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*The Issuing Bank shall fill in this Bank Guarantee Form in accordance with the instructions indicated.*

\_\_\_\_\_ *[Bank's Name, and Address of Issuing Branch or Office]*

**Beneficiary:** ----- *[Name and Address of Procuring Entity]*

**Date:** -----

**BID GUARANTEE No.:** -----

We have been informed that *[name of the Bidder]* (hereinafter called "the Bidder") has submitted to you its bid dated (hereinafter called "the Bid") for the execution of *[name of contract]* under Invitation for Bids No. *[Procurement Reference number]* ("the IFB").

Furthermore, we understand that, according to your conditions, bids must be supported by a bid guarantee.

At the request of the Bidder, we *[name of Bank]* hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of *[amount in figures]* (*[amount in words]*) upon receipt by us of your first demand in writing accompanied by a written statement stating that the Bidder is in breach of its obligation(s) under the bid conditions, because the Bidder:

- (a) has withdrawn its Bid during the period of bid validity specified by the Bidder in the Form of Bid; or
- (b) having been notified of the acceptance of its Bid by the Procuring Entity during the period of bid validity,
  - (i) fails or refuses to execute the Contract Form; or (ii) fails or refuses to furnish the performance security, if required, in accordance with the Instructions to Bidders.

This guarantee will expire: (a) if the Bidder is the successful Bidder, upon our receipt of copies of the contract signed by the Bidder and the performance security issued to you upon the instruction of the Bidder; or (b) if the Bidder is not the successful Bidder, upon the earlier of (i) our receipt of a copy of your notification to the Bidder of the name of the successful Bidder; or (ii) twenty-eight days after the expiration of the Bidder's Bid.

Consequently, any demand for payment under this guarantee must be received by us at the office on or before that date.

\_\_\_\_\_  
*[signature(s)]*



## PERFORMANCE GUARANTEE FORMAT

*[The issuing bank, as requested by the successful Bidder, shall fill in this form in accordance with the instructions indicated]*

**Date:** *[insert date (as day, month, and year)]*

**Title of the procurement:** *[Insert general title of the procurement]*

**Procurement Reference No:** *[insert reference]*

**Bank's Branch or Office:** *[insert complete name of Guarantor]*

**Beneficiary:** *[insert complete name of Procuring Entity]*

**PERFORMANCE GUARANTEE No.:***[insert Performance Guarantee number]*

We have been informed that *[insert complete name of Supplier]* (hereinafter called "the Supplier") has entered into Contract No. *[insert number]* dated *[insert day and month]*, *[insert year]* with you, for the supply of *[description of Goods and related Services]* (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, a Performance Guarantee is required.

At the request of the Supplier, we hereby irrevocably undertake to pay you any sum(s) not exceeding *[insert amount(s)<sup>1</sup> in figures and words]* upon receipt by us of your first demand in writing declaring the Supplier to be in default under the Contract, without cavil or argument, or your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This Guarantee shall expire no later than the *[insert number]* day of *[insert month]* *[insert year]*,<sup>2</sup> and any demand for payment under it must be received by us at this office on or before that date. We agree to a one-time extension of this Guarantee for a period not to exceed *[six months]* *[one year]*, in response to the Procuring Entity's written request for such extension, such a request to be presented to us before the expiry of the Guarantee.

.....  
*[signatures of authorized representatives of the bank]*

1 The Bank shall insert the amount(s) specified in the SCC and denominated, as specified in the SCC, either in the currency(ies) of the Contract or a freely convertible currency acceptable to the Procuring Entity.

2 Dates established in accordance with a Clause of the General Conditions of Contract ("GCC"), taking into account any warranty obligations of the Supplier under a Clause of the GCC intended to be secured by a partial Performance Guarantee.



## TECHNICAL REQUIREMENT, BILL OF MATERIAL AND SCOPE OF WORKS

1. POE+ MANAGED SWITCHES			
Parameter	16-Port Switch	24-Port Switch	48-Port Switch
1.1. Required Quantity	1 NOS	1 NOS	3 NOS
1.2. Recommended Brand	Cisco   HPE Aruba		
1.3. Switching Capacity	36 Gbps	128 Gbps	176 Gbps
1.4. Forwarding Rate	26.78 Mpps	95.23 Mpps	130.94 Mpps
1.5. Forwarding Type	Non-blocking	Wire-speed, non-blocking	Wire-speed, non-blocking
1.6. MAC Address Table	–	32,000 entries	32,000 entries
1.7. Jumbo Frames	9,000 bytes (default MTU 2,000)	9,000 bytes	9,000 bytes
1.8. Packet Buffer	1.5 MB	1.5 MB	3 MB
1.9. Flash / DRAM	1 GB SLC flash / 1 GB DDR4	1 GB SLC / 1 GB DDR4	1 GB SLC / 1 GB DDR4
1.10. Downlink Ports	16 x 10/100/1000BASE-T RJ-45 (all PoE+)	24x 10/100/1000BASE-T RJ-45 (all PoE+)	48x 10/100/1000BASE-T RJ-45
1.11. Uplink Ports	2x 1G SFP	4x 10GE SFP+ (1G/10G)	4x 10GE SFP+ (1G/10G)
1.12. Console Port	RJ-45 console + USB Type-C (console capable)	RJ-45 + USB Type-C (console capable)	RJ-45 + USB Type-C (console capable)
1.13. PoE Standard	IEEE 802.3af / 802.3at	IEEE 802.3af / 802.3at	IEEE 802.3af / 802.3at
1.14. Total PoE Budget	120W	195W	375W
1.15. Max Power per Port	30W (PoE+) / 15.4W (PoE)	30W (PoE+)	30W (PoE+)
1.16. Spanning Tree	STP (802.1D), RSTP (802.1w, default), MSTP (802.1s, 16 instances), PVST+/RPVST+ (126 instances)	STP (802.1D), RSTP (802.1w, default), MSTP (802.1s, 16 instances), PVST+/RPVST+ (126 instances)	STP (802.1D), RSTP (802.1w, default), MSTP (802.1s, 16 instances), PVST+/RPVST+ (126 instances)
1.17. VLANs	Up to 4,094 VLAN IDs (4,078–4,094 internal use); 256 active (802.1Q)	Up to 4,094 VLAN IDs (4,078–4,094 internal); 256 active	Up to 4,094 VLAN IDs (4,078–4,094 internal); 256 active
1.18. Link Aggregation	IEEE 802.3ad (LACP)	IEEE 802.3ad (LACP); 4 groups, 8 ports/group	IEEE 802.3ad (LACP); 4 groups, 8 ports/group
1.19. IGMP Snooping	Supported	v1/v2/v3; up to 4,000 multicast groups	v1/v2/v3; up to 4,000 multicast groups
1.20. Static Routing	IPv4 & IPv6	Up to 7,168 routes (static + dynamic), up to 256 IP interfaces	Up to 7,168 routes (static + dynamic), up to 256 IP interfaces
1.21. IPv6	Supported	Dual Stack, ND, SLAAC, MLD Snooping, ACL, QoS	Dual Stack, ND, SLAAC, MLD Snooping, ACL, QoS
1.22. Dynamic Routing (upgrade)	RIPv2, PBR only	–	–
1.23. Port Authentication	IEEE 802.1X, MAC Auth Bypass, Web Auth	IEEE 802.1X (RADIUS)	IEEE 802.1X (RADIUS)
1.24. MACsec	–	–	–
1.25. ACLs	Port-based L2/L3/L4	Up to 2,048 rules (10G SKU)	Up to 2,048 rules
1.26. DHCP Snooping / DAI / IPSG	Yes / Yes / Yes	Yes (DoS Prevention included)	Yes (DoS Prevention included)
1.27. Storm Control	Broadcast, multicast, unknown unicast	Broadcast, multicast, unknown unicast	Broadcast, multicast, unknown unicast
1.28. Encrypted Management	SSH v1/v2, SSL/HTTPS, SNMPv3	SSL/HTTPS, SSH v1/v2	SSL/HTTPS, SSH v1/v2
1.29. AAA	RADIUS, TACACS+	RADIUS, TACACS+	RADIUS, TACACS+
1.30. Hardware Queues	8 per port	8 per port	8 per port
1.31. Scheduling	Strict Priority + WRR (Weighted Round-Robin)	Strict Priority + WRR	Strict Priority + WRR
1.32. Rate Limiting / Classification	Flow-based, sFlow agent	VLAN, port, flow; 802.1p/DSCP/DiffServ	VLAN, port, flow; 802.1p/DSCP/DiffServ



1.33. Interfaces	Web (HTTP/HTTPS), CLI (Telnet/SSH)	Web (HTTP/HTTPS), CLI (Telnet/SSH)	Web (HTTP/HTTPS), CLI (Telnet/SSH)
1.34. SNMP / RMON	v1/v2c/v3; RMON Groups 1-4	v1/v2c/v3; RMON 4 groups	v1/v2c/v3; RMON 4 groups
1.35. Other Protocols	LLDP-MED, NTP, Syslog, TFTP/SCP/HTTP	LLDP-MED, SNMP, Syslog, TFTP/SCP, Port/VLAN Mirroring	LLDP-MED, SNMP, Syslog, TFTP/SCP, Port/VLAN Mirroring
1.36. Dual Firmware Image	Yes	Yes	Yes
1.37. Form Factor	Compact 1U; fanless	1U rack-mountable, fan-cooled	1U rack-mountable; multi-fan active cooling
1.38. Dimensions (WxDxH)	26.9 × 23.8 × 4.44 cm	445 × 299 × 44 mm	445 × 350 × 44 mm
1.39. Weight	2.31 kg	3.68 kg	5.43 kg
1.40. Mounting	Wall, rack (19"/23"/24"), DIN rail, magnet	Rack-mountable	Rack-mountable
1.41. CPU	-	Dual-core ARM 1.5 GHz	Dual-core ARM 1.5 GHz
1.42. Input Voltage	100-240V AC, 50/60 Hz	100-240V AC, 50/60 Hz	100-240V AC, 50/60 Hz
1.43. System Power (no PoE)	18.3 W @ 110V / 20.5 W @ 220V	~30-32W	~47W
1.44. System Power (max PoE)	152.7 W @ 110V / 151.8 W @ 220V	~236-240W	~449-463W
1.45. Heat Dissipation	520.7 BTU/hr	804.1 BTU/hr	1,579.28 BTU/hr
1.46. PSU	Internal	Internal	Internal
1.47. Operating Temp.	-5°C to 45°C	-5°C to 50°C	-5°C to 50°C
1.48. Storage Temp.	-20 °C to 70 °C	-20 °C to 70 °C	-20 °C to 70 °C
1.49. Operating Humidity	10-90% non-condensing	10-90% non-condensing	10-90% non-condensing
1.50. Operating Altitude	Up to 3,048 m	Up to 3,048 m (10,000 ft)	Up to 3,048 m (10,000 ft)
1.51. MTBF	~1,547,560 hrs (Telcordia SR-332 @ 25 °C)	-	-
1.52. Safety	UL/CSA 62368-1, EN 62368-1, IEC 62368-1, CB	UL/CSA 62368-1, EN 62368-1, IEC 62368-1, CB Scheme (add EN/IEC/CB)	UL/CSA 62368-1, EN 62368-1, IEC 62368-1, CB Scheme
1.53. EMC	FCC Part 15 Class A, CE, CISPR32 Class A, VCCI Class A, ICES-003, AS/NZS CISPR 32	FCC Part 15 Class A, CE, CISPR32 Class A, VCCI Class A, ICES-003, AS/NZS CISPR 32	FCC Part 15 Class A, CE, CISPR32 Class A, VCCI Class A, ICES-003, AS/NZS CISPR 32
1.54. Environmental	RoHS, REACH, WEEE compliant	RoHS, REACH, WEEE compliant	RoHS, REACH, WEEE compliant
1.55. Key Standards	IEEE 802.3, 802.3u, 802.3ab, 802.3z, 802.3ae, 802.3an, 802.3x, 802.3ad, 802.3af, 802.3at, 802.3az, 802.1D, 802.1Q/p, 802.1w, 802.1s, 802.1X, 802.1AB	IEEE 802.3/u/ab/z, 802.3af/at, 802.1D/w/s/Q/p/X/AB/ad/az, 802.3x	IEEE 802.3/u/ab/z, 802.3af/at, 802.1D/w/s/Q/p/X/AB/ad/az, 802.3x

