



नगर कार्यपालिकाको कार्यालय

Office of the Municipal Executive



(Google Plus Code: C8RJ+C6 Neulapur)

सैनवार, बर्दिया
Sainawar, Bardiya

लुम्बिनी प्रदेश, नेपाल
Lumbini Province, Nepal



दरभाउपत्र (कोटेशन) पेश गर्ने सम्बन्धी सार्वजनिक सूचना !!

(प्रकाशित मिति: २०८२/११/०८ गते, ने. सं. ११४६ चिल्लाथ्व: ३, शुक्रबार)

उपरोक्त सम्बन्धमा यस नगरपालिकाको कार्यालयमा इन्टरनेट, सी. सी. टि. भि. लगायतका नेटवर्कको क्षमता सुधारका लागि नेटवर्किङ्ग गर्नुपर्ने भएकाले यसै सूचना साथ संलग्न BoQ र Specifications बमोजिमको कार्यका लागि (उल्लेखित सामग्रीहरूको पछि परिमाण थपघट भएमा सोही दरमा उपलब्ध गराउने गरि) दरभाउपत्र (कोटेशन) यो सूचना प्रकाशित भएको मितिले ७(सात) दिन भित्र देहाय बमोजिमको आवश्यक कागजातहरू सहित खामबन्दी गरि पेश गर्नुहुन सम्बन्धित सबैको जानकारीका लागि यो सूचना प्रकाशित गरिएको छ।

आवश्यक कागजातहरू:

१. रितपूर्वक भरेको BoQ ।
२. व्यवसाय दर्ता प्रमाणपत्रको प्रतिलिपी ।
३. स्थायी लेखा (प्यान)/ भ्याट नम्बर दर्ता प्रमाण पत्रको प्रतिलिपी ।
४. कर चुक्ता प्रमाण पत्रको प्रतिलिपी (आ. व. २०८१/०८२ वा म्याद थप) ।
५. यस नगरपालिकामा सूचिकृत भएको प्रमाणपत्र वा सूचिकृत हुनका लागि राजश्व तिरेको भौचर सहितको निवेदन ।
६. ठाकुरबाबा नगरपालिकाको राजश्व शाखामा रु. १००० तिरेको रसिदको प्रतिलिपी ।
७. पछिल्लो २ वर्ष यता कम्तिमा कुनै दुईवटा निकाय वा संस्थामा नेटवर्किङ्ग सम्बन्धी कार्य गरेको अनुभव ।
८. दरभाउपत्र स्विकृत भएमा कार्यसम्पादन जमानत (बैंक ग्यारेन्टी) समेत राख्नुपर्नेछ ।

(नोट: उपलब्ध गराउने सामग्रीको Brand र Model Name वा नम्बर साथै Product को Description सहितको Data Sheet अनिवार्य पेश गर्नुपर्ने छ।)

२०८२/११/०८
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1. PROJECT OVERVIEW

The Thakurbaba Municipality intends to procure and deploy an **integrated wired and wireless networking solution** that shall:

- Integrate **existing IP-based CCTV network**
- Provide **secure wired and wireless connectivity**
- Support **VLAN-based network segmentation**
- Support **dual-ISP internet connectivity with load balancing**
- Be scalable, manageable, and suitable for municipal operations

2. SCOPE OF WORK

The successful bidder shall be responsible for the **supply, installation, configuration, testing, commissioning, documentation, and support** of an **integrated networking solution** for **Thakurbaba Municipality**, in accordance with the approved design, technical specifications, and prevailing standards.

The scope of work shall include, but not be limited to, the following:

1. LAN / WAN Networking and Structured Cabling

- Design and deployment of a secure and scalable **LAN/WAN network**.
- Supply and installation of **structured cabling system (Cat-6 or better)** including accessories.
- Testing and certification of all network points to ensure compliance with relevant standards.
- Fiber connection from ISP device → Firewall/Gateway → Managed PoE Switch

2. Routing and Firewall System (Dual ISP)

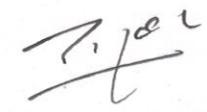
- Supply, installation, and configuration of an **enterprise-grade firewall system**.
- Configuration of **dual Internet Service Providers (ISPs)** with **load balancing and automatic failover**.
- Implementation of firewall security policies, network address translation (NAT), and basic threat protection.

3. Wireless Network Setup

- Deployment and configuration of **indoor wall-mounted wireless access points**.
- Deployment and configuration of **indoor ceiling-mounted wireless access points** for high-density areas.
- Deployment and configuration of **outdoor long-range wireless access point(s)**.
- Configuration of multiple SSIDs, security settings, and performance optimization.


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4. Integration with Existing CCTV Network

- Integration of the proposed network with the **existing IP-based CCTV system**.
- Segregation of CCTV traffic using **dedicated VLAN(s)***
- Ensuring uninterrupted operation and secure isolation of CCTV services.

5. VLAN Design, Configuration, Documentation, and Training

- Design and implementation of **VLAN-based network segmentation** as required.
- Configuration of VLANs across firewall, switches, and wireless access points.
- Preparation and submission of **as-built network documentation**, including logical and physical diagrams.
- **Basic operational training** to designated municipal IT persons.

6. Warranty, Support, and Maintenance

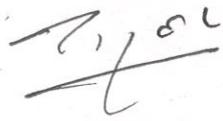
- Provision of **minimum one (1) year comprehensive warranty** for all supplied equipment and services.
- Provision of **local technical support** during the warranty period is must.
- Rectification of defects and configuration issues during the warranty period in accordance with agreed service response time.

General Conditions

- All equipment supplied shall be **brand new and unused**.
- The bidder shall comply with the **Public Procurement Act, 2063 and Public Procurement Regulation, 2064 of Nepal**.
- Any work not explicitly mentioned but required for successful completion of the project shall be deemed to be included within the scope of work.


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3. TECHNICAL SPECIFICATIONS

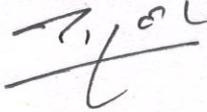
❖ The Bidder must mention the Brand Name, Model Number and should provide the datasheet of the product.

3.1 ENTERPRISE NEXT-GENERATION FIREWALL

SN	Parameter	Technical Requirement
1	Brand Name	
2	Model Number	
3	Device Type	Enterprise-grade Next-Generation Firewall/Gateway
4	Condition	Brand new, unused
5	Firewall Throughput	≥ 10 Gbps
6	NGFW Throughput	≥ 1 Gbps
7	Threat Protection Throughput	≥ 1 Gbps
8	WAN Interfaces	Minimum 2 × Gigabit Ethernet
9	LAN Interfaces	Minimum 4 × Gigabit Ethernet
10	SFP Ports	Minimum 2 × 1G SFP
11	VPN	IPSec & SSL VPN supported
12	Dual ISP	Mandatory – Load balancing & failover
13	VLAN	IEEE 802.1Q VLAN support
14	Routing	Static, OSPF, BGP
15	Security Features	IPSec, Antivirus, Web Filtering, App Control
16	Management	Web GUI & CLI
17	HA Capability	Active-Passive or Active-Active
18	Warranty	Minimum 1 year with local support


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3.2 MANAGED POE SWITCH

SN	Parameter	Technical Requirement
1	Brand Name	
2	Model Number	
3	Switch Type	Layer-2+/Layer-3 Managed PoE Switch
4	Ethernet Ports	Minimum 24 × Gigabit Ethernet
5	PoE Standard	IEEE 802.3 af/at or equivalent
6	PoE Power Budget	≥ 370 W
7	Uplink Ports	Minimum 4 × SFP/SFP+
8	VLAN	IEEE 802.1Q or Equivalent
9	QoS	Supported
10	IGMP Snooping	Supported
11	Security	Port security, storm control
12	Management	Web GUI, CLI, SNMP
13	Rack Mount	Mandatory
14	Power	220-240V AC
15	Warranty	Minimum 1 year

3.3 INDOOR WALL-MOUNTED ACCESS POINT

Quantity: 15 to 20 (as required)

SN	Parameter	Technical Requirement
1	Brand Name	
2	Model Number	
3	AP Type	Indoor wall-mount wireless access point
4	Wi-Fi Standard	IEEE 802.11ac Wave 2 or higher
5	Frequency Bands	Dual-band (2.4 GHz & 5 GHz)
6	MIMO	2×2 MU-MIMO
7	Max Data Rate	≥ 1.2 Gbps aggregate or equivalent
8	Ethernet Ports	Minimum 2 × Gigabit Ethernet
9	PoE	IEEE 802.3af
9	VLAN	Supported
10	Security	WPA2/WPA3
10	SSIDs	Minimum 5 or equivalent
11	Mounting	Wall-mounted
12	Management	Centralized/cloud/local controller
13	Warranty	Minimum 1 year

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3.4 INDOOR CEILING-MOUNTED ACCESS POINT

SN	Parameter	Minimum Technical Requirement
1	Brand Name	
2	Model Number	
1	AP Type	Indoor ceiling-mount enterprise AP
2	Wi-Fi Standard	IEEE 802.11ax (Wi-Fi 6)
3	MIMO	4×4 MU-MIMO
4	Max Throughput	≥ 3 Gbps
5	PoE	IEEE 802.3at
6	Concurrent Clients	≥ 250 clients or equivalent
7	VLAN	Supported
8	Security	WPA2/WPA3 Enterprise
9	SSIDs	≥ 5 or equivalent
10	Mounting	Ceiling
11	Management	Centralized/Cloud
12	Warranty	Minimum 1 year

3.5 OUTDOOR LONG-RANGE ACCESS POINT

SN	Parameter	Minimum Technical Requirement
1	Brand Name	
2	Model Number	
1	AP Type	Outdoor long-range wireless AP
2	Wi-Fi Standard	IEEE 802.11ac/ax
3	Coverage	≥ 200 meters outdoor range
4	Antenna	High-gain internal or external
5	Weather Rating	IP67 or better
6	PoE	IEEE 802.3at
7	VLAN	Supported
8	Security	WPA2/WPA3
9	Mounting	Pole/wall mount
10	Operating Temp	-20°C to +60°C
11	Warranty	Minimum 1 year

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3.6 6U Rack

SN	Parameter	Minimum Technical Requirement
1	Rack Height	6U
2	Ventilation	The rack shall have proper ventilation slots.
3	Front Door	Lock System
4	Mounting Type	Wall-mounted
5	Material	High-quality steel
6	Load Capacity	Minimum 25 kg
7	Cooling	Provision for minimum two cooling fans. At least one cooling fan should be attached.
8	Finish	Anti-rust, corrosion-resistant powder coating

3.7 CAT6 Cable

SN	Description	Specification
1	Cable Category	Category 6 (CAT6)
2	Cable Type	Unshielded Twisted Pair (UTP)
3	Number of Pairs	4 twisted pairs
4	Data Rate Support	Minimum 1 Gbps (1000Base-T)
5	Conductor Material	Solid bare copper
6	Identification & marking	Cable shall be meter-marked at 1-meter intervals.
7	Insulation Material	High Density Polyethylene (HDPE)

4. VLAN & NETWORK DESIGN REQUIREMENTS

VLAN	Purpose
VLAN-A	Administration
VLAN-B	CCTV*
VLAN-C	Staff Wi-Fi
VLAN-D	Guest Wi-Fi
VLAN-E	Network Management

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5. INSTALLATION, CONFIGURATION & DOCUMENTATION

The bidder shall provide:

- Physical installation
- VLAN & firewall configuration
- Dual ISP load balancing
- Wireless SSID configuration
- As-built network diagrams
- IP addressing plan
- Proper administrator training

6. WARRANTY & SUPPORT

Item	Requirement
Warranty	Minimum 1 year
Support	Authorized local support
SLA	Response within 24 hours
Firmware Updates	Included

7. TECHNICAL COMPLIANCE STATEMENT

- ❖ Bidders shall submit official manufacturer datasheets clearly demonstrating compliance with all specifications. Any deviation from mandatory requirements shall result in **technical disqualification**.

The bidder **must conduct a mandatory site visit** prior to bid submission to access the existing IP-CCTV system, networking plan, layout etc.

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Thakurbaba Municipality
Office of the Municipal Executive

Sainawar, Bardiya
Lumbini province
BoQ

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S.N.	Particular	Unit	Quantity	Rate	Amount	Amount in Words	Remarks
1	Security Gateway Router/Firewall	Nos	1				
2	Managed PoE Switch	Nos	2				
3	Indoor Wall Mounted Access Point	Nos	15				
4	Indoor Ceiling Mounted Access Point	Nos	2				
5	Outdoor Long Range Access Point	Nos	1				
6	6U Network Rack	Nos	1				
7	UTP CAT6 Cable With Pure Copper	Box	2				
8	Listic ≥ 50mm	Nos	30				
9	Clipping items and other Misc.	Set	1				
10	Installation cost (Listic, Wiring and Power Socket, Cable clipping)	Set	1				
Total							
VAT 13%							
Grand Total							
Grand Total in Words:							

Firm Name:

Firm Address:

Name of Representative:

Signature:

Date:

Contact Number:

Firm Stamp:

