



# गोदावरी नगरपालिका नगर कार्यपालिकाको कार्यालय



प.सं. : २०८२।८३

च.नं. : \_\_\_\_\_

अतरिपा, कैलाली  
नेपाल  
२०३३

अतरिपा, कैलाली  
नेपाल  
२०३३

मिति: २०८२।१०।२२

विषय : लागत अनुमान बनाउने प्रयोजनका लागि दररेट पेश गर्ने सम्बन्धमा ।

श्री इजाजत प्राप्त फर्म/सप्लायर्सहरु सबै,

प्रस्तुत विषय सम्बन्धमा यस नगर कार्यपालिकाको भवनमा सिसिटीभी तथा इन्टरनेट जडान गर्ने कार्यका लागि संलग्न स्पेसिफिकेशन बमोजिमका सामग्रीहरूको के कति दररेटमा उपलब्ध गराउन सकिन्छ, सो को दररेट ७ दिन(कार्यालय समय) भित्र यस कार्यालयको इमेल [ito.godawarimunkailali@gmail.com](mailto:ito.godawarimunkailali@gmail.com) वा कार्यालयमा पेश गर्नुहुन अनुरोध छ।

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## धर्मराज बिनाडी प्रमुख प्रशासकीय अधिकृत

धर्मराज विनाई  
गम्भ प्रशासकीय अधिकृत



**Godawari Municipality**  
**Office of Municipal Executive**  
**Attariya, Kailali**

नारायणी नगरपालिका  
 नारायणी कार्यपालिकाको बालाको  
 अत्तरिधा, कैलाली  
 उत्तरपश्चिम प्रदेश, नेपाल  
 २०७३



**Fiscal Year: 2082/83**

**Technical Specification**

S. N.	Description	Requirement	Remarks
<b>NVR 64 channel</b>			
1	Item	64 Channel Network Video Recorder	
2	Brand	Any [Bidder Must Specify Brand]	
3	Model	Any [Bidder Must Specify Model]	
4	Origin	Any [Bidder Must Specify]	
5	Video Input	Minimum 64 channels	
6	Video Output	At least 2 HDMI, 1 VGA	
7	Max Recording Resolution	Up to 12MP or better	
8	Video Compression	H.265+/Advanced compression format equivalent	
9	Incoming Bandwidth	Minimum 320 Mbps	
10	Outgoing Bandwidth	Minimum 160 Mbps	
11	Playback	16 channels synchronous	
12	Audio	1 RCA input / 1 RCA output, Two-way audio supported	
13	Decoding Capability	Multiple resolutions & frame rates as per codec	
14	Hard Disk Bays	Minimum 8 x SATA, each supporting up to Min. 10 TB	
15	Total Storage	Minimum 80 TB	
16	Network Interfaces	2 x RJ-45 Gigabit Ethernet ports	
17	Redundancy	Supports N+1 Hot Spare or RAID (0,1,5,6,10)	
18	ANR	Automatic Network Replenishment supported	
19	Cloud Upgrade	Supported	
20	Certifications	CE, FCC, UL, RoHS, WEEE or equivalent international standards	
21	Dimensions	Any Standard	
22	Power Supply	100 – 240V AC	
23	Power Consumption	≤ 50W (without HDD)	
24	Certifications	CE, FCC, UL, RoHS or equivalent standards	
25	Warranty	2 Years of Warranty [Warranty to be covered by the Supplier/Bidder. Replacement/Repair must be handled by the Supplier.]	
26	Mandatory Document	i. Manufacturer Authorization Letter [Required from the OEM, explicitly confirming 2 Years of Warranty support for the quoted models.] ii. Warranty Commitment Letter: [Bidder must submit a letter on their letterhead confirming 2 years of support] iii. Datasheet Submitted [Original datasheet must be included.]	

**2 MP Indoor CCTV camera**

1	Item	2 MP Indoor Network Dome Camera	
2	Brand	Any [Bidder Must Specify Brand]	
3	Model	Any [Bidder Must Specify Model]	
4	Origin	Any [Bidder Must Specify]	
5	Max Resolution	Minimum 2 MP (1920 x 1080)	
6	Image Sensor	Minimum 1/2.7" or 1/2.8" or 1/2.9" Progressive Scan CMOS	
7	Minimum Illumination	Color ≤ 0.01 Lux (F2.0, AGC ON); 0 Lux with IR	
8	Day/Night	IR-cut filter with auto switch (ICR)	
9	Shutter Speed	Auto/Manual/ 1 – 1/100,000 s	
10	Adjustment Angle	Pan 0–355°, Tilt 0–65°, Rotate 0–355°	
11	S/N Ratio	≥ 52 dB	
12	Wide Dynamic Range	Digital WDR (DWDR)/True WDR or better	
13	Focal Length Options	2.8 mm / 3.6mm/ 4.0 mm fixed lens	
14	Aperture	F1.6/F2.0 or better	
15	Field of View	Horizontal ≥ 90° (for 2.8mm)	
16	DORI Distance	Detect ≥ 37m; Observe ≥ 14m; Recognize ≥ 7m; Identify ≥ 3m	

धर्मराज बिनाई  
 प्रशासकीय अधिकारी

गोपनीय नागरपालिका कार्यालय  
मतरिंदा, कैलाली  
प्रदेश प्रदेश, नेपाल  
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17	Supplemental Light	Infrared (IR)	
18	IR Distance	$\geq 30$ m	
19	Video Compression	H.265 / H.264 / H.265+ or equivalent	
20	Frame Rate	1080p @ 25/30 fps minimum	
21	Bit Rate	32 Kbps - 8 Mbps (or similar)	
22	Streams	Dual stream support	
23	ROI	Supported (1 fixed region or more)	
24	Privacy Mask	$\geq 4$ areas	
25	Image Settings	White Balance (Auto/Outdoor/Manual); 3D DNR; BLC / HLC	
26	Defog	Digital Defog	
27	Basic Detection	Motion detection, Video Tampering	
28	Audio Compression	G.711A / G.711U / PCM (If audio supported)	
29	Edge Storage	MicroSD support up to 256 GB	
30	Protocols	IPv4, TCP/IP, UDP, RTSP, HTTP, NTP, DHCP	
31	Integration	ONVIF (Profile S/G/T), API	
32	User Access	$\geq 20$ users	
33	Power Supply	DC 12V $\pm 25\%$ and PoE (IEEE 802.3af)	
34	Power Consumption	$\leq 9$ W	
35	Ingress Protection	IP67 (IEC 60529) or better	
36	Vandal Protection	IK10 or better	
37	Operating Temperature	-30°C to +60°C	
38	Surge Protection	$\geq 2$ kV or higher	
39	Compliance	CE, FCC, RoHS or equivalent	
40	Housing Material	Metal/Composite/Industrial-grade plastic	
41	Weight	Any Standard (Approx. 0.3kg - 0.6kg)	
42	Dimensions	Standard Dome form factor	
43	Warranty	2 Years of Warranty [Warranty to be covered by the Supplier/Bidder. Replacement/Repair must be handled by the Supplier.]	
44	Mandatory Document	i. Manufacturer Authorization Letter [Required from the OEM, explicitly confirming 2 Years of Warranty support for the quoted models.] ii. Warranty Commitment Letter: [Bidder must submit a letter on their letterhead confirming 2 years of support] iii. Datasheet Submitted [Original datasheet must be included.]	

#### 2 MP bullet Camera

1	Item	2 MP Outdoor Network Bullet Camera (Dual Light)	
2	Brand	Any [Bidder Must Specify Brand]	
3	Model	Any [Bidder Must Specify Model]	
4	Origin	Any [Bidder Must Specify]	
5	Max Resolution	Minimum 2 MP (1920 x 1080)	
6	Image Sensor	1/2.7", 1/2.8", or 1/2.9" Progressive Scan CMOS	
7	Minimum Illumination	Color $\leq 0.005$ Lux (F1.6, AGC ON); 0 Lux with Light ON	
8	Day/Night	IR-cut filter with auto switch (ICR)	
9	Shutter Speed	Auto/Manual, 1 - 1/100,000 s	
10	Adjustment Angle	Pan: 0° to 360°, Tilt: 0° to 90°, Rotate: 0° to 360° (Adjustable Bracket)	
11	S/N Ratio	$\geq 52$ dB	
12	Wide Dynamic Range	Digital WDR (DWDR)/True WDR or better	
13	Focal Length Options	2.8 mm or 4.0 mm fixed lens	
14	Aperture	F1.6/F2.0 or better	
15	Field of View	Horizontal $\geq 100$ ° (for 2.8mm model)	
16	Detect Distance	Detect $\geq 44$ m; Observe $\geq 17$ m; Recognize $\geq 8.5$ m; Identify $\geq 4$ m	
17	Supplemental Light	Dual Light Support (Infrared + Warm/White Light)	
18	IR/Light Distance	$\geq 30$ m	
19	Video Compression	H.265 / H.264 / H.265+ or equivalent	
20	Frame Rate	1080p @ 25/30 fps minimum	
21	Bit Rate	128 Kbps - 6 Mbps (or similar)	
22	Streams	Dual stream support	

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23	ROI	Supported (1 fixed region or more)
24	Privacy Mask	≥ 4 areas
25	Image Settings	White Balance; 3D DNR; BLC / HLC; Defog; Image Flip
26	Smart Features	Motion Detection, Human Body Detection (or similar classification)
27	Image Flip	Vertical / Horizontal / 180°
28	Audio Compression	G.711A / G.711U (If audio supported)
29	Built-in Microphone	Supported (Built-in)
30	Edge Storage	MicroSD support up to 256 GB (Standardized from 512GB to allow more bids)
31	Protocols	IPv4, TCP/IP, UDP, RTSP, HTTP, NTP, DHCP
32	Integration	ONVIF (Profile S/G/T), API
33	User Access	≥ 20 users
34	Power Supply	DC 12V ± 25% and PoE (IEEE 802.3af)
35	Power Consumption	≤ 9.0 W
36	Ingress Protection	IP67 (Dust and Water Resistant) or better
37	Housing Material	Metal or Industrial-grade Metal + Plastic Composite
38	Operating Temperature	-30°C to +60°C or higher
39	Surge Protection	≥ 2 kV (Maintained high spec for indoor safety)
40	Compliance	CE, FCC, RoHS or equivalent
41	Weight	Approx. 0.2 kg - 0.5 kg
42	Dimensions	Standard Bullet form factor
43	Warranty	2 Years of Warranty [Warranty to be covered by the Supplier/Bidder. Replacement/Repair must be handled by the Supplier.]
44	Mandatory Document	i. Manufacturer Authorization Letter [Required from the OEM, explicitly confirming 2 Years of Warranty support for the quoted models.] ii. Warranty Commitment Letter: [Bidder must submit a letter on their letterhead confirming 2 years of support] iii. Datasheet Submitted [Original datasheet must be included.]

#### 4 MP CCTV Camera

1	Item Name	4 MP Bullet Network Camera
2	Brand	Any [Bidder Must Specify Brand]
3	Model	Any [Bidder Must Specify Model]
4	Origin	Any [Bidder Must Specify]
5	Resolution	Minimum 4 MP (2560 x 1440)
6	Image Sensor	1/2.7" or 1/2.8" or 1/2.9" Progressive Scan CMOS
7	Min. Illumination	Color ≤ 0.01 Lux (F2.0 or better, AGC ON); 0 Lux with IR
8	Day/Night	IR-cut filter with auto switch (ICR)
9	Shutter Speed	Auto/Manual, 1/3 ~ 1/100,000 s
10	Adjustment	Pan: 0°~360°, Tilt: 0°~90°, Rotate: 0°~360°
11	S/N Ratio	≥ 52 dB
12	WDR	Digital WDR (DWDR) or 120dB True WDR
13	Lens	2.8 mm or 4.0 mm fixed lens
14	FOV	Horizontal ≥ 90° (for 2.8mm)
15	Detect Dist.	≥ 58 m (for 2.8 mm)
16	Observe Dist.	≥ 23 m (2.8 mm)
17	Recog. Dist.	≥ 11 m (2.8 mm)
18	Identify Dist.	≥ 5 m (2.8 mm)
19	IR Range	≥ 30 m
20	Compression	H.265 / H.264 / H.265+ or equivalent
21	Frame Rate	4 MP @ 20 fps (or better)
22	Bit Rate	32 Kbps - 8 Mbps (or similar)
23	Streams	Dual stream support
24	Audio	Built-in Microphone Supported
25	Audio Codec	G.711A / G.711U / PCM / AAC
26	Edge Storage	MicroSD support up to 256 GB (or higher)
27	Protocols	TCP/IP, HTTP, DHCP, RTSP, NTP, ONVIF (S/T)
28	User Access	≥ 20 users

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29	Power	DC 12V $\pm$ 25% and PoE (IEEE 802.3af)	पॉर्ट वर्सरी प्रायगराम कैलाली पुर्वोत्तर देश, नेपाल २०८३
30	Consumption	$\leq$ 9.0 W	
31	Protection	IP67 (Water/Dust Proof)	
32	Material	Metal and Plastic (or Metal)	
33	Weight	Any Standard (Approx. 0.3kg - 0.5kg)	
34	Dimensions	Standard Bullet form factor	
35	Warranty	2 Years of Warranty [Warranty to be covered by the Supplier/Bidder. Replacement/Repair must be handled by the Supplier.]	
36	Mandatory Document	i. Manufacturer Authorization Letter [Required from the OEM, explicitly confirming 2 Years of Warranty support for the quoted models.] ii. Warranty Commitment Letter: [Bidder must submit a letter on their letterhead confirming 2 years of support] iii. Datasheet Submitted [Original datasheet must be included.]	

#### Monitor 55" (Smart TV)

1	Brand	Any [Bidder Must Specify Brand]	
2	Model	Any [Bidder Must Specify Model]	
3	Origin	Any [Bidder Must Specify]	
4	Product Type	Professional Grade 4K LED Monitor	
5	Panel Size	Minimum 55-inch	
6	Resolution	3840 $\times$ 2160 (4K UHD)	
7	Refresh Rate	60Hz or better	
8	Response Time	Maximum 8ms	
9	Color Support	Minimum 1.07 billion colors	
10	Brightness	Minimum 300 cd/m <sup>2</sup>	
11	Contrast Ratio	Minimum 1200:1	
12	Backlight	LED or better	
13	Pixel Pitch	Approx. 0.315 $\times$ 0.315 mm	
14	Viewing Angle	178° (H) / 178° (V)	
15	Connectivity	Minimum 2 $\times$ HDMI, 1 $\times$ DP ports (optional)	
16	Audio	Min Built-in 2 $\times$ 10W speakers	
17	Mounting	VESA standard (200/300mm $\times$ 200/300mm)	
18	Continuous Operation	24/7 operational capability	
19	Additional Features	Automatic color & image enhancement, ultra-narrow bezel, slim profile, stable structure	
20	Weight	Net weight Max approx. 19 kg; Gross weight Max. approx. 25 kg	
21	Warranty	2 Years of Warranty [Warranty to be covered by the Supplier/Bidder. Replacement/Repair must be handled by the Supplier.]	
22	Mandatory Document	i. Manufacturer Authorization Letter [Required from the OEM, explicitly confirming 2 Years of Warranty support for the quoted models.] ii. Warranty Commitment Letter: [Bidder must submit a letter on their letterhead confirming 2 years of support] iii. Datasheet Submitted [Original datasheet must be included.]	

#### 16 port PoE switch

1	Brand	Any [Bidder Must Specify Brand]	
2	Model	Any [Bidder Must Specify Model]	
3	Origin	Any [Bidder Must Specify]	
4	Item Type	Unmanaged Ethernet Switch, Layer 2	
5	Intended Application	CCTV, IP surveillance, office LAN	
6	Total Ethernet Ports	Minimum 18 ports	
7	Access Ports	16 $\times$ 10/100/1000BASE-T RJ45 Ethernet ports	
8	Uplink Ports	Minimum 2 uplink ports (10/100/1000 Mbps)	
9	Optical / Combo Ports	Minimum 2 $\times$ 1GE SFP or Combo ports	
10	PoE Standard	IEEE 802.3af / IEEE 802.3at (PoE / PoE+)	
11	PoE Ports	Min. 16 PoE-enabled RJ45 ports	
12	PoE Power Budget	$\geq$ 230 W	
13	PoE Watchdog	Supported	
14	Long Distance Mode	Up to 200 m at reduced speed (CCTV use)	
15	Forwarding Rate	$\geq$ 25 Mpps	

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16	Switching Capacity	$\geq 35$ Gbps	प्राप्ति नाम पालिंग अमृतपुरा, कलारी गुजरात प्रदेश, भारत 23.03
17	MAC Address Table	$\geq 8,000$ entries	
18	Flow Control	Supported	
19	Port Isolation	Supported	
20	Broadcast Storm Control	Supported	
21	Form Factor	19-inch rack mountable	
22	Casing	Metal enclosure	
23	Fan	Fixed Fan(preference) or fanless	
24	Cooling	Air Cooling( Front-to-Rear or Side-to-Side) or Active cooling	
25	Power Input	100-240 V AC, 50/60 Hz	
26	Power Consumption (No PoE)	Max. 50W	
27	Power Consumption (Full PoE)	230-250 W	
28	Operating Temperature	0°C to +45°C or better	
29	Storage Temperature	-40°C to +70°C or better	
30	Surge Protection	Service $\geq \pm 4$ kV, Power $\geq \pm 6$ kV	
31	MTBF	$\geq 200,000$ hours	
32	EMC Compliance	EN 55032 / EN 55035 or equivalent	
33	Safety Compliance	IEC / EN 62368-1 or equivalent	
34	Regulatory	CE/FCC or equivalent	
35	Warranty	2 Years of Warranty [Warranty to be covered by the Supplier/Bidder. Replacement/Repair must be handled by the Supplier.]	
36	Mandatory Document	i. Manufacturer Authorization Letter [Required from the OEM, explicitly confirming 2 Years of Warranty support for the quoted models.] ii. Warranty Commitment Letter: [Bidder must submit a letter on their letterhead confirming 2 years of support] iii. Datasheet Submitted [Original datasheet must be included.]	

**24 port PoE switch(unmanaged)**

1	Brand	Any [Bidder Must Specify Brand]	
2	Model	Any [Bidder Must Specify Model]	
3	Origin	Any [Bidder Must Specify]	
4	Switch Type	Unmanaged Ethernet Switch, Layer 2	
5	Intended Application	CCTV, IP surveillance, office LAN	
6	Total Ethernet Ports	Minimum 26 ports	
7	Access Ports	Minimum $24 \times 10/100$ or /1000 Mbps RJ45 Ethernet ports	
8	Uplink Ports	Minimum 2 uplink ports (1G RJ45 and/or 1GE SFP)	
9	Optical Port	Minimum 1 x 1G SFP or Combo port	
10	PoE Standard	IEEE 802.3af / IEEE 802.3at (PoE / PoE+)	
11	PoE Ports	24 PoE-enabled RJ45 ports	
12	PoE Power Budget	$\geq 300$ W	
13	PoE Watchdog	Supported	
14	Long Distance Mode	Up to 200 m at reduced speed (CCTV use)	
15	Forwarding Rate	$\geq 6.5$ Mpps	
16	Switching Capacity	$\geq 8.8$ Gbps	
17	MAC Address Table	$\geq 8,000$ entries	
18	Flow Control	Supported	
19	Port Isolation	Supported	
20	Broadcast Storm Control	Supported	
21	Form Factor	19-inch rack mountable	
22	Casing	Metal enclosure	
23	Cooling	Active cooling with internal fan(s)	
24	Noise Level	$\leq 50$ dB at room temperature	
25	Power Input	100-240 V AC, 50/60 Hz	
26	Power Consumption (No PoE)	$\leq 20$ W	
27	Power Consumption (Full PoE)	$\leq 400$ W	
28	Operating Temperature	0°C to +45°C or better	
29	Storage Temperature	-40°C to +70°C	

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30	Operating Humidity	10% to 90% RH, non-condensing
31	Operating Altitude	-500 m to +5,000 m
32	ESD Protection	Air $\geq$ 8 kV, Contact $\geq$ 6 kV
33	Surge Protection	Service $\geq$ $\pm$ 4 kV, Power $\geq$ $\pm$ 6 kV
34	MTBF	$\geq$ 200,000 hours
35	EMC Compliance	EN 55032 / EN 55035 or equivalent
36	Safety Compliance	IEC / EN 62368-1 or equivalent
37	Regulatory	CE/FCC or equivalent
38	User Manual	User Manual / Quick Start Guide included
39	Warranty	2 Years of Warranty [Warranty to be covered by the Supplier/Bidder. Replacement/Repair must be handled by the Supplier.]
40	Mandatory Document	i. Manufacturer Authorization Letter [Required from the OEM, explicitly confirming 2 Years of Warranty support for the quoted models.] ii. Warranty Commitment Letter: [Bidder must submit a letter on their letterhead confirming 2 years of support] iii. Datasheet Submitted [Original datasheet must be included.]

#### 8 port PoE switch(unmanaged)

1	Brand	Any [Bidder Must Specify Brand]
2	Model	Any [Bidder Must Specify Model]
3	Origin	Any [Bidder Must Specify]
4	Product Type	Industrial-grade PoE Switch
5	Management Type	Unmanaged or Web/Cloud management
6	Access Ports	8 $\times$ 10/100 (or 10/100/1000) Mbps PoE RJ45 Ports
7	Uplink Ports	2 $\times$ Gigabit uplink ports (At least 1 $\times$ SFP Slot)
8	Switching Capacity	Minimum 5.6 Gbps
9	Forwarding Performance	Minimum 4.17 Mpps
10	Jumbo Frame	Minimum 9K Bytes or Higher
11	Packet Buffer	Minimum 2 Mbit
12	MAC Address Table	Minimum 4K
13	Transfer Mode	Store-and-Forward
14	Max. PoE Power Budget	Minimum 120W
15	Max. PoE per Port	Minimum 30W
16	Indicators	PWR, LNK/ACT, PoE or more
17	Dimensions (W $\times$ D $\times$ H)	Must fit in cabinet /Bidder shall specify
18	Operating Temperature	-30°C to 65°C (or better)
19	Operating Humidity	5% ~ 95% (non-condensing)
20	Surge Protection	Power $\geq$ 4KV, Signal $\geq$ 4KV (or better)
21	PoE Support	IEEE 802.3af/at compliant
22	Network Standard	IEEE 802.3, 802.3u, 802.3z, 802.3ab, 802.3x or equivalent
23	Surge Protection	Differential mode $\pm$ 2KV, Common mode $\pm$ 4KV
24	Certification	CE-EMC / FCC / CE-LVD / RoHS (or equivalent)
25	Warranty	2 Years of Warranty [Warranty to be covered by the Supplier/Bidder. Replacement/Repair must be handled by the Supplier.]
26	Mandatory Document	i. Manufacturer Authorization Letter [Required from the OEM, explicitly confirming 2 Years of Warranty support for the quoted models.] ii. Warranty Commitment Letter: [Bidder must submit a letter on their letterhead confirming 2 years of support] iii. Datasheet Submitted [Original datasheet must be included.]

#### UTP indoor CAT 6 cable

1	Brand	Any [Bidder Must Specify Brand]
2	Model	Any [Bidder Must Specify Model]
3	Origin	Any [Bidder Must Specify]
4	Category	UTP Category 6(Cat 6)
5	Test Standard	Fluke Permanent Link Test (90 m) Pass
6	Packing Length	305m $\pm$ 1m per box (Pull-box or Reel-in-box)
7	Rip-Cord	Yes
8	Separator	Yes

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9	Temperature Range	-20°C to 70°C (or better)
10	Conductor Material	100% Solid Bare Copper (BC).
11	Conductor Size	23 AWG
12	Bandwidth	Minimum 250 Mhz
13	Nominal O.D.	0.56 ± 0.01 mm
14	Insulation	HDPE, Diameter: 1.00 ± 0.05 mm
15	Sheath Material	PVC(Indoor use)
16	Sheath External O.D.	6.0 ± 0.4 mm
17	Sheath Thickness	0.5 ± 0.15 mm
18	Sheath Color	White (or as requested)
19	Surface Printing	Printed with Brand, Cat6, Cable Specs, and Meter Marking .
20	Certifications	UL / CE / RoHS / ISO/IEC 11801
21	Warranty	2 Years of Warranty[Warranty to be covered by the Supplier/Bidder. Replacement/Repair must be handled by the Supplier.]
22	Mandatory Document	<ol style="list-style-type: none"> <li>Manufacturer Authorization Letter [Required from the OEM, explicitly confirming 2 Years of Warranty support for the quoted models.]</li> <li>Warranty Commitment Letter:[Bidder must submit a letter on their letterhead confirming 2 years of support]</li> <li>Datasheet Submitted [Original datasheet must be included.]</li> </ol>

### UTP Outdoor CAT 6 cable

1	Brand	Any [Bidder Must Specify Brand]
2	Model	Any [Bidder Must Specify Model]
3	Origin	Any [Bidder Must Specify]
4	Product Name	Outdoor UTP Category 6 (Cat 6) Cable
5	Reference Standard	ISO/IEC11801, TIA-568-C.2
6	Conductor Material	100% Solid Oxygen-Free Copper (OFC)
7	Conductor AWG	23 AWG
8	Test Standard	Fluke Permanent Link Test (90 m) Pass
9	Sheath / Jacket	PE (Polyethylene) or HDPE
10	Sheath Color	Black (UV / Sunlight Resistant)
11	Waterproofing	Water Blocking Tape or Gel Filled
12	Rip-Cord	Yes
13	Ambient Temperature	-30°C to 75°C (or better)
14	DC Resistance	$\leq 9.5 \Omega / 100m$
15	Insulation Material	HDPE (High-Density Polyethylene)
16	Insulation Diameter	$0.98 \pm 0.09 \text{ mm}$
17	Nominal O.D.	$0.56 \pm 0.05 \text{ mm}$
18	Insulation Thickness	$0.2 \pm 0.02 \text{ mm}$
19	Sheath Thickness	$0.6 \pm 0.05 \text{ mm}$
20	Sheath External O.D.	$6.5 \pm 0.6 \text{ mm}$
21	Sheath Tensile Strength	$\geq 13.5 \text{ MPa (Sheath)}$
22	Separator (Cross)	Yes (Polyethylene Cross-Filler)
23	Packing Length	$305\text{m} \pm 1\text{m}$ per box (Pull-box or Reel-in-box)
24	Certifications	CE, RoHS, ISO 9001
25	Warranty	2 Years of Warranty [Warranty to be covered by the Supplier/Bidder. Replacement/Repair must be handled by the Supplier.]
26	Mandatory Document	<ol style="list-style-type: none"> <li>Manufacturer Authorization Letter [Required from the OEM, explicitly confirming 2 Years of Warranty support for the quoted models.]</li> <li>Warranty Commitment Letter:[Bidder must submit a letter on their letterhead confirming 2 years of support]</li> <li>Datasheet Submitted [Original datasheet must be included.]</li> </ol>

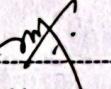
## Storage

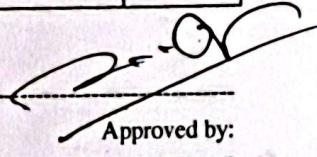
1	Brand	Any [Bidder Must Specify Brand]
2	Model	Any [Bidder Must Specify Model]
3	Origin	Any [Bidder Must Specify]
4	Product Type	Surveillance-Grade AI Hard Disk Drive
5	Capacity	Minimum 8 TB

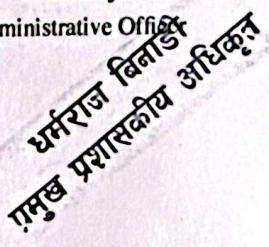
10

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6	Interface	SATA 6 Gb/s or better	नाम वर्ती नाम वर्ती का नाम कार्यपालिका का नाम अतिरिक्त कैलाली मुख्यमंच प्रदेश, नेपाल २०७३
7	Form Factor	3.5-Inch	
8	Spindle Speed	7200 RPM or above	
9	Cache	Minimum 256MB	
10	Recording Technology	CMR (Conventional Magnetic Recording)	
11	Workload Rate Limit	Minimum 300TB/year(or better)	
12	MTBF	Minimum 1.5 million hours	
13	Supported Workload	24/7 Surveillance, up to 64 HD cameras and 32 AI streams	
14	Reliability Features	Rotational Vibration (RV) Sensors	
15	Certifications	CE, FCC, RoHS, UL, RCM or equivalent	
16	Warranty	2 Years of Warranty [Warranty to be covered by the Supplier/Bidder. Replacement/Repair must be handled by the Supplier.]	
17	Mandatory Document	i. Manufacturer Authorization Letter [Required from the OEM, explicitly confirming 2 Years of Warranty support for the quoted models.] ii. Warranty Commitment Letter: [Bidder must submit a letter on their letterhead confirming 2 years of support] iii. Datasheet Submitted [Original datasheet must be included.]	

  
 Prepared by:  
 Manoj Bahadur Dhami  
 IT Officer

  
 Approved by:  
 Dharmaraj Binadi  
 Chief Administrative Officer

  
 धर्मराज बिनाडी  
 ग़ा़म्बु विनाडी अधिकारी



Godawari Municipality  
Office of Municipal Executive  
Attariya, Kailali  
Fiscal Year: 2082/83  
Technical Specification



गोदावरी नगरपालिका  
गोदावरी नगरपालिका कार्यालय  
गार कार्यपालिकाको कार्यालय  
अतरिया, कैलाली  
पश्चिम प्रदेश, नेपाल  
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S. N.	Description	Requirement	Remarks
<b>24 port Managed PoE switch</b>			
1	Brand	Any [Bidder Must Specify]	
2	Model	Any [Bidder Must Specify]	
3	Origin	Any [Bidder Must Specify]	
4	Product Category	Enterprise-Class Layer 2+ Managed Switch	
5	Intended Use	Enterprise / Government LAN, CCTV, Wi-Fi, IP devices	
6	RJ45 Ports	24 × 10/100/1000 Mbps Ethernet ports	
7	SFP Ports	Minimum 4 × 10G SFP+ ports (Backward compatible with 1G)	
8	Combo Ports	Not required	
9	PoE Standard	IEEE 802.3af / 802.3at (PoE / PoE+)	
10	PoE Enabled Ports	24 PoE-enabled RJ45 ports	
11	Total PoE Budget	≥ 370 Watts	
12	PoE Watchdog	Supported	
13	Switching Capacity	≥ 128 Gbps	
14	Forwarding Rate	≥ 95 Mpps	
15	Jumbo Frame (MTU)	≥ 9,000 bytes, configurable	
16	VLAN	IEEE 802.1Q VLAN support, Voice VLAN, Surveillance VLAN, Static Routing	
17	Port Isolation	Supported	
18	Broadcast Storm Control	Supported	
19	PoE Management	Per-port PoE control and monitoring	
20	Management Protection	Password-protected access, Cloud Management, Web GUI, CLI	
21	MTBF	≥ 400,000 hours	
22	Operating Temperature	0°C to +50°C or better operating capacity	
23	Operating Altitude	Upto 5,000 m	
24	Surge Protection	≥ ±6 kV on service and power ports	
25	Power Input	AC power input with standard power cord	
26	Mounting	19-inch rack mountable	
27	Accessories	Rack brackets, screws, power cord included	
28	Package Weight	≤ 7 kg	
29	User Manual	Quick Start Guide included	
30	Warranty	Minimum 2 Years of Warranty [Warranty to be covered by the Supplier/Bidder. Replacement/Repair must be handled by the Supplier.]	
31	Mandatory Document	i. Manufacturer Authorization Letter [Required from the OEM, explicitly confirming 2 Years of Warranty support for the quoted models.] ii. Warranty Commitment Letter: [Bidder must submit a letter on their letterhead confirming 2 years of support] iii. Datasheet Submitted [Original datasheet must be included.]	
<b>9U Network Rack</b>			
1	Brand	Any [Bidder Must Specify Brand]	
2	Model	Any [Bidder Must Specify Model]	
3	Origin	Any [Bidder Must Specify]	
4	Item Name	9U Wall-Mount Network Cabinet	
5	Standard	ANSI/EIA RS-310-D, IEC297-2, DIN41494; Part 1/7	
6	Mounting Standard	19-inch rack mounting compatible	
7	Application	LAN switches, Patch Panels, NVR, Router, ISP Equipment	

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8	Material	Cold-rolled steel (SPCC) or equivalent	गोदावरी नाम संकेत सरकारी कार्यपालिका, नाम संकेत जनरिया, नाम संकेत पुस्तकालय पुस्तकालय 2033
9	Surface Finish	Powder-coated after degreasing and phosphating	
10	Color	Black (RAL 9004) or equivalent	
11	Ingress Protection	IP20 or equivalent (indoor use)	
12	Rack Height	9U (Standard Unit)	
13	Rack Width	600 mm (Standard)	
14	Rack Depth	450 mm (Standard for Wall Mount)	
15	Mounting Type	Wall-mount type (Mounting Bolt/Bracket Included)	
16	Front Door	Toughened Glass Door with Lock	
17	Door Opening Angle	$\geq 180$ degrees	
18	Side Panels	Removable side panels with lock provision	
19	Static Load Capacity	$\geq 60$ kg	
20	Cooling Fan	Minimum 1 x 120mm AC Cooling Fan INSTALLED	
21	Ventilation	Ventilation slots provided on side panels and top	
22	Cable Entry	Top and bottom cable entry knock-outs with brush seal preferred	
23	Cable Routing	Provision for cable management	
24	Mounting Hardware	M6 cage nuts and screws included (Min 10 sets)	
25	Shelves	Included: 1 x Fixed Cantilever Tray (For ISP Device)	
26	Locking System	Keyed locks for front door	
27	Operating Temperature	0°C to +50°C	
28	Operating Humidity	10% to 90% RH, non-condensing	
29	PDU	Min 1 x 6-Port PDU (Universal Socket) with Switch Included	
30	Warranty	2 Years of Warranty [Warranty to be covered by the Supplier/Bidder. Replacement/Repair must be handled by the Supplier.]	
31	Mandatory Document	i. Manufacturer Authorization Letter [Required from the OEM, explicitly confirming 2 Years of Warranty support for the quoted models.] ii. Warranty Commitment Letter: [Bidder must submit a letter on their letterhead confirming 2 years of support] iii. Datasheet Submitted [Original datasheet must be included.]	

#### 27U Network Rack

1	Brand	Any [Bidder Must Specify Brand]	
2	Model	Any [Bidder Must Specify Model]	
3	Origin	Any [Bidder Must Specify]	
4	Item Name	27U Floor Standing Network Cabinet (Rack)	
5	Standard	ANSI/EIA RS-310-D, IEC297-2, DIN41494; Part 1, DIN41494; Part 7	
6	Mounting Standard	19-inch rack mounting compatible	
7	Application	LAN, CCTV, server, router, switch, and telecom equipment	
8	Frame & Panel Material	Cold-rolled steel or equivalent	
9	Surface Finish	Powder-coated after degreasing and phosphating	
10	Color	Black (RAL 9004) or equivalent	
11	Ingress Protection	IP20 or equivalent (indoor use)	
12	Rack Width	$\geq 600$ mm	
13	Rack Depth	$\geq 1000$ mm	
14	Mounting Type	Floor Standing on Castors	
15	Front Door	Toughened Glass Door	
16	Door Opening Angle	$\geq 180$ degrees	
17	Side Panels	Removable side panels with lock provision	
18	Rear Access	Perforated (Mesh) Steel Door	
19	Static Load Capacity	$\geq 600$ kg	
20	Frame Structure	Rigid welded steel frame	
21	Passive Ventilation	Ventilation slots or perforations provided	
22	Fan Provision	Provision for installing cooling fans	

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23	Cable Entry	Top and bottom cable entry with knock-out ports
24	Cable Routing	Provision for vertical and horizontal cable management
25	Mounting Hardware	M6 cage nuts and screws included
26	Shelves	Included: 2 x Fixed Trays
27	Feet / Castors	Heavy Duty Castors (Wheels) and Adjustable Feet Included
28	Locking System	Keyed locks for doors and panels
29	Operating Temperature	0°C to +50°C
30	Operating Humidity	10% to 90% RH, non-condensing
31	PDU	1 x 8-Port PDU (Universal Socket) with Switch included
32	Warranty	2 Years of Warranty [Warranty to be covered by the Supplier/Bidder. Replacement/Repair must be handled by the Supplier.]
33	Mandatory Document	i. Manufacturer Authorization Letter [Required from the OEM, explicitly confirming 2 Years of Warranty support for the quoted models.] ii. Warranty Commitment Letter: [Bidder must submit a letter on their letterhead confirming 2 years of support] iii. Datasheet Submitted [Original datasheet must be included.]

#### Core Router

1	Brand	Any [Bidder Must Specify Brand]
2	Model	Any [Bidder Must Specify Model]
3	Origin	Any [Bidder Must Specify]
4	Device Type	High-Performance Cloud Managed Security Router
5	Management	Free Public Cloud management + Web GUI + CLI or more
6	Form Factor	1U 19-inch rack-mountable
7	Throughput	Minimum 2.5 Gbps NAT Throughput
8	Concurrent Users	>1200 concurrent users
9	WAN Port	Minimum 1 x 10/100/1000 Mbps Ethernet
10	LAN Port	Minimum 1 x 10/100/1000 Mbps Ethernet
11	LAN/WAN Switchable Port	Minimum 6 x 10/100/1000 Mbps ports
12	Optical Ports	i) Minimum 1 x 1G SFP ports ii) Minimum 1 x 10G SFP+ Port (Mandatory for Uplink)
13	Processor	Minimum Quad-Core Processor , 1.2 GHz or better
14	Memory	≥ 2 GB RAM
15	Flash Memory	≥ 8 GB EMMC + 8 MB SPIFLASH
16	Hard Disk Drive	Min . 1 x SATA [ Support internal Hard Disk (up to 1TB) for Log Storage]
17	Internet Access	PPPoE, DHCP Client, Static IP
18	IPv6	Supported
19	VLAN	IEEE 802.1Q supported
20	NAT	Source and Destination NAT supported
21	SNMP	Supported
22	Static Routing	Supported
23	Dynamic Routing	RIP / RIPng / OSPFv2 supported
24	Policy-Based Routing	Supported
25	ECMP	Supported
26	Firewall	Stateful firewall with ACL support
27	Flow Control / DPI	Layer 7 Deep Packet Inspection (DPI) with Application-based Flow Control (block/limit Apps like YouTube/TikTok)
28	Access Controller (AC)	Built-in Wireless Controller
29	Web Filtering	Whitelist / Blacklist supported
30	DoS Protection	SYN / UDP / ICMP flood protection or equivalent
31	VPN Support	IPsec, L2TP, PPTP, OpenVPN (Up to 1,000 Tunnels)
32	Encrypted VPN Throughput	≥ 600 Mbps
33	User Authentication	Portal, Password, Voucher, SMS authentication

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34	Traffic Monitoring	User/application-level traffic monitoring
35	Load Balancing	Multi-WAN Load Balancing and Link Backup
36	Operating Temperature	0°C to +45°C or better
37	Operating Humidity	10% to 90% RH (non-condensing)
38	Power Input	100-240 V AC, 50/60 Hz
39	Compliance	CE, FCC, IEC/EN 62368-1 or equivalent
40	Included Items	Power cord, rack kit, console cable, manuals
41	Warranty	2 Years of Warranty [Warranty to be covered by the Supplier/Bidder. Replacement/Repair must be handled by the Supplier.]
42	Mandatory Document	<ol style="list-style-type: none"> <li>Manufacturer Authorization Letter [Required from the OEM, explicitly confirming 2 Years of Warranty support for the quoted models.]</li> <li>Warranty Commitment Letter: [Bidder must submit a letter on their letterhead confirming 2 years of support]</li> <li>Datasheet Submitted [Original datasheet must be included.]</li> </ol>

## Rj45 ethernet wall socket

1	Brand	Any [Bidder Must Specify Brand]
2	Model	Any [Bidder Must Specify Model]
3	Origin	Any [Bidder Must Specify]
4	Item Category	RJ45 Ethernet Wall Socket (Complete Set with Faceplate, Keystone Jack and Shutter)
5	Category Rating	Cat 6 (Category 6) or higher
6	Faceplate Size	Approx. 86mm x 86mm (UK/EU Standard) - Square Type
7	Material	High-impact, flame-retardant ABS Plastic / Polycarbonate (UL 94V-0)
8	Ports	Single port with integrated Dust Shutters
9	Wiring Standard	Dual T568A and T568B color coding labeled on the jack
10	Termination	IDC (Insulation Displacement Connector) for 22-26 AWG solid cable
11	PoE Support	Supports PoE (802.3af), PoE+ (802.3at), and PoE++ (802.3bt)
12	Durability	Minimum 750 mating cycles for RJ45 Jack; 200 cycles for IDC
13	Compliance	ISO/IEC 11801, ANSI/TIA-568-C.2, CE, and RoHS certified
14	Accessories	All mounting screws and ID labels included in the package
15	Labeling	Integrated transparent label window for port identification
16	Warranty	1 Year of Warranty [Warranty to be covered by the Supplier/Bidder. Replacement/Repair must be handled by the Supplier.]
17	Mandatory Document	i. Manufacturer Authorization Letter [Required from the OEM, explicitly confirming 1 Year of Warranty support for the quoted models.] ii. Warranty Commitment Letter.[Bidder must submit a letter on their letterhead confirming 1 year of support] iii. Datasheet Submitted [Original datasheet must be included.]

## Rigid PVC Ducts/Trunking

1	Brand	To be specified by bidder
2	Model	To be specified by bidder
3	Country of Origin	To be specified by bidder
4	Product Name	Cable Trunking / Cable Raceway
5	Material	Rigid PVC
6	Color	White
7	Type	Surface-mounted trunking system
8	Standard / Compliance	IEC / EN or equivalent
9	Fire Retardant	Self-extinguishing PVC (Flame retardant)
10	Size	25x16mm, 38x25mm, 75x25mm, 100x50mm or As per requirements
11	Length per Piece	Approx. 2 - 3 meter
12	Cover	Removable snap-on cover

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13	Accessories	Corners, coupler, end cap, T-joint as required	
14	Installation	Wall/ceiling surface mounting with proper fasteners	
15	Warranty	1 Year of Warranty [Formal commitment on Bidder's letterhead]	
<b>Installation &amp; Training</b>			
1	Installation and training	Includes Physical installation , Cabling , Network Configuration, Core Router Setup , CCTV setup	

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m/s.

Prepared by:

Manoj Bahadur Dhami

IT Officer



\_\_\_\_\_  
Dharmaraj Binadi

Approved by:  
Dharmaraj Binadi

Chief Administrative Officer

धर्मराज बिनाडी  
पासुख प्रशासकीय अधिकारी