



Bharat Heavy Electricals Limited

(A Government of India Undertaking)

BOILER AUXILIARIES PLANT

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CORRIGENDUM TO ANNEXURE - A

Ref: 1) TENDER NOTICE NO. – BAP:PUR:CCTV:14:01 dated 13.12.2014

2) NIT NO. - NIT_20707 dated 13.12.2014

Name of work: Supply, Installation & maintenance of CCTV system for a period of 5 years on Financial Lease (Rental and Guarantee) basis.

A) ANNEXURE – ‘A’ TECHNICAL SPECIFICATIONS in page no 6/20 which states

SPECIFICATION FOR IP FIXED BOX TYPE BULLET OUTDOOR TYPE IR CAMERA(20 nos)

1. Image Sensor : Progressive scan CMOS
2. Lens : f5.2-62.4mm / F1.8-3.0, DC iris, Auto focus
3. Zoom Ratio : 12X Optical
4. Day and night mode : Yes
5. IR LED : Yes, Adaptive IR (Object & Zoom Adaptive IR)
6. IR Working Distance : 40m IR
7. Luminance / light sensitivity (lux) :Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.8
8. Video compression : H.264 (Baseline/ Main/ High profile), MJPEG
9. Max Video resolution (Pixels) : 2048 x 1536 (3MP)
10. Frames per second : 15/30 (configurable)
11. Audio : 2-way (Line-in, Line-out)
12. Wide Dynamic Range : WDR (110 dB)
13. Network : IPv4/v6, QoS
14. Power : Through PoE port
15. Local Storage : MicroSDHC/MicroSDXC memory card slot
16. SD Card : 1 no of 32 GB SD card per Camera
17. Other Features : RJ-45 Network Connector
18. Approvals : CE, FCC, IP67, NEMA 4X, IK10
19. Operating Temperature : 0°C to 50°C
20. Humidity : up to 70 %

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|-----|-------------------------|---|--------------------------------|
| 21. | Video Recording | : | Day and night for all days |
| 22. | Mounting | : | as specified in location list. |
| 23. | Other standard features | : | As per OEM standards. |

and the same is replaced with the following :

**SPECIFICATION FOR IP FIXED BOX TYPE BULLET OUTDOOR
TYPE IR CAMERA(20 nos)**

- | | | | |
|-----|-------------------------------------|---|---|
| 1. | Image Sensor | : | Progressive scan CMOS |
| 2. | Zoom Lens | : | 3X Optical Zoom or better, DC iris, Auto focus |
| 3. | Day and nightmode | : | Yes |
| 4. | IR LED | : | Yes, Adaptive IR (Object & Zoom Adaptive IR) |
| 5. | IR Working Distance | : | 20 m or better |
| 6. | Luminance / light sensitivity (lux) | : | :Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.8 or better |
| 7. | Video compression | : | H.264 , MJPEG |
| 8. | Max Video resolution (Pixels): | : | 1920 x 1080 (2MP) or better |
| 9. | Frames per second | : | 30fps in 1920 x 1080 |
| 10. | Audio | : | 2-way (Line-in, Line-out) |
| 11. | Wide Dynamic Range | : | WDR (65 dB or better) |
| 12. | Network | : | IPv4/v6, QoS |
| 13. | Power | : | Through PoE port |
| 14. | Local Storage | : | MicroSDHC/MicroSDXC memory card slot |
| 15. | SD Card | : | 1 no of 32 GB SD card per Camera |
| 16. | Other Features | : | RJ-45 Network Connector |
| 17. | Protection/Approvals | : | CE, FCC, IP66, NEMA 4X, IK10 |
| 18. | Operating Temperature | : | 0°C to 50°C |
| 19. | Humidity | : | up to 70 % |
| 20. | Video Recording | : | Day and night for all days |
| 21. | Mounting | : | as specified in location list. |
| 22. | Other standard features | : | As per OEM standards. |

B) ANNEXURE – ‘A’ TECHNICAL SPECIFICATIONS in page no 7/20 which states

**SPECIFICATION FOR IP PTZ HIGH SPEED OUT DOOR DOME
CAMERA (16 nos)**

1. Image sensor : Progressive Scan CMOS or
Ex View HAD Progressive scan CCD ¼”
2. Lens : Varifocal. f4.3-129mm / F1.6-5.0, DC iris, Auto focus,
3. Zoom Ratio : 30x optical, 16x digital
4. Day and night mode : Yes
5. Mechanical IR Cut Filter : Yes
6. luminance /light sensitivity (lux) : Color: 0.1 lux, B/W: 0.05 lux at F1.6
7. Video compression : H.264 (Baseline/ Main/ High profile), MJPEG
8. Maximum Frame Rate vs. Resolution: 30 fps at 1920 x 1080
30 fps at 1280 x 720
30 fps at 800 x 600
30 fps at 640 x 480
15 fps at 320 x 240
9. Frames per second(50/60Hz) : Min.25/30 (Extended D1)
10. Multi-Streaming : Dual streams
11. Wide Dynamic Range : WDR (145 dB)
12. Digital Noise Reduction : 2D+3D DNR
13. Defogging : Defogging
14. S/N Ratio : 56 dB
15. Pan /Tilt : ,Pan 360°endless, tilt 220° (presettable),
16. Intelligent video : Motion detection, Auto tracking
17. Heater and Fan : Yes
18. Network : IPv4/v6,QoS
19. Power : AC 24V; High PoE
20. Local Storage : MicroSDHC/MicroSDXC memory card slot
21. Other Features : Continuous motion 24/7, RJ-45 Network
Connector Visca, Pelco-D, Pelco-P for PTZ protocol
22. Approvals : CE, FCC, IP66, IK09, NEMA 4X
23. Other standard features : As per OEM standards.

and the same is replaced with the following :

SPECIFICATION FOR IP PTZ HIGH SPEED OUT DOOR DOME CAMERA (16 nos)

1. Image sensor : Progressive Scan CMOS or
Ex View HAD Progressive scan CCD 1/4"
2. Lens : Varifocal. f4.3-129mm / F1.6-5.0, DC iris, Auto
focus,
3. Zoom Ratio : 32x optical, 12x digital or better
4. Day and night mode : Yes
5. Mechanical IR Cut Filter : Yes
6. luminance /light sensitivity (lux) : Color: 0.1 lux, B/W: 0.05 lux at F1.6
7. Video compression : H.264 , MJPEG
8. Maximum Frame Rate vs. Resolution: 30 fps at 1920 x 1080
9. Frames per second(50/60Hz) : Min.25/30 (Extended D1)
10. Multi-Streaming : Dual streams
11. Wide Dynamic Range : WDR (110 dB or better)
12. Digital Noise Reduction : 2D+3D DNR
13. Defogging : Defogging
14. S/N Ratio : 56 dB
15. Pan /Tilt : ,Pan 360°endless, tilt 220° (presettable),
16. Intelligent video : Motion detection
17. Heater and Fan : Yes
18. Network : IPv4/v6,QoS
19. Power : AC 24V; High PoE
20. Local Storage : MicroSDHC/MicroSDXC memory card slot
21. Other Features : Continuous motion 24/7, RJ-45 Network
Connector
22. Protection/Approvals : CE, FCC, IP66, IK09, NEMA 4X
23. Other standard features : As per OEM standards.

F) **ANNEXURE – ‘A’ TECHNICAL SPECIFICATIONS in page no 8/20 which states**

High end application Server(1no)

1. The client Work Station shall have the necessary hardware and software to integrate all the cameras of CCTV system with all required features and view real time pictures from all cameras at a time.

2. **Technical Specification For Client High end work station for Client application :** VNMS-Client shall operate with no performance degradation using the following minimum hardware and operating system configuration:

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|------------------------------|--|
| 1. PROCESSOR | : INTEL XEON E3-1225v2 3.2 8M GT2 4C CPU OR HIGHER END |
| 2. RAM | : 4GB –DDR 3-1600 ECC (2x2GB) |
| 3. Hard Disc Drive | : 500GB, 7200 RPM SATA |
| 4. Optical Drive | : SATA Super multi DVD RW or equivalent |
| 5. OS | : Windows 8 professional 64 or WIN 7 pro 64 |
| 6. Graphics card | : NVIDIA Quadro K600 (1GB X 2) with HDMI out port |
| 7. Input devices | Wireless Keyboard and wireless optical mouse |
| 8. Networking | : Network interface should be Integrated Intel 82579LM. |
| 9. Ports | : The following min.ports facility should be available 4
USB 3.0; 6 USB 2.0; 1 serial; 1 microphone; 1
headphone; 1 audio line in; 1 audio Line out; 1 RJ-
45; 2 PS/2 Including 1 VGA and 1 Display Port output
From Intel HD graphics,, |
| 10. Other standard features: | : As per OEM standards. |

1. The application High end work station for Core CCTV software application (1no) contains a Network Video Data management centre which includes user management, facility management system logs etc. and event & control service which receives and controls events and commands of various formats via different communication modes and shall be able to support either 36 or more cameras. However the system should be capable to expand virtually up to unlimited number of cameras by incorporating multiple High end work station for Core CCTV software applications to make a complete Video Management System. The application High end work station for Core CCTV software applications shall be used for BHEL and each High end work station for Core CCTV software application shall be capable to handle 36 or more channel data. Clustering of application High end work station for Core CCTV software application shall be done for redundancy.

and the same is replaced with the following :

High end application Server(1no)

1. The **Client High end work station** shall have the necessary hardware and software to integrate all the cameras of CCTV system with all required features and view real time pictures from all cameras at a time.
2. **Technical Specification For Client High end work station** : VNMS- Client shall operate with no performance degradation using the following minimum hardware and operating system configuration:

1. PROCESSOR : Intel Xeon E5-1607 3.00Ghz 10MB 1066 4C CPU.
2. RAM : 8GB DDR3-1600 ECC (4x2GB) RAM.
3. Hard DISK Drive : 1TB 7200 RPM SATA 1st Hard Drive.
4. Optical Drive : 16X Super Multi DVDRW SATA .
5. OS : Windows 8 Professional 64
6. Graphics : NVIDIA Quadro K2000 2GB .
7. Audio : Integrated High Definition Realtek ALC262 Audio.
8. Expansion slots : 2 PCIe Gen3 x16; 1 PCIe Gen3 x8; 1 PCIe Gen2 x8 (x4); 1 PCIe Gen2 x4 (x1); 1 PCI; 114-in-1 media card reader (optional).
9. Input devices : Wireless Keyboard and wireless optical mouse.
10. Networking : Network interface should be Integrated Intel 82579LAN.
11. Ports : The following min. ports facility should be available 4 USB 3.0; 5 USB 2.
12. Storage Management : Hot swappable Module, Easy for cluster expansion, Multi-tiered.
13. Power Input : 100 ~ 280 VAC.
14. Other standard features: : As per OEM standards.

1. The application High end work station for Core CCTV software application (1no) contains a Network Video Data management center which includes user management, facility management system logs etc. and event & control service which receives and controls events and commands of various formats via different communication modes and shall be able to support either 36 or more cameras. However the system should be capable to expand virtually up to unlimited number of cameras by incorporating multiple High end work station for Core CCTV software applications to make a complete Video Management System. The application High end work station for Core CCTV software applications shall be used for BHEL and each High end work station for Core CCTV software application shall be capable to handle 36 or more channel data. Clustering of application High end work station for Core CCTV software application shall be done for redundancy

G) ANNEXURE – ‘A’ TECHNICAL SPECIFICATIONS in page no 9/20 which states

TECHNICAL SPECIFICATION FOR CLIENT WORK STATION (4 nos)

1. PROCESSOR : Intel Xeon E5-1607 3.00Ghz 10MB 1066 4C CPU.
2. RAM : 8GB DDR3-1600 ECC (4x2GB) RAM.
3. Hard DISK Drive : 1TB 7200 RPM SATA 1st Hard Drive.
4. Optical Drive : 16X Super Multi DVDRW SATA .
5. OS : Windows 8 Professional 64
6. Graphics : NVIDIA Quadro K2000 2GB .
7. Audio : Integrated High Definition Realtek ALC262 Audio.
8. Expansion slots : 2 PCIe Gen3 x16; 1 PCIe Gen3 x8; 1 PCIe Gen2 x8 (x4); 1 PCIe Gen2 x4 (x1); 1 PCI; 114-in-1 media card reader (optional).
9. Input devices : Wireless Keyboard and wireless optical mouse.
10. Networking : Network interface should be Integrated Intel 82579LAN.
11. Ports : The following min. ports facility should be available 4 USB 3.0; 5 USB 2.
12. Storage Management : Hot swappable Module, Easy for cluster expansion, Multi-tiered.
13. Power Input : 100 ~ 280 VAC.
14. Other standard features: : As per OEM standards.

and the same is replaced with the following :

TECHNICAL SPECIFICATION FOR CLIENT WORK STATION (4 nos)

- 1. PROCESSOR : INTEL XEON E3-1225v2 3.2 8M GT2 4C CPU OR HIGHER END
- 2. RAM : 4GB –DDR 3-1600 ECC (2x2GB)
- 3. Hard Disc Drive : 500GB, 7200 RPM SATA
- 4. Optical Drive : SATA Super multi DVD RW or equivalent
- 5. OS : Windows 8 professional 64 or WIN 7 pro 64
- 6. Graphics card : NVIDIA Quadro K600 (1GB X 2) with HDMI out port
- 7. Input devices : Wireless Keyboard and wireless optical mouse
- 8. Networking : Network interface should be Integrated Intel 82579LM.
- 9. Ports : The following min.ports facility should be available 4 USB 3.0; 6 USB 2.0; 1 serial; 1 microphone;;1 RJ-45 1headphone; 1 audio line in; 1 audio Line Out 2 PS/2 Including 1 VGA and 1 Display Port output From Intel HD graphics,,
- 10. Other standard features: : As per OEM standards.

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All other terms and conditions of the tender specification shall remain unaltered unless expressly amended by BHEL.