by pinning client MAC addresses to the port until the clients logoff or get disconnected		
25	The Switch should support Management Interface Wizard to help secure management interfaces such as SNMP, telnet/SSH, SSL, Web.		
26	The switch should support minimum 1500 Access control entry		
27	The Switch should support Security banner displays a customized security policy when users log in to the switch		
28	The Switch should support Green initiative for RoHS (EN 50581:2012), WEEE regulations or similar		



Other Features:			
1	The switch should have integrated with Banks internal NMS.		
2	The management software should integrate with any EMS product suite.		
3	Layer 2 or Layer 3 traceroute feature to ease troubleshooting by identifying the physical path that a packet takes from the source device to a destination device.		
4	Should support Link layer Discovery Protocol		
5	Should Support DNS		
6	Secure access to switch management, limiting management applications from specific hosts only		
7	Should support BPDU guard to avoid topology loop.		
8	Unicast MAC filtering, unknown Unicast and multicast Port blocking		
9	Support for MAC address notification allows administrators to be notified of users added to or removed from the network.		
10	The operating system should have a self-healing mechanism /equivalent feature for the automatic recovery of the switch when a specified event occurs		
11	The software should have a mechanism to proactively detect and address potential hardware and software faults during runtime /equivalent.		
Network Management (Management Feature):-			
1	Embedded support for Web based management using standard secured web browser.		
2	Support for SNMP v1, SNMP v2c and SNMP v3		
3	Support for FTP/SFTP based software download/upload		
4	Support for port mirroring measurement using a network analyser or RMON probe.		
5	RMON: 4 Group (Statistics, Alarm, Events, History), on every port, no impact to performance		
6	Switch must be remotely managed via one telnet/SSH session for all module configuration		



7	Should have functionality to add new features like Firmware upgrades from central location, etc.		
8	Provisioned and Dynamic Policies at Layers 2-4 for QoS and Security		
9	Real Time Multi-Port Statistics		
10	Mac/IP Address Finder or equivalent feature		
11	Device and Port Groupings for Navigation and Policy Management		
12	Radius or TACACS+ server Support		
13	Administrative Access Right		
14	Traffic Volume/Error/Congestion Monitoring		
15	The Switch should be able to discover the neighbouring device of the same vendor giving the details about the platform, IP Address, Link connected through etc, thus helping in troubleshooting connectivity problems.		
16	Should have Topology view features or Switches should be capable to integrate with 3rd party SNMP monitoring solutions.		
IEEE Standard Compliance: -			
1	802.1Q VLAN tagging		
2	802.1p Priority		
3	802.1D Spanning Tree		
4	802.3u Fast Ethernet		
5	802.3x Flow Control		
6	802.1x Authentication		
7	802.3ab Gigabit Interface		
8	Support for Remote Authentication Dialin User service (RADIUS) change of authorization, URL Redirection and AAA		
9	Must have support to 802.1x network authentication and port security on a port basis which will help to deploy Network Access Control (NAC)		
10	802.1x support with following features: <ul style="list-style-type: none">• 802.1x with VLAN Assignment• 802.1x Guest VLAN• It should be compatible with 802.1x protocol.• without valid credentials to access a limited set of services which can be controlled by an administrator		



	<ul style="list-style-type: none">• 802.1x - Auth-Fail VLAN or equivalent. (An auth fail VLAN allows users without valid credentials to access a limited set of services which can be controlled by an administrator) or switch must record auth fail/rejection alert in logs.• 802.1x MAC-Auth-Bypass• 802.1x with ACLS• 802.1x Accounting• Web Authentication for Non 802.1x Clients.• Switch should support concurrent deployment of 802.1x and MAB Authentication.		
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B. Switch: 24 Port (Requirement: 10 Nos.):

S#	Required Minimum Specifications	Bidder's Compliance (Yes/No)	Detail description how the solution /component would be compliant
1	Minimum of 24 port 10/100/1000 Mbps Ethernet auto sensing ports with 4*10 G uplink port from day one.		
2	The switch should have 128 Gbps of Switching Capacity and 95 Mpps Throughput Capacity		
3	The switch should be 1U and rack mountable in standard 19" rack.		
4	Full-Duplex Operation on Gig Ethernet		
5	The switch should have at least 4GB SDRAM and 4GB flash and have The switch should have Console Port, one OOBM port		
6	Switch should support stacking/MLAG and for stacking switch should have minimum 40 GBPS staking bandwidth		
7	Support for minimum of 32K MAC addresses		
8	Support for minimum of 500 active VLAN.		
9	The switch should have Internal redundant power supply and redundant Fan Tray from day one		



10	The Switch should support IEEE 802.3ad LACP supports up to 16 LAGs, each with up to 8 links per LAG and provide support for static or dynamic groups and a user-selectable hashing algorithm		
11	The Switch should support Rapid Per-VLAN Spanning Tree (RPVST+) or similar to allow each VLAN to build a separate spanning tree to improve link bandwidth usage.		
12	RADIUS or TACACS + Support		
13	The Switches must be able to generate Syslog Messages with timestamp and Severity codes, which can be exported to a Syslog Server.		
14	The Switches must be able to Build up its own inventory (like Device Name, Chassis Type, Memory, Flash, Software ver. Etc or equivalent fields)		
15	Support for Private VLAN to minimize broadcasts and maximize available bandwidth.		
16	Rack mounting kit for securing the switch in standard rack are to be provided.		
17	The switch should have minimum		
	At Least 2K Ipv4 Unicast Routes and 1K Ipv6 Unicast Routes		
	750 IGMP Groups		
	1500 pv4 ingress ACL Entries.		
Layer 2 Features: -			
1	The Switch should support AT LEAST 4K VLAN IDs		
2	The Switch should support Jumbo packet to improves the performance of large data transfers and support frame size of AT LEAST 9k bytes		
3	The Switch should support Rapid Per-VLAN Spanning Tree (RPVST+) to allow each VLAN to build a separate spanning tree to improve link bandwidth usage.		
4	The Switch should support Port mirroring duplicates port traffic (ingress and egress) to a monitoring port and support minimum 4 mirroring groups		



5	The Switch should support STP supports standard IEEE 802.1D STP, IEEE 802.1w Rapid Spanning Tree Protocol (RSTP) for faster convergence, and IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)		
6	The Switch should support Internet Group Management Protocol (IGMP) Controls and manages the flooding of multicast packets in a Layer 2 network.		
QoS Features: -			
1	Support for Classification and scheduling based on 802.1p/Q		
2	Support for 802.1p class-of-service (CoS). Ability to Mark/override 802.1P CoS per port		
3	Eight queues per egress port.		
4	DWRR/WRR for congestion avoidance or equivalent feature		
Multicast Support: -			
1	The Switch should support IGMP Snooping to allow multiple VLANs to receive the same IPv4 multicast traffic, lessening network bandwidth demand by reducing multiple streams to each VLAN		
2	The Switch should support Internet Group Management Protocol (IGMP)/IGMP Snooping / Any-Source Multicast (ASM) to manage IPv4 multicast networks; Integrate IGMPv1, v2, and v3		
Redundancy: -			
1	Link Aggregation		
2	Spanning Tree (802.1d) with support for spanning tree per VLAN		
3	Quick Failover over redundant links for improved network stability and reliability		
4	Support for IEEE rapid spanning tree.		
Security Features: -			
1	The Switch should support integrated trusted platform module (TPM) or similar for platform integrity. This ensures the boot process started from a trusted combination of switches.		



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2	The Switch should support Access control list (ACL) support for both IPv4 and IPv6 to allow for filtering traffic to prevent unauthorized users from accessing the network, or for controlling network traffic to save resources. rules can either deny or permit traffic to be forwarded. rules can be based on a Layer 2 header or a Layer 3 protocol header		
3	The Switch should support ACLs filtering based on the IP field, source/ destination IP address/subnet, and source/ destination TCP/UDP port number on a per-VLAN or per-port basis		
4	The Switch should support Terminal Access Controller Access-Control System (TACACS+) delivers an authentication tool using TCP with encryption of the full authentication request to provide additional security		
5	The Switch should support multiple user authentication methods. Uses an IEEE 802.1X supplicant on the client in conjunction with a RADIUS server to authenticate in accordance with industry standards		
6	The Switch should support Web-based authentication provides a browser-based environment or similar to IEEE 802.1X, to authenticate clients that do not support IEEE 802.1X		
7	The Switch should support MAC-based client authentication		
8	The Switch should support Concurrent IEEE 802.1X, Web, and MAC authentication schemes per switch port accepts up to 32 sessions of IEEE 802.1X, Web, and MAC authentications		
9	The Switch should support Secure management access delivers secure encryption of all access methods (CLI, GUI, or MIB) through SSHv2, SSL, and/or SNMPv3		
10	The Switch should support Identity-driven ACL to enable implementation of a highly granular and flexible access security policy		



	and VLAN assignment specific to each authenticated network user		
11	The Switch should support STP BPDU port protection to block Bridge Protocol Data Units (BPDUs) on ports that do not require BPDUs, preventing forged BPDU attacks		
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13	The Switch should support ARP protection to blocks ARP broadcasts from unauthorized hosts, preventing eavesdropping or theft of network data		
14	The Switch should support STP root guard to protects the root bridge from malicious attacks or configuration mistakes		
15	The Switch should support Port security to allow access only to specified MAC addresses, which can be learned or specified by the administrator		
16	The Switch should support MAC address lockout to prevent particular configured MAC addresses from connecting to the network		
17	The Switch should support Secure shell to encrypt all transmitted data for secure remote CLI access over IP networks		
18	The Switch should support Secure Sockets Layer (SSL) to encrypts all HTTP traffic, allowing secure access to the browser-based management GUI in the switch		
19	The Switch should support Secure FTP to allow secure file transfer to and from the switch and protect against unwanted file downloads or unauthorized copying of a switch configuration file		
20	The Switch should support Critical Authentication Role to ensure that important infrastructure devices are allowed network access even in the absence of a RADIUS server		
21	The Switch should support MAC Pinning or static MAC address configuration to allows non-chatty legacy devices to stay authenticated by pinning client MAC		



	addresses to the port until the client logoff or get disconnected		
22	The Switch should support Management Interface Wizard to help secure management interfaces such as SNMP, telnet/SSH, SSL, Web.		
23	The switch should support minimum 1500 Access control entry		
24	The Switch should support Security banner displays a customized security policy when users log in to the switch		
25	The Switch should support Green initiative for RoHS (EN 50581:2012), WEEE regulations or similar		
Other Features:			
1	The switch should have integrated with Banks internal NMS.		
2	The management software should integrate with any EMS product suite.		
3	Layer 2 or Layer 3 traceroute feature to ease troubleshooting by identifying the physical path that a packet takes from the source device to a destination device.		
4	Should support Link layer Discovery Protocol		
5	Should Support DNS		
6	Secure access to switch management, limiting management applications from specific hosts only		
7	Should support BPDU guard to avoid topology loop.		
8	Unicast MAC filtering, unknown Unicast and multicast Port blocking		
9	Support for MAC address notification allows administrators to be notified of users added to or removed from the network.		
10	The operating system should have a self-healing mechanism /equivalent feature for the automatic recovery of the switch when a specified event occurs		
11	Should have Topology view features or Switches should be capable to integrate with 3rd party SNMP for detection of SW & HW faults		
Network Management (Management Feature): -			



1	Embedded support for Web based management using standard secured web browser.		
2	Support for SNMP v1, SNMP v2c and SNMP v3		
3	Support for FTP/SFTP based software download/upload		
4	Support for port mirroring measurement using a network analyser or RMON probe.		
5	RMON: 4 Group (Statistics, Alarm, Events, History), on every port, no impact to performance		
6	Switch must be remotely managed via one telnet/SSH session for all module configuration		
7	Should have functionality to add new features like Firmware upgrades from central location, etc.		
8	Provisioned and Dynamic Policies at Layers 1-4 for QoS and Security		
9	Real Time Multi-Port Statistics		
10	Mac/IP Address Finder or equivalent feature		
11	Device and Port Groupings for Navigation and Policy Management		
12	Radius or TACACS+ server Support		
13	Administrative Access Right		
14	Traffic Volume/Error/Congestion Monitoring		
15	The Switch should be able to discover the neighbouring device of the same vendor giving the details about the platform, IP Address, Link connected through etc, thus helping in troubleshooting connectivity problems.		
16	Should have Topology view features		
IEEE Standard Compliance: -			
1	802.1Q VLAN tagging		
2	802.1p Priority		
3	802.1D Spanning Tree		
4	802.3u Fast Ethernet		
5	802.3x Flow Control		
6	802.1x Authentication		
7	802.3ab Gigabit Interface		



8	Support for Remote Authentication Dialin User service (RADIUS) change of authorization, URL Redirection and AAA		
9	Must have support to 802.1x network authentication and port security on a port basis which will help to deploy Network Access Control (NAC)		
10	802.1x support with following features: <ul style="list-style-type: none">• 802.1x with VLAN Assignment• 802.1x Guest VLAN• It should be compatible with 802.1x protocol.• without valid credentials to access a limited set of services which can be controlled by an administrator• 802.1x - Auth Fail Open or equivalent. (Auth Fail Open feature enables the administrator to apply a policy that allows users to have network access when the AAA server is unreachable.)• 802.1x MAC-Auth-Bypass• 802.1x with ACLS• 802.1x Accounting• Web Authentication for Non 802.1x Clients• Switch should support concurrent deployment of 802.1x and MAB Authentication		

3. Delivery Period

The successful vendor shall deliver the Switches within a period of **6 weeks** from the date of placing of purchase order by the Bank.

In case delivery deadline is not met for reasons attributable to vendor then the Vendor will have to pay penalty to Bank of Baroda @ 0.5% of purchase order value inclusive of all taxes, duties, levies etc., of delayed quantity per week or part of the week of delayed period as pre-estimated damages not exceeding 10% of the contract value of delayed quantity without any controversy/dispute of any sort whatsoever.

Vendor shall be responsible for ensuring proper packing, delivery and receipt of all deliverables. All sealed packs boxes to be opened in the presence of Bank of Baroda officials only.

All accessories as part of the hardware / software to make the devices operational should be delivered together with the equipment. Any component has not been delivered or if delivered is not operational on account of which the equipment is not functioning, will be deemed / treated as non-delivery of the equipment thereby excluding the Bank from all payment obligations under the terms of this contract. Partial delivery of equipment is not acceptable, and payment would be released as per



terms only after full delivery.

All network hardware items to be delivered at Bank's locations as per Bank's requirement mentioned under project scope.

4. Installation

Network Hardware Installation at Bank's locations, including unpacking of cartons/boxes, will be the responsibility of the vendor. Successful vendor will have to install the network hardware and hand it over to Bank for acceptance testing within 2 weeks from the date of delivery of the network hardware at Bank locations or Bank's notification for installation of the same.

Vendor will have to pay late installation / implementation charges to the Bank @ 0.5% of the total Purchase Order Value per week or part thereof subject to maximum of 10% of the total purchase order value, for delay in installation, if the delay is caused owing to reasons attributable to the Vendor.

5. TRANSPORTATION AND INSURANCE

The commercial proposal submitted by bidder should be inclusive of cost for insurance and freight (c.i.f.) etc. However, the vendor has the option to use transportation and insurance cover from any eligible source. Insurance cover shall be sole responsibility of the vendor till the acceptance of the Hardware items by Bank. The vendor should also assure that the product would be replaced with no cost to Bank in case insurance cover is not taken by them.

6. Warranty

The Hardware covering all components will remain under, onsite, comprehensive maintenance warranty for a period of five years. The service support during warranty period shall be for complete accessories supplied.

Bidder will have to provide a post-installation warranty as per the terms mentioned below:

- Comprehensive Warranty for 60 Months from the date of installation or 61 months from the date of the delivery whichever is earlier.

Bidder will have to upgrade the Hardware/ Software (in case of requirement) during warranty period at no cost to Bank. Patch updation, security patch updates etc to be done (as and when required) preferably quarterly / half yearly in coordination with the Bank / MSP team.

In event of any equipment / part is replaced or any defect in respect of any equipment / part is corrected for more than one instance of any quarter during the base warranty period of 5 years, where the period of warranty remained is less than twelve month of the comprehensive warranty, the warranty in respect of the entire hardware equipment for which the equipment / part is replaced / defect is corrected, will be extended for an additional period of twelve months from the date of such replacement/ correction of defects.

In case of significant failures of specific component entire hardware/ equipment has to be replaced with new ones in a proactive manner. Proactive action must be taken immediately without affecting the banks day to day functioning and in a mutually



convenient time. The proactive action plan is required to be submitted well in advance. Bidder is required to ensure that this kind of situation never arises.

The Bidders warrants that the Goods supplied under the Contract are new, unused, of the most recent or current models, and that they incorporate all recent improvements in design and materials unless provided otherwise in the Contract.

The Bidder further warrants that all Goods supplied or Works carried out under this Contract shall have no defect, arising from design, materials, or workmanship (except when the design and /or material is required by the Bank's specifications) or from any act or omission of the Bidder, that may develop under normal use of the supplied Goods or Works in the conditions prevailing in the country.

The warranty should not become void if the Bank buys any other supplemental hardware from a third party and installs it with/in these machines. However, the warranty will not apply to such hardware items installed.

Warranty should cover the following:

- a) The equipment should be attended to within 4 hours of receipt of complaint (exclusive of travelling time). In case problems persist, systems should be replaced within 24 hours of receiving complaint and alternate system should be given till machine is repaired. The replaced equipment should be installed by the bidder at no extra cost to the Bank, so that normal job of the Bank may not get hampered.
- b) Warranty would cover updates/maintenance patches/bug fixes (available from the original equipment manufacturer) for system software & firmware patches/bug fixes, if any, for hardware.
- c) Providing of all deliverables including warranty services etc. under this contract shall be the sole responsibility of the bidder. Bank will not be responsible for any delays/violation from third party OEMs.

7. Payment Terms

The Bidder must accept the payment terms proposed by the Bank. The commercial bid submitted by the Bidders must be in conformity with the payment terms proposed by the Bank. Any deviation from the proposed payment terms would not be accepted. The Bank shall have the right to withhold any payment due to the Bidder, in case of delays or defaults on the part of the Bidder. Such withholding of payment shall not amount to a default on the part of the Bank. If any of the items / activities mentioned in the price bid is not taken up by the bank during the course of the assignment, the bank will not pay the professional fees quoted by the Bidder in the price bid against such activity / item.

Wherever applicable, the Bank may require the following documents to be presented at the time of payment:

- i) Supplier's Invoice indicating, inter alia description and specification of the goods, quantity, unit price, total value;
- ii) Packing list;
- iii) Insurance certificate;
- iv) Receipt/consignment note;
- v) Manufacturer's guarantee certificate and in-house inspection certificate;



- vi) Inspection certificate issued by purchaser's inspector; and
- vii) Any other document(s) as and if required in terms of the contract.

The payment will be released as per the payment structure below:

(i) Cost of Network Switch:

- 70% of the Hardware cost plus 100% of taxes including GST at actuals after successful delivery. The invoices for claiming the payment should be submitted along with the following documents:
 - a. Original delivery Challans dully stamped and signed by the Bank Official.
 - b. Bill of Materials (BOM) verification report signed by Bank Official.
 - c. Performance Bank Guarantee of 5% of Contact value (As per RFP format)
 - d. Confirmation letter from the OEM mentioning the serial number of Hardware and additional components along with underlying software, licenses, allied components (i.e. Operating System etc. if any) and warranty details.
 - e. Back-to-back support arrangement certificate from the respective OEM.
- 20% of the cost after one month of successful installation and satisfactory functioning or after two month post-delivery in the case of Site Not Ready (SNR).

SNR case - Wherever installation could not be carried out by the vendor due to the Bank's dependencies like Site not ready etc. even after 60 days beyond date of delivery then the payment would be released, upon the vendor submission of certificate from location concerned duly signed (with Bank's seal affixed) by the Bank Authority on the Bank's dependencies like site is not ready etc. However, in such a case, vendor shall provide undertaking to complete installation within a week of being informed that the site is ready. In such a case, payment of 20% will be released after two months post-delivery.

The invoices for claiming the payment should be submitted along with the following document:

- a) Installation signoff report (dully stamped and signed by the Bank Official along with the signature of the engineers from vendor / OEM) after one month of successful installation and satisfactory functioning.
 - b) Submission of certificate from Bank Authority in case site is not ready (SNR) along with letter of undertaking by vendor to complete installation within a week of being informed that the site is ready
 - c) Complete inventory details along with serial numbers of hardware delivered against PO with address.
- 10% of the cost would be payable on completion of warranty period or against Bank Guarantee (BG) as per format mentioned under Annexure 19. The BG value should be of equivalent amount issued by a scheduled commercial bank in India other than Bank of Baroda with validity till warranty period plus additional 3 months.

(ii) Installation Cost:

100% Installation & Implementation Charges will be released after one month of successful installation and satisfactory functioning on submission of invoice & signoff report from Bank Authority.

There shall be no escalation in the prices once the prices are fixed and agreed to by



the Bank and the Bidder. Payment will be released by IT Dept., as per above payment terms on submission of mentioned supporting documents.

The Bank will pay invoices within a period of 30 days from the date of receipt of undisputed invoices. Any dispute regarding the invoice will be communicated to the selected Bidder within 15 days from the date of receipt of the invoice. After the dispute is resolved, Bank shall make payment within 30 days from the date the dispute stands resolved.

8. Acceptance Test (AT)

AT shall comprise of completion of following activities:

- i. For each installed equipment and IR template should be prepared along with the technical specifications and its value as per quoted product.
- ii. Bank personnel will check the working system value against the product value before signing the acceptance of the installation of equipment
- iii. In case Bank is not satisfied with installation / configuration, party must reinstall and / or reconfigure the entire / partial solution.
- iv. Running of AT Schedule as per agreed AT Plan for systems

All the License document along with Manual of the equipment's installed should be duly submitted.

9. Right to Alter Quantities

The Bank reserves the right to alter the requirements specified in the Tender. The Bank also reserves the right to delete one or more items from the list of items specified in the Tender. The Bank will inform all Bidders about changes, if any. The Bidder agrees that the Bank has no limit on the additions or deletions of the items for the period of the contract. Further the Bidder agrees that the prices quoted by the Bidder would be proportionately adjusted with such additions or deletions in quantities/items.

10. Affixing Asset Tags on the Equipment's

It will be the responsibility of the vendor to affix the Asset tags on each Hardware component being supplied to Bank and share the details with the Bank team. The Asset Tags printed by vendor must have the company's logo of vendor along with other details like call logging no., mail id etc. The asset tag details for the Hardware component would be mutually decided by the Bank and vendor. Complete asset inventory (under the scope of this RFP) including replacement of Hardware component on account of failure is the responsibility of Vendor.

11. Handover Services

The handover services are the services provided by the bidder to Bank during the handover period of 15 days which will start after completion of operationalization of devices to facilitate an orderly transfer of the Services to Bank and/ or Managed Service Provider of the Bank. Handover Services of network hardware which will be provided by the bidder after installation. The handed over shall include the following but not limited to:



- ▶ The bidder should ensure training for the user and bidder should be flexible to give training in the form of knowledge transfer to the users as and when required/demanded by the bank at any point contract period.
- ▶ The Bidder shall provide such necessary information, documentation to the Bank or its designee, for the effective management and maintenance of the deliverables under this assignment. The Bidder shall provide all updated documentation (in English) in electronic form where available or otherwise a single hardcopy of all existing procedures, policies and programs required.
- ▶ The Bidder shall provide licenses details.
- ▶ The Bidder must consult with Bank on any Third-Party Contracts between the Bidder and Third Parties that are necessary or useful for Bank or a Third Party to perform the Services and arrange for transfer or assignment of such Third Party Contracts that Bank wishes to have transferred or assigned to Bank or a Third Party designated by Bank on commercially reasonable terms mutually acceptable to both Parties.
- ▶ All the warranties held by or in the name of the Bidder shall be assigned or transferred "As is" in the name of the Bank. The Bidder shall execute any and all such documents as may be necessary in this regard.
- ▶ The Parties shall return confidential information.
- ▶ The Bidder shall provide all other Services as may be agreed by the Parties in connection with the assignment.
- ▶ The Bidder recognizes that considering the enormity of the Assignment, the Handover Services listed herein are only indicative in nature and the Bidder agrees to provide all assistance and services required for fully and effectively handing over the Services provided by the Bidder under this assignment and subsequent Agreement, upon termination or expiration thereof, for any reason whatsoever.
- ▶ Handover Process of hardware directly done by the Bidder / OEM. During this handover the Bidder would transfer all knowledge, knowhow, and other things necessary for the Bank and / or its MSP to take over and continue to manage the network hardware.
- ▶ The Bidder agrees that in the event of cancellation or exit or expiry of the contract it would extend all necessary support to the Bank as would be required.

Considering the enormity of the assignment, any service which forms a part of the Project Scope that is not explicitly mentioned in scope of work as excluded would form part of this assignment, and the Bidder is expected to provide the same at no additional cost to the Bank. The Bidder needs to consider and envisage all services that would be required in the Scope and ensure the same is delivered to the Bank. The Bank will not accept any plea of the Bidder later for omission of services on the pretext that the same was not explicitly mentioned in the Project Scope.

12. Inspections and Tests

The Bank or its representative shall have the right to inspect and/or to test the Goods and Materials and the Works carried out by the Bidder to confirm their conformity to the Contract specifications at no extra cost to the Bank.



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Should any inspected or tested Goods fail to conform to the specifications or requirements set out in the Contract, the Bank may reject the Goods, and the Bidder shall either replace the rejected Goods or make alterations necessary to meet specifications or requirements free of cost to the Bank.

The Bidder shall have the manufacturer, before making delivery, carry out a precise and comprehensive inspection of the Goods regarding quality, specification, performance, quantity and weight and issue a quality certificate certifying that the Goods are in conformity with the stipulations in the Contract. The quality certificate shall not be regarded as final with respect to quality, specification, performance, quantity and weight. Particulars and results of the tests made by the manufacturer shall be shown in a statement to be attached to the quality certificate.

If, during the warranty period, it is found that the quality or specifications of the Goods or Works are not in conformity with the Contract or if the Goods or Works are proven to be defective for any reason, including latent defects or the use of unsuitable materials, the Bank shall promptly notify the Bidder of the existence of a claim.

No clause in "Inspection and Tests" clause shall in any way release the Bidder from any warranty or other obligations under this Contract.

13. Equipment Movement/Replacement

Bank reserves the right to shift any hardware / equipment to new location/s and warranty will continue to be in force at the new location also. The bidder will be informed about old and new location/office details and when the Bank decides to shift the hardware due to operational requirements. The bidder will deploy resource(s) for decommissioning of respective equipment's at old location and Commissioning of equipment's at new location at no additional cost to the Bank. The vendor is required to update their database and provide support, Warranty/AMC etc., for the shifted devices at the new location. The bidder should also provide support for un-mounting, mounting and cabling and other components from the rack in the event of reallocation of racks or changes made in sites based on Banks requirements. No additional cost whatsoever would be paid by the Bank for all the above activities.

Component / Equipment replacement in the event of any failure / critical alert / Critical warning necessitating replacement of the equipment without impacting application services to end - Any Infrastructure component / equipment which is not available or found to be faulty which requires replacement although it is not impacting the service i.e. availability to end users, then such components should be replaced as per SLA terms.

14. Preventive Maintenance

Team is required to send periodic intimations on latest bug fixes and new versions/ firmware/ IOS/ Signatures/ License/ Patches/ Upgrades etc which should be implemented in Production, any failure in intimation which caused any sort of outage in BANK will be taken under SLA/Penalty.

Periodic preventive maintenance of hardware, once in QUARTER during warranty period. During the preventive maintenance the bidder should check the firmware / operating system running and upgrade to the same to latest version as released by OEM.



The bidder should also support Bank in implementation of guidelines related to equipment, closure of audit comments.