**Technical Regulations of the Supported Security at the Facilities and Public Events**

**CCTV System:**

Recorder

Camera

Lighting

Connection, Network and communication

Command and Control

**Keywords**

|  |  |
| --- | --- |
|  | **Name** |
| Local Area Network | LAN |
| High Definition | HD |
| Digital Video Disc | DVD |
| Television Lines | TVL |
| IP Rated | IP66 |
| Wide Dynamic Range | WDR |
| Closed-circuit Television | CCTV |
| Digital Video Recorder | DVR |
| Network Video Recorder | NVR |
| Video Management System | VMS |
| Uninterruptible Power Supply | UPS |
| Remote Monitoring Software | RMS |
| Central Monitoring Software | CMC |
| Open Network Video Interface forum | ONVIF |
| Switch Mode Power Supply | SMPS |

**Technical Requirements and Specifications**

**General Terms and Conditions**

**Recorder Features & specifications:**

1. Provide RMS/CMS software for the product installed and it should be compatible with windows operating system.
2. All the recording devices must be placed in a safe and secure position.
3. All the recording devices must be password protected.
4. Recording should be available for not less than **90 days**.
5. The System must be able to record continuously as well as alarm and motion.
6. System should be able to record the event of motion 10 sec before (pre recoding).
7. Date & Time stamp must be displayed in recorded video.
8. System should be capable of searching by date, time, event and camera.
9. System must be able to resume recording in case of a restart.
10. Recorder must sync with real time.
11. Recorder should be able to notify in case of failure or malfunctions.
12. The system must have digital recorders with USB port and backup types which provide time, date, name and signature of the operator.

**Camera:**

1. Colored cameras must be used.
2. PTZ cameras are prohibited in areas of privacy without permission from competent authority.
3. Each facility must have a minimum of 2 outdoor cameras.
4. Hidden cameras are prohibited without permission from competent authority.
5. Outdoor cameras at the walls and roof of the building should not be used for the purpose of viewing outside the given boundary without permission from competent authority; also it should not be installed in bedrooms, changing rooms, physiotherapy rooms and similar places, as well as in private areas for women.
6. Cleanliness of the cameras should be ensured on a routine basis in order to get clear photographs and video.

**Lighting:**

1. Brighter light must be used at camera sites which are used for identification.
2. Internal or external IR illuminators must be used in very dark situations.
3. All the camera sites should have enough lighting to produce clear images.

**Cabling, Connection, Network and Communication:**

* 1. The system must have network compatibility.
  2. The system must be isolated from all the other networks.
  3. Wireless connection (Radio) is strictly prohibited.
  4. Cabling must be done professionally, should be secured and labeled at the same time.
  5. High quality cable, connectors must be used.
  6. All recorders and cameras should be connected through UPS.
  7. The system must be protected against water and other harmful factors.
  8. Wireless video transmission is prohibited without permission from competent authority.
  9. Digital recorders and management systems must be powered from a stabilized independent electrical supply. There must be spare 25% of total power load.
  10. The main and backup power sources of the CCTV system must be independent and secured.

**Command and Control:**

* + 1. Each recorder must have a dedicated monitor with label.
    2. All the recording devices must be placed in a safe and secure position.

**Others:**

* + - 1. CCTV System must have a maintenance contract to ensure the security of the operating system
      2. The assigned officer must be properly trained for the operation of CCTV systems in terms of retrieving, saving, uploading photos and videos or other type of digital media.
      3. Ensure the system is working properly and report any malfunction to the maintenance contract company.
      4. List and map of all the camera locations should be provided and maintained at all camera sites and facilities. The details included should be as follows:
* **GPS coordinates**, shop name and dimensions
* Facility surrounding information (front, back and sides)
* Camera Types (WDR, IR, Dome, Bullet, IP, ect) and recording resolution
* DVR + monitor location
* DVR/NVR serial number should be added in the POQ
* Company and Integrator stamp
* Contact number of the facility

**Security Requirements and Specifications**

**Areas to be covered by CCTV:**

* All public entrance and exit - Reception and counters
* Vehicle entry and exit - Water Tanks
* Waiting areas and lobbies - Electrical rooms
* Parking space and boundary - Gas Cylinder areas
* Premises belonging to the concerned authority - Kitchens
* Elevator and staircase - Emergency exit
* Safe, store, archiving and control rooms

**Advanced Facilities**

|  |  |
| --- | --- |
| **ADVANCED** | **Sr. No** |
| **Malls** | **1** |
| **Hotels, Resorts and Hotel Apartments** | **2** |
| **Banks** | **3** |
| **Exchanges Shops** | **4** |
| **Petrol Stations** | **5** |
| **Gold Shops** | **6** |
| **Ports (Airports, ect)** | **7** |
| **Clubs** | **8** |
| **Money and Finance Institutions** | **9** |
| **Manufacture and Selling of precious stones** | **10** |
| **Shooting Clubs** | **11** |
| **Military Equipments shops** | **12** |
| **Valuable Items Store** | **13** |
| **Dangerous Items Store** | **14** |
| **Trading shops for precious goods** | **15** |
| **Aviation Clubs** | **16** |
| **Federal and Local Ministries and Authorities** | **17** |
| **All Corporative Society** | **18** |
| **Factories** | **19** |
| **Hospitals** | **20** |
| **Religious Buildings** | **21** |
| **Schools** | **22** |
| **Universities** | **23** |

Note : Supermarkets with (6) shops or doors and above are considered as advance

\*Facilities which are not included in the above table are considered as Basic facilities.

**Guidelines to Security**

1. **It's prohibited to deal with Hard drives (except checking the storage). In case of any mishap the following procedure should be under taken:**

* Request on the website using CR Request
* A pledge should be prepared by the integrator for the facility owner in order to keep the HD with the facility owner for a period of 180 days (upload the pledge in CR Request). In case of any requirement from the police (within the period of 180 days), the owner should hand over the hard drive to the concerned authority.
* Integrator should mention this in the log book
* Integrator can take the hard drive back after completing 180 days (starting from the day recorded in the note book)

1. **Multiple Commercial licenses for one owner and one place:**

* Inspect the place and make sure that all the companies are in one place
* Submit the agreement form (available in the website) and upload it in CR Request
* Chose the main license and Install one recorder
* only one payment for all the licenses

1. **In case of multiple commercial licenses in one place (malls, fish market, expo, ect):**

* Building authority should cover all the entrances, exits, corridors and parking
* Shops inside the building should install CCTV system individually

1. **In case of any recorder failure (changing, troubleshooting, ect) integrator should make a request by using CR Request .**
2. **Mosques**

* Recorder must be safely and securely placed inside Imam's room

1. **Stores**

* Medicine stores, dangerous items stores and valuable items stores (worth one million or more) are considered under advance category

1. **Medical clinics**

* Polyclinics are considered as advance
* Specialized clinics are considered as basic

1. **Ladies Beauty Saloons, spa and shops with only female staff (where no male is allowed to enter) should be covered from outside only and outside coverage for Ladies Beauty Saloons inside malls are not required.**
2. **Labors accommodations**

* Accommodations which does not have any corridor needs to be covered in the room itself (camera placed in the room)
* Accommodations having corridors should be covered with a cameras placed in the corridor

1. **Factories and Buildings**

* In factories/buildings were the departments are located far from each other and wired connection is not possible in such case each building should have separate recorder

1. **For companies registered under free zone and have their stores not connected to the main building (wired connection is not possible), each building should have separate recorder.**
2. **Institutions and Offices**

* For private or personal offices corridor should be covered
* Offices and institutions shared by more than one stuff should be covered

1. **Monitors for Hemaya System**

* As long as the system is functioning the monitor can be kept on sleep mode or off as preferred

**Basic Category**

**Recorder Features & Specifications:**

* + - * 1. Analog, HD-SDI, AHD, TVI, CVI, Hybrid and Tribrid DVR must be used.
        2. The Recorded must be able to provide media copies via USB in various formats.
        3. The system must be able to record 6 frames/s at D1 on each channel.

**Camera Features & Specifications:**

1. Analog Cameras must be used.
2. The resolution must not be less than 480 TVL.
3. Color cameras must be used and should be labeled.
4. WDR cameras must be used in extreme light conditions (entrance).
5. Day / Night or night vision cameras must be used in low light conditions.
6. Fixed or vary focal cameras can be used depending on the field of view as per required.

**Command and Control:**

* + 1. The system must be capable of live viewing at 25 frames/s.
    2. Monitor should not exceed 16 numbers of cameras.

**Advance Category**

**Recorder Features & Specifications:**

The system must be digital (NVR, VMS).

The recorder must be able to provide media copies via USB in various formats.

The system must be able to record 10 frames/s at 1080p on each channel.

**Camera Features & Specifications:**

VEHICLE ENTRANCE/EXIT:

1. 1.3 Megapixel or higher CMOS or CCD fixed camera
2. Recorder resolution must not be less than 1024p Full HD.
3. H.264 or H.265 compression compatible.
4. Outdoor cameras should be IP66 compatible.
5. LPR (license plate recognition) compatibility.
6. True Day/night and IR reflective.
7. Camera vision should focus to capture the vehicle and plate clearly.
8. Memory module enabled (SD) for backup during disconnection of network.
9. ONVIF compatible.

Outdoor General Viewing:

1. 1.3 Megapixel CMOS or CCD fixed camera
2. H.264 or H.265 compression compatible
3. Vandal proof housing with IP66 rated
4. IR enabled
5. True Day/ night
6. ONVIF compatible

Indoor General Viewing:

1. 1.3 Megapixel CMOS or CCD fixed camera
2. H.264 or H.265 compression compatible
3. Vandal proof housing
4. IR enabled
5. True Day/ night
6. ONVIF compatible

Public Entrance & Exits:

1. 1.3 Megapixel CMOS or CCD fixed camera
2. H.264 or H.265 compression compatible
3. Vandal proof housing
4. True Day/ night
5. Should focus on the door to get clear identification of personalities
6. Camera should not reach more than 2.5m from ground level when mounting
7. Wide dynamic range (WDR) enabled
8. ONVIF compatible

Customer Service Counters:

1. 1.3 Megapixel CMOS or CCD
2. H.264 or H.265 compression compatible
3. Focusing on customer as well as the attending staff
4. Audio enabled.
5. ONVIF compatible

**Cabling, Connection, Network and Communication:**

* 1. Cabling must be done professionally (Vandal proof), should be secured and labeled at the same time.

**Command and controlling:**

* + 1. The system must be capable of live viewing at high resolution.
  1. Control room must be equipped with camera and access control.
  2. Operator's attendance logs should be maintained.
  3. Hardware maintenance logs should be maintained.
  4. A simple audible alarm (beep) to be installed in order to notify any malfunction of equipments.