

## YM IP Surveillance System



مواصفات نظام مراقبة لمبنى المركز الرئيسي والمخازن:

1 Complete centralized IP surveillance System with BOQ as following:

| BOQ for IP CCTV Security System        |  |           |
|--|--|-----------|
| Location: مبنى للمركز الرئيسي والمخازن |  |           |
| N                                      | Description  | QTY       |
| <b>1. CCTV system</b>                  |  |           |
| <b>1</b>                               | <b>IP camera</b>   |           |
|  | <b>Fixed Camera 1:</b><br>3M Full HD IP Zoom , POE, with 3x optical zoom   | <b>32</b> |
|  | <b>Fixed Camera 2:</b><br>3M Full HD IP Zoom Bullet/Box, POE, with 3x optical zoom.  | <b>23</b> |
|  | <b>Fixed Camera 3:</b><br>1M Full HD IP Zoom Bullet/Box, POE, with 15x optical zoom.   | <b>3</b>  |
| <b>2</b>                               | <b>Central Management Software (CMS):</b><br>Video Management Software (NVR Software), Support Up to simultaneous 96 Multivendor IP Cameras real-time live viewing and recording. included required licences for current total numbers of cameras. | <b>1</b>  |
| <b>3</b>                               | <b>Server &amp; Storage:</b>   |           |
|  | <b>Server:</b><br>Rack based, Brand name, 2 x Quad-Core Intel Xeon Processor, 32GB, Hardware RAID Controller.  | <b>1</b>  |
|  | <b>Storage:</b><br>Rack based Disk Array with at least 40 Terabytes (TB) Capacity.   | <b>1</b>  |
| <b>4</b>                               | <b>PoE Switches:</b>   |           |
|  | <b>Switch Type 1:</b><br>POE Switch 24 Port 10/100/1000 , 2 Port 1000base SFP.   | <b>3</b>  |
|  | <b>Switch Type 2:</b><br>POE Switch 8 Port 10/100/1000 , 2 Port 1000base SFP.  | <b>6</b>  |
| <b>5</b>                               | <b>PC Workstations:</b><br>Brand Name Intel CPU - Dual-core - Core i5 3.x GHz, 8M Cache, 8 GB, 2GB dedicated graphic card (HDMI , DVI ).   | <b>2</b>  |
| <b>6</b>                               | <b>Monitor:</b><br>LCD 40" Screen Full HD or better for brand name monitor.  | <b>2</b>  |
| <b>7</b>                               | <b>Installation cost:</b><br>Cabling & Equipments Installation, programming, testing and commissioning of Equipment & accessories.   | <b>1</b>  |

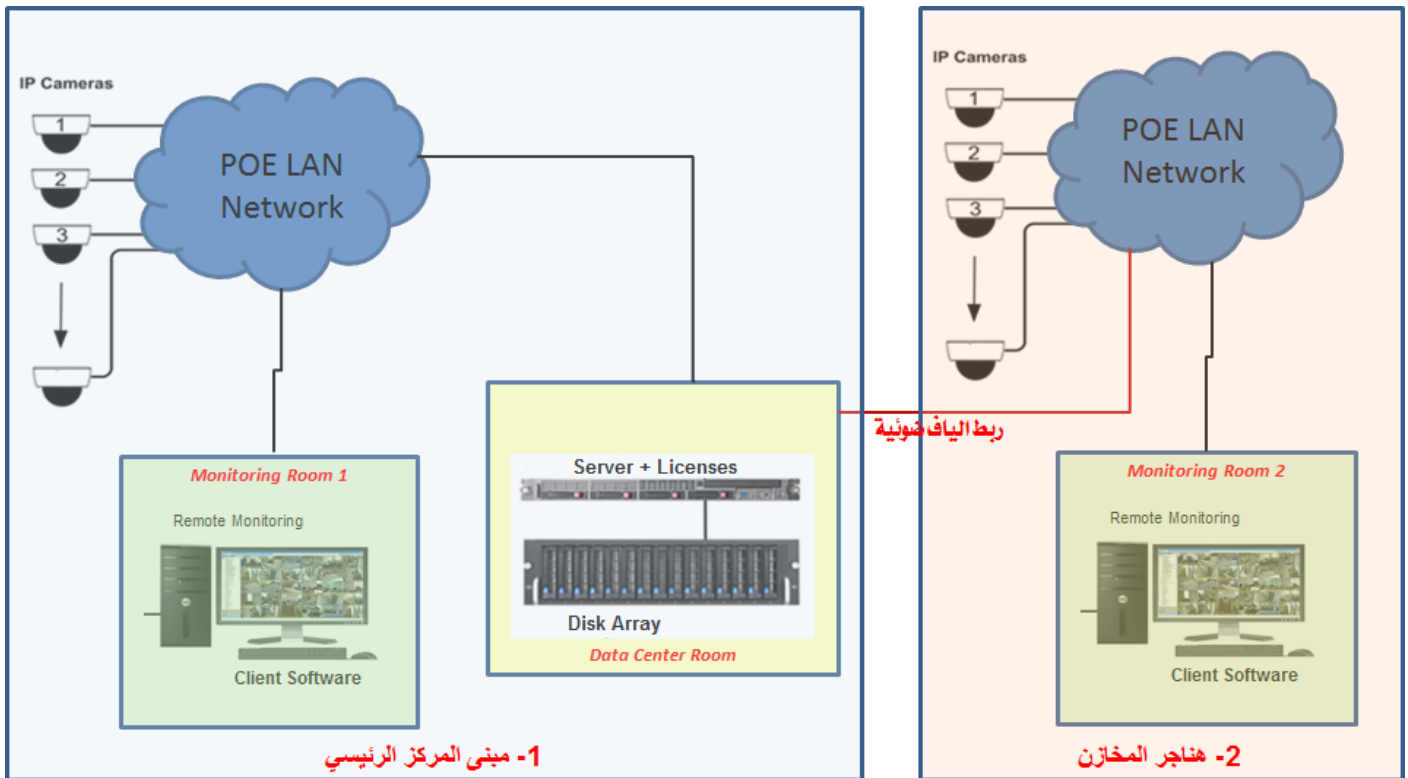
## 1- Bidders Qualification:

Any bidder could consider himself as a qualified bidder has the right to participate at the bidding activity if he submits the required information and Evidence documents as following:

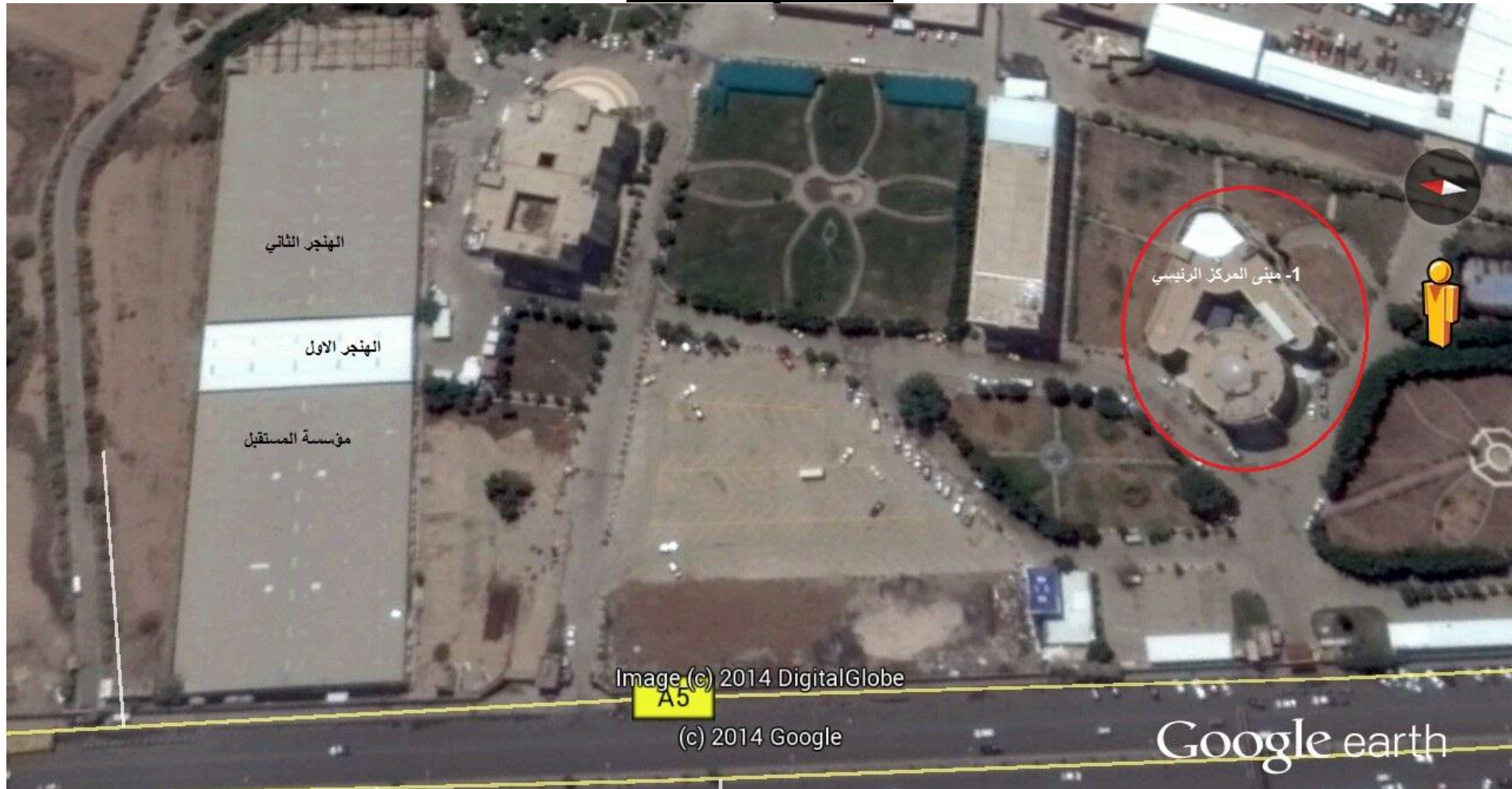
- A qualified bidder is *a Sole Agent of an authorized representative of a worldwide known Trade Mark* and of a good reputation specialized in the Design, Supply, Execution and Commissioning of “**IP Surveillance System**” .
- He has an experience in this field for a period over 8 years.
- The manufacturer of the equipment must be a specialized in this area for a period of not less than 15 years.
- He had implemented at least 5 successfully IP Surveillance System Projects within the last 3 years in the region’s countries included republic of Yemen.
- Yemen Mobile company has the right to enquire about the correctness of submitted information and is asking for a referee names and addresses at the executed projects to be attached to the Evidence Documents.

## 2- Site Description:

The Yemen Mobile is interested to monitor their facilities with “**IP Surveillance System**” for the buildings that occupies at two positions, As in the following drawings and table:



صورة للمواقع المراد مراقبتها:



## جدول المواقع والكميات المقترحة:

| م                | الموقع                         | التفصيل  | Fixed Camera 1 | Fixed Camera 2 | Fixed Camera 3 | CMS | Severs & storage | Pc | Monitor 40" LCD | PoE Switch 24 | PoE Switch 8 |  |
|------------------|--------------------------------|--|----------------|----------------|----------------|-----|------------------|----|-----------------|---------------|--------------|--|
| 1                | مبنى المركز الرئيسي<br>البدروم | البوابة الخارجية للبدروم   | 1              |                |                | 1   | 1                | 1  | 1               | 1             |              |  |
|                  |                                | ممرات البدروم  | 2              |                |                |     |                  |    |                 |               |              |  |
|                  | الدور الاول                    | غرف الكروت (عدد 3 غرف)   | 6              |                |                |     |                  |    |                 |               |              |  |
|                  |                                | الممر الى غرفة السيرفرات   | 1              |                |                |     |                  |    |                 |               |              |  |
|                  |                                | البوابات الخارجية  | 2              |                |                |     |                  |    |                 |               |              |  |
|                  |                                | الصاله الرئيسية  | 3              |                |                |     |                  |    |                 |               |              |  |
|                  | الدور الثاني                   | مبيعات المركز الرئيسي  | 4              |                |                |     |                  |    |                 |               |              |  |
|                  |                                | الممر الى القوترة والبوابة مع الاكاديمية                                   | 2              |                |                |     |                  |    |                 |               |              |  |
|                  |                                | غرفة مسؤول العهدة بجانب القوترة  | 1              |                |                |     |                  |    |                 |               |              |  |
|                  |                                | الممرات الرئيسية   | 2              |                |                |     |                  |    |                 |               |              |  |
|                  |                                | الممرات الى مكاتب المساهمين ومكتب رئيس مجلس الادارة والبوابة مع الاكاديمية | 3              |                |                |     |                  |    |                 |               |              |  |
|                  |                                | الممرات الى مكاتب التسويق والمبيعات  | 2              |                |                |     |                  |    |                 |               |              |  |
|                  | الدور الثالث                   | غرفة مكتب امين صندوق الايرادات   | 1              |                |                |     |                  |    |                 |               |              |  |
|                  |                                | الممرات الرئيسية   | 2              |                |                |     |                  |    |                 |               |              |  |
|                  |                                | الممرات الى مكاتب الادارة التنفيذية  | 2              |                |                |     |                  |    |                 |               |              |  |
|                  |                                | مكتب المدير التنفيذي الخارجي   | 1              |                |                |     |                  |    |                 |               |              |  |
|                  | 2                              | هناجر المخازن  |                |                |                |     |                  |    | 1               | 1             |              |  |
|                  |                                | الهجر الاول  |                |                |                |     |                  |    |                 |               | 1            |  |
|                  |                                | البوابة الخارجية   |                |                | 1              |     |                  |    |                 |               |              |  |
|                  |                                | البوابة الداخلية   |                |                | 2              |     |                  |    |                 |               |              |  |
| الجزء الاول      |                                |  |                | 4              |                |     |                  |    |                 |               |              |  |
| الجزء الثاني     |                                |  |                | 4              |                |     |                  |    |                 |               |              |  |
| الهجر الثاني     |                                |  |                |                |                |     |                  |    |                 | 1             |              |  |
| البوابة الخارجية |                                |  |                | 1              |                |     |                  |    |                 |               |              |  |
| داخل الهجر       |                                |  |                | 10             |                |     |                  |    |                 |               |              |  |
| مؤسسة المستقبل   |                                |  |                |                |                |     |                  |    |                 |               |              |  |
|                  |                                | البوابة الخارجية مؤسسة المستقبل  |                |                | 1              |     |                  |    |                 |               |              |  |
|                  |                                | العدد الاجمالي   | 32             | 23             | 3              | 1   | 1                | 2  | 2               | 3             | 6            |  |

**3- Scope of the Supply, Installation & Commissioning:**

- The Vendor/Supplier shall be responsible for design, engineering, selection, installation at site, local site coordination, commissioning, inspection, testing, and documentation. And must be approved by Yemen Mobile.
- This specifications are in general in nature and shall be read in conjunction with data sheets that will be provided.
- Any omission in this specification shall not relieve the Vendor/Supplier of his responsibility to deliver “**IP Surveillance System**”, which are of proven design, complete and conform to the quality assurance requirements specified and which will operate satisfactory.
- The Vendor/Supplier shall also supply any components/accessories that are not specifically mentioned, but are required to ensure satisfactory functions of the equipment, in accordance with this specifications and documents.
- All material/equipment required for complete system installation & commissioning and operation should be in vendor scope of supply.
- Tools and equipment required for complete system installation, testing and operation, commissioning, start-up and operation also should be in vendor scope of supply.
- Supplier must be responsible for the final location of all the cameras giving optimum coverage of there areas to be surveyed .
- Supplier must be responsible for suitable bracket to fix cameras in their final locations .
- Final location, fixing methods, camera housing and color finishes must be subject to approval by the YM Engineer.
- Installation must include providing all materials equipment, accessories, services and tests necessary to complete and make ready for operation .
- The Supplier must provide all the necessary equipment's related to install and configure the IP surveillance system in the right way .
- IP Surveillance System equipment's and installation must be supplied and installed in all applicable standards and from a good materials.
- Installation & Configuration, Camera, Ducat and Good Quality UTP Cat 6 Cabling all should be included.

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- Supply and installation a number of sites Up Link Outdoor Fiber Optic with needed modules and accessories with a Good Quality to provide needed throughput for up links between main switches and to cover long distance.
  - Provide electricity to all devices that will be installed in locations of switches POE and other equipment, with the calculation of power points and a point network for all devices that will be installed at sites.
  - The system proposal must include total pricing for installation, cabling, miscellaneous parts and materials, configuration and user training for the complete system.
  - Supplier shall submit documentation in accordance with the requirement of company requisition.
  - The supplier shall submit for approval, all listed drawing/documents, strictly in accordance with the agreed schedule and program.

#### 4- **General Term Conditions:**

- The proposed system must provide a complete and comprehensive solution.
- The proposed system must support third-party network cameras and devices.
- The proposed system must be scalable, allowing system expansion without incurring increased expense from additional system components.
- The proposed system must meet the requirements of industry standard business and government video surveillance applications.
- End of Life for products not less than 10 Years.
- Valid devices must be:
  - Cameras, fixed or with integrated PTZ
  - Microphones
  - Sensors
  - Relays
- All devices and equipment control system must be visible from a well-known famous companies.
- The Supplier must provide all the license required for the IP Surveillance System and must be expandable in the future.
- The Supplier must provide sample recording of provided cameras.
- The proposed system will allow monitoring of any camera or group of cameras, archiving and NVR storage management of a minimum of 40 TB capacity.

- The server and storage of the proposed system should be extendable to increase the system storage capacity in future and must define how.
- The system must record using the H.264 format for extended video storage.
- The proposed system must meet the requirements of industry standard business and government video surveillance applications. The system must be capable of connecting and managing a system of Network Video Recorders, and IP Cameras.
- The software must provide a complete and comprehensive solution for the operation and maintenance of this video surveillance system. It must provide full live digital video and audio surveillance over an IP network, connecting to other system components and sharing all video and control data over the network using standard network protocols.



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## 5- Technical Specification:

### a. **Central Management Software (CMS):**

The System should:

- Support Up to simultaneous 96 IP Cameras real-time live viewing and recording.
- Support the following Recording Modes:
  - Continuous,
  - Scheduling,
  - Event Triggered
- Support Triplex mode (monitoring /playback /recording).
- Support H.264/MPEG-4/MJPEG formats
- Supports alarm and events.
- Supports playback.
- Support recording audio.
- Supports the motion Detection
- The system, without any degradation to video quality, must simultaneously offer:
  - Continuous video playback 24 hour.
  - Video playback transmission to the network.
  - Continuous video receiving from the network.
  - User selectable video archiving of pre-existing recordings Video export in AVI and MPEG-4 for desktop playback with an embedded player.
  - Support display on a widescreen monitor.
- The software must offer features including the simultaneous display, playback, distribution and archive of multiple channels of video and audio. It must collect multiple channels of video digitize them for the purpose of display, archive and requested distribution across the network. Cameras, microphones and sensors must be the primary input devices. Each channel of video and audio data must have the capability of being displayed, played back, distributed and archived simultaneously across the network. The software must allow recording and viewing at different frame rates (fps).
- A web-based interface must be provided to access the IP-Surveillance center from any standard web browser enabled device. It must provide live viewing, playback and PTZ controls.

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- Quick playback – the user will be able to select and launch playback for a specific camera in a pre-defined number of seconds before the live image. The playback window will open adjacent to the live one.
  - Playback from time – must allow setting the playback to start from a specific date and time. This feature must include a loop-playback function.
  - The Software will support loading into all Windows platform (32bit & 64bit) computers and servers.
  - Live video monitoring and search/playback of recorded video by CMS software.
  - Multiple disk allocation and distribution for stable recording
  - The software must offer a full multi-user authorization login application. This application must offer levels of authorization based on defined group roles and functions. In addition, a full setup utility must be available for the Administrator to configure authorization roles and functions Rights must provide authority to perform all system functions. Automatic search of network cameras for quick and easy configuration.
  - Users created and authorized for each unit must be able to log in to any workstation and automatically have their group rights follow them.
  - The system must contain all the necessary tools and licenses to allow authorized users to configure, diagnose and monitor the status of the system.
  - Video recording can be retrieved at any time and at any date easily.
  - The system must permit viewing of live video from any camera connected to the network.

**b. Surveillance Cameras:**

General feature that must be included:

- Full HD Image Resolution.
- Face Recognition.
- Noise Reduction.
- Color Day/ B&W Night.
- POE (Power Over Ethernet).
- Motion Detection.
- Snapshot ability.
- The cameras must be of the solid state, must be provided a minimum of Color mode automatically switched mode to black and white pictures.

Detailed specifications are as following:

| Item                              | Fixed Camera 1   | Fixed Camera 2   | Fixed Camera 3   |
|-----------------------------------|--|--|--|
| Product Type                      | IP Zoom  | IP Zoom Bullet/Box   | IP Zoom Bullet/Box   |
| QTY                               | 32   | 23   | 3  |
| Image Sensor                      | 1/3"   | 1/3"   | 1/3"   |
| Resolution                        | 3 MP/Full HD 1080p   | 3 MP/Full HD 1080p   | 1 MP/ Full HD  |
| Application Environment           | Indoor   | Indoor/Outdoor   | Outdoor  |
| Min. Illumination                 | 0 Lux  | 0 Lux  | 0.1 Lux  |
| Day/Night                         | Yes  | Yes  | Yes  |
| IR LED                            | Yes (15 M)   | Yes (15 M)   | Yes (30 M)   |
| Lens                              | zoom, Auto focus   | zoom, Auto focus   | Zoom and auto focus  |
| Zoom                              | 3x optical zoom  | 3x optical zoom  | More than 15x optical zoom   |
| Compression                       | H.264 , MJPEG-4, MJPEG   | H.264 , MJPEG-4, MJPEG   | H.264 , MJPEG-4, MJPEG   |
| Maximum Frame Rate                | 30 fps   | 30 fps   | 30 fps   |
| Multi-Streaming                   | Dual streams H.264/MJPEG   | Dual streams H.264/MJPEG   | Dual streams H.264/MJPEG   |
| Digital Noise Reduction           | DNR  | DNR  | DNR  |
| Bi-directional audio              | Audio I/O  | Audio I/O  | Audio I/O  |
| Other Features                    | ROI, D/N ICR   | ROI, D/N ICR   | ROI, D/N ICR   |
| Network Protocol & Service        | TCP, UDP, HTTP, HTTPS, DHCP, PPPoE, RTP, RTSP, IPv6, DNS, DDNS, NTP, ICMP, ARP, IGMP, SMTP, FTP, UPnP, SNMP, Bonjour | TCP, UDP, HTTP, HTTPS, DHCP, PPPoE, RTP, RTSP, IPv6, DNS, DDNS, NTP, ICMP, ARP, IGMP, SMTP, FTP, UPnP, SNMP, Bonjour | TCP, UDP, HTTP, HTTPS, DHCP, PPPoE, RTP, RTSP, IPv6, DNS, DDNS, NTP, ICMP, ARP, IGMP, SMTP, FTP, UPnP, SNMP, Bonjour |
| Network Connector                 | 10/100Base-TX (RJ-45)  | 10/100Base-TX (RJ-45)  | 10/100Base-TX (RJ-45)  |
| Power Source                      | DC 12V; PoE  | DC 12V; PoE  | DC 12V; PoE  |
| Environmental Casing              | Vandal proof   | Weatherproof ; Vandal proof  | Weatherproof ; Vandal proof  |
| Mount Type                        | Surface, Pendant, Wall, Corner, ceiling  | Surface, Pendant, Wall, Corner, ceiling  | Surface, Pendant, Wall, Corner, ceiling  |
| <b>Other Value-Added Features</b> |  |  |  |
| PC Web Browser                    | Yes  | Yes  | Yes  |
| Installation                      | Yes  | Yes  | Yes  |
| Warranty                          | Standard 2 year warranty from manufacturer   | Standard 2 year warranty from manufacturer   | Standard 2 year warranty from manufacturer   |

**c. Server & Storage:**

- The server specifications must be enough to connect simultaneous 96 IP Cameras and storage for continuous 24 recording for all cameras with a good performance and without any reduction in quality.
- Capacity of external storage must be enough to store all cameras with 24 hour continuous recording for at least 30 days with best resolution and with capacity not less than 40 Terabytes.
- The server must support extending the storage capacity in future without replacing working storage.

Detailed specifications are as following:

| Item                        | Specs  |
|-----------------------------|--|
| Type:                       | Rack type Brand name   |
| Processor:                  | 2 x Quad-Core Intel Xeon Processor (12MB L3,3.xGhz)  |
| Memory:                     | 32GB (4 x8 GB DDR3-1333 MHz, Upgradable to Not less than 96GB)   |
| Raid Controller             | Hardware RAID Controller supports RAID 0,1,5.  |
| Optical Drive:              | 16X DVD+/-RW Drive.  |
| Network adapter :           | Integrated 2 x Intel Gigabit Ethernet Ports  |
| Keyboard & Mouse:           | USB.   |
| Power:                      | Hot swap redundant Power & Fan   |
| O.S:                        | Windows Server 2008 R2 Enterprise  |
| <b>External Disk array:</b> |  |
| Type:                       | SAS Hard disks with internal hardware Raid controller has enough Cache and supports at least RAID 0,1,5. |
| RPM:                        | 10K or higher  |
| Capacity:                   | at least 40 Terabytes (TB) and extendable in feature.  |

**d. PoE Switches:**

- All switches to be supplied from the type of POE for all Ports.
- Switches must be supplied from a company specializing in the field of networking (ex. Cisco, Dlink,..) with standard warranty not less than 1 year.
- The throughput supported by switches must be enough to transport all continuous cameras recording with 24 hour working day.

Detailed specifications are as following:

| Device        | Specs   | QTY |
|---------------|---|-----|
| Switch Type 1 | POE Switch 24 Port 10/100/1000 ,<br>2 Port 1000base SFP | 3   |
| Switch Type 2 | POE Switch 8 10/100/1000 ,<br>2 Port 1000base SFP       | 6   |

**e. PC Workstations:**

Detailed specifications are as following:

| Item              | Specs  |
|-------------------|--|
| QTY               | 2  |
| Processor:        | Intel CPU - Dual-core - Core i5 3.x GHz, 8M Cache. |
| Memory:           | 8 GB DDR3 SDRAM Speed 1333 MHz                     |
| Hard Drive:       | 500GB -SATA  |
| Graphics Card:    | 2GB dedicated graphic card, (HDMI , DVI )          |
| Network adapter : | Gigabit Ethernet Card                              |
| Keyboard & Mouse: | USB.   |

**f. Monitors:**

Detailed specifications are as following:

| Detail   | Qty. |
|--|------|
| LCD 40" Screen Full HD or better for brand name monitor. | 2    |

**6- Equipment's Warranty**

- Guarantee equipment under these specifications.
- The supplier shall be responsible for providing guarantee against defect in materials, devices, equipment, design, and workmanship. Defect found, if any shall be replaced or repaired at Supplier's own cost within the agreed time.
- All systems and components must be provided with an explicit and complete manufacturer warranty with a minimum of one year for network switches and 2 years for remaining system equipment of coverage from the date of completed installation and testing.
- Supplier must bring standard warranties for all system's equipment with defined period.
- Technical support and free maintenance for the system and equipment must be for the same warranty period.
- In addition to the need to Owner acceptance of the software and hardware, which will mentioned in the contract of working system and include labor and coming necessary repairs at the work site and when the need.