

ATTACHMENT 3 - SCOPE OF WORK
RFB MM205820024 - ELECTRONIC SECURITY SYSTEMS FOR CEDAR RAPIDS AFRC AND FMS

NGIA-CFMO-ESS

21 August 2019

SUBJECT: Electronic Security Systems (ESS) Scope of Work (SOW) for Cedar Rapids AFRC and FMS

1. The Iowa Army National Guard (IAARNG) ESS Access Control System (ACS) statewide segmented platform and stand alone platforms are driven by Lenel hardware and Lenel Pro OnGuard software, which also supports the Video Surveillance System (VSS) and Security Intercom System (SIS) backbone. Major equipment components are identified for this scope and does not include additional hardware and cabling necessary and possibly additional equipment to ensure installed equipment is operational and integrated. Contractors and vendors shall be aware of this when bidding this for installation as it will be necessary to complete the install. Therefore this entire SOW shall be limited to vendors by the following requirements.

- a. Certified as a Value Added Reseller (VAR) of Lenel.
- b. Installation personnel must meet a minimum certification of:
 - (1) BICSI Installer Level 2 and NICET Level 2.
 - (2) Lenel VAR Technician and have completely installed successfully, enterprise level security systems containing a minimum of 35-card access controlled openings with complete integration to IP Video systems at a single location.
- c. Provide technical support and all initial programming and system setup information for a complete operational system.
- d. Provide specific programming templates/information and As-Built diagrams.
- e. Use specific IAARNG equipment make/model requirements as scoped.

2. Cedar Rapids AFRC ESS SOW (bid as option #1):

a. Install a Lenel Access Control System (ACS). IAARNG currently operates a Lenel OnGuard 7.3 platform and this equipment will be integrated with it. Equipment requiring IP address information will be submitted by Type and MAC address to the ESS Branch for IP assignments. Note that the Aiphone IX security intercom system will be integrated into the Lenel access controls for all door locks and gate operators. Programming assistance will be required to assist the ESS Branch for final configuration of the access panel and readers to include all functions. Cabling underground, under concrete, or from inside to outside of building will be ground rated cabling. Door maglocks at each door shall be powered by 24 VDC. Gate controllers are currently installed at the compound entry and motorpool gates. Patching capabilities from smaller communications room to the head end communications room may be required to ensure integration and operation of all equipment. Provide an ACS that will integrate with SIS and VSS covering the following. Note that each door location will require a stainless steel enclosure center mounted at "48, replacing current reader and security intercom door station preps.

(1) ACS head end, room 159 (shall require 2-LNL-CTX-6 enclosures, 1-LNL-2220 controller, 5-LNL-1320 controllers, 1-MOM-5, 5- AL-400ULX Altronix Power Supplies, and 1-LNL-CTX enclosure requiring the appropriate Ditek protectors for all exterior equipment coming in from outside (Cameras, Readers, Intercom Stations). Equipment to be mounted on ¾" fire rated painted plywood.

(2) AFRC Main Entry, door 188A (add Motion REX/RPK40/Spacer/Door contacts to existing maglock/SS enclosure).

(3) AFRC USAR Main Entry, door 200A (add Dual Maglock/Motion REX/Button REX/ Emergency Button/RPK40/Spacer/Door contacts/SS enclosure).

(4) East ARNG Entry, door 321A (add Dual Maglock/Motion REX/Button REX/Emergency Button/RPK40/Spacer/Door contacts/SS enclosure).

(5) West USAR Entry, door 130B (add Dual Maglock/Motion REX/Button REX/Emergency Button/RPK40/Spacer/Door contacts/SS enclosure). Note: Siemens thermostat in card reader prep box.

(6) Northeast ARNG Entry, door 182A (add Dual Maglock/Motion REX/Button REX/Emergency Button/RPK40/Spacer/Door contacts/SS enclosure). Note: Siemens thermostat in card reader prep box.

(7) Northwest ARNG Entry, door 110A (add Dual Maglock/Motion REX/Button REX/Emergency Button/RPK40/Spacer/Door contacts/SS enclosure). Note: Siemens thermostat in card reader prep box, which shall be relocated.

(8) AFRC Main Gate (RPK40/Spacer).

(9) ARNG Motor Pool Gate (RPK40/Spacer).

(10) USAR Motor Pool Gate (RPK40/Spacer).

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b. Security Intercom System (SIS). Aiphone. The Aiphone security intercom system door and desk stations will be integrated into the Bosch NVRs for recording along with all cameras. Equipment requiring IP address information will be submitted by Type and MAC address to the ESS Branch for IP assignments. The Aiphone security intercom system desk stations will be integrated into the Bosch NVRs for POE and connection to work with all cameras. Power injection is done by POE unless otherwise required for operation. Note that all Aiphone IX equipment shall be connected to NVRs. Provide a SIS that will integrate with the ACS and SIS covering the following:

- (1) SIS head end, room 159 (requires 8 each Aiphone IX-MV desk stations, 3-RY-IP44 Relays).
- (2) AFRC Main Entry, door 188A (requires 1-Aiphone IX-DA).
- (3) AFRC USAR Main Entry, door 200A (requires 1-Aiphone IX-DA).
- (4) East ARNG Entry, door 321A (requires 1-Aiphone IX-DA).
- (5) West USAR Entry, door 130B (requires 1-Aiphone IX-DA).
- (6) Northeast ARNG Entry, door 182A (requires 1-Aiphone IX-DA).
- (7) Northwest ARNG Entry, door 110A (requires 1-Aiphone IX-DA).
- (8) AFRC Main Gate (requires 1-Aiphone IX-DA, new pedestal enclosure head plate).
- (9) ARNG Motor Pool Gate (requires 1-Aiphone IX-DA, new pedestal enclosure head plate).
- (10) USAR Motor Pool Gate (requires 1-Aiphone IX-DA, new pedestal enclosure head plate).

c. Video Surveillance System (VSS). Bosch. The Aiphone security intercom system door stations will be integrated into the Bosch NVRs for recording along with all cameras. Equipment requiring IP address information will be submitted by Type and MAC address to the ESS Branch for IP assignments. The Aiphone security intercom system desk stations will be integrated into the Bosch NVRs for POE and connection to work with all cameras. Power injection is done by POE unless otherwise required for operation. Note that all Aiphone IX equipment shall be connected to NVRs. Provide a VSS that will integrate with the ACS and SIS covering the following:

- (1) VSS head end, room 159 (requires 2 each Bosch Divars/2-Monitors/2-Keypads-Mice).
- (2) AFRC Main Entry, door 188A (1-Bosch Fixed Camera with pendant).
- (3) AFRC USAR Main Entry, door 200A (1-Bosch Fixed Camera with pendant).
- (4) East ARNG Entry, door 321A (1-Bosch Fixed Camera with pendant).
- (5) West USAR Entry, door 130B (1-Bosch Fixed Camera with pendant).
- (6) Northeast ARNG Entry, door 182A (1-Bosch Fixed Camera with pendant).
- (7) Northwest ARNG Entry, door 110A (1-Bosch Fixed Camera with pendant).
- (8) Southwest Corner of AFRC (Main Gate), (1-Bosch Fixed Camera with pendant).

2. Cedar Rapids FMS ESS SOW (bid as option #2):

a. Install a Lenel Access Control System (ACS). IAARNG currently operates a Lenel OnGuard 7.3 platform and this equipment will be integrated with it. Equipment requiring IP address information will be submitted by Type and MAC address to the ESS Branch for IP assignments. Note that the Aiphone IX security intercom system will be integrated into the Lenel access controls for all door locks and gate operators. Programming assistance will be required to assist the ESS Branch for final configuration of the access panel and readers to include all functions. Cabling underground, under concrete, or from inside to outside of building will be ground rated cabling. Door maglocks at each door shall be powered by 24 VDC. Gate controllers are currently installed at the compound entry and motorpool gates. Patching capabilities from smaller communications room to the head end communications room may be required to ensure integration and operation of all equipment. Provide an ACS that will integrate with SIS and VSS covering the following. Note that each door location will require a stainless steel enclosure center mounted at "48, replacing current reader and security intercom door station preps.

- (1) ACS head end, room 123B (shall require 2-LNL-CTX-6 enclosures, 1-LNL-2220 controller, 2-LNL-1320 controllers, 1-MOM-5, 3-AL-400ULX Altronix Power Supplies, and 1-LNL-CTX enclosure requiring the appropriate Ditek protectors for all exterior equipment coming in from outside (Cameras, Readers, Intercom Stations). Equipment to be mounted on ¾" fire rated painted plywood).
- (2) FMS Main Entry, door 100B (add Motion REX/RPK40/Spacer/Door contacts to existing electric push bar/SS enclosure).
- (3) North Entry, door 103 (add strike/Motion REX/Button REX/ Emergency Button/RPK40/Spacer/Door contacts/SS enclosure).

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(4) East Entry, door 114A (add strike/Motion REX/Button REX/Emergency Button/RPK40/Spacer/Door contacts/SS enclosure). Note: Removable mullion requires quick disconnect.

(5) FMS Main Gate (add RPK40/Spacer).

b. Security Intercom System (SIS). Aiphone. The Aiphone security intercom system door and desk stations will be integrated into the Bosch NVRs for recording along with all cameras. Equipment requiring IP address information will be submitted by Type and MAC address to the ESS Branch for IP assignments. The Aiphone security intercom system desk stations will be integrated into the Bosch NVRs for POE and connection to work with all cameras. Power injection is done by POE unless otherwise required for operation. Note that all Aiphone IX equipment shall be connected to NVRs. Provide a SIS that will integrate with the ACS and SIS covering the following:

(1) SIS head end, room 123B (requires 4 each Aiphone IX-MV desk stations, 1-RY-IP44 Relay).

(2) FMS Main Entry, door 100B (requires 1-Aiphone IX-DA).

(3) North Entry, door 103 (requires 1-Aiphone IX-DA).

(4) East Entry, door 114A (requires 1-Aiphone IX-DA).

(5) FMS Main Gate (requires 1-Aiphone IX-DA, new pedestal enclosure head plate).

c. Video Surveillance System (VSS). Bosch. The Aiphone security intercom system door stations will be integrated into the Bosch NVRs for recording along with all cameras. Equipment requiring IP address information will be submitted by Type and MAC address to the ESS Branch for IP assignments. The Aiphone security intercom system desk stations will be integrated into the Bosch NVRs for POE and connection to work with all cameras. Power injection is done by POE unless otherwise required for operation. Note that all Aiphone IX equipment shall be connected to NVRs. Provide a VSS that will integrate with the ACS and SIS covering the following:

(1) ACS head end, room 123B (requires 1 each Bosch Divar/1-Monitor/1-Keypad-Mouse).

(2) FMS Main Entry, door 100B (1-Bosch Fixed Camera with pendant).

(3) North Entry, door 103 (1-Bosch Fixed Camera with pendant).

(4) East Entry, door 114A (1-Bosch Fixed Camera with pendant).

(5) FMS Main Gate (1-Bosch Fixed Camera with pendant). Southwest corner of FMS.

3. Specific IAARNG equipment make/model requirements.

a. ACS: Lenel, LNL-2220, LNL-1320, LNL-CTX6, LNL-CTX.

b. SIS: Aiphone, IX-DA, IX-MV, RY-IP-44.

c. VSS: Bosch, Camera NIN-63023-A3, Pendant, VDA-WMT-DOME, Divar DDN-2516-212N08.

d. Other:

(1) Surge suppression. DITEK.

(2) Fire panel integration for ACS. Altronix MOM-5.

(3) Power supplies. Altronix.

(4) Paige Electric. Cable to stanchions/underground, GameChanger.

(5) Enclosures. Set up per IAARNG typical picture.

(6) ELK-1280 Batteries will be used to back up all power supplies.

(7) Use existing infrastructure.

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4. Final camera and SS enclosure locations will be identified by ESS Branch and vendor prior to installation. Any cabling exceeding 300' will require Game Changer cable, plenum on the inside, ground rated on outside.

5. ESS equipment listed but not limited by:

ITEM 1	Intelligent Dual Reader Controller	(TOTAL OF 2)
Manufacturer:	Lenel	
Model:	LNL-2220 ISC	
ITEM 2	Door Controller Dual Reader Interface Module.....	(TOTAL OF 7)
Manufacturer:	Lenel	
Model:	LNL-1320-S3	
ITEM 3	Enclosures	(TOTAL OF 5)
Manufacturer:	Lenel	
Model:	LNL-CTX-6	
ITEM 4	Enclosure.....	(TOTAL OF 4)
Manufacturer:	Lenel	
Model:	LNL-CTX	
ITEM 5	Power Supplies.....	(TOTAL OF 8)
Manufacturer:	Altronix	
Model:	AL-400ULX	
ITEM 6	Power Distribution Board.....	(TOTAL OF 8)
Manufacturer:	Altronix	
Model:	PD4	
ITEM 7	Batteries.....	(TOTAL OF 16)
Manufacturer:	ELK	
Model:	ELK-1280	
ITEM 8	PIV Class RK40-H Reader	(TOTAL OF 13)
Manufacturer:	HID	
Model:	921NHPTEK000HT-L02	
ITEM 9	Reader Spacer Accessory Kit	(TOTAL OF 13)
Manufacturer:	HID	
Model:	6132AK	
ITEM 10	Request to Exit.....	(TOTAL OF 9)
Manufacturer:	Kantech	
Model:	TREX-XL	
ITEM 11	DVR	(TOTAL OF 3)
Manufacturer:	Bosch	
Model:	DDN-2516-212N08	
ITEM 12	Monitor w/ keyboard and mouse	(TOTAL OF 3)
Manufacturer:	BoxTech	
Model:	0E-22LED (Monitor); 920-002836 (keyboard and mouse)	

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ITEM 13	IP Starlight 6000 Camera	(TOTAL OF 13)
Manufacturer:	FLEXIDOME	
Model:	NIN-63023-A3S	
ITEM 14	Surface Mount Wall Arm Adapter	(TOTAL OF 13)
Manufacturer:	FLEXIDOME	
Model:	VDA-WMT-DOME	
ITEM 15	Door Station	(TOTAL OF 13)
Manufacturer:	Aiphone	
Model:	IX-DA	
ITEM 16	Desk Station	(TOTAL OF 12)
Manufacturer:	Aiphone	
Model:	IX-MV	
ITEM 17	Back-up UPS	(TOTAL OF 5)
Manufacturer:	APC	
Model:	Back-UPS Pro1000	
ITEM 18	Landscape Housing, Stainless Steel Enclosure.....	(TOTAL OF 9)
Manufacturer:	Pedestal PRO	
Model:	Lando-SS-10x8-E	
ITEM 19	Single Sided Shelf, 3.5(H)X14.5(D)X19(W), 50#	(TOTAL OF 3)
Manufacturer:	Monoprice	
Model:	SS-35-19-2U (PID:8629)	
ITEM 20	Game Changer OSP Cable	(TOTAL OF 3000 LF)
Manufacturer:	PAIGE	
Model:	258330804	
ITEM 21	Game Changer Cable Plenum Rated	(TOTAL OF 3000 LF)
Manufacturer:	PAIGE	
Model:	258300336	
ITEM 22	4-PR, Card Reader Protection.....	(TOTAL OF 5)
Manufacturer:	DITEK	
Model:	DTK-4LVLPCR	
ITEM 23	1-Channel PoE Protection.....	(TOTAL OF 5)
Manufacturer:	DITEK	
Model:	DTK-MRJPOE	
ITEM 24	Contractor Equipment Markup	(LUMP SUM)
ITEM 25	Installation, Technical, and Labor On Site	(LUMP SUM)
ITEM 26	Cabling, Hardware, and Miscellaneous	(LUMP SUM)