

Ref: 084A10025

Tender Notice for the Provisioning & Installation of IP-Cameras Based Centralized Monitoring SystemTo: _____

Dear Sirs,

We are pleased to invite your sealed tenders for the items listed in the attached schedule/s. In case of more than one schedule separate tender for each schedule should be furnished. The terms and conditions of the tender/ supplies are given below:

A) SUBMISSION OF TENDER:

1. You are required to send your tenders addressed to Dy. General Manager (Commercial, P&L building, Karachi Airport, by **August 02, 2010**. The tenders may be dropped in the tender box marked "**Purchases Commercial**" placed at the entrance of the PIA P&L building latest by 1030 Hrs on the specified date. You may also send your tenders through registered A/D mail addressed to Dy. General Manager (Purchases Flight Kitchen) which must reach before the closing date and time mentioned above. Tenders will be opened at 1100 Hrs the same day in the presence of tenderers.
2. Tenders received after stipulated date and time shall not be considered. The corporation will not be responsible for postal delays. The decision of Dy. General Manager (Purchases Commercial) in this respect shall be final and binding.

B) SINGLE STAGE - TWO ENVELOPE BIDDING PROCEDURE:

- The BID (Tender) submitted shall comprise of a single package containing two envelopes, each envelope shall be marked and will contain "**FINANCIAL**" and "**TECHNICAL**" proposal.
- On the given tender opening date only "**Technical Proposal**" will be opened in the presence of tenderers available.
- The "**Financial Proposal**" shall be shown to the parties but will be retained with PIA without being opened.
- After Technical Evaluation of the received Technical Proposals, Financial Proposals will be opened publicly at the date, time & venue to be announced and will be communicated to the bidders in advance.
- PIA will open the "**Financial Proposals**" publicly of the parties whose Technical Proposals have been found acceptable.
- Financial Proposals of the technically non-responsive bids shall be returned **un-opened** to the respective bidders.

C) EARNEST MONEY:

The tender should be accompanied by cash receipt for 2% of the tendered value having been deposited with the Finance Officer (Cash), PIA P&L Building, Karachi Airport, or a Pay Order payable at Karachi in lieu thereof in the name of M/s Pakistan International Airlines as interest free Earnest Money (Refundable). Earnest / Security Money deposited against a running contract(s) / purchase order(s) shall not be transferable as earnest money for any other tender. All tenders without Earnest Money shall not be considered.

D) SECURITY DEPOSIT:

The successful tenderers upon award of Contract / Purchase Order will be required to furnish a cash deposit in the amount equivalent to 5% of total tender value as interest free Security Deposit in the shape of C.R (Cash Receipt) from the Finance Officer (Cash), P&L, or a Pay Order of an equivalent amount or a Bank Guarantee for an equivalent amount countersigned by Head Office of the Bank and to remain valid for three months after the expiry period of the contract. The earnest money already held can be converted into security deposit and balance amount if any shall be deposited as above.

E) PREPARATION OF TENDER - TECHNICAL PROPOSAL:

PIA's requirements with Technical Specifications are given in the schedule "A".

Please give all the available technical details of the items offered by you, supported with the technical literature, brochure, drawings and pictures, client list details etc.

BIDS / Tenders / Technical Proposal received shall be evaluated in accordance with the given technical specifications in the schedule "A".

F) PREPARATION OF TENDER - FINANCIAL PROPOSAL

The tenders should be enclosed in double cover. The inner cover should be sealed having enclosed the following documents:

- a) Schedule "A" duly filled in, signed and sealed.
 - b) Original Pay Order for Earnest Money.
 - c) Undertaking on Rs. 50/= above non-judicial Stamp Paper duly signed and stamped by a Public Notary Oath Commissioner.
- The outer cover should bear address of the Dy. General Manager (Commercial), PIA P&L Building, Karachi Airport and reference number of the tender with opening date of tender.
 - All information about the material proposed to be supplied must be given as required in the schedule to tender.
 - These tender forms are non-transferable i.e. only those parties who purchase the tender documents will be allowed to tender,
 - The tender will not be considered if complete information required is not given therein.
 - Particular attention must be paid to delivery time.
 - Authorized signatures of individual signing the tender and other documents connected with the contract must specify whether signing as:
 - a) Sole Proprietor or his attorney.
 - b) A registered active partner of the firm or his attorney.
 - c) As Secretary, Manager, Partner, etc. or their attorney in case of firms registered under Partnership Act.
 - d) The tenderer must indicate whether its firm/company/organization etc. is registered with PIA or not. If registered then specify PIA registration number.

G) PRICES:

- a) The prices quoted must be net as per accounting unit as shown in the schedule to tender inclusive of all duties / taxes, packing octroi and delivery charges for free at Karachi Airport. However, if GST is applicable, same should be shown separately.
- b) The prices mentioned in the tender will be treated as firm till the completion of Purchase Order/ Contract.
- c) The prices must be stated for each item separately both in words and figures in Pakistani currency. Additional information, if any, must be linked with entries on the schedule to tender.
- d) Offers must be valid for 90 days.

Pre-Qualification Forms:

Pre-qualification forms duly filled in along with required documents must be enclosed in the envelope marked as "Technical Proposal". Pre-qualification forms can be down loaded from the following address:

http://www.piac.com.pk/PIA_Business/d_l/PRE-QUALIFICATION_FORM%20Final.pdf

PIA do not pledge themselves to accept the lowest tender and reserve the right to accept or reject any or all tenders/quotations, divide business among more than one supplier or accept the tenders at rates on lowest individual items or extend the date of opening without assigning any reason.

Yours truly

For Pakistan International Airlines

Dy. General Manager Purchases Technical (Commercial)

Encl : a. Schedule - "A"

Schedule "A"

Tender Notice for the Provisioning & Installation of IP-Cameras Based Centralized Monitoring System

Pakistan International Airline Corporation (PIAC) intends to install and commission a system for Centralized Monitoring and Storage of airport Surveillance Cameras (IP Based) on its existing IP network at Karachi, Lahore, and Islamabad Airports. The system should be Multi-server Video Surveillance System with centralized management of unlimited cameras in numerous locations with full remote access.

Sealed quotations are invited on turnkey basis including hardware, software, setup, installation, commissioning and interfacing.

Vendors are required to submit proposals for the supply and support of the total solution and not individual elements.

The proposed solution must meet PIA's requirements for a converged video surveillance network initially for three major cities of Pakistan i.e. Karachi (KHI), Lahore (LHE) and Islamabad (ISB).

Bidders are advised to quote both Rental as well as Purchase option. In rental option, PIAC will make no investment and only pay a fixed monthly recurring charge for equipment and bandwidth.

Selection Criteria:

- Proposals will be evaluated on the basis of following Criteria:
- The proposed solution must meet the technical requirements as outlined in the section "Technical Requirements".
- Bandwidth Usage
- Cost-effectiveness based on forecast return on investment over period of five years.
- Planned project time from the initial signing of the contracts to completion
- The vendor's capability to provide a full support model across all geographical locations and technologies
- The vendor's financial stability
- Level of compliance with technical requirements.
- Vendors shall be preferred having expertise in the given solution as well as Product Training Certifications which shall be submitted along with the Technical document.
- A clear demonstration of the vendor's experience in deploying intelligent converged networks by the quality and relevance of the chosen reference customers. A client list must be provided along with Proposals.

Technical Requirement:

Basic requirement of this project is to be able to centrally monitor and store video from surveillance cameras installed at various airports locations. The monitoring will be real time from the cameras installed at PIA designated locations, initially at the 3 majors airports of Pakistan (LHE, KHI, ISB) along with the monitoring mainly at the central site i.e. PIA Head office Karachi and storage at their respective Airports. The critical requirement of this project is that monitoring should also be available to mobile and roaming users at intranet sites and remote locations via internet. Another important requirement is that this surveillance system should have online storage facility for at least 7 days and archiving of older data on Other HDD / DVD / Tape Drives.

The system should offer multi-server and multi site IP Video solutions with unlimited recording of MJPEG and MPEG-4 video from IP Cameras and IP Video Encoders with analog Cameras.

The system should also support Centralized Management, device management, device groupings, configurable flexible archiving and built-in motion detection.

The proposed system must generate system, event, and audit rule and alerts logs in a centralized database at regular intervals.

The system should notify users by email as configured in notification profile, triggered by events or schedules in the rule system.

The Proposed system should ensure that uninterrupted access both live and recorded video, even if a server shall fail. User access rights should be strictly managed so that authorized staff has the access to system functions and sensitive stored data.

The Proposed system should give a high level of security and reliability required by the true Enterprise - Class IT environments. The Failover service ensures maximum uptime, and tight integration with Microsoft Active Directory provides strict user authorization and management.

The proposed software must support IPv4 and IPv6 with management servers, management Client, recording server and failover server and smart client support Both IPv4 and IPv6 addressing.

The system shall be capable of managing bandwidth over LAN and WAN to optimize the performance of the video streams. The proposed solution must use compression techniques to minimize the network bandwidth usage.

A complete and fully operational centralized video management system should be provided at PIA head office for viewing of all cameras, recall of video from storage servers of all the airport and configuration and programming of the entire system. The client software shall authenticate and manage access to the system by authorized users in accordance with their assigned level of access.

Specifications for IP Cameras

INDOOR FIXED NETWORK CAMERA (Total Quantity = 120 Estimated, 40 units per site)	
Brand	CISCO, Axis, GE, Panasonic, Philips, Bosch, Sanyo, Sony, Pelco, Honeywell, Motorola or Equivalent
Make / Origin	Japan / EU / USA or Equivalent
Image sensor 1/4" Progressive scan RGB VGA CMOS Lens 4.4 mm, F2.0, fixed iris, fixed focus, horizontal angle of view: 47° Minimum illumination 1 lux, F2.0 Shutter time 1/5000 s to 1/4 s Video compression H.264 Motion JPEG MPEG-4 Part 2 (ISO/IEC 14496-2) Resolutions 640x480 to 160x120 Frame rate H.264 30 fps in all resolutions Frame rate Motion JPEG 30 fps in all resolutions Frame rate MPEG-4 Part 2 30 fps in all resolutions Video streaming Multi-stream H.264, Motion JPEG and MPEG-4 Part 2 H.264/MPEG-4 Part 2: 1 stream in full frame rate and resolution Motion JPEG: 2 individually configured streams in full frame rate and resolution More streams in either compression if identical or limited in frame rate/resolution Controllable frame rate and bandwidth VBR/CBR H.264 & MPEG-4 Part 2 Image settings Compression, color, brightness, sharpness, contrast, white balance, exposure control, exposure zones, backlight compensation, fine tuning of behavior at low light, rotation Text and image overlay, privacy mask. Security Password protection, IP address filtering, HTTPS encryption, digest authentication, user access log Supported protocols: IPv4/v6, HTTP, HTTPS, QoS Layer 3 DiffServ, FTP, SMTP, Bonjour, UPnP, SNMPv1/v2c/v3(MIB-II), DNS, DynDNS, NTP, RTSP, RTP, TCP, UDP, IGMP, RTCP, ICMP, DHCP, ARP, SOCKS Application Programming Interface Open API for software integration Intelligent video Video motion detection, active tampering alarm Alarm triggers Intelligent video Alarm events File upload via FTP, HTTP and email Notification via email, HTTP and TCP Video buffer 16 MB pre- and post alarm Processor and memory 64 MB RAM, 32 MB Flash Power 4.9 – 5.1 V DC, max. 7.5 W Connectors RJ-45 10BASE-T/100BASE-TX Auto-MDIX, DC jack Operating conditions 0 – 50 °C (32 – 122 °F) Humidity 20 - 80% RH (non-condensing) Approvals : EN 55022 Class B, EN 55024, EN 61000-3-2, EN 61000-3-3, EN 60950-1, FCC Part 15 Subpart B Class B, VCCI Class B, ICES-003 Class B, C-tick, EN301489-1, EN301489-17, EN300328, EN 60950-1, FCC Part 15 Subpart B and C Class B, RSS-210, C-TICK, TELEC, KCC Power supply: EN 60950-1, cCSAus Included accessories Power supply, stand and clamp, Installation Guide, CD with installation tools, recording software and User's Manual, Windows decoder 1-user license	
Indoor Fixed Dome Camera (Total Quantity = 15 Estimated, 05 units per site)	

Brand	CISCO, Axis, GE, Panasonic, Philips, Bosch, Sanyo, Sony, Pelco, Honeywell, Motorola or Equivalent
Make / Origin	Japan / EU / USA or Equivalent
Image sensor 1/4” Progressive scan RGB CMOS Lens Varifocal 2.8 - 10 mm, F1.3, DC-iris Angle of view: 20° - 73° horizontal Minimum illumination 1 lux, F1.3 Shutter time 1/15000 s to 1/4 s Camera angle adjustment Pan 360°, tilt 170°, rotation 340° Compression MPEG-4 Part 2 (ISO/IEC 14496-2) Motion JPEG Resolutions 160x120 - 640x480 Frame rate MPEG-4 Up to 30 fps in VGA Frame rate Motion JPEG Up to 30 fps in VGA Video streaming Simultaneous MPEG-4 and Motion JPEG Controllable frame rate and bandwidth VBR/CBR MPEG-4 Image settings Compression, color, brightness, sharpness, white balance, exposure control, rotation, fine tuning of behavior at low light Text and image overlay Privacy mask Video compression MPEG-4 Part 2 (ISO/IEC 14496-2) Motion JPEG Resolutions 160x120 - 640x480 Frame rate MPEG-4 Up to 30 fps in VGA Frame rate Motion JPEG Up to 30 fps in VGA Video streaming Simultaneous MPEG-4 and Motion JPEG Controllable frame rate and bandwidth VBR/CBR MPEG-4 Image settings Compression, color, brightness, sharpness, white balance, exposure control, rotation, fine tuning of behavior at low light Text and image overlay Privacy mask Audio streaming Two-way, half-duplex Audio compression AAC LC 8 kHz G.711 PCM 8 kHz G.726 ADPCM 8 kHz Configurable bit rate Audio input/ output Built-in microphone, external microphone input or line input, line level output Security Password protection, IP address filtering, HTTPS encryption, IEEE 802.1X network access control, user access log Supported protocolsIPv4/v6, HTTP, HTTPS, QoS Layer 3 DiffServ, FTP, SMTP, Bonjour, UPnP, SNMPv1/v2c/v3 (MIB-II), DNS, DynDNS, NTP, RTSP, RTP, TCP, UDP, IGMP, RTCP, ICMP, DHCP, ARP, SOCKS Application Programming Interface Open API for software integration Intelligent video Video motion detection, active tampering alarm, audio detection Alarm triggers Intelligent video and external input Alarm events File upload via FTP, HTTP and email Notification via email, HTTP and TCP External output activation Video buffer 9 MB pre- and post alarm Casing:Tamper-resistant casing Processors and memory 32MB RAM, 8MB Flash Power 4.9 - 5.1 V DC max 3.6 W Power over Ethernet IEEE 802.3af Class 1 Connectors RJ-45 10BASE-T/100BASE-TX PoE, DC jack Terminal block for 1 alarm input and 1 output 3.5 mm mic/line in, 3.5 mm line out Operating conditions 0 - 50 °C (32 - 122 °F) Humidity 20 - 80% RH (non-condensing) Approvals EN 55022 Class B, EN 55024, EN 61000-3-2, EN 61000-3-3, FCC Part 15 Subpart B Class B, VCCI Class B, ICES-003 Class B, C-tick AS/NZS CISPR 22, EN 60950-1 Power supply: EN 60950-1, UL, CSA Included accessories Power supply, mounting and connector kits, Installation Guide, CD with installation tools, recording software and User’s Manual, Windows decoder 1-user license	

Indoor PTZ Camera (Total Quantity = 15 Estimated, 05 units per site)	
Brand	CISCO, Axis, GE, Panasonic, Philips, Bosch, Sanyo, Sony, Pelco, Honeywell, Motorola or Equivalent
Make / Origin	Japan / EU / USA or Equivalent
Image sensor 1/4” interlaced CCD Lens 3.8 - 46 mm, F1.6 - F2.7, automatic day/night, autofocus Angle of view, horizontal: 4.4° - 51.6° Minimum illumination Color: 1 lux at 30 IRE, F1.6 B/W: 0.3 lux at 30 IRE, F1.6 Shutter time NTSC: 1/50000 to 4/3 s PAL: 1/50000 to 8/5 s Pan/Tilt/Zoom 20 preset positions Auto-flip, E-flip ±170° (360° via Auto-flip) pan range, 180° /s pan speed 180° tilt range, 140° /s tilt speed 12x optical, 4x digital zoom Control queue, image freeze, sequence mode Support Windows compatible joysticks Designed for operator control Video compression MPEG-4 Part 2 (ISO/IEC 14496-2) Motion JPEG Resolutions NTSC: 704x480 to 176x120 PAL: 704x576 to 176 x144 Frame rate MPEG-4 Up to 30/25 (NTSC/PAL) in 2CIF/CIF/QCIF Up to 26/22 (NTSC/PAL) in 4CIF/2CIFExp	

Frame rate Motion JPEG Up to 30/25 (NTSC/PAL) in all resolutions
Video streaming Simultaneous MPEG-4 and Motion JPEG Controllable frame rate and bandwidth VBR/CBR
MPEG-4 ISMA compatible
Image settings Compression, color, brightness, sharpness, white balance, exposure control, backlight compensation, day/night, Rotation 0°, 180° Aspect ratio correction Text and image overlay De-interlace (4CIF resolution)
Audio streaming Two-way, full or half duplex
Audio compression G.711 PCM 8 kHz 64kbit/s G.726 ADPCM 8 kHz 32 or 24 kbit/s
Audio input/output External microphone input or line input, line level output
Security Password protection, IP address filtering, HTTPS encryption, IEEE 802.1X network access control
Supported protocols: IPv4/v6, HTTP, HTTPS, QoS Layer 3 DiffServ, FTP, SMTP, Bonjour, UPnP, SNMPv1/v2c/v3 (MIB-II), DNS, DynDNS, NTP, RTSP, RTP, TCP, UDP, IGMP, RTCP, ICMP, DHCP, ARP, SOCKS
Application Programming Interface Open API for software integration
Intelligent video Video motion detection, audio detection
Alarm triggers Intelligent video and external input
Alarm events File upload via FTP, HTTP and email Notification via email, HTTP and TCP External output activation
Video buffer 9 MB pre-and post alarm
Processors and memory 32 MB RAM, 8 MB Flash
Power 12 V DC ±5%, max 14.5 W
Connectors RJ-45 for 10BASE-T/100BASE-TX Terminal block for 1 alarm input, 1 output and power out for I/O
3.5 mm mic/line in, 3.5 mm line out
Operating conditions 0 - 45 °C (32 - 113 °F)
Humidity 20 - 80% RH (non-condensing)
Approvals EN 55022 Class B, EN 55024, EN 61000-3-2, EN 61000-3-3, EN 60950-1, FCC Part 15 Subpart B Class B, ICES-003 Class B, C-tick AS/NZS 3548 Power supply: UL, CSA, CE
Included accessories: Installation Guide, CD with User's Manual, recording software, installation and management tools, hard ceiling and drop ceiling mount kits, indoor power supply, transparent and smoked domes, Windows decoder 1-user license.

Specifications for Servers

SN	Item	Specs	Qty
1	XPCOBS	XProtect Corporate 3.0 Base Server License Open Source VMS or equivalent	01
2	XPCODL	XProtect Corporate 2.0 Device Channel License or equivalent	150
3	Management Server	Brand: IBM or equivalent Intel® Xeon® or equivalent, 3.0 GHz (Dual Core) or higher, 8 GB RAM, Dual Gigabit Ethernet, PCI, AGP or PCI-Express minimum 1024×768, 16 bit colors graphics, 500 GB Hard disk space (7200 RPM or faster), Microsoft Windows Server 2003 (32 bit), Microsoft .NET 3.0 Framework, and Internet Information Services (IIS) 5.1 or newer.	01
4	Recording Server	Brand: IBM or equivalent Quad Core Intel Xeon or equivalent, minimum 3.0 GHz or higher, 8 GB RAM, Dual Gigabit Ethernet, 1200 GB Total Hard disk space (7200 RPM or higher), 1024×768, 16 bit colors graphics, Microsoft® Windows Server 2003 (32 bit), Microsoft .NET 3.0 Framework or newer,	03
5	Central Viewing Machine	Brand: IBM or equivalent Quad Core Intel Xeon or equivalent, minimum 3.0 GHz or higher, 8 GB RAM, Gigabit Ethernet, 500 GB Total Hard disk space (7200 RPM or higher), 1024×768, 16 bit colors graphics, DAT tape drive for backup, Microsoft® Windows Server 2003 (32 bit), Microsoft .NET 3.0 Framework or newer.	02
6	CISCO WiFi AP	CISCO Access Point 1300 with long range antenna and power supply or equivalent	02
7	CISCO WiFi AP	CISCO Access Point 1100 with long range antenna and power supply or equivalent	10

Note: All above items must include Installation, Setup and Commissioning Support, Pre-implementation consultation and on-site implementation consultation.

Quotations are invited on turn-key basis including hardware, software, setup, installation, commissioning and interfacing. Vendors are required to submit proposals for the supply and support of the total solution and not individual elements. The proposed solution must meet PIA's

requirements for a converged video surveillance network initially for 3 major cities of Pakistan i.e. Karachi (KHI), Lahore (LHE) and Islamabad (ISB).

Vendors are advised to quote both rental option as well as purchase option.

In rental option, PIA will make no investment and only pay a fixed monthly recurring charge for equipment and bandwidth.

Bandwidth shall be provided by the vendor. Vendors are advised to quote Bandwidth charges for both rental and purchase option. Bandwidth must be capable of meeting the requirement of solution being offered without any congestion and degradation of service.

Terms & Conditions:

1. Tenders will be called on **Single Stage Two Envelope** basis.
2. Technical Proposals will be opened on **August 02, 2010** @ 1100 Hrs.
3. **All local bidders are required to submit 2% of total bid value in Financial Proposal as Earnest Money in shape of pay order.**
4. All participants are required to mention all taxes & GST separately.
5. Payment term net thirty days.
6. All participants must quote one rate and best delivery period.
7. **Bidders must submit pay order for Rs. 1,500 along with the Technical Proposal as fee for the documents.**
8. Quotation must be valid for 90 days (Extendable).
9. Please note that quoted rates must be firmed and final in all respect.
10. Delivery must be made at PIA Procurement & Logistics Building, Karachi Airport.
11. Successful bidders shall also be required to submit professional tax. / NOC.

DGM Purchases Technical

Authorized Signature of
Supplier with seal and Designation: _____



(Rupees fifty non-judicial stamp paper)

General Manager Procurement & Logistics
P&L Department, Karachi Airport
Pakistan International Airline
Karachi.

Subject: Undertaking to execute the contract

Dear Sir

We / I, the undersigned tenderer do hereby confirm, agree and undertake to do the following in the event our / my tender for _____ to PIA, is approved and accepted:

1. That We / I will enter into and execute the formal contract, a copy of which has been supplied to us / me, receipt whereof is hereby acknowledged and which has been studied and understood by us/me without any change, amendment, revision or addition thereto, within a period of SEVEN days when required by PIA to do so.
2. That all expenses in connection with the preparation and execution of the contract including stamp duty will be done by me/us.
3. That We / I shall deposit with PIA the amount of **SECURITY** as specified in the contract which shall continue to be held by PIA until three months after expiry of the contract period.
4. That in the event of our/my failure to execute the formal contract within the period of seven (07) days specified by PIA, the Earnest Money held by PIA shall stand forfeited and we / I shall not question the same.

1. Tenderer's Signature _____
2. Name in full _____
3. Designation _____
4. C.N.I.C No. _____
5. Phone, Fax & Cell Nos. _____

6. Address _____
7. Date _____