

SUV/885/01/2022
High Commission of India
Suva

Invitation to Tender for Installation of CCTV Cameras at India House, Suva

Scope of Work

High Commission of India, Suva invites proposal for installation of CCTV Camera system at India House, Princess Road, Suva from the Companies having experience of working in this sector. Approximately 16 bullet (fixed lens) cameras with required NVR Channels and other accessories would be required to cover the complete site. Detailed specifications about camera and other technical requirements are attached herewith. There could be some modifications in requirements at later stage. Estimated cost of the overall work is FJ\$ 50,000/- (INR 18,65,672/-).

Eligibility Criteria

A Company participating in bidding process, is required to meet the following eligibility criteria:

- i The Company should be registered for doing such jobs in Fiji. (A registration certificate needs to be submitted along with the technical bid.)
- ii The Company should have experience of undertaking similar works in recent past (preferably last three years) and should provide details thereof.
- iii The Company should be competent enough to begin the work as soon as job is awarded and to finish it on a fast track mode.
- iv The Company should not have been barred/black-listed by the Government authorities in India, Fiji or elsewhere.

Submission of Bids

The Companies are requested to submit their proposals in two separate parts (in two separate sealed envelopes) as follows:

- i. **Technical Bid:** All required technical specifications should be provided in the format prescribed by High Commission. In case, some specification may not be met, a clear indication and suggested alternate may be given in the said format itself. Bid Security will also be included in Technical Bid.

Bid Security: Bid Security of FJ\$ 2,000/- (Fijian Dollar Two Thousand only) in the form of Insurance Security Bonds, Account Payee Demand Draft,

Fixed Deposit Receipt, Banker's Cheque, Bank Guarantee (including e-bank guarantee) from a commercial bank or online payment. Bid Security shall remain valid up to 45 days beyond the final bid validity period. {The Bid Security would be refunded to unsuccessful bidders after completion of the selection process without any interest within 30 days of declaration of result. In case of successful bidders, bid security would be refunded after signing of the agreement and receipt of performance security.}

ii. **Financial Bid:** Budgetary proposal for actual scope of work on the basis of attached detailed requirements/specifications.


2. Proposals as described above, should be submitted to the High Commission of India, Suva (Administration Division, Level 5, LIC Building, Butt Street, Suva, Fiji) by 5.30 pm on 21.09.2023.

3. Interested companies may contact the undersigned for pre-bid meetings / enquiries / site visit at email hoc.suva@mea.gov.in by 5.30 pm on 15.09.2023.

Evaluation of Bids and Award of Job

The High Commission would examine the technical bids in light of the security and technical parameters set by Government of India. Those who qualify the technical evaluation will only be considered for financial bid.

2. Job will be awarded on the basis of Quality and Cost Based Selection. Once the job is awarded, the selected company shall need to enter into an Agreement with the High Commission of India, Suva in terms of security and sensitivity involved in the job. The company will also submit a Performance Security of FJ\$ 2,000/- (Fijian Dollar Two Thousand only) in the form of Insurance Security Bonds, Account Payee Demand Draft, Fixed Deposit Receipt, Banker's Cheque, Bank Guarantee (including e-bank guarantee) from a commercial bank or online payment. Performance security shall remain valid up to 60 days beyond the date of completion of all contractual obligations of the company.


(Neerupma S. Kararha)
Head of Chancery
31.08.2023

(Neerupma S. Kararha)
Head of Chancery
High Commission of India
Suva

4 MP Fixed Bullet Camera for viewing distance up to 40 meters

KEY FEATURES			
S. No.	Parameter	Specification	Compliance and Specification
1	Image Sensor	1/3" Progressive CMOS or better	
2	Day / Night Operation	Automatic switch	
3	Min. Illumination	Color 0.02Lux, B/W: 0.05Lux or better	
4	Image Resolution	4 Mega Pixel or better	
5	Video Compression	H.264 / H.265	
6	Frame Rate	25 fps or better	
7	Stream	Dual or Above	
8	Motion Detection	Built in or IP integrated	
9	Wide Dynamic Range	120 dB or better	
10	IR	20 Mts or better	
11	Interface	RJ45 10BASE-T/100BASE-TX PoE	
12	Protocols	IPv4, IPv6, HTTP, HTTPS, SSL/TLS, DHCPv4/v6 and additional	
13	Security	User Authentication, IP Filtering and user access log	
14	Event Trigger	Motion detection and tamper detection	
15	Operating Temperature	Location specific	
16	Operating Humidity	Location specific	
17	Orvif	Should be compliant	
18	NDAA Compliant	The proposed camera should be NDAA Compliant	
19	Warranty	5 years OEM warranty or better	

SFP POE Switch

S/No.	Description	Specifications	Compliance
1	POE Port	8*10/100/1000 Port support IEEE802.3 af/at	16*10/100/1000 Port support IEEE802.3 af/at
			24*10/100/1000 Port support IEEE802.3 af/at
2	Switch capacity	5 Gbps or better	7Gbps or better
			8 Gbps or better
3	Transmission distance	100 – 150m	
4	Protocol standard	IEEE802.3af/IEEE802.3at	
5	POE type	End-span	
6	Network standard	IEEE802.3, IEEE802.3u, 802.3x, 802.3af/at	
7	Network medium	10/100//1000Mbps 5 class and above non shielded twisted pair	
8	SFP Port	Yes	
9	Forwarding Rate	100Mbps: 14880pps/1000Mbps:1480pps	
10	MAC Address	MAC address table 8K	
11	Port function	Power priority mechanism, fast and forward, MAC IEEE802.3x Full-duplex and mode and backpressure for half-duplex mode	
12	Indicator	Each port occupied 1 Link/Act 100Mbps POE Status Indicator, Whole power indicator	
13	Working Temperature	Location specific. Location with sub zero temperature should use industrial grade switches	

Server for Minimum 45 days back up

S.No.	Description	Specifications	Compliance
1	CPU	64-bit high performance, Minimum one Processor of 8 Core or higher Intel/AMD CPU operating at 2.1 GHz or more with a minimum of 11 MB L3 cache or higher	64-bit high performance, Minimum two Processor of 8 Core each or higher Intel/AMD CPU operating at 2.1 GHz or more with a minimum of 11 MB L3 cache or higher
2	Memory	32GB DDR RAM Upgradable to 512GB	64GB DDR RAM Upgradable to 1TB
3	Hard Drive	SAS 10k rpm or higher hot swappable Hard disk in raid 5 or 6 configuration having usable space of 45TB or more	SAS 10k rpm or higher hot swappable Hard disk in raid 5 or 6 configuration having usable space of 75TB or more
4	Recording Server	Rack Mountable	
5	Fans	Normal with Redundant FANS	
6	Network Adapter (NIC)	Dual 10/100/1000 Mbps ports	
7	Keyboard	USB Keyboard	
8	Mouse	Optical Mouse with scroll	
9	Operating System	Licensed MS Windows Server or Linux (Latest version)	
10	Anti-virus Software	Compatible with Windows/Linux with offline update provision	

Video Management System (VMS)		
S.No.	Specification	Compliance
1	The software should have inbuilt facility to store configuration of cameras.	
2	The software shall support flexible 1/4/9/16/25 user defined Windows Split screen display mode or scroll mode on the PC/Workstation monitor or on preview monitor as per site requirement.	
3	The software shall be able to control all cameras features such as PTZ control, auto/manual focus, and color balance of camera, selection of presets, video tour selection etc.	
4	The software is required to generate reports of stored device configuration. The control software is required to provide alarm and alarm log. The log shall be able to be archived, printed and displayed using a device filter, a device group filter and/or a time window.	
5	The software shall have user access authority configurable on per device or per device group basis. The authorized user shall have the facility to request the access of any camera and can control the camera for reservation period. Control of camera is released after the reservation period.	
6	The system software shall provide user activity log (audit trail) with user id, time stamp, and action performed, etc.	
7	The administrator shall be able to add, edit & delete users with rights. It shall be possible to view ability/rights of each user or the cameras which can be viewed & controlled as per the permission assigned by the administrator.	
8	The system software should provide analytic features such as Intrusion, Motion detection and Security device Alarm etc as per site requirement.	
9	The system software shall have recording modes viz. Continuous, manual, or programmed modes on date, time and camera-wise. All modes shall be disabled and enabled using scheduled configuration. It shall also be possible to search and replay the recorded images on date, time and camera-wise. It shall provide onscreen controls for remote operation of PTZ cameras.	
10	It shall have the facility for scheduled recording. Different recording speeds (fps) and resolution for each recording mode for each camera shall be possible.	
11	It shall provide programmable motion detection and recording, to be defined, area-wise.	
12	The settings shall be individually configurable for each alarm and each camera, pre-record duration.	

	This shall allow the camera server to capture video prior to the alarm/event, as well as after the alarm/event. Shall be selectable from a list of values ranging between 0 seconds and 5 minutes.	
13	Data storage should be at a secure location, with strictly controlled access. The capacity of storage should be for the period of continuous 45 days or more. For every 30 disks one spare disk needs to be configured over and above required capacity. The storage system should follow FIFO on recording.	
14	The software shall support a built-in Hardware or Software Watchdog module. Watchdog shall monitor operation of all services and automatically restart them if they are malfunctioning.	
15	The software should be able to receive alarm signal of the camera and should be able to send relay out signal through the camera.	
16	The software should provide a reporting utility for tracking but not limited to the following options. Video and images shall be stored with reports for documenting events.	
Alarms, Incidents, Operator logs, Service requests		
17	It shall be possible to bet reports on past events by querying the audit databases. It shall allow the search by User Logon, Entity Configuration, Incident, Alarm, Application Failure, and Equipment Failure.	
18	It shall allow passage of specific alarms to specified users rather than sending all alarms to every user.	
User Facilities Covered in Application Software		
19	The client shall perform the following applications simultaneously without interfering with any of the Archive Server operations (Recording, Alarms, etc): <ul style="list-style-type: none"> a. Live display of cameras b. Control of PTZ cameras c. Playback of archived video d. Retrieval of archived video e. Instant Replay of live video f. Configuration of system settings 	
20	The user applications shall provide an authentication mechanism, which verified the validity of the user.	
21	The user shall be able to define bookmarks, the amount of time he wishes to go back from a predefined list or through custom setup period.	

22	The user shall be allowed to add bookmarks to recorded clips of video.	
23	The user shall be able to choose and trigger an action from a list of available actions included but are not limited to: I. View camera in a video tile II. Vie Map or procedure in video tile III. Starting/stopping PTZ patters IV. Go to PTZ preset V. Sending alert massages	
24	The user shall be capable to display all camera sequences created in the system.	
25	The user shall be allowed for unlimited cameras sequences, which can be run independently of each other on either of the monitor tiles.	
26	The user shall be able to drag and drop a camera from a tree of available cameras into any video tile for live viewing.	
27	Support digital zoom on a fixed/PTZ camera's live and recorded video streams.	
28	The user shall be allowed to access the PTZ configuration with no need of additional hardware.	

Work Station		
S.No.	Technical Specifications	Compliance
1	Core i9 Processor 3.0 GHz or better.	
2	Memory: 32GB DDR RAM or better	
3	Form factor : Tower	
4	Hard Drives: 450 GB SSD and 2 TB SATA or better	
5	Graphic Card: 2 x 4 Gb Graphics card with HDMI Port	
6	Network Adapter (NIC): Dual Integrated 10/100/1000 Mbps ports	
7	Keyboard: USB Keyboard	
8	Mouse: Optical Mouse with scroll	
9	Operating System: Licensed M S windows / Linux	
10	Anti-Virus Software compatible with Windows/Linux with offline update provision.	

CCTV Passive Items (as per actual)		Compliance
S.No.	Networking, Cabling, etc.	
1	Cables	
a	General Features:	
i	All cables used for the project shall be supplied as under: a) ISO certified reputed cable manufacturer b) Ensure high bandwidth, low attenuation and low losses in signal quality.	
ii	Backbone Network up to switches (L3 switches to L2 switches): OFC	
iii	From Switches to each node (L2 Switch to Servers, Workstation, Cameras, Displays, etc.): UTP Cat 6	
iv	Laying of cable inside the building shall be in conduit and for outdoor a. Through HDPE pipe in sift soil b. In concrete / read cutting area, it shall be laid in GI pipe	
v	Cable and spools shall be of flame retardant type.	
b	Optical Fibre Cable	
i	Optic Fibre 6 core, SMF, 9/125 micron, 1000 Mbps	
ii	Core Diameter @ 1310 nm : 9±0.6 micro meter Cladding Diameter : 125±1.0 micro meter	
iii	Max. Attenuation (Cables with fibres) At 1310 nm : 0.36 dB/km at 1550 nm : 0.25 dB/km	
iv	Secondary Buffer Material : Gel filled Loose Tube	
v	Min. Bend Radius : 20 x Outer Diameter	
vi	Fibre Core : Should be Silica Glass or equivalent	
c	CAT6 UTP cable	
i	Suitable for high speed data applications, Gigabit Ethernet.	
ii	4 pairs, easily identifiable colour-stripped outer.	

iii	Termination of 4 pair balanced twisted pair copper cable	
iv	Shall be wired straight through	
v	Rear protective strain relief cap	
2		Patch Cords
a	Push & pull design with latch	
b	Shall be wired straight through	
c	Bend relief compliant boots to ensure proper CAT6 performance	
3		OFC Patch Cords
	Suitable for single mode SC type fiber cable connectors with plastic moulded plug type connectors. Standard ceramic ferrules.	
4		OFC Connectors
	Single mode SC/LC type with push-pull mechanism, fully in compliance with latest industry standards.	
5		OFC Adaptors
	Suitable for single mode SC/LC type fiber cable connectors which shall be fully in compliance with latest industrial standard. It shall be with snap/latch mechanism.	
6		Light Guide Interconnect Unit (LIU)
	Rack Mount Type LIU fully populated with required modules, connectors, etc. Shall be supplied and installed as required.	
7		9U Wall Mount Rack
a	Portable 9U Wall Mount Rack having front Transparent Toughened glass door. The Rear door material shall CRCA steel.	
b	It should consist of secure locks, keyboard tray sliding & rotary, shelf for CRT/TFT display, Support cable entry from top or bottom, vertical & horizontal managers, fan for heat dissipation, dust or water resistant and PDU power strips.	
c	Minimum 60 Kgs Load Bearing Capacity	
8		Outdoor Junction Box

a	Protection Class: IP – 55	
b	Size: Junction Box must be of appropriate size to house different components as per CCTV system design confirming to tender specifications	
c	Power & Earthing: The junction box shall be provided with external earthing plugs 5 socket power termination with MCB or more	
g	Poles	
a	GI Poles	
b	Erection: Proper sturdy fixing including civil / groundwork	

Bill of Quantity (BoQ)

S.No.	Equipment	Specification	Number	Rate / Price in FJS
1	Bullet Cameras	As per Annexure I	16	
2	Switches	As per Annexure II	As per actual	
3	Server	As per Annexure III	One	
4	VMS	As per Annexure IV	One	
5	Work Station	As per Annexure V	One	
6	Passive items	As per Annexure VI	As per actual	
7	Display	42" LED / Plasma display	Two	
8	UPS	As per power requirement	As per actual	