

Statement of Work (SOW)

343rd TRS Camera Refresh (5401)
21580 McWilliams Rd, BLDG 5401
BLDG 5401 JBSA Camp Bullis, TX 78257

1.0 GENERAL INFORMATION

- 1.1 The contractor shall provide all personnel, equipment, supplies, tools, materials, and non-personal services necessary to install security monitoring system as defined in this Statement of Work (SOW).
- 1.2 This stand-alone security monitoring system shall not touch the Air Force network. There shall be no classified, or sensitive data used with the stand-alone security monitoring system.
- 1.3 The work shall be located at Camp Bullis, Bldg. 5401 as defined in this SOW.
- 1.4 The work required includes the design, delivery, and full installation of the security monitoring system.
- 1.5 The contractor shall provide, install, and configure all necessary equipment for a security monitoring system.
- 1.6 All cameras shall be of sufficient quality to be able to see in low/no light.
- 1.7 The outside cameras shall be protected in an all-weather, wind, rain, and hail protective shell.
- 1.8 The system shall include one Network Video Recorder located in Rm B128, with the capability of recording 24/7/365 days a year and shall store video feeds for no less than 30 days with a capability to store to an external hard drive or Digital Video Disk /Compact Disk.
- 1.9 The two network switches shall be installed in Rm B128 and Rm B215 The two light-emitting diode monitors and one workstation shall be in, Rm B124 mounted against the west wall.
- 1.10 The two monitors shall be 42" above the floor. The cameras shall have a clear view at night and zoom in options.
- 1.11 The contractor shall provide and install all necessary conduit, cabling, boxes, conversion, equipment, and programming labor required for a complete and fully operational system.
- 1.12 Cabling shall be installed neatly, out of view when possible, and not produce any avoidable safety hazards.
- 1.13 Any installation not limited to the cameras shall be mounted securely.
- 1.14 The audio video control system requires display/playback capabilities.
- 1.15 There shall be no unmarked cables at any places in the system.
- 1.16 Marking codes used on cables shall correspond to the codes shown on system drawings.
- 1.17 Upon completion, vendor shall provide training and instructions of proper use of system, backup, and camera usage.

2.0 Specifications: The system shall consist of the following; however, it is not limited to the following based on the contractor proposed design.

2.1 27 (EA) Enterprise Edition camera connection license

- 2.1.1 Software supports multiple actions on camera notifications.
- 2.1.2 Dual Streaming for Open Network Video Interface (ONVI) compliant cameras.
- 2.1.3 Supports High Efficiency Video Coding.265, High Efficiency Video Coding.264, Moving Picture Experts Group 4. Video Compression Format, 2000 video compression.

2.2 1 (EA) Network Video Recorder

- 2.2.1 Terabyte (TB)
- 2.2.2 2 Universal Rack Mount
- 2.2.3 Recording Mode Real Time
- 2.2.4 Software solution
- 2.2.5 Hardware solution
- 2.2.6 Simultaneous live, recording and playback
- 2.2.7 Recording system Hard Disk Drive
- 2.2.8 Storage capacity 48 Tera Byte
- 2.2.9 Resolution 7000 (30 Mega Pixel)
- 2.2.10 Expandable to multi-Network Video Recorder
- 2.2.11 Standard Operating system
- 2.2.12 Voltage 100 ~ 240 Voltage Alternate Current
- 2.2.13 Power consumption watts (W) 270 ~ 750
- 2.2.14 Weight 34.5 Lbs.
- 2.2.15 Dimensions 718 x 482 x 87 inches
- 2.2.16 Preloaded with video management software

2.3 (EA) Workstation

- 2.3.1 Memory Technology
- 2.3.2 Double Data Rate 4 Synchronous dynamic random-access memory
- 2.3.3 Processor Type Core i3
- 2.3.4 Standard Memory 8 Gigabit (GB)
- 2.3.5 Ethernet Technology GB Ethernet
- 2.3.6 Operating System standard Enterprise
- 2.3.7 Input Voltage 120 V Alternate Current (AC), 230 V AC
- 2.3.8 Environmental Certification Restriction of Certain Hazardous Substances
- 2.3.9 Remote Monitoring Workstations 5th Generation
- 2.3.10 Universal Serial Bus Keyboard
- 2.3.11 Universal Serial Bus Mouse
- 2.3.12 Power cord
- 2.3.13 Mini Tower, DVD-Read Write
- 2.3.14 2 Gigabit Ethernet RJ-45 ports (1000Base-T)
- 2.3.15 2 x Multicast Dissemination Protocol to Display Port Adapters
- 2.3.16 2 x Multicast Dissemination Protocol to High-Definition (HD) Multimedia Interface Adapters

- 2.3.17 Depth 292 mm
- 2.3.18 Form Factor Small Form Factor
- 2.3.19 Height 290 mm
- 2.3.20 Weight 11.59 lbs.
- 2.3.21 Width 92.6 mm
- 2.3.22 4K SUPPORT Supports full 4K video streaming
- 2.3.23 Supports High-Definition Cameras

2.4 20 (EA) Surface Mount Indoor Dome Camera

- 2.4.1 Color Type Color / Monochrome
- 2.4.2 Resolution 4 Megapixel
- 2.4.3 Indoor Type
- 2.4.4 Mount Type Surface
- 2.4.5 Electrical Specifications Voltage: 12 Volts Direct Current (DC) / 24 Volts Alternate Current (AC)
- 2.4.6 Supports Power over Ethernet
- 2.4.7 Power Consumption: 13 W
- 2.4.8 Focal length 3.3 ~ 9 mm
- 2.4.9 Compression H.264 H.265 High-Definition Stream Management Smart Codec
- 2.4.10 Smart Codec, Motion JPEG
- 2.4.11 Back Light Compensation
- 2.4.12 White Balance
- 2.4.13 Electronic Shutter range Automatic, Manual (1/7 to 1/8196 sec)
- 2.4.14 Network Properties Interface: 100BASE-TX, RJ45 Connector, CAT5e Cabling
- 2.4.15 Supports standard multiple network protocols
- 2.4.16 Image Frame Rate: 25 fps/30 fps
- 2.4.17 Dimensions mm: 163 x 163 x 118
- 2.4.18 Weight 2 lbs.
- 2.4.19 Protection: Internet Protocol (IP) 66, IP67, IK10.
- 2.4.20 Expandable Storage
- 2.4.21 True Wide Dynamic Range

2.5 5 (EA) Outdoor Bullet Camera

- 2.5.1 Chip Inch Size 1/2.8
- 2.5.2 Color Type Color / Monochrome
- 2.5.3 Resolution 4 Mega Pixel
- 2.5.4 Electrical Specifications Voltage: 12Volts DC C, 24Volts AC
- 2.5.5 Power over Ethernet
- 2.5.6 Power Consumption: 13 W
- 2.5.7 Motion Activated
- 2.5.8 Mount Type Surface
- 2.5.9 Wide Dynamic Range
- 2.5.10 Network Properties Image Frame Rate: 25 fps/30 fps
- 2.5.11 Supports multiple standard network protocols

- 2.5.12 Back Light Compensation
- 2.5.13 White Balance Support
- 2.5.14 Electronic Shutter Range Automatic, Manual (1/7 to 1/8196 sec)
- 2.5.15 Zoom Support
- 2.5.16 Compression Type H.264m H265 High-Definition Streaming Management
- 2.5.17 Smart Codec, Motion Joint Photographic Experts Group
- 2.5.18 Dimensions mm: 280 x 126 x 91
- 2.5.19 True Wide Dynamic Range

2.6 2 (EA) Multi Sensor Camera Module with 4-millimeter lens

- 2.6.1 Color Type Color / Monochrome
- 2.6.2 Resolution TVL 3×4K (8 MP)
- 2.6.3 Megapixel
- 2.6.4 Dome Type Pan Tilt Zoom
- 2.6.5 Sensitivity lux 0.04
- 2.6.6 Digital Signal Processing support
- 2.6.7 Mount Type Surface, In-ceiling, Pendant
- 2.6.8 Electrical Specifications Voltage: 24V DC / 24V AC
- 2.6.9 Power over Ethernet+
- 2.6.10 Focal length 4 mm
- 2.6.11 Compression Type H.264m H265 High-Definition Streaming Management
- 2.6.12 Motion Joint Photographic Experts Group
- 2.6.13 Back Light Compensation
- 2.6.14 White Balance
- 2.6.15 Electronic Shutter range 1/8 ~ 1/8000s
- 2.6.16 Network Properties Interface: RJ45 connector, Gigabit Ethernet, 1000BASE-TX
- 2.6.17 Supports Multiple Network Protocols
- 2.6.18 Environmental Specifications Operating Temp -40 ~ 140 F
- 2.6.19 True Wide Dynamic Range

2.7 2 (EA) Outdoor pendant mount adapter

- 2.7.1 Lanyard anchor
- 2.7.2 Camera mounting screws
- 2.7.3 Infrared ring cable connector
- 2.7.4 Audio, In/Out, Aux power connector
- 2.7.5 Pigtail connector.
- 2.7.6 Ethernet port openings

2.8 2 (EA) Outdoor Dome Cover

- 2.8.1 Dome bubble and cover, for outdoor surface mount or pendant mount, clear.

2.9 2 (EA) Pedant wall mount adapter

- 2.9.1 Weight: 2.45lbs
- 2.9.2 Finish: Powder coat, cool grey

- 2.9.3 Body: Aluminum, silicone rubber
 - 2.9.4 3/4" National Pipe Thread (NTP) conduit entry
- 2.10 **2 (EA) Optional Infrared (IR) illuminator ring**
 - 2.10.1 Supports mounted devices in a pendant or surface mount configuration
 - 2.10.2
- 2.11 **2 (EA) Corner mount adapter for multisensory camera**
 - 2.11.1 Bracket Type Dome Brackets
 - 2.11.2 Mount Type Corner
 - 2.11.3 Physical Specifications Weight g: 1,240
 - 2.11.4 Housing Material Aluminum
- 2.12 **5 (EA) Junction box**
 - 2.12.1 Low profile junction box
 - 2.12.2 Supports High-Definition Bullet Cameras
 - 2.12.3 2x 3/4" (NTP) cable entry holes for cable connections
 - 2.12.4 Meets Inter Protocol 66 weather rating
 - 2.12.5 Weight: 1.30 lbs.
 - 2.12.6 Finish: Powder coated aluminum, European color matching system 9003
- 2.13 **2 (EA) 4K Ultra High Definition (HD) Premium LED Monitor**
 - 2.13.1 Screen Size (Diagonal) 54.6"
 - 2.13.2 Resolution 3840 x 2160
 - 2.13.3 Bit Depth / Color Support 10-Bit (1.07 billion colors)
 - 2.13.4 Brightness 500 one candelas per square meter
 - 2.13.5 Viewing Angle (H x V) 178 x 178°
 - 2.13.6 Aspect Ratio 16:9
 - 2.13.7 Contrast Ratio 1100:1
 - 2.13.8 Response Time 8 millisecond
 - 2.13.9 Horizontal Frequency 60 to 75 kHz
 - 2.13.10 Vertical Frequency 55 to 75 Hz
 - 2.13.11 Backlighting Technology
 - 2.13.12 Input Ports 1 x DisplayPort Video
 - 2.13.13 1 x HD Multimedia Video
 - 2.13.14 1 x Digital Video Disk I-D Video
 - 2.13.15 1 x 1/8" / 3.5 mm Audio
 - 2.13.16 1 x 15-Pin Video Graphics Array Video
 - 2.13.17 Output Ports 1 x DisplayPort – Video
 - 2.13.18 1 x HD – Video
 - 2.13.19 1 x Digital Video Disk – Video
 - 2.13.20 1 x 1/8" / 3.5 mm – Audio
 - 2.13.21 Universal Serial Bus Ports 1
 - 2.13.22 Universal Serial Bus Ports Type-A – Service
 - 2.13.23 Control Infrared

- 2.13.24** Built-In Speakers 2 x 1 W
- 2.13.25** Power Consumption Operational: < 125.0 W
- 2.13.26** Alternate Current Input Power 100 to 240 VAC, 50 / 60 Hz

2.14 2 (EA) Universal Low Profile wall mount to support Premium LED Monitors

- 2.14.1** Supported Screen Sizes 37 to 65"
- 2.14.2** Weight Capacity 165 lb.
- 2.14.3** Mounting-Hole Pattern 80 x 58
- 2.14.4** Tilt Adjustment -10 to +0°
- 2.14.5** Orientation Landscape
- 2.14.6** Distance from Mounting Surface 1.77"
- 2.14.7** Wall Plate Size 34.02 x 7.99"
- 2.14.8** Dimensions 34.02 x 17.32 x 1.77"

2.15 2 (EA) Smart Managed Power over Ethernet + Switch

- 2.15.1** Connectors (24) 10/100/1000 RJ-45 ports (2) 100/1000 SFP slots
- 2.15.2** Protocols Carrier-sense multiple access
- 2.15.3** Store-and-Forward switching architecture
- 2.15.4** Media Access Control (MAC) 8K MAC address table
- 2.15.5** Backplane 52 Gbps
- 2.15.6** Dimensions: Width: 17.4" Depth: 8.3" Height: 1.73"
- 2.15.7** Power Input 100-240 Volts Alternate Current
- 2.15.8** Power Consumption 438 Watts
- 2.15.9** Power Over Ethernet Budget 370 Watts 30 Watts for (12) ports simultaneously
- 2.15.10** Power Over Ethernet Budget 15.4 Watts for (24) ports simultaneously
- 2.15.11** Surge Protection 6 kilo volts
- 2.15.12** Weight 6.6 lbs.
- 2.15.13** Internet Protocol Pv6 Access Management
- 2.15.14** Support Jumbo Frame up to 9Kbytes
- 2.15.15** Authentication – RADIUS
- 2.15.16** Terminal Access Controller Access-Control System
- 2.15.17** Dynamic Host Configuration Protocol Relay
- 2.15.18** Dynamic Host Configuration Protocol support
- 2.15.19** Supports Access Control List
- 2.15.20** Internet Protocol standard/extended Access Control List
- 2.15.21** Link Layer Discovery Protocol
- 2.15.22** Institute of Electrical and Electronics Engineers 802.3az Energy Efficiency
- 2.15.23** Internet Protocol Source Guard, Port Security
- 2.15.24** 17.0 7,500 FT Category 6 plenum cable
- 2.15.25** Type Ethernet
- 2.15.26** Connectors RJ45s and Keystone Jacks
- 2.15.27** Specifications 23 American Wire Gauge

2.16 7 (EA) Outdoor Camera Installation Kit

2.16.1 Category 6E Plenum Data Communication Cable (PDCC)

2.16.2 23 American wire gauge (AWG)

2.16.3 Solid soft drawn bare copper conductor.

2.16.4 Low smoke plenum rated insulation.

2.16.5 Different lays and a central separator

2.16.6 Minimize for crosstalk interference.

2.16.7 Low smoke plenum rated jacket

2.16.8 Unshielded Cat6 RJ45

2.16.9 Plug with Load-Bar

2.16.10 Adaptable Solid or Stranded conductor

2.16.11 4-pair Cat6 cable

2.16.12 Staggered nose pattern

2.17 20 (EA) Indoor Camera Installation Kit

2.17.1 Category 6E Portable Data Collection Center

2.17.2 23 American Wire Gauge

2.17.3 Solid soft drawn bare copper conductor.

2.17.4 Low smoke plenum rated insulation.

2.17.5 Different lays and a central separator

2.17.6 Minimize for crosstalk interference.

2.17.7 Low smoke plenum rated jacket

2.17.8 Unshielded Cat6 RJ45

2.17.9 Plug with Load-Bar

2.17.10 Adaptable Solid or Stranded conductor

2.17.11 4-pair Cat6 cable

2.17.12 Staggered nose pattern

2.18 1 (EA) Engineering, Installation and Commissioning Services

2.18.1 The cameras shall be in the following outdoor areas:

2.18.2 1 (EA) Camera One, 4 MP bullet camera, northwest outer corner of building.

2.18.3 1 (EA) Camera Two 4 MP bullet camera, northwest exit door.

2.18.4 1 (EA) Camera Three 4 MP bullet camera southeast portion, main entrance of building.

2.18.5 1 (EA) Camera Four 4 MP bullet camera southwest outer corner of building.

2.18.6 1 (EA) Camera Five 4 MP bullet camera southeast outer corner of building.

2.18.7 1 (EA) Camera Six 8 MP degree camera northwest outer corner of building

2.18.8 1 (EA) Camera Seven, 8 MP degree camera, east side of building

2.18.9 The cameras shall be in the following indoor areas, first floor:

2.18.10 1 (EA) Camera Eight, 4 MP Dome Camera, West side of building, Rm B127.

- 2.18.11 1 (EA) Camera Ten, 4 MP Dome Camera, West side of building, outside Rm B127
- 2.18.12 1 (EA) Camera 11, 4 MP Dome Camera. West side of building, inside stair well.
- 2.18.13 1 (EA) Camera 27, 4 MP Dome Camera. West indoor stairwell facing east corner of stairs.
- 2.18.14 1 (EA) Camera 26, 4 MP Dome Camera, East indoor stairwell facing west right of stairwell.
- 2.18.15 **The cameras shall be in the following indoor areas, center of building, first floor:**
- 2.18.16 1 (EA) Camera 13, 4 MP Dome Camera, outside Rm B116, east wall.
- 2.18.17 1 (EA) Camera 14, 4 MP Dome Camera, outside Rm B118, northwest corner wall.
- 2.18.18 1 (EA) Camera 15, 4 MP Dome Camera. inside Rm B118, northwest corner wall,
- 2.18.19 1 (EA) Camera 16, 4 MP Dome Camera. Inside Rm B120, southwest corner wall.
- 2.18.20 **The cameras shall be in the following indoor areas, east side of building, first floor:**
- 2.18.21 1 (EA) Camera 17, 4 MP Dome Camera, outside Rm B111, east corner wall.
- 2.18.22 1 (EA) Camera 18, 4 MP Dome Camera, inside stairwell, southeast corner.
- 2.18.23 **The camera shall be in the following indoor areas, west side of building, second floor:**
- 2.18.24 1 (EA) Camera 19, 4 MP Dome Camera, West side of building, Rm B200A.
- 2.18.25 **The cameras shall be in the following indoor areas, center of building, second floor:**
- 2.18.26 1 (EA) Camera 20, 4 MP Dome Camera, south hallway, outside Rm B125
- 2.18.27 1 (EA) Camera 21, 4 MP Dome Camera, outside Rm B216, east wall.
- 2.18.28 1 (EA) Camera 22, 4 MP Dome Camera, outside Rm B219, northwest corner wall.
- 2.18.29 1 (EA) Camera 23, 4 MP Dome Camera. inside Rm B219, northwest corner wall
- 2.18.30 **The following camera shall be in the following indoor areas, east side of building, second floor:**
- 2.18.31 1 (EA) Camera 24, 4 MP Dome Camera, outside Rm B211, east wall.

3.0 GENERAL INFORMATION

All Outside Plant (OSP) and Inside Plant (ISP) cabling projects installed on Lackland AFB, Medina Annex, or Camp Bullis as part of any MILCON, SABER, or other project shall meet commercial industry and Telecommunications Systems Cabling Standards. Please reference 13A Standards and UFC 3-580-1 Telecommunication Interior Infrastructure Planning and Design with Change.

4.0 SPECIFIC TASKS:

- 4.1** The contractor shall coordinate all work with the Program Manager (primary POC), and/or Contracting Officer.
- 4.2** Work shall be performed in a manner that limits as much as possible any disruptions to the normal day-to-day operations of Air Force personnel at the site.
- 4.3** The contractors shall examine the site and determine for themselves the existing conditions and general character of the site.
- 4.4** The work shall be accomplished in the shortest time possible, during standard business hours, and with a minimum of inconvenience to the surrounding training.
- 4.5** Storage of materials or supplies shall be coordinated with the Contracting Officer, or Program Manager.

5.0 HOURS OF PERFORMANCE:

When working at Government facilities, work shall be accomplished during normal duty hours (0730-1630), Monday through Friday, unless otherwise approved by the Contracting Officer. The contractor shall not schedule work on the following Federal Holidays: New Year's Day, Martin Luther King Day, Presidents Day, Memorial Day, Juneteenth Day, Independence Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving and Christmas. If the holiday falls on a Saturday, it is observed on the preceding Friday. If the holiday falls on Sunday, it is observed on the following Monday. If a holiday falls on a scheduled service day, the contractor shall be responsible for rescheduling services for the first day post the holiday observance.

6.0 NON-STANDARD HOURS OF PERFORMANCE:

When the contractor desires to work other than standard times, a written request shall be submitted to the Contracting Office for approval. Written approval from the POCs must be received before proceeding with the work. The request shall indicate the day/days, time/amount of work, and reason why performance is necessary during nonstandard hours.

7.0 BASE FIRE REGULATIONS:

The contractor shall comply with all JBSA-Lackland Fire Regulations. All fire and safety regulations shall be enforced.

8.0 SITE MAINTENANCE AND CLEANUP:

- 8.1** The contractor shall, as conditions permits, keep a clean and neat working environment, free of such items as excess trash, construction debris, etc., while performing the requirements of this contract.
- 8.2** All materials, such as, but not limited to tools, debris, and trash that belong to the contractor shall be removed from JBSA Lackland at the end of each workday.
- 8.3** Contractor generated refuse shall hauled away from site to a disposal area located outside the physical boundaries of the installation.
- 8.4** All work performed shall be current to industry and code standards and ready for instantaneous use by the government (fully turnkey systems and components).

9.0 RECORDS MANAGEMENT:

The contractor shall manage all data created for Government use or legally controlled by the Government, in support of the functional activity or required by AF publication, IAW with the AF Records Management procedures in Air Force Instruction (AFI) 33-322, Air Force Manual (AFMAN) 33-363 and Air Force Instruction (AFI) 33-364 (or their subsequent replacements).

10. INSPECTIONS AND ACCEPTANCE:

Inspection and acceptance will be at the project site by the Contracting Officer and/or 37 TRSS/DOR, Mr. John Work, (210) 671-2107/ Mr. Detra Whitfield (210) 671-6177.